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Section 1

General Information

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General Information

Introduction

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage



5028742

The vehicle identification number (VIN) plate is the legal identifier of the vehicle. The VIN plate is located on the upper left corner of the instrument panel. The VIN number can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Country of Origin	1	United States
2	Manufacturer	H	Navistar, Inc.
3	Vehicle Brand/Type	A	Chevrolet Incomplete
4–5	Make/Model/Series/Type	KH	GM GM515 GM Conventional SFA 4x2
		KJ	GM GM515 GM Conventional SFA 4x4
6–7	Engine Type	PV	RPO L5D - Engine Diesel, 8 Cyl, 6.6L, DI, V8, Turbo, Duramax, GEN 5, VAR. 3
8	GVWR/Brake System	H	Class 4: 14,001 – 16,000 lbs./Hydraulic
		K	Class 5: 16,001 – 19,500 lbs./Hydraulic
		M	Class 6: 19,501 – 26,000 lbs./Hydraulic
9	Check Digit	0~9,X	Calculated by POMS

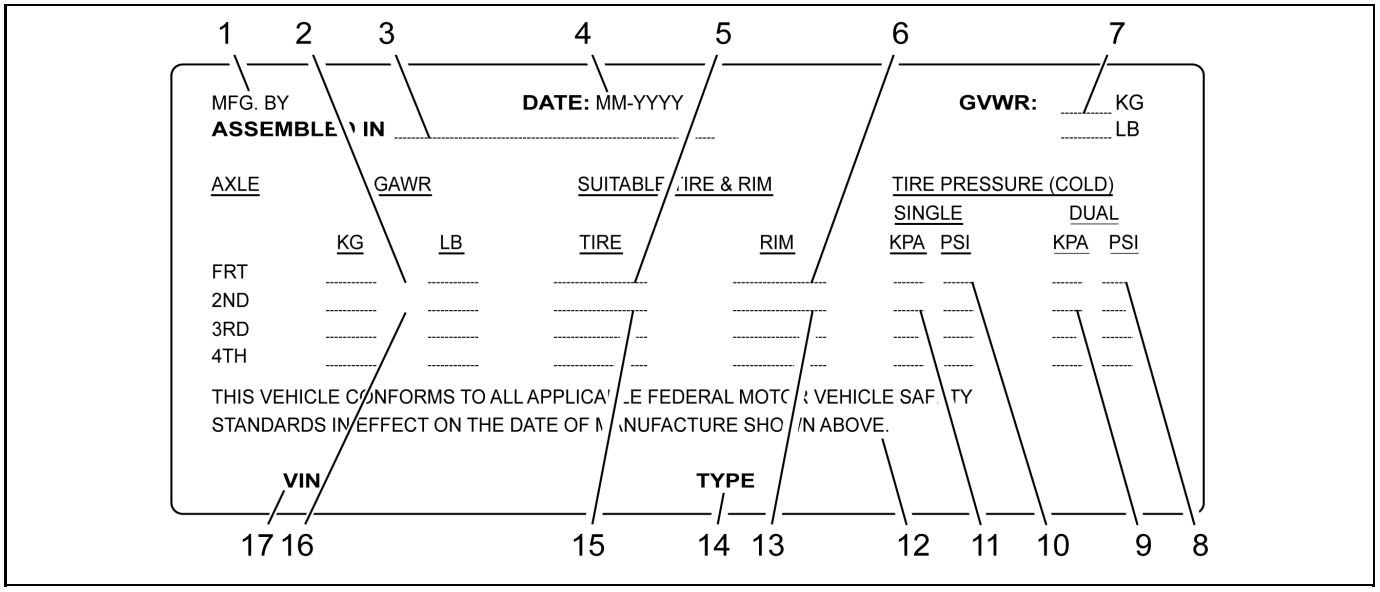
Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
10	Model Year	M	2021
11	Plant Location	H	Springfield, Ohio
12–17	Plant Sequence Number	—	Plant Sequence Number

6.6L (L5D) Engine ID and VIN Derivative Location

Engine Identification

Vehicle Certification Label



4991554

Vehicle Certification Label

Callout	Description
A vehicle-specific Certification label is attached to the driver-side door frame and displays the following assessments:	
1	Name of Manufacturer
2	Gross Weight Rating of the Front Axle
3	Location Vehicle was Assembled In
4	Final Date of Manufacture (Month and Year MM/YY) Date of manufacture is to reflect the date that the vehicle is counted as built. In those cases where a replacement label is needed, the replacement label should reflect the actual build date not the date of replacement.
5	Tire Size Front Axle
6	Rim Size Front Axle
7	Maximum Gross Vehicle Weight Rating (GVWR)
8	Tire Pressure Front Axle Dual (Cold)
9	Tire Pressure Rear Axle Dual (Cold)
10	Tire Pressure Front Axle Single (Cold)
11	Tire Pressure Rear Axle Single (Cold)
12	Certification Statement
13	Rim Size Rear Axle
14	Vehicle Class Type (Pass Car, etc.)
15	Tire Size Rear Axle
16	Gross Weight Rating of the Rear Axle
17	Vehicle Identification Number (VIN)

RPO Code List

The following table provides the description of the Regular Production Option (RPO) codes that are available on the vehicle. The vehicle's RPO list is printed on the Service Parts Identification Label.

RPO	Description
005	RATIO-4.56 (4 5/9)
008	RATIO-4.88
01U	PRIMARY COLOR-EXTERIOR, SPECIAL (02)
02U	PRIMARY COLOR-EXTERIOR, SPECIAL, CHART NOT REQUIRED
066	RATIO-4.10 (4 1/10)
092	RATIO-4.3
1LT	PACKAGE-LT OPTION 1
1WT	PACKAGE-WT OPTION 1
379	SEAT BELT COLOR-ORANGE (02)
3F9	SEAT BELT COLOR-RED (01)
4AA	INTERIOR TRIM-JET BLACK
4D7	INTERIOR TRIM-JET BLACK/DK ASH
5D1	BUMPER FRT-PAINTED GRAY
5DX	PROVISIONS-ELEC - UPFITTER, REAR OF CAB
5DY	PROVISIONS-ELEC - UPFITTER, REAR OF FRAME
5H1	KEY-SINGLE KEY SYSTEM, 2 SPARE KEYS
5HP	KEY-SINGLE KEY SYSTEM, 6 SPARE KEYS (SEO)
5P0	PROVISIONS-ENGINE SHUTDOWN
5T5	SEAT OVERRIDE-(SEO)
6E2	CYLINDER UNIT-SINGLE KEY SYSTEM, CODED, VAR. 1 (SEO)
6E8	CYLINDER UNIT-SINGLE KEY SYSTEM, CODED, VAR 2 (SEO)
6Y5	ORNAMENTATION-EXTR, EMBLEM, NON-INSTALLED
719	SEAT BELT COLOR-BLACK (10)
7Y7	BATTERY-1100 CCA, DUAL BATTERY SYSTEM
7Y8	BATTERY-1300 CCA, DUAL BATTERY SYSTEM
7Y9	BATTERY-2250 CCA, THREE BATTERY SYSTEM
8E4	FUEL-ADDITIONAL - 5 GALLONS
8E8	BUMPER FRT-PAINTED, BLACK
8F2	ORNAMENTATION-NONE
8H5	BUMPER FRT-NONE
8X8	LABEL INFORMATION-LABEL, FASTEN SEAT BELTS (SEO)
9B9	GOVERNOR-VEHICLE TOP SPEED LIMIT - 70 MPH (SEO)
9C2	GOVERNOR-VEHICLE TOP SPEED LIMIT - 65 MPH (SEO)
9D4	GOVERNOR-VEHICLE TOP SPEED LIMIT - 55 MPH (SEO)
9D6	GOVERNOR-VEHICLE TOP SPEED LIMIT - 79 MPH (SEO)
9D7	GOVERNOR-VEHICLE TOP SPEED LIMIT - 75 MPH (SEO)
9D9	MIRROR I/S R/V-(NONE)
9G8	EQUIPMENT-DAYTIME RUNNING LAMP & HEADLAMPS CONTROL - NONE (SEO) (DO NOT USE AFTER MY23)
9L3	TIRE SPARE-NONE
9L7	EQUIPMENT-ACSRY WRG JUNC BLK
9S1	TRIM OVERRIDE-VINYL COVERING, SEAT (2 PASSENGER) (SEO)
9U3	TRIM OVERRIDE-CLOTH COVERING, SEAT (2 PASSENGER) (SEO)
9V5	COLOR-WOODLAND GREEN (SEO)
9W3	COLOR-WHEATLAND YELLOW, LEAD FREE (SEO)
9W4	COLOR-TANGIER ORANGE, LEAD FREE (SEO)
A31	WINDOW-POWER OPERATED, ALL DOORS (DO NOT USE ON NEW/MAJOR PROGRAMS)
A52	SEAT-FRT BENCH
A68	SEAT RR-SPLIT, FOLDING
A95	SEAT-FRT BKT, HIGH BACK, DRIVER & PASS RECL
AAC	PARTS PKG-SHIPPED LOOSE
ACO	IDENTIFICATION-ACCESSORY CATALOG OFFERING
AE7	SEAT-FRT SPLIT, DRIVER, PASS
AG1	ADJUSTER FRT ST-POWER, MULTI-DIRECTIONAL, DRIVER (DO NOT USE ON NEW PROGRAMS AFTER MY18)
AKO	WINDOW TYPE-PRIVACY
AKP	WINDOW TYPE-SOLAR ABSORBING
ANC	SALES PACKAGE-SHUTTLE BUS
ANK	SALES PACKAGE-NON-CONFORMING SCHOOL BUS
APL	SEAT PASSENGER-(NONE)
AQQ	LOCK CONTROL, ENTRY-REMOTE ENTRY, EXTENDED RANGE (MY 09 AND FUTURE)
ATZ	SEAT RR-NONE
AU3	LOCK CONTROL-SIDE DR, ELEC
AY0	RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER & PASS FRT, SEAT SIDE, ROOF SIDE
AY1	RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER ONLY FRT, SEAT SIDE, ROOF SIDE
BG9	COVERING FLOOR-RUBBER
BTN	EQUIPMENT-POST BATTERY, THREADED
BTV	REMOTE START-VEHICLE

RPO	Description
C49	DEFOGGER-RR WINDOW, ELECTRIC
C5B	GVW RATING-15,000 LBS
C5D	GVW RATING-22,500 LBS (10,206 KG)
C67	HVAC SYSTEM-AIR CONDITIONER FRT, ELECTRONIC CONTROLS
C7P	GVW RATING-16,000 LBS
C7R	GVW RATING-16,500 LBS
C7Y	GVW RATING-14,001 LBS
C99	SWITCH-INFL RST I/P MDL MAN SUPPRESSION
C9U	GVW RATING-22,940 LBS (10,387 KG)
CV3	COUNTRY-MEXICO
D07	CONSOLE-FRT COMPT, FLOOR, CUSTOM
DB9	GVW RATING-23000 LBS (10433 KG)
DD4	GVW RATING-17,000 LBS
DD5	GVW RATING-21,000 LBS
DD7	GVW RATING-23,500 LBS
DD8	MIRROR I/S R/V-LT SENSITIVE
DF2	MIRROR O/S-LH & RH, WIDE LOAD, FOLDING, STAINLESS STEEL
DGD	MIRROR O/S-MAN ADJ, MAN FOLD, FLAT/ DRVR, FLAT/PASS, WFOV DRVR/PASS, 102" (SEO)
DGL	MIRROR O/S-MAN ADJ, MAN FOLD, FLAT/ DRVR, FLAT/PASS, WFOV DRVR/PASS, 96" (SEO)
DH6	MIRROR I/S FRT VAN-LH & RH, SUNSHADE, ILLUM (DO NOT USE NEXT NEW MAJOR)
DP9	MIRROR PROVISIONS-HOUSING, CHROME
DPN	MIRROR O/S-LH & RH, WIDE LOAD, VERTICAL GLASS, MAN EXTENDING,MAN FOLDING, HEATED, TURN SIG IND, REMOTE CONTROL
DRZ	MIRROR I/S R/V-LT SENSITIVE, FULL VIDEO DISPLAY
E01	STEPS-ASSIST
E0N	STEPS-ASSIST ALUMINUM
E20	HANDLE O/S DOOR-CHROME
ED5	WHEELBASE-201 INCH
ED9	WHEELBASE-165 INCH
EF7	COUNTRY-UNITED STATES OF AMERICA (USA)
EM1	WHEELBASE-199 INCH
EQB	WHEELBASE-219 INCH
ER2	WHEELBASE-189 INCH
F0C	AXLE END FRAME-49 INCH
F0D	AXLE END FRAME-63 INCH
F0G	AXLE END FRAME-83 INCH
F0I	AXLE END FRAME-75 INCH
F0K	AXLE END FRAME-91 INCH

RPO	Description
F59	STABILIZER SHAFT FRT-
F95	SUSPENSION FRONT-6,000 LB, TAPERED LEAF
FBC	WHEELBASE-243 INCH
FF3	SEAL-OIL, WHEEL FRT
FG0	HUB-FRONT, OIL FILLED SYNTHETIC
FHX	VEHICLE FUEL-DIESEL B20
FK6	SUSPENSION FRONT-7,000 LB, TAPERLEAF, I-BEAM
FN1	AXLE REAR-10,000 LB (4,536KG)
FNP	FENDERS-FRONT EXTENSIONS - PAINTED
FNV	WHEELBASE-175 INCH
FNX	FENDERS-FRONT EXTENSIONS
FPF	EQUIPMENT-EMISSION-DIESEL DPF MANUAL REGENERATION
FPN	WHEELBASE-231 INCH
FQT	WHEELBASE-141 INCH
FRP	WHEELBASE-235 INCH
FSN	SUSPENSION FRONT-8,000 LB (3,629 KG), TAPERED LEAF
FTA	AXLE FRONT-7,000 LB., FRONT NON DRIVING
FTB	AXLE FRONT-7,500 LB., FRONT DRIVING
FTD	AXLE FRONT-6,000 LB., FRONT NON DRIVING
FTL	AXLE FRONT-8,000 LB., FRONT NON DRIVING
FTN	LUBRICANT-FRT AXLE, SYNTHETIC
FTO	LUBRICANT-RR AXLE, SYNTHETIC
FTV	SUSPENSION FRONT-7,500 LB, TAPERED LEAF, SHACKLE TYPE, PARABOLIC SPRING
FU7	SUSPENSION REAR-15,500 LB (7,031 KG), MULTILEAF
G1K	PRIMARY COLOR-EXTERIOR, SACR'E BLUE MET(409Y)
G2X	PRIMARY COLOR-EXTERIOR, HAVANA MET-1 (439C)
G40	SUSPENSION REAR-12,000 LB, AIR
G68	SHOCK ABSORBERS-RR, HD, TRUCK
G7C	PRIMARY COLOR-EXTERIOR, PULL ME OVER RED SOLID (130X)
G80	AXLE POSITRACTION-LIMITED SLIP
G86	AXLE-LIMITED SLIP
G9K	PRIMARY COLOR-EXTERIOR, SATIN STEEL GRAY MET-3 (464C)
GA0	PRIMARY COLOR-EXTERIOR, SOME KINDA BLUE MET -1 (619D)
GAN	PRIMARY COLOR-EXTERIOR, SWITCHBLADE SILVER MET (G) 636R
GAZ	PRIMARY COLOR-EXTERIOR, SUMMIT WHITE (G) 8624

RPO	Description
GB8	PRIMARY COLOR-EXTERIOR, BLACK MEET KETTLE MET (384A)
GBA	PRIMARY COLOR-EXTERIOR, BLACK (G) 8555
GH5	EQUIPMENT ADDITIONAL-CANADA
GJI	PRIMARY COLOR-EXTERIOR, DARK SHADOW MET -1 (626D)
GL4	AXLE REAR-11,000 LB (4,990 KG)
GP1	SUSPENSION REAR-13,500 LB, AIR
GP8	SUSPENSION REAR-15,500 LB, AIR
GPA	PRIMARY COLOR-EXTERIOR, GASOLINE MET-2 (457B)
GR3	SUSPENSION REAR-11,000 LB (4,990 KG), MULTILEAF
GR4	SUSPENSION REAR-13,500 LB, MULTILEAF
GS6	PRIMARY COLOR-EXTERIOR, SCORPION MET -1 (634D)
GZG	GVW RATING-19,500 LBS
GZH	GVW RATING-21,500 LBS
GZJ	GVW RATING-18,000 LBS
GZX	GVW RATING-17,500 LBS
H0U	INTERIOR TRIM CONFIG-CLOTH, LEVEL 2, JET BLACK
H2Q	INTERIOR TRIM CONFIG-VINYL, LEVEL 1, JET BLACK /DK ASH
H2R	INTERIOR TRIM CONFIG-CLOTH, LEVEL 1, JET BLACK/ DK ASH
H2S	INTERIOR TRIM CONFIG-CLOTH, LEVEL 2, JET BLACK / DK ASH
HD1	AXLE REAR-15,000 LB (6,804 KG), DANA S130
HD2	AXLE REAR-13,500 LB (6,124 KG), DANA S110
IO3	RADIO-INFOTAINMENT SYSTEM - BASE HMI
IO5	RADIO-INFOTAINMENT SYSTEM - UPLEVEL HMI, ENHANCED CONNECTIVITY
IO6	RADIO-INFOTAINMENT SYSTEM - UPLEVEL HMI, ENHANCED CONNECTIVITY, EMBEDDED NAVIGATION
IOB	RADIO-INFOTAINMENT SYSTEM - MIDLEVEL HMI, MIDLEVEL CONNECTIVITY
ITT	MARKET BRAND-INTERNATIONAL TRUCK
J21	ENGINEERING YEAR-2021
J27	AXLE REAR-15,500LB
J48	BRAKE SYSTEM-HYDRAULIC, HEAVY DUTY STSTEM, ABS (DNU NEXT NEW MAJOR)
J69	BRAKE PARKING-MECHANICALLY OPERATED
JG1	SHAFT-PROP, ALUMINUM

RPO	Description
JL1	BRK APL CTRL FEATURE-INTEGRATED TRAILER BRAKE
JPY	AIR DRYER-HEATED
JPZ	VALVE-AIR SUSPENSION AIR RELEASE
JTR	PROVISIONS-TAIL LAMP - WIRING HARNESS SPECIAL (DO NOT USE, SEE BFO)
K05	HEATER ENG-BLOCK
K34	CRUISE CONTROL-AUTOMATIC, ELECTRONIC
K40	ENGINE BRAKE-EXHAUST
K4C	CHARGER-INDUCTIVE PORTABLE WIRELESS DEVICE
KA1	HEATER SEAT FRT-DRVR & PASS
KBG	SHIFT CONTROL-AUTOMATIC TRANSMISSION, FUEL SENSE BASIC
KBK	SHIFT CONTROL-AUTOMATIC TRANSMISSION, PERFORMANCE
KG4	GENERATOR-150 AMP
KHB	GENERATOR-150 AMP AND 220 AMP, DUAL
KI4	RECEPTACLE I/P-ELECTRICAL, 110 VOLT
KL6	PROVISIONS-TAIL LAMP, LOCATION INSIDE OF FRAME (DO NOT USE, SEE BFO)
KT0	HOSE-HEATER, SILICONE
KUD	CLAMP-HEATER HOSE, BELLEVILLE WASHER TYPE
KUT	AIR COMPRESSOR-ACCESSORY DRIVE
KW5	GENERATOR-220 AMP
L5D	ENGINE-DIESEL, 8 CYL, 6.6L, DI, V8, TURBO, DURAMAX, GEN 5, VAR. 3
LVA	GOVERNOR-VEHICLE TOP SPEED LIMIT - 60 MPH (SEO)
MA6	TRANSMISSION-AT6, A1700PTS
MB6	TRANSMISSION-AT6, A2700PTS
MBV	TRANSMISSION-AT6, A2750RDS
MBW	TRANSMISSION-AT6, A2750MH
MBX	TRANSMISSION-AT6, A2750HS
MBY	TRANSMISSION-AT6, A2750EVS
ME0	TRANSMISSION-AUTO 6 SPD, ALLISON, A1750MH, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1
MF0	TRANSMISSION-AUTO 6 SPD, ALLISON, A2700MH, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1
MG0	TRANSMISSION-AUTO 6 SPD, ALLISON, A2700EVS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1
MH1	TRANSMISSION-AUTO 6 SPD, ALLISON, A1700EVS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1
MHV	TRANSMISSION-AUTO 6 SPD, ALLISON, A1750EVS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1

RPO	Description
MI0	TRANSMISSION-AUTO 6 SPD, ALLISON, A1750RDS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1
MIA	TRANSMISSION-AUTO 6 SPD, ALLISON, A2700RDS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1
MIU	TRANSMISSION-AUTO 6 SPD, ALLISON, A1700RDS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1
MIX	TRANSMISSION-AUTO 6 SPD, ALLISON, A1700MH, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1
MJ0	TRANSMISSION-AUTO 6 SPD, ALLISON, A1750HS, 3.10 1ST 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH GEN 1
MTZ	PROVISIONS-TAIL LAMP, LOCATION OUTSIDE OF FRAME (DO NOT USE, SEE BFO)
MWA	TRANSMISSION-AUTO 6 SPD, ALLISON, A1700HS, 3.10 1ST, 1.80 2ND, 1.40 3RD, 1.00 4TH, 0.70 5TH, 0.60 6TH, GEN 1
MWB	TRANSMISSION-AUTO 6 SPD, ALLISON, A2700HS, 3.10 1ST,1.80 2ND,1.40 3RD, 1.00 4TH,0.70 5TH,0.60 6TH, GEN 1
N12	EXHAUST SYSTEM-REAR EXIT
N2L	FUEL TANK-REAR TANK 40 GAL (151L)
N33	STEERING COLUMN-TILT TYPE
N4C	CERTIFICATION-EMISSION, USA 50 STATE
N4E	EMISSION SYSTEM-USA, 50 STATE
NAV	PLANT CODE-NAVISTAR, SPRINGFIELD, OH, USA
NK5	STEERING WHEEL-STANDARD
NP5	STEERING WHEEL-LEATHER WRAPPED
NPJ	EXHAUST SYSTEM-SIDE EXIT, LH
NPK	EXHAUST SYSTEM-SIDE EXIT, RH
NPR	EXHAUST SYSTEM-SIDE EXIT, RH, LOCATION BEHIND REAR WHEEL
NQF	TRANSFER CASE-ELECTRIC SHIFT CONT, TWO SPEED, ALUM
NSQ	FUEL TANK-DUAL, FRONT 25 GAL (94.6L), REAR 40 GAL (151L)
NVK	FUEL TANK-FRONT, 25 GAL (94.6L)
NXG	FUEL-ADDITIONAL - 20 GALLON
NXO	FUEL-ADDITIONAL- 40 GALLONS
NZZ	SALES PACKAGE-SKID PLATE, "OFF ROAD" SPORT
P0D	GUARD-GRILLE SCREEN - INSECT PROTECTION
P0E	GUARD-GRILLE SCREEN - EMBER
PD7	WHEEL SPARE-(NONE)
PTO	ENGINE CONTROL-POWER TAKE OFF (PTO) CONTROLS
PTX	ENGINE CONTROL-POWER TAKE-OFF (PTO), CONTROLS - NONE
PWQ	WHEEL-19.5 X 6.75, J, STEEL, DESIGN 1
PWR	WHEEL-19.5 X 6.75, J, STEEL, DESIGN 2
PWS	WHEEL-19.5 X 6.75, J, STEEL, DESIGN 3
PWV	WHEEL-19.5 X 6.75, J, ALUMINUM, DESIGN 1
PWY	WHEEL SPARE-19.5 X 6.75, J, STEEL, DESIGN 1
PWZ	WHEEL SPARE-19.5 X 6.75, J, ALUMINUM, DESIGN 1, FRONT
PXB	WHEEL SPARE-19.5 X 6.75, J, ALUMINUM, DESIGN 1, REAR
Q91	CAP-VALVE, TIRE, AIR-THRU DESIGN 1
Q92	CAP-VALVE, TIRE, AIR-THRU DESIGN 2
RDI	ACCESSORY-KEYLESS ENTRY
RWI	ACCESSORY-BODY SIDE MOLDINGS - CHROME
RWK	ACCESSORY-BODY SIDE MOLDINGS - PAINTED
RWR	ACCESSORY-CAMERA - REAR VISION
RY7	ACCESSORY-DOOR HANDLES - ALTERNATE FINISH 1
S0P	ACCESSORY-INSERT - FLOOR CONSOLE
S6M	ACCESSORY-RADIO KIT - NAVIGATION
S6P	ACCESSORY-REMOTE START KIT
S6W	ACCESSORY-SEAT COVER - MUDDER (PROTECTIVE)
S6Z	ACCESSORY-SEAT COVER - TAILORED - ALTERNATE MATERIAL
SFJ	ACCESSORY-WINDOW SHADES - REFLECTIVE
SFV	ACCESSORY-WIRELESS NETWORK INTERFACE MODULE
SFW	CALIBRATION-BACK UP ELECTRICAL ALARM (SEO)
SIF	ACCESSORY-RSE - PORTABLE MEDIA CONNECTIVITY PACKAGE
SYT	ACCESSORY-SILL PLATES - ALTERNATE FINISH
T3A	BUMPER PROVISIONS-FRONT, 4" EXTENSION
T3U	LAMP FRT FOG-FRT FOG
T3V	LAMP-CHMSL - CENTER HIGH MOUNT STOP LIGHT
TG5	PLAYER-COMPACT DISC AND MP3
TGK	COLOR COMBINATION-SOLID, SPECIAL PAINT
TR1	LAMP-TAIL & STOP (DO NOT USE, SEE BFO)
TRW	PROVISIONS-LAMP, ROOF MOUNTED
U01	LAMP-FIVE, ROOF MARKER, TRUCK
U04	HORN-SINGLE NOTE
U05	HORN-DUAL
U19	SPEEDOMETER-INST, KILO & MILES, KILO ODOMETER

RPO	Description
U2J	DIGITAL AUDIO SYSTEM-S-BAND - NONE
U2K	DIGITAL AUDIO SYSTEM-S-BAND
U73	ANTENNA-FIXED, RADIO
UDA	COMMUNICATION SYSTEM-VEHICLE, DEACTIVATED
UDC	DISPLAY INSTRUMENT-DRIVER INFO ENHANCED (ONE COLOR GRAPHIC)
UDD	DISPLAY INSTRUMENT-DRIVER INFO ENHANCED (MULTI COLOR STANDARD GRAPHIC)
UE0	COMMUNICATION SYSTEM-VEHICLE - NONE (DO NOT USE NEXT NEW MAJOR)
UE1	COMMUNICATION SYSTEM-VEHICLE, ONSTAR
UEA	TAIL LAMP-(NONE) (DO NOT USE, SEE BFO)
UEH	PROVISIONS-ELECTRICAL SWITCH BANK (SEO)
UF3	SWITCH-HIGH IDLE
UGE	LAMP-RR TAIL, LED (DO NOT USE, SEE BFO)
UH4	SWITCH-HEADLINER SWITCH BANK
UK3	CONTROL-STEERING WHEEL, ACCESSORY
UMN	SPEEDOMETER-INST, MILES & KILO, MILES ODOMETER
UNL	EQUIPMENT-AUX, 3' FRONT HEAD/ TURN LAMP
UQ3	SPEAKER SYSTEM-ENHANCED AUDIO
UQ5	SPEAKER SYSTEM-4, DUAL FRT DR MTD, DUAL EXTD RGE QTR MNTD
UTJ	THEFT DETERENT-ELECTRICAL, UNAUTHORIZED ENTRY
UTQ	ALARM, HORN-CONTENT THEFT DETERENT, DISABLED (SEO)
UVC	VISION-REAR VIEW, MONO, ANALOG
UY7	WIRING HARNESS-TRUCK TRAILER, HD
UZF	ALARM B/U-ELECTRICAL,
V22	GRILLE-RADIATOR, CHROME
V23	GUARD-GRILLE SCREEN - STONE PROTECTION
V33	TOOL KIT-ROAD, EMERGENCY
V46	BUMPER FRT-CHROME
V76	HOOK-TOW
V8C	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - NO CERT STATEMENT
V8D	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - U.S. FMVSS
VBJ	ACCESSORY-UNDERSEAT STORAGE
VK3	LICENSE PLATE FRONT-FRT MOUNTING PKG
VKW	ACCESSORY-ORGANIZER - FRONT CONSOLE

RPO	Description
VKY	ACCESSORY-DOOR HANDLES - ALTERNATE FINISH - CHROME
VND	GOVERNOR-VEHICLE TOP SPEED LIMIT - 50 MPH (SEO)
VT7	OWNERS MANUAL-ENGLISH LANGUAGE
VTG	ACCESSORY-INTERIOR TRIM KIT
VTS	OWNERS MANUAL-SPANISH LANGUAGE
VV4	COMMUNICATION EQUIP-MOBILE INTERNET CONNECTIVITY
VWX	GRILLE-BASE VEHICLE
VXT	VEHICLE TYPE-INCOMPLETE
VYU	PROVISIONS-SNOW PLOW PREP
WC2	SALES PACKAGE-RENTAL SALES PACKAGE
WFZ	SALES PACKAGE-LEASE SALES PACKAGE
WMU	VIN MODEL YEAR-2021
WN9	PROCESSING-SPECIAL DELIVERY REQUSTED, NOT LEAD UNIT
WOJ	ACCESSORY-DOOR COVER - PET PROTECTOR - DESIGN 1
WRD	WIRING PROVISIONS-UPFITTER
X88	MARKET BRAND-CHEVROLET
XDK	TIRE FRONT-225/70R19.5 G 126/128 L BW HWY GDY
XDL	TIRE FRONT-225/70R19.5 G 126/128 N BW HWY CTL
XDV	TIRE FRONT-225/70R19.5 H 130/128 L BW HWY CTL
XDY	TIRE FRONT-225/70R19.5 G 126/128 N BW TL GDY
XHD	TIRE FRONT-225/70R19.5 G 128 N BW TRN CTL
XL7	FREQUENCIES RATING-315 MHZ, LONG DISTANCE
YAL	TIRE REAR-225/70R19.5 G 126/128 L BW HWY GDY
YAM	TIRE REAR-225/70R19.5 G 126/128 N BW HWY CTL
YAO	TIRE REAR-225/70R19.5 G 126/128 N BW TL GDY
YAP	TIRE REAR-225/70R19.5 H 130/128 L BW HWY CTL
YE9	PACKAGE, CONVENIENCE-COMFORT & DECOR LEVEL #3
YF2	SALES PACKAGE-AMBULANCE UPFITTER
YHD	TIRE REAR-225/70R19.5 G 128 N BW TRN CTL
YM8	IDENTIFICATION-LIMITED PERSONALIZATION OPTION (LPO)
ZBC	TIRE SPARE-225/70R19.5 H 130/128 L BW HWY CTL
ZBK	TIRE SPARE-225/70R19.5 G 126/128 L BW HWY GDY

RPO	Description
ZBP	TIRE SPARE-225/70R19.5 G 126/128 N BW TL GDY
ZBR	TIRE SPARE-225/70R19.5 G 126/128 N BW HWY CTL
ZHD	TIRE SPARE-225/70R19.5 G 128 N BW TRN CTL
ZY1	COLOR COMBINATION-SOLID
ZY2	COLOR COMBINATION-TWO TONE
ZY3	COLOR COMBINATION-TWO TONE, SPECIAL
ZY4	COLOR COMBINATION-TWO TONE, DELUXE

Section 2

Body Systems

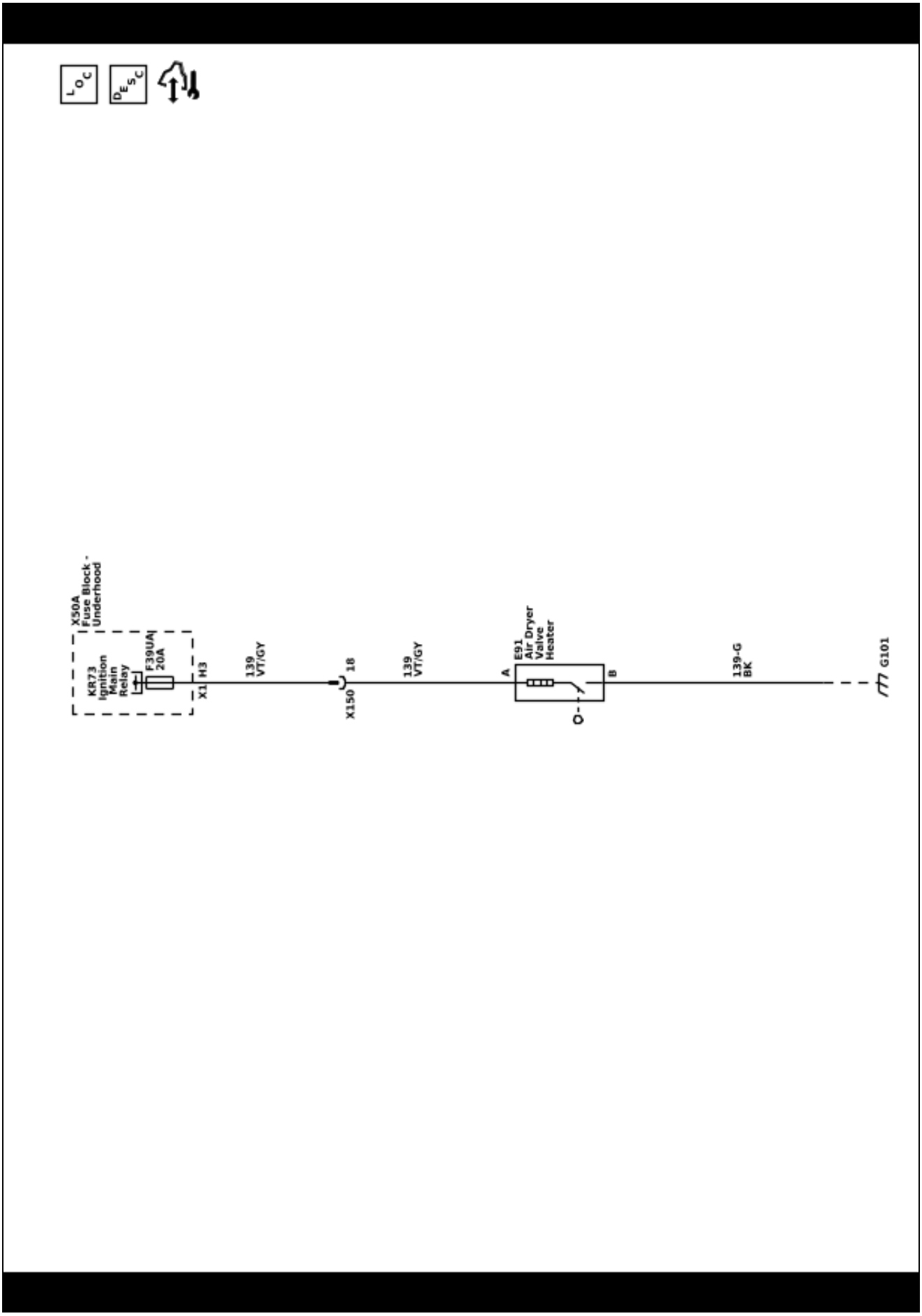
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BLANK

Air Compressor - Auxiliary

Schematic and Routing Diagrams

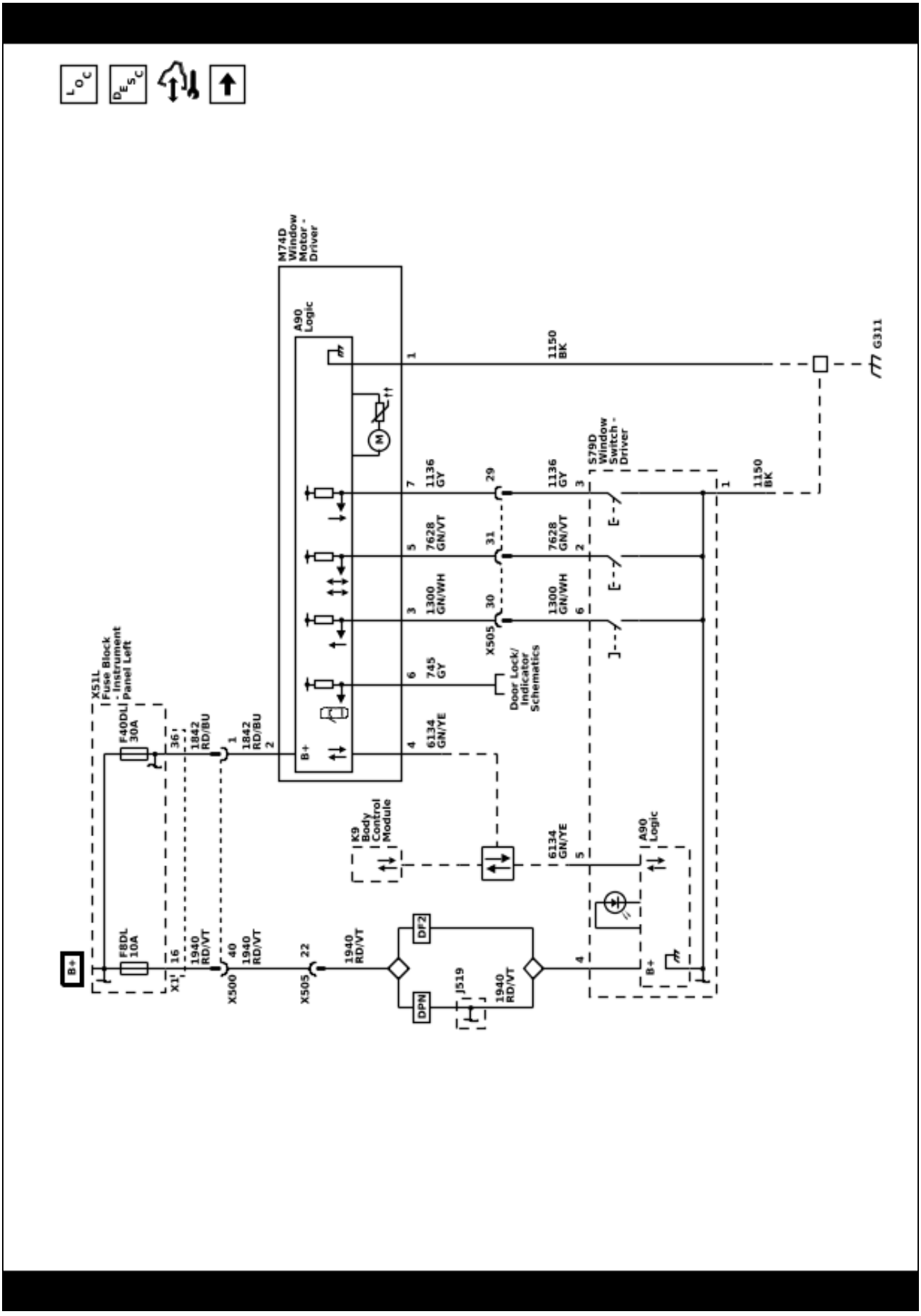
Auxiliary Air Compressor Schematics (Air Dryer (JPY))



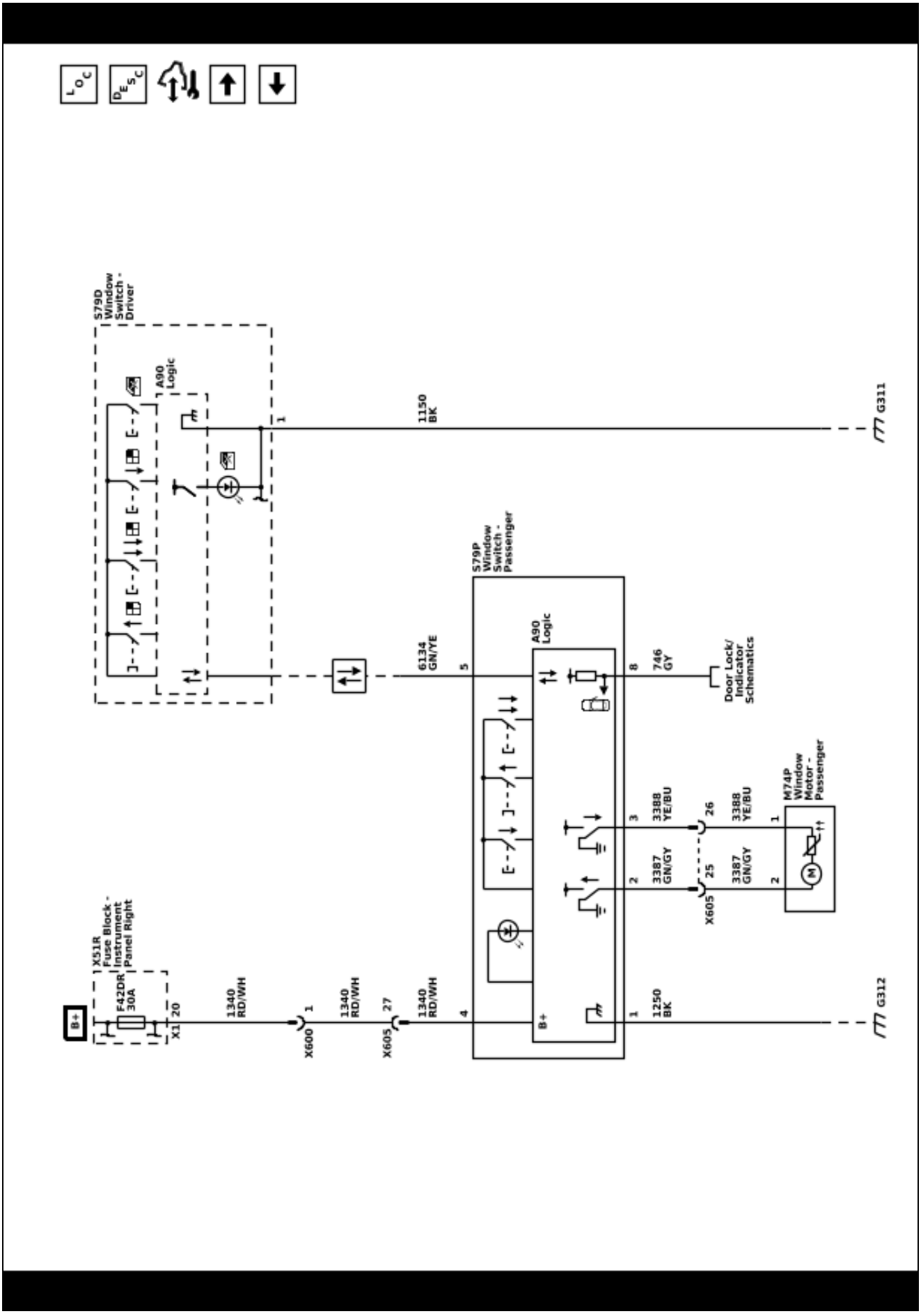
Fixed and Moveable Windows

Schematic and Routing Diagrams

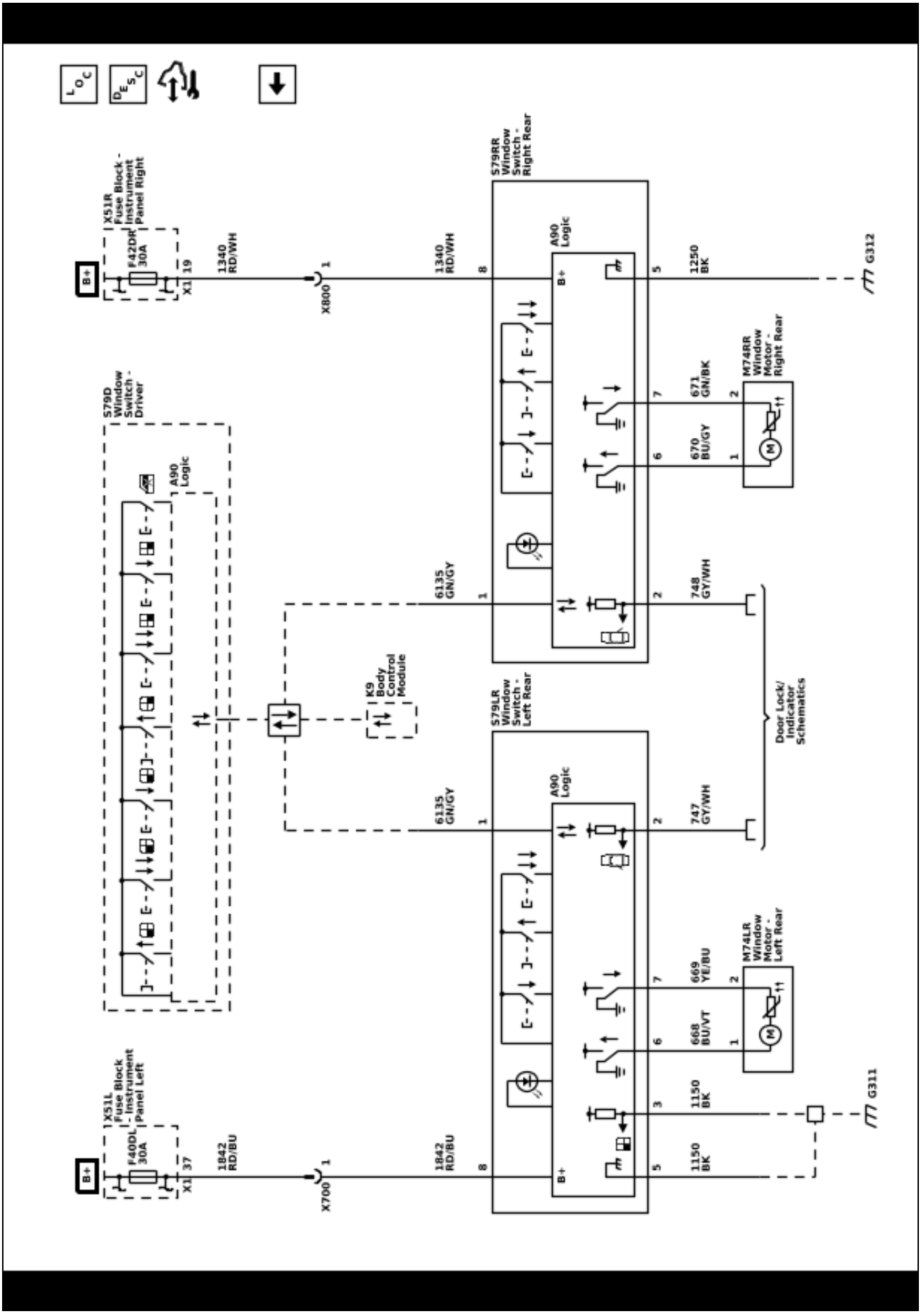
Moveable Window Schematics (Driver Door (A31))



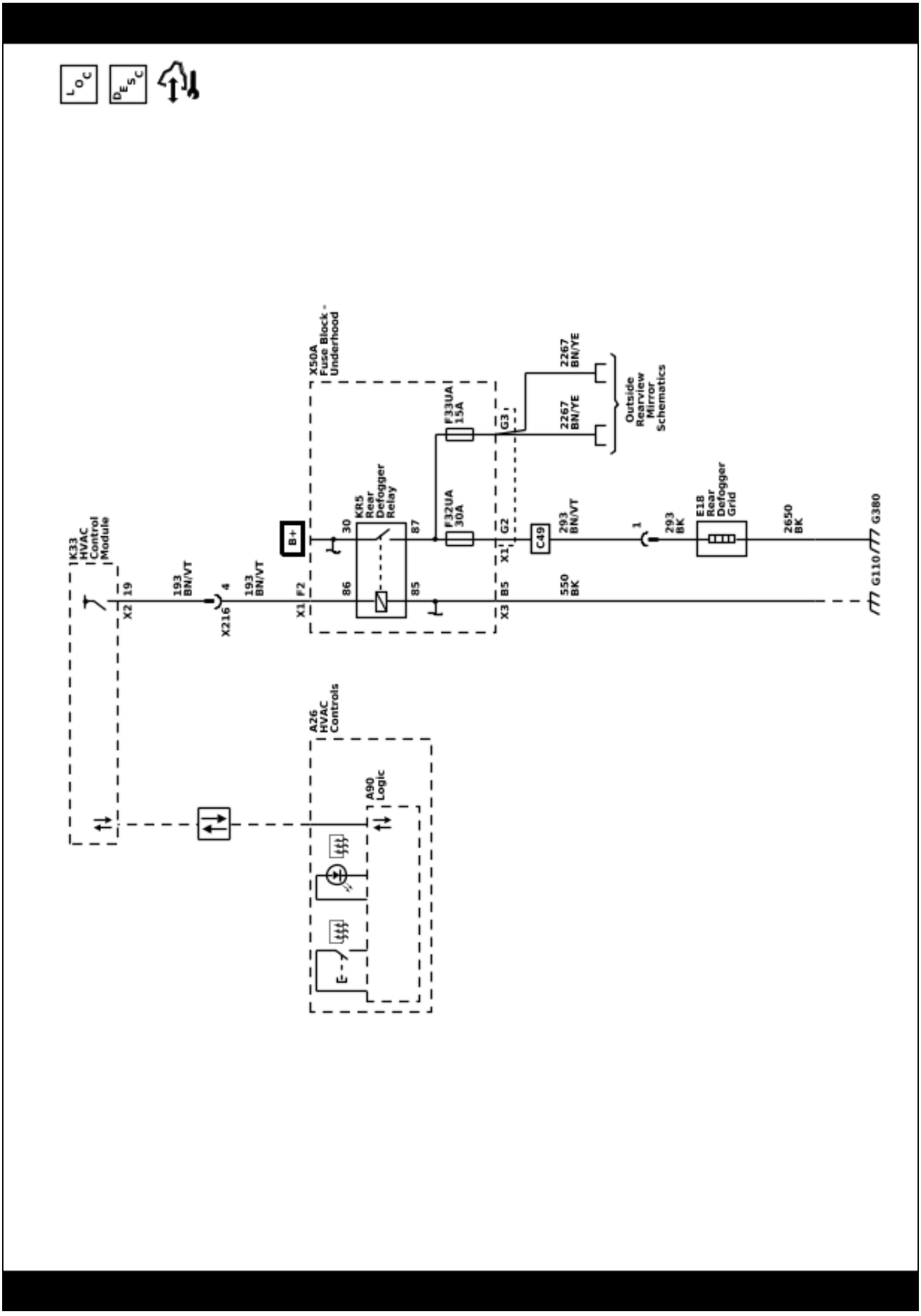
Moveable Window Schematics (Passenger Door (A31))



Moveable Window Schematics (Rear Doors (Crew Cab))



Defogger Schematics (Defogger (C49/DPN))



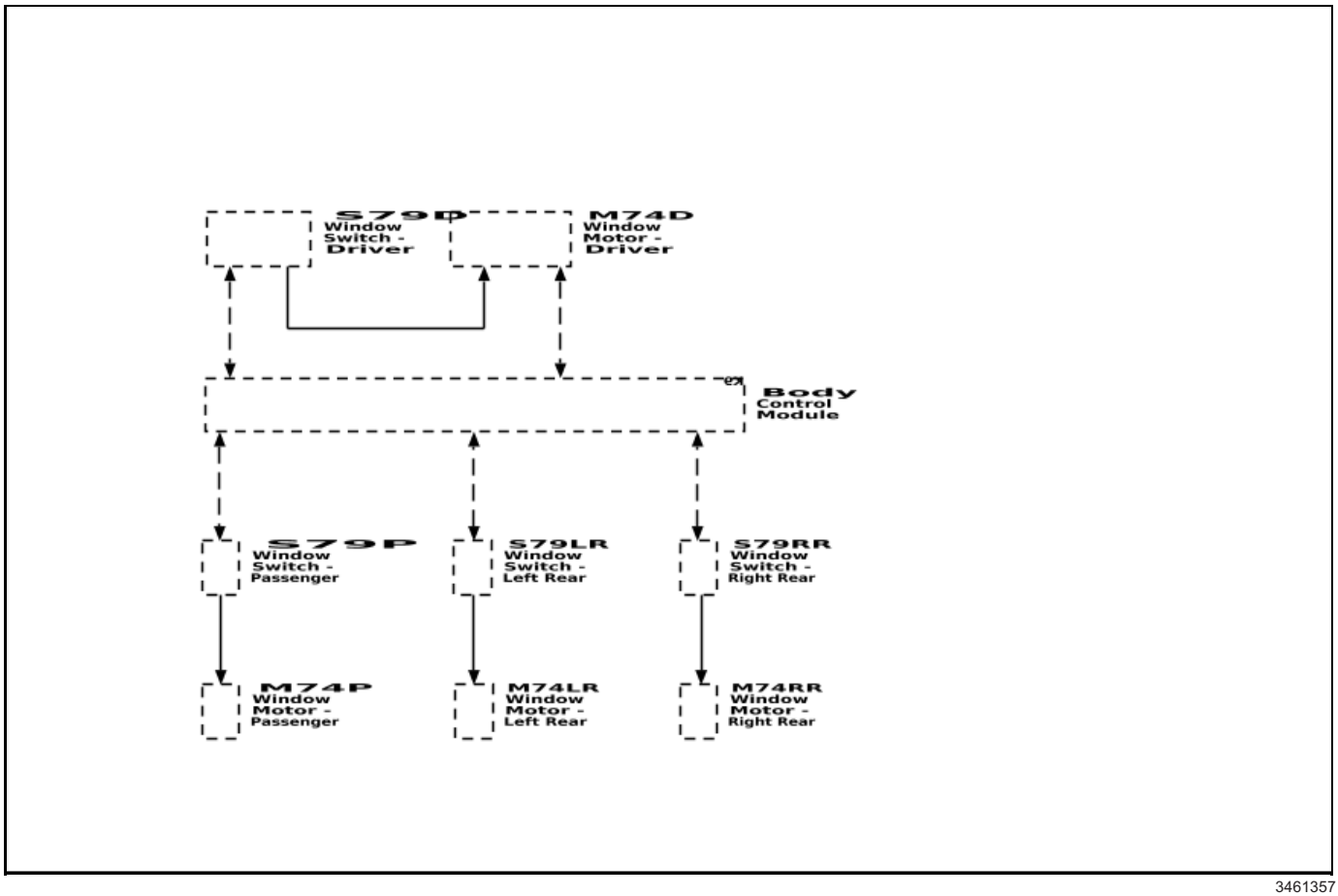
Description and Operation

Power Windows Description and Operation

Power Windows System Components

The power window system consists of the following components:

- Driver window switch
- Passenger window switch
- Left rear window switch
- Right rear window switch
- Window motors in each of the doors
- 30A Fuse
- Body control module (BCM)



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Driver Express Up and Express Down Power Window Motor

The driver door contains a window motor is smart motor that will detect excessive resistance while performing the express up function and automatically reverse direction to prevent injury to any occupants that may become trapped between the closing window and the door frame. The automatic reverse safety feature can be overridden by pulling and holding the window switch.

The logic circuit within the window motor monitors the up, down and express signal circuits which are normally equal to B+ voltage. When a switch is used on the driver window switch, the contacts close causing a voltage drop within the appropriate signal circuit. The driver window motor will detect the voltage drop and will command the window to move in the direction requested.

Passenger, Left Rear and Right Rear Express Down Window Motors

For the passenger, right rear and left rear doors, when their window switch is pressed in the down position, battery positive voltage is applied to their respective window motor control circuit and ground to the other window motor control circuit causing that window to open. When the individual window switch is pulled in the up position, voltage and ground is applied to the window motor in the opposite direction causing that

window to close. The return path to ground is supplied through the inactive control circuit being normally grounded through the window switch.

Each passenger and rear window switch communicates to the BCM by a serial data circuit. When the driver wishes to control the passenger, left rear or right rear window, the driver will use the appropriate switch on the driver window switch. When this switch is used, a serial data message is sent to the BCM requesting a window motor command, the BCM will then send a serial data message to the appropriate door window switch which will then command that window to move in the direction requested.

Lockout Switch Feature

The driver window switch contains a window lockout switch, when the driver presses the window lockout switch, a serial data message is sent to the BCM which will send a disable command to the rear window switches, the rear window switches will then ignore all functions when a passenger uses the rear window switch. The rear window motor commands will still function normally when the driver uses the appropriate switches on the driver window switch.

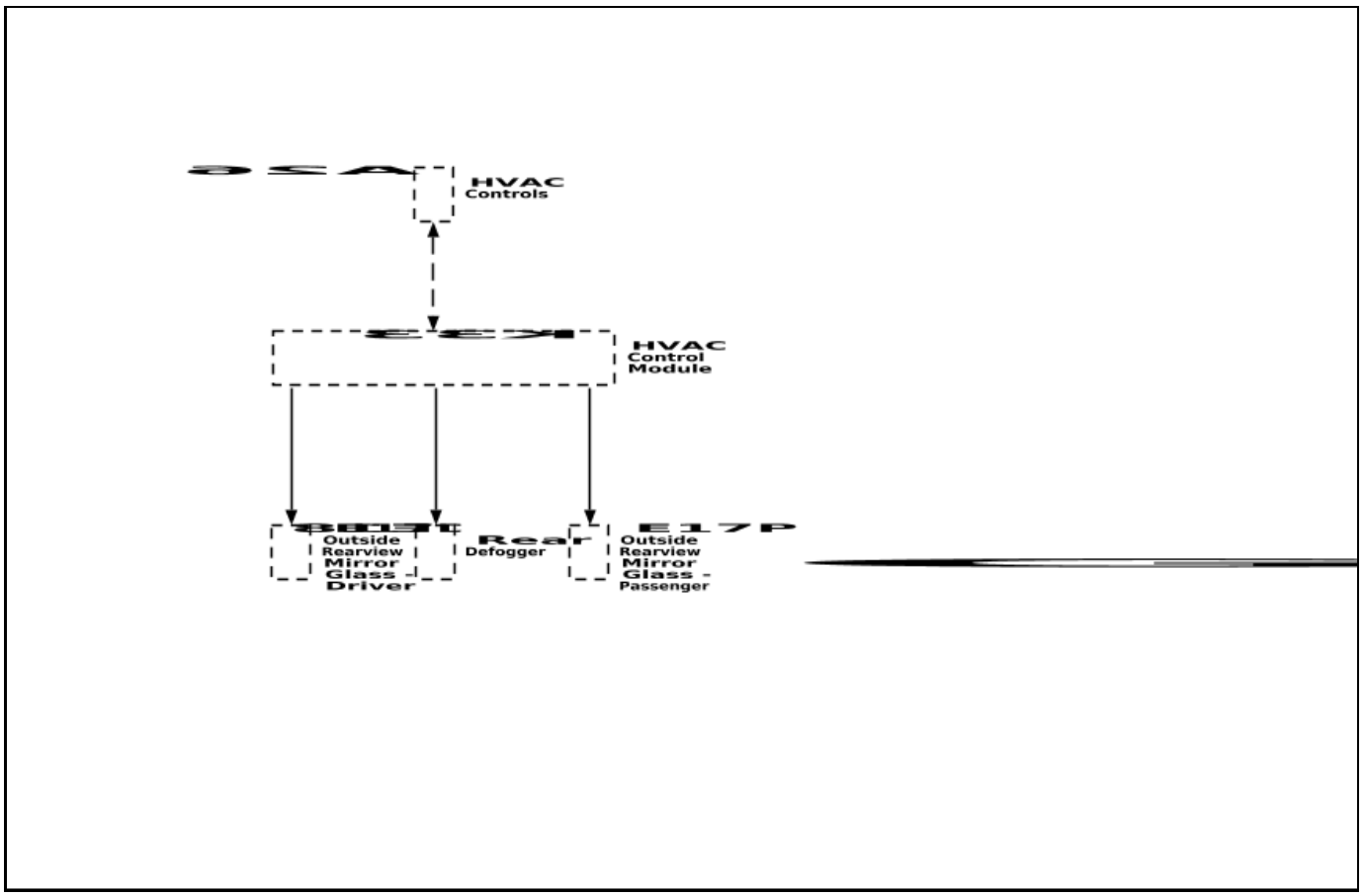
Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC Control Module
- HVAC Controls
- Rear Defogger Relay
- Rear Defogger Grid
- Driver Outside Rearview Mirror
- Passenger Outside Rearview Mirror
- 40A Fuse

A26-K33-X50A Defogger Block Diagram



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Rear Window Defogger Operation

The rear defog control system utilizes a single zone backlight design, driven with a single relay configuration. Additionally, up to two outside rear view mirrors can be heated if required. A switch for the customer to control the system is provided within the HVAC controls. Also included in the HVAC controls is an indicator to inform the customer with the current state of the system. The system is only operational when engine is running or during remote start.

Pressing the heated rear window switch causes the HVAC controls to send a serial data message to the HVAC control module requesting rear window defog operation. The HVAC control module upon receipt of the serial data message will provide voltage to the coil side of the rear defogger relay, this will energize the relay causing the relay switch contacts to close allowing B+ voltage to flow through the rear defogger grid control circuit to the rear defogger grid.

When the rear heated rear window switch is pressed and the engine is running, the rear window defogger grid will activate and will turn off automatically depending upon the vehicle speed (refer to owner's manual for rear window defogger operation cycles)

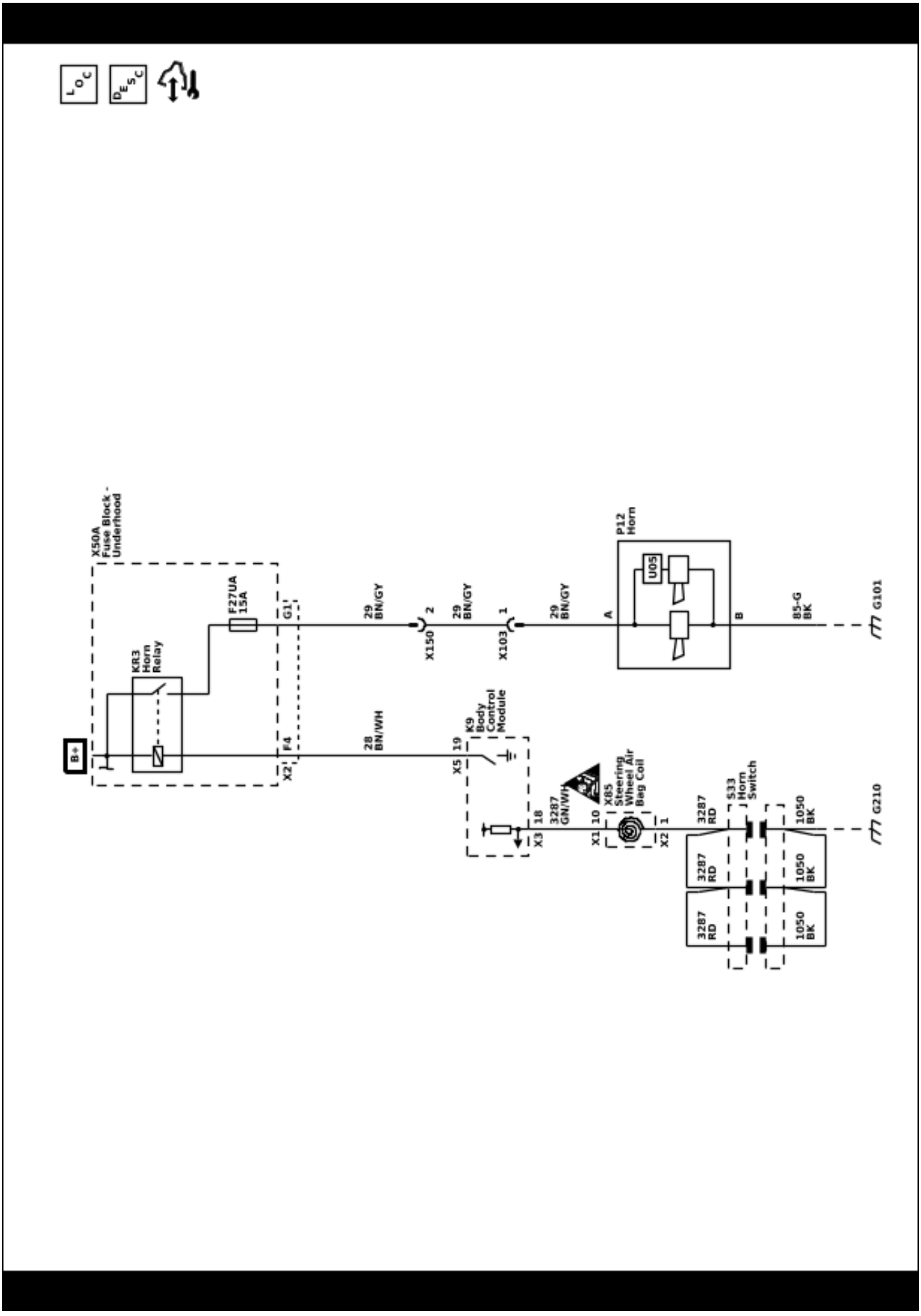
Heated Mirrors

The heated mirrors are also controlled through the rear defogger relay. Whenever the rear window defogger is turned on battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

Horns and Pedestrian Alerts

Schematic and Routing Diagrams

Horn Schematics (Horn)



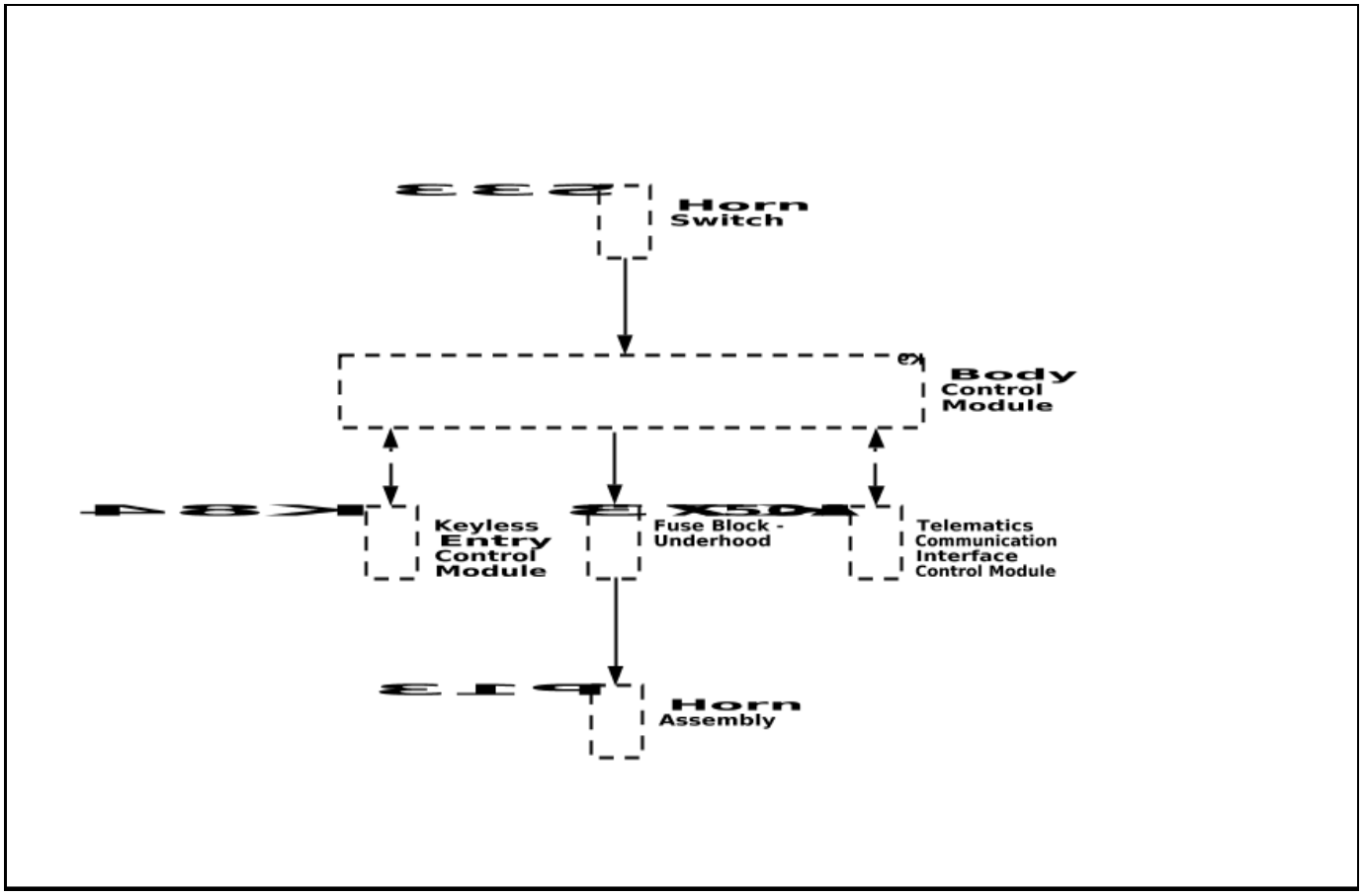
Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- HORN fuse
- Underhood fuse block (Contains PCB horn relay)
- Horn switch
- Horn assembly
- Body control module (BCM)



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System Operation

The vehicle horn system is activated under the following conditions:

- When the horn switch is depressed
- The BCM commands the horns ON under any of the following conditions:
  - – When the content theft deterrent system detects a vehicle intrusion—For further information refer to Theft Systems Description and Operation
  - – When the panic button is depressed on the remote control door lock transmitter—For further information refer to Keyless Entry System Description and Operation.
  - – When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to Keyless Entry System Description and Operation.
  - – When the OnStar® system is used to sound the horns if equipped—For further information, refer to OnStar Description and Operation.

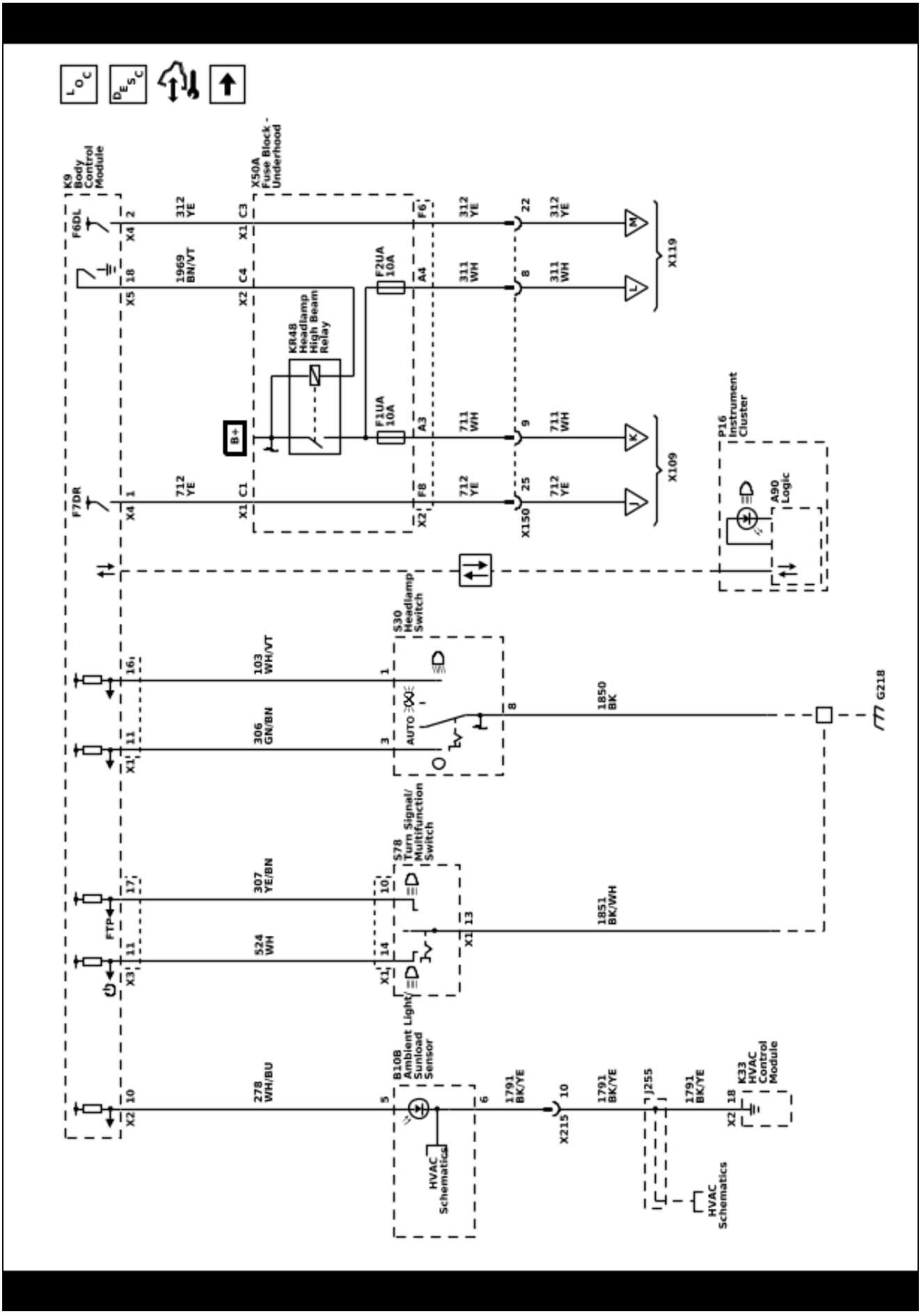
Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing either of the horn switches applies ground to the horn relay control circuit. The BCM may also apply ground to the horn relay control circuit as described above. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

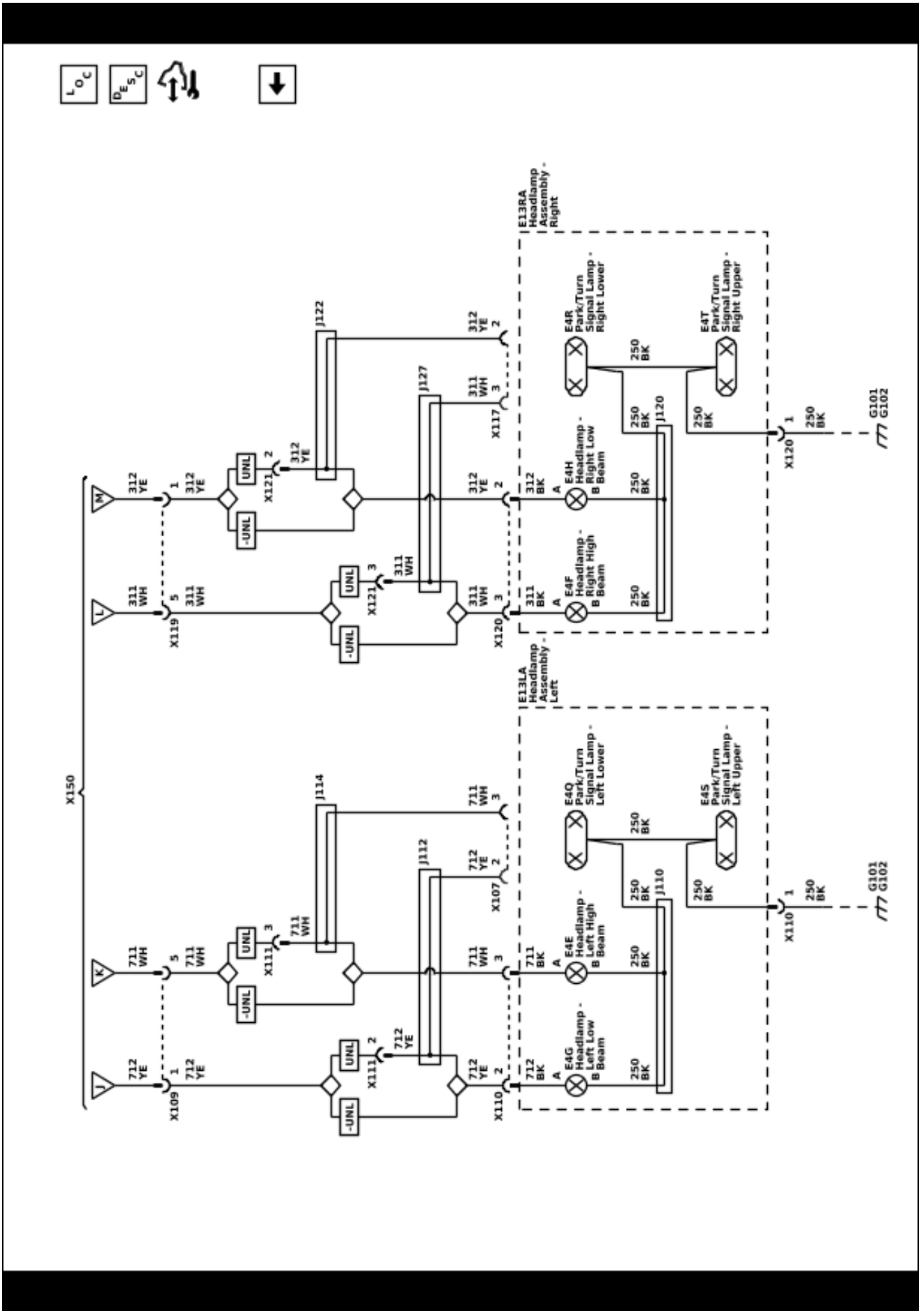
Lighting

Schematic and Routing Diagrams

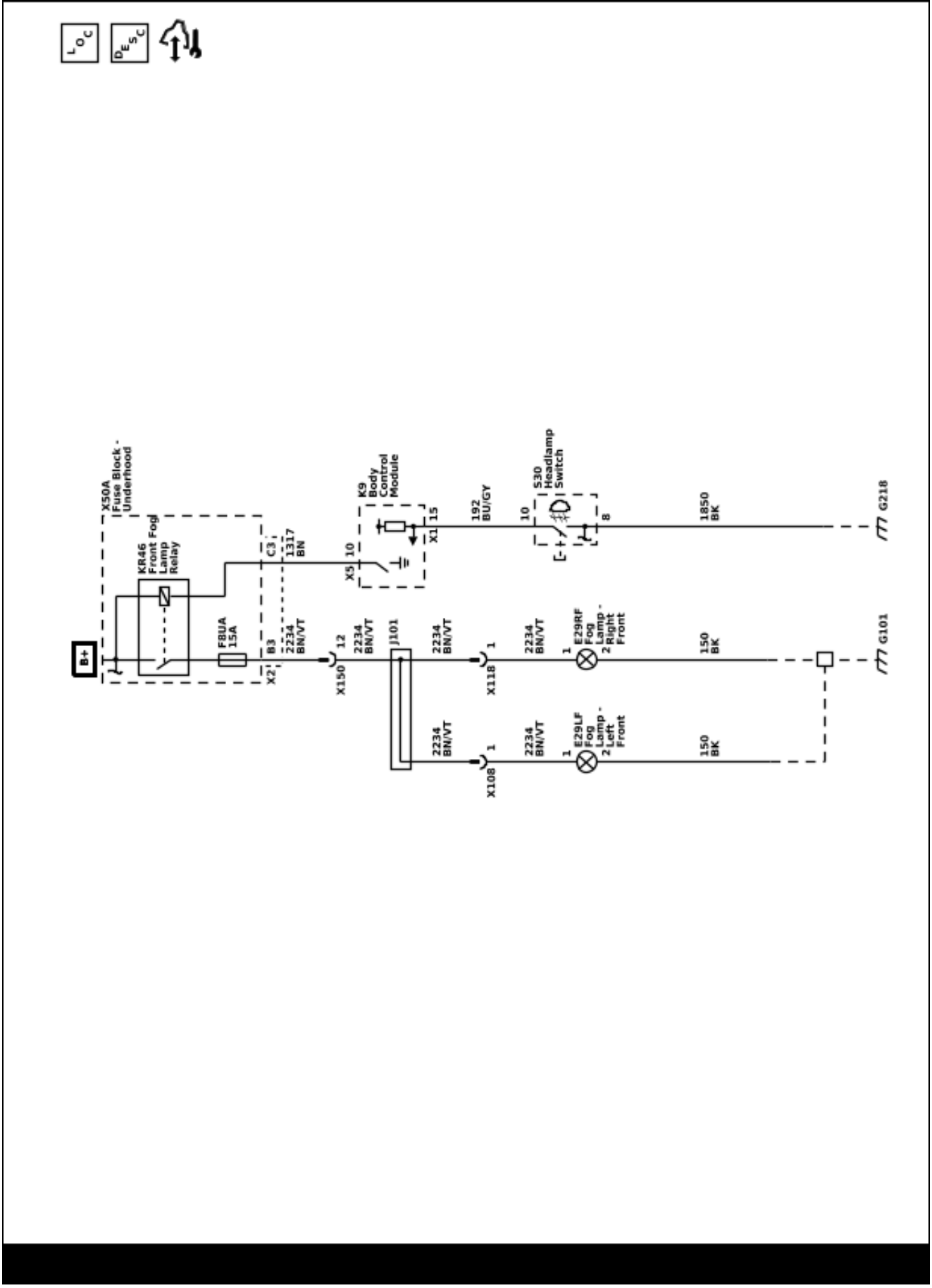
Headlights/Daytime Running Lights (DRL) Schematics (Headlight Controls)



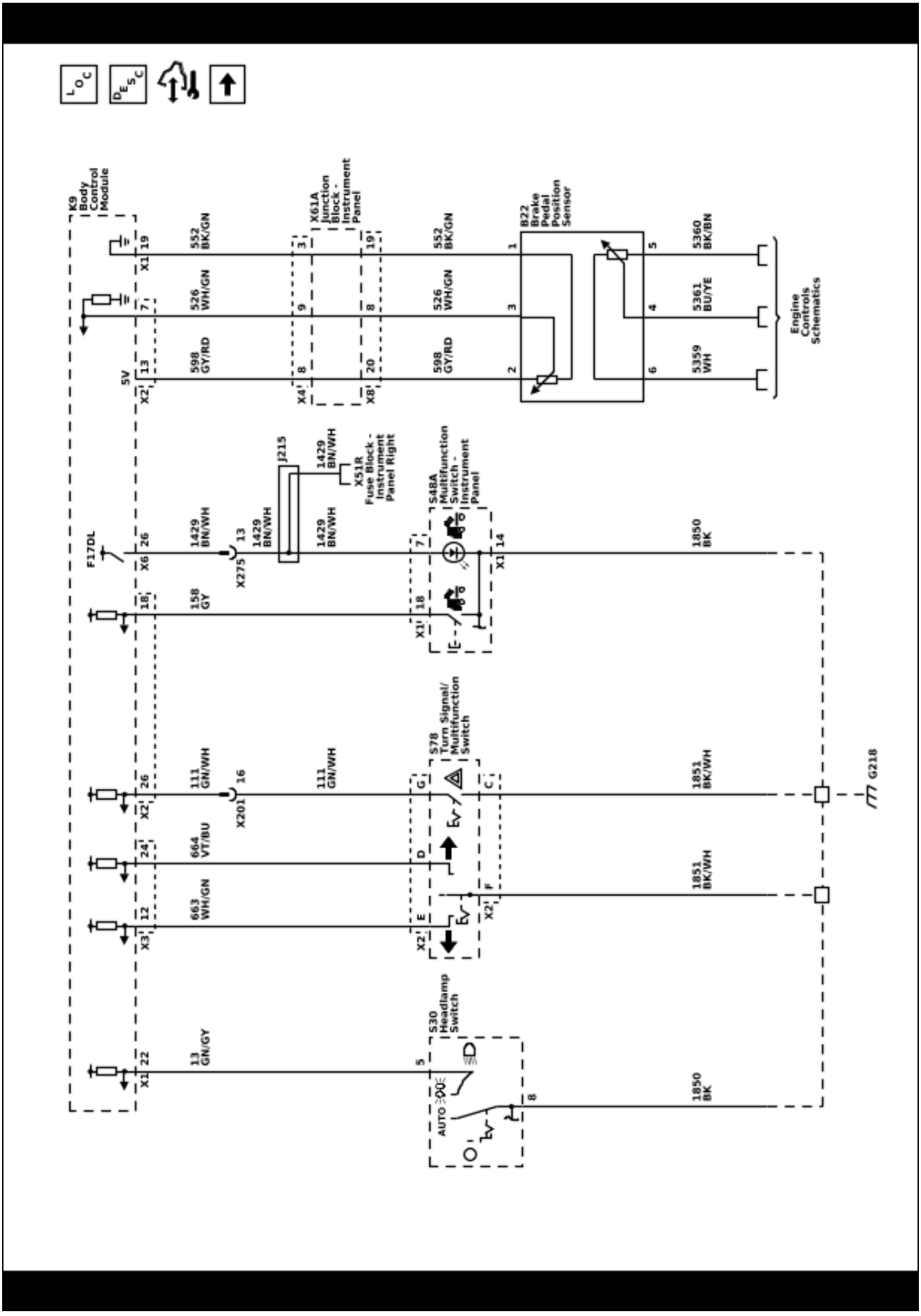
Headlights/Daytime Running Lights (DRL) Schematics (Headlamps)



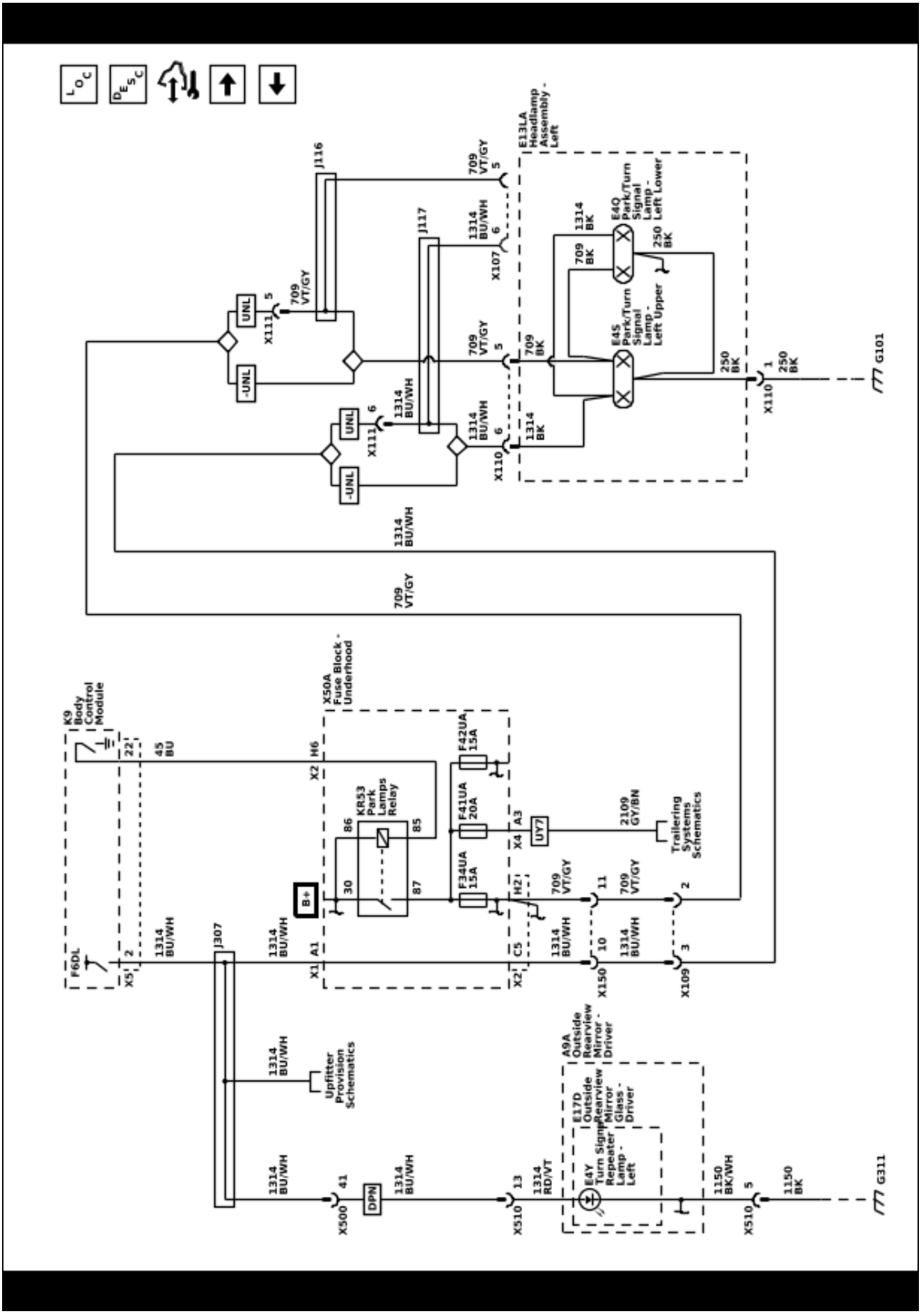
Fog Lights Schematics (Fog Lamps (T3U))



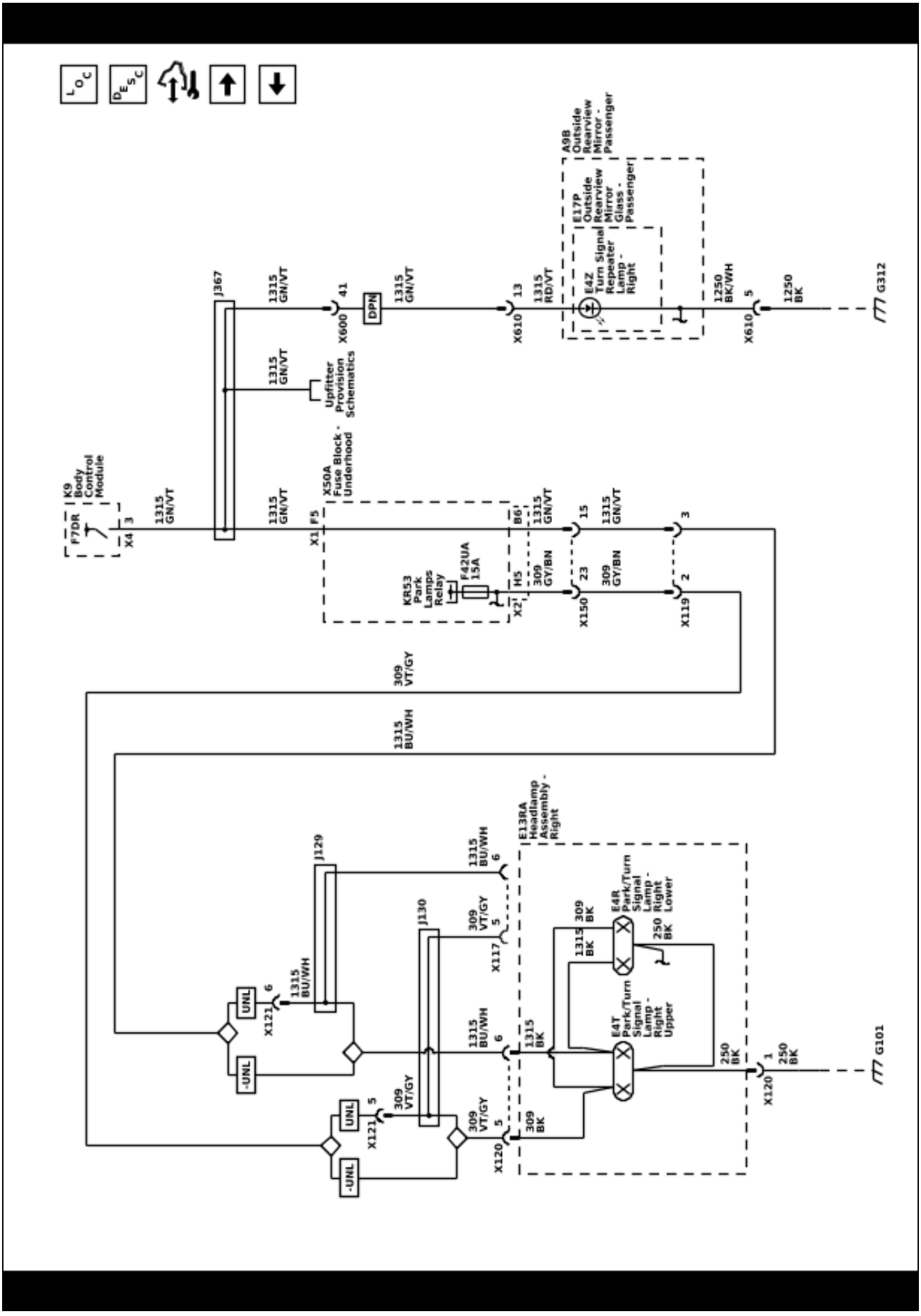
Exterior Lights Schematics (Exterior Lights Controls)



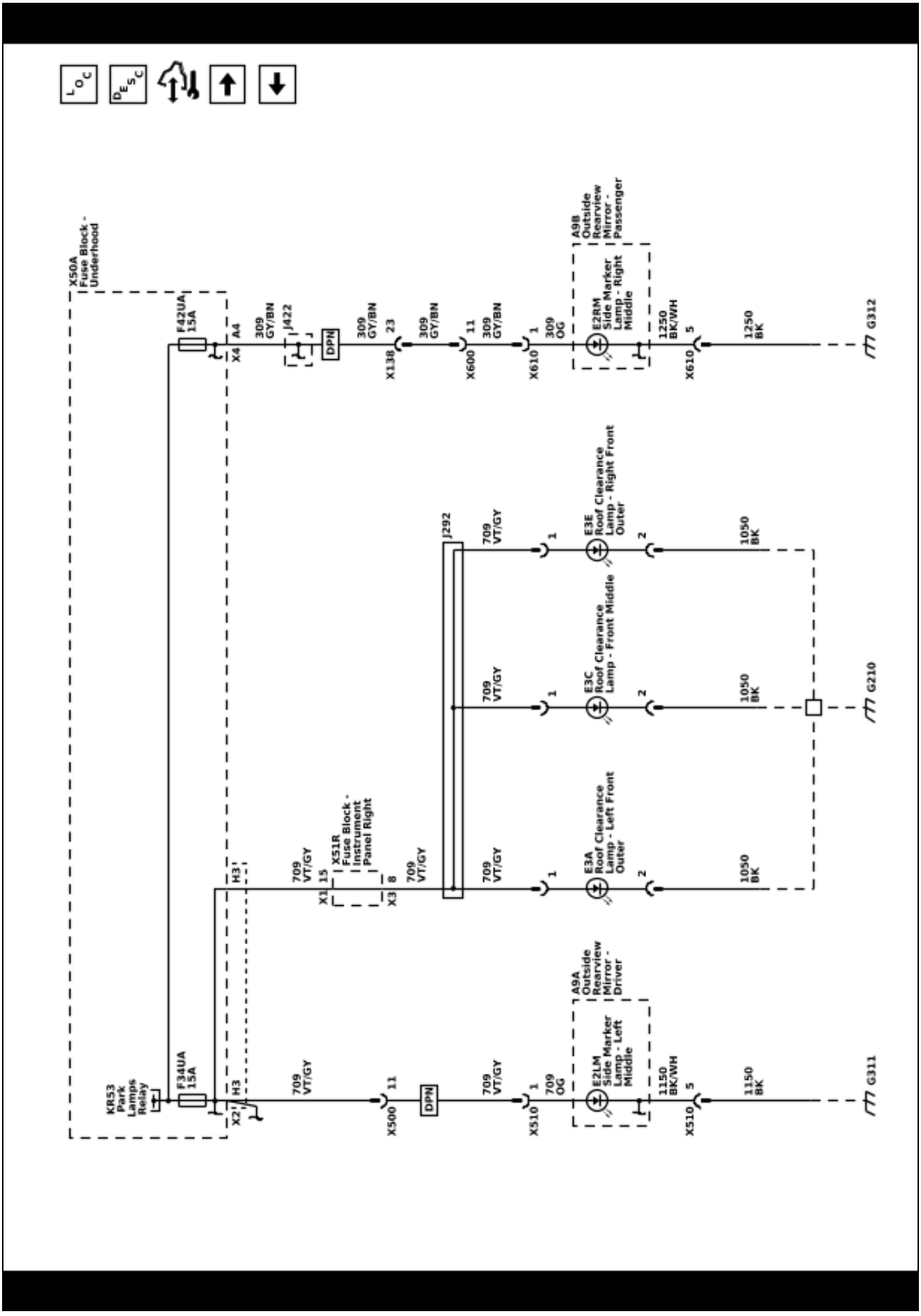
Exterior Lights Schematics (Park and Turn Signal Lamps - Left Front)



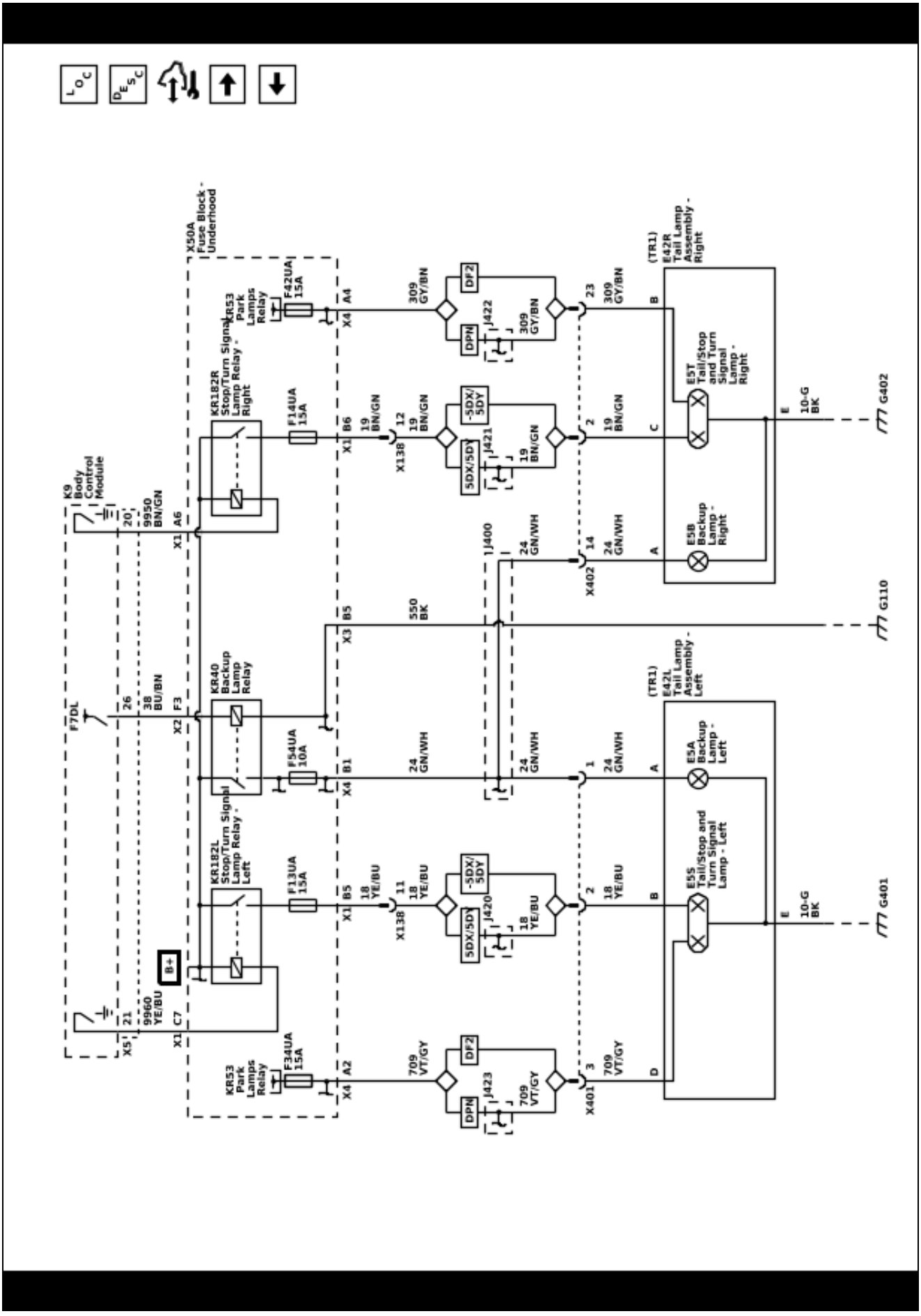
Exterior Lights Schematics (Park and Turn Signal Lamps - Right Front)



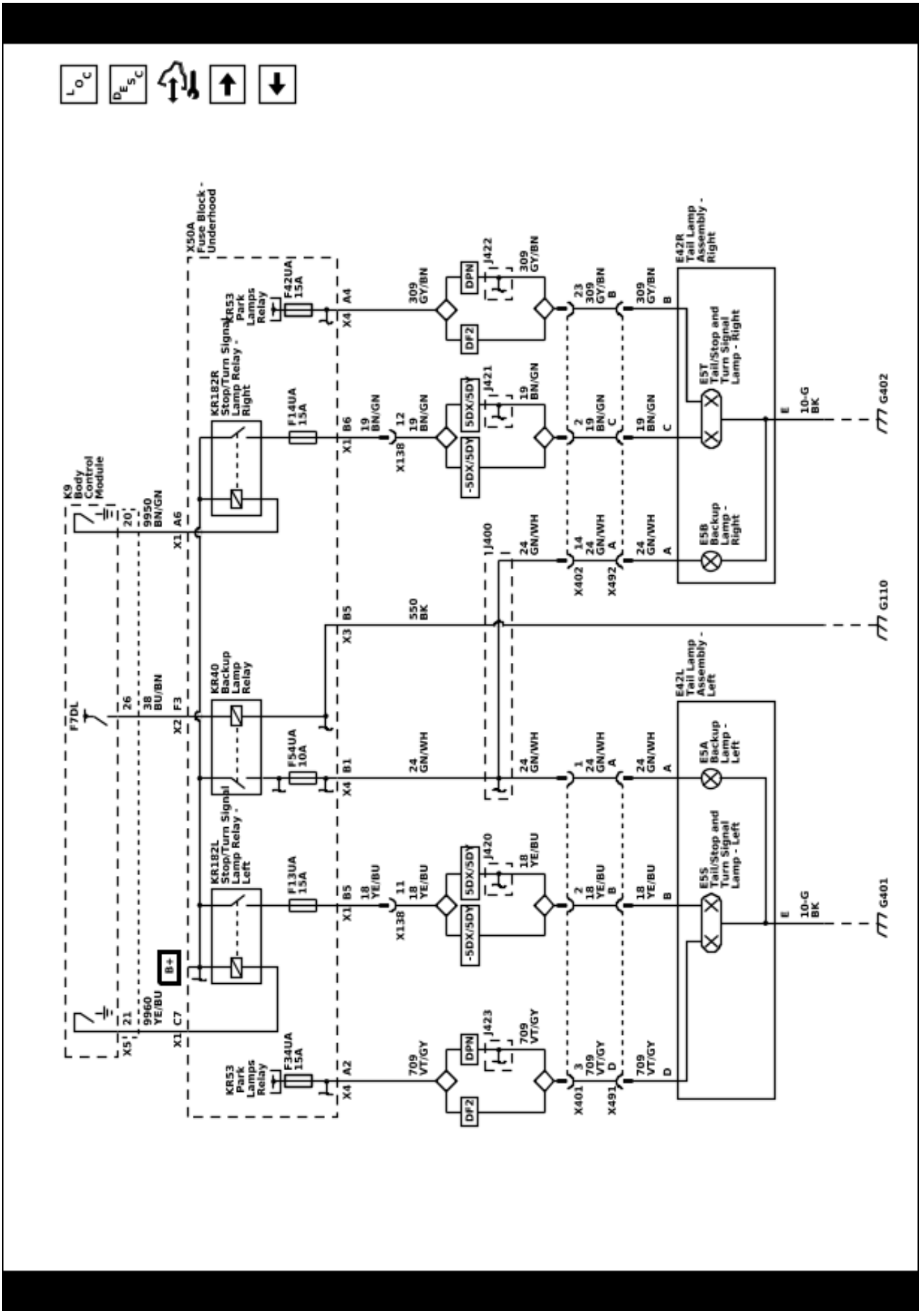
Exterior Lights Schematics (Park Lamps - Mirror (DPN) and Roof)



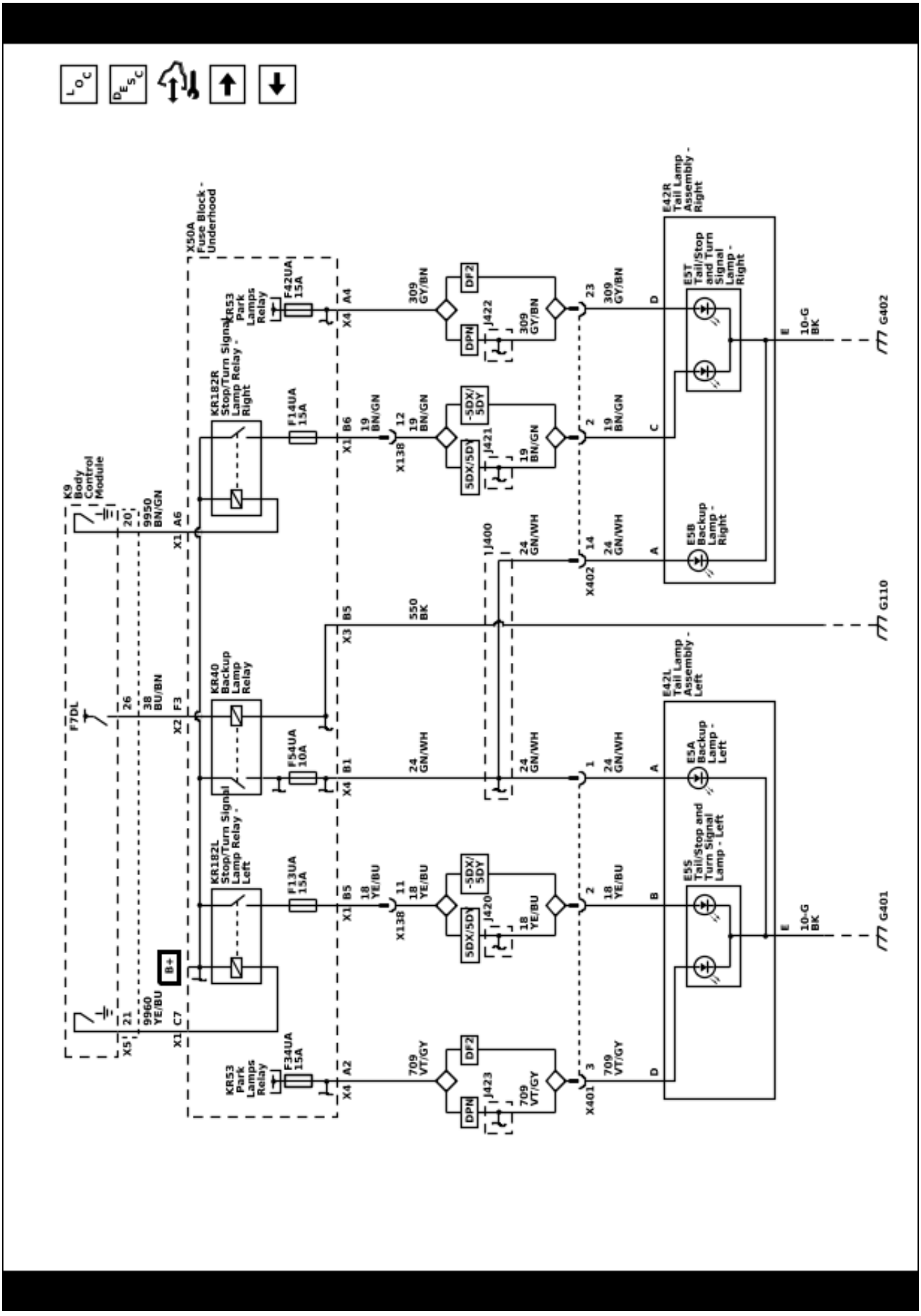
Exterior Lights Schematics (Tail Lamps - Incandescent ((TR1-JTR)/UEA))



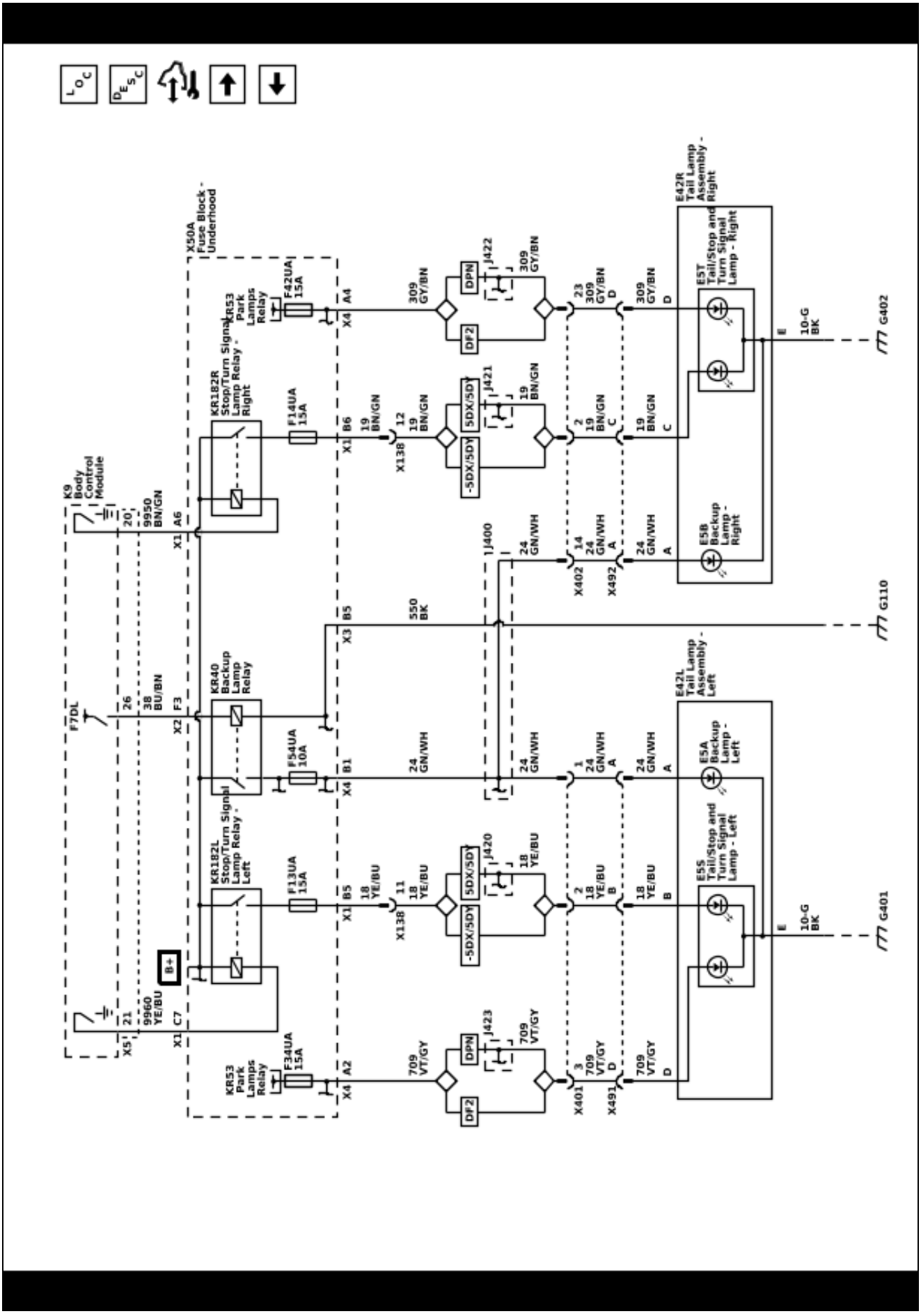
Exterior Lights Schematics (Tail Lamps - Incandescent (TR1+JTR))



Exterior Lights Schematics (Tail Lamps - LED (UGE-JTR))

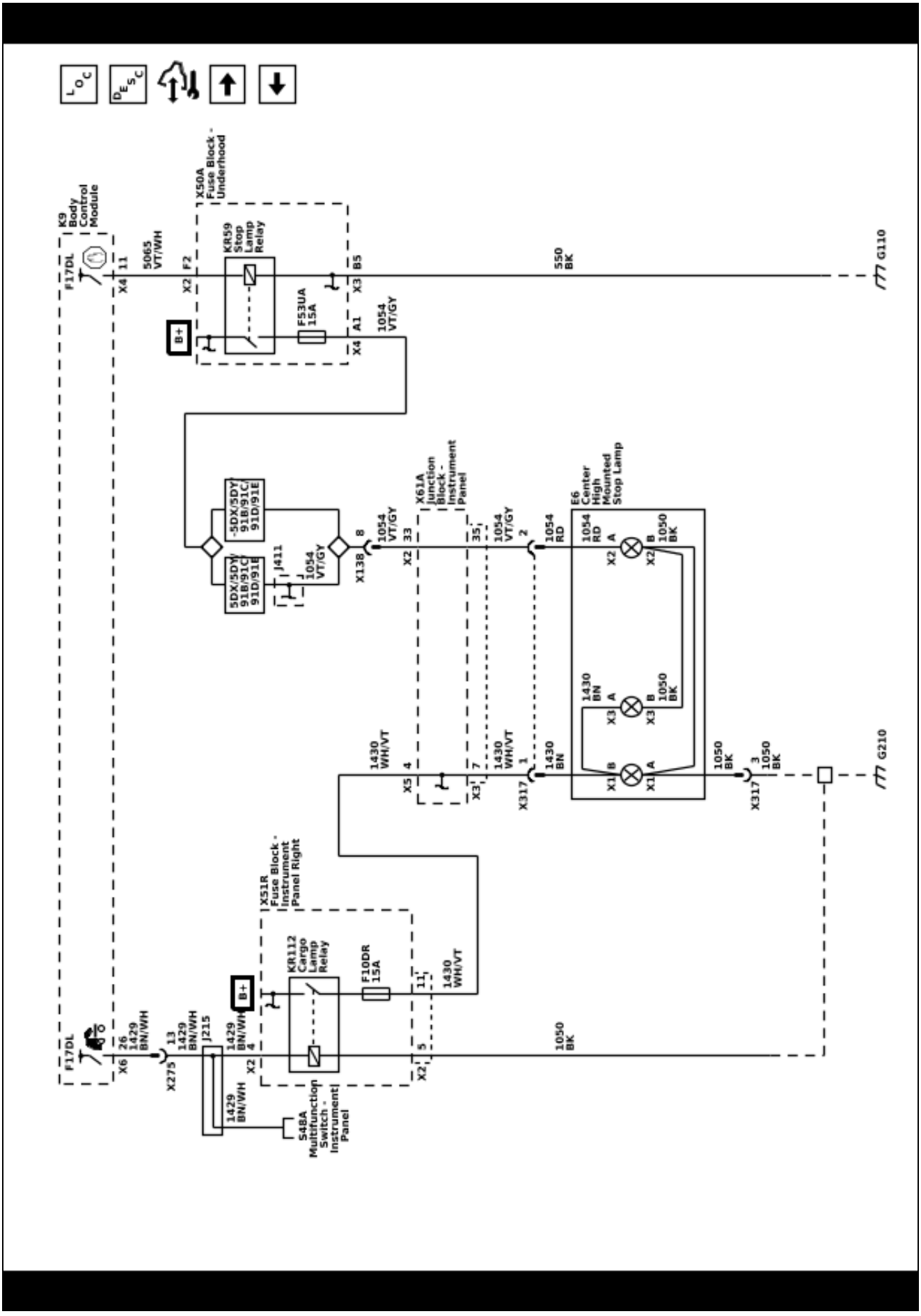


Exterior Lights Schematics (Tail Lamps - LED (UGE+JTR))

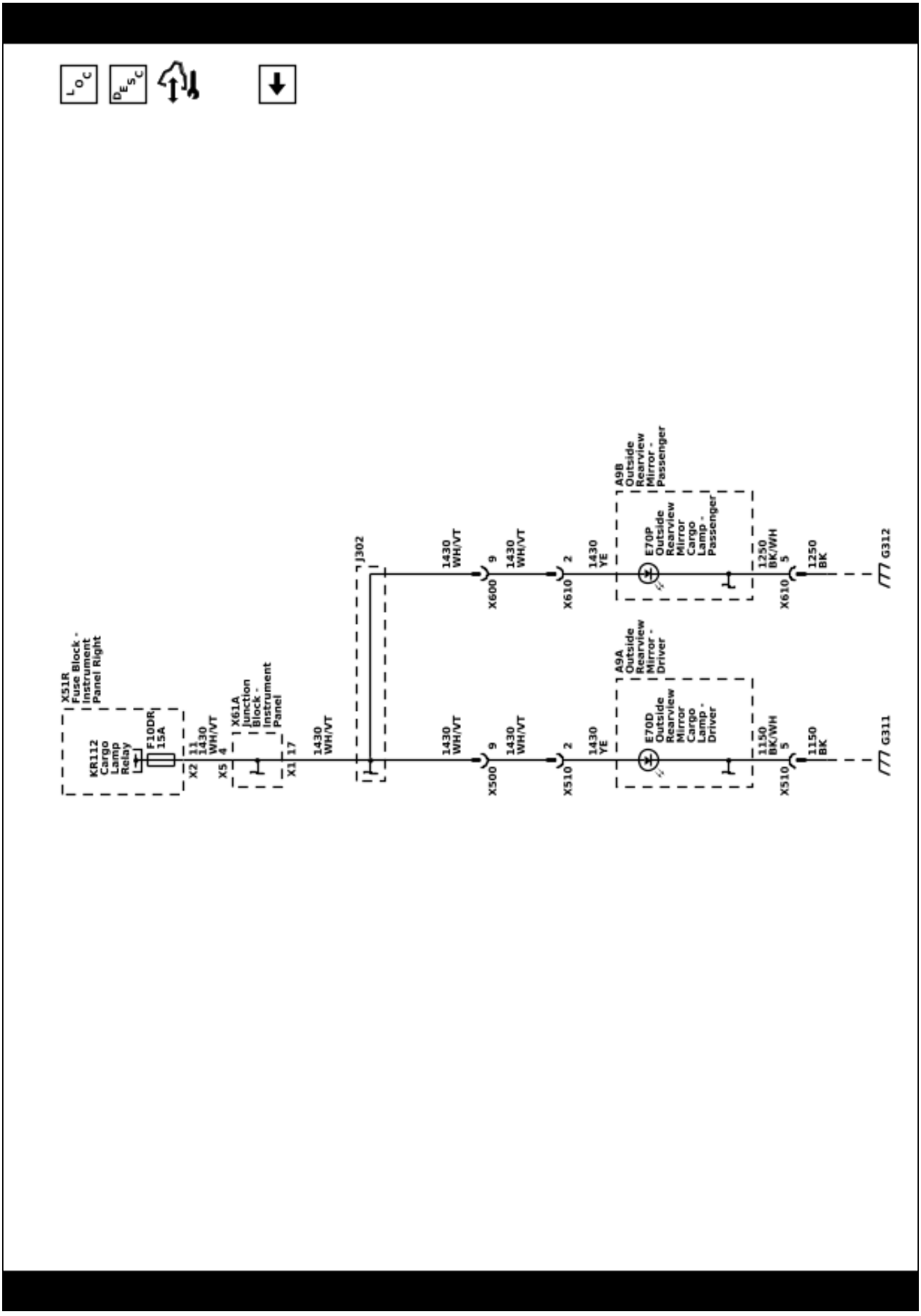


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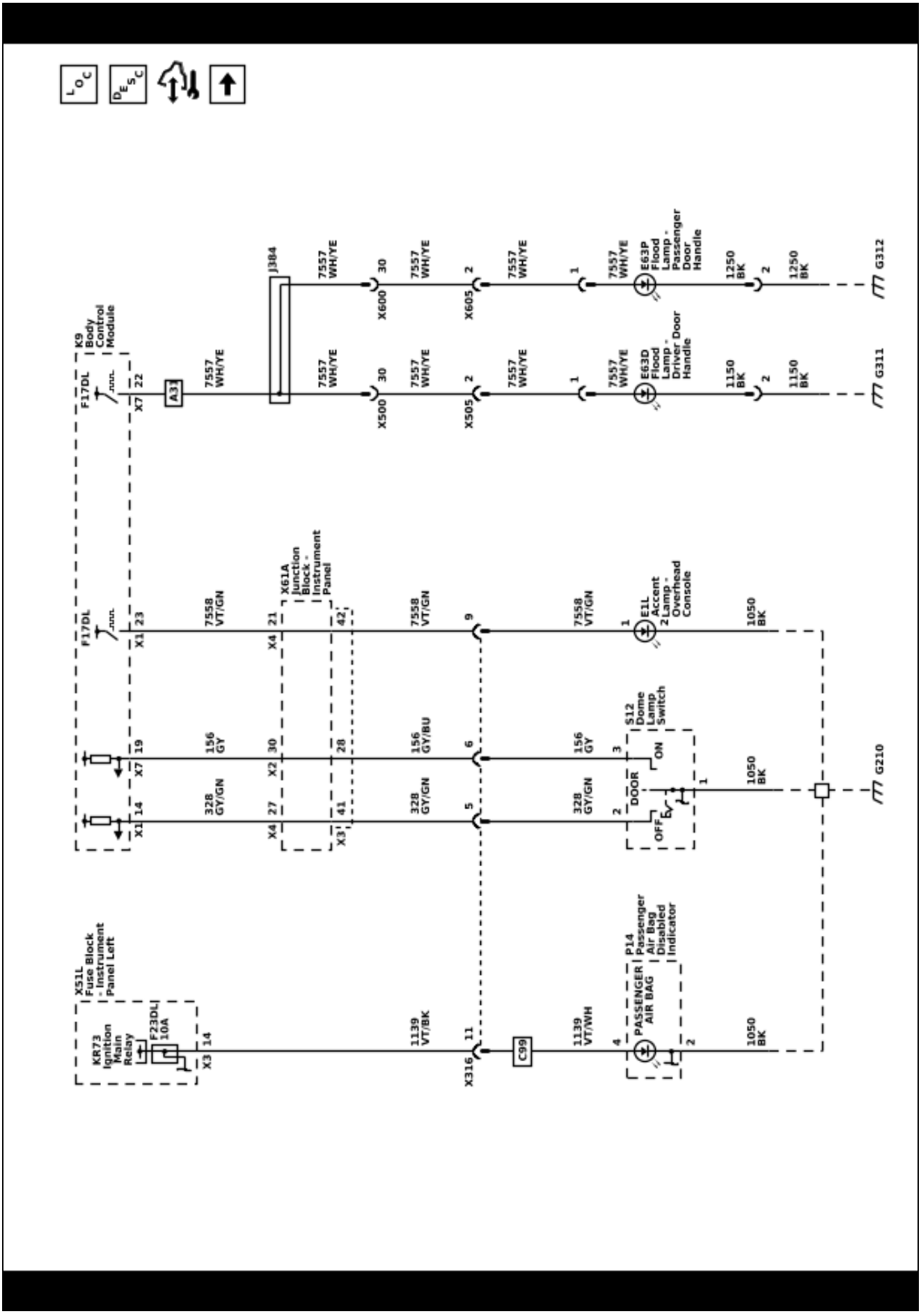
Exterior Lights Schematics (Roof Cargo and Center High Mounted Stop Lamps)



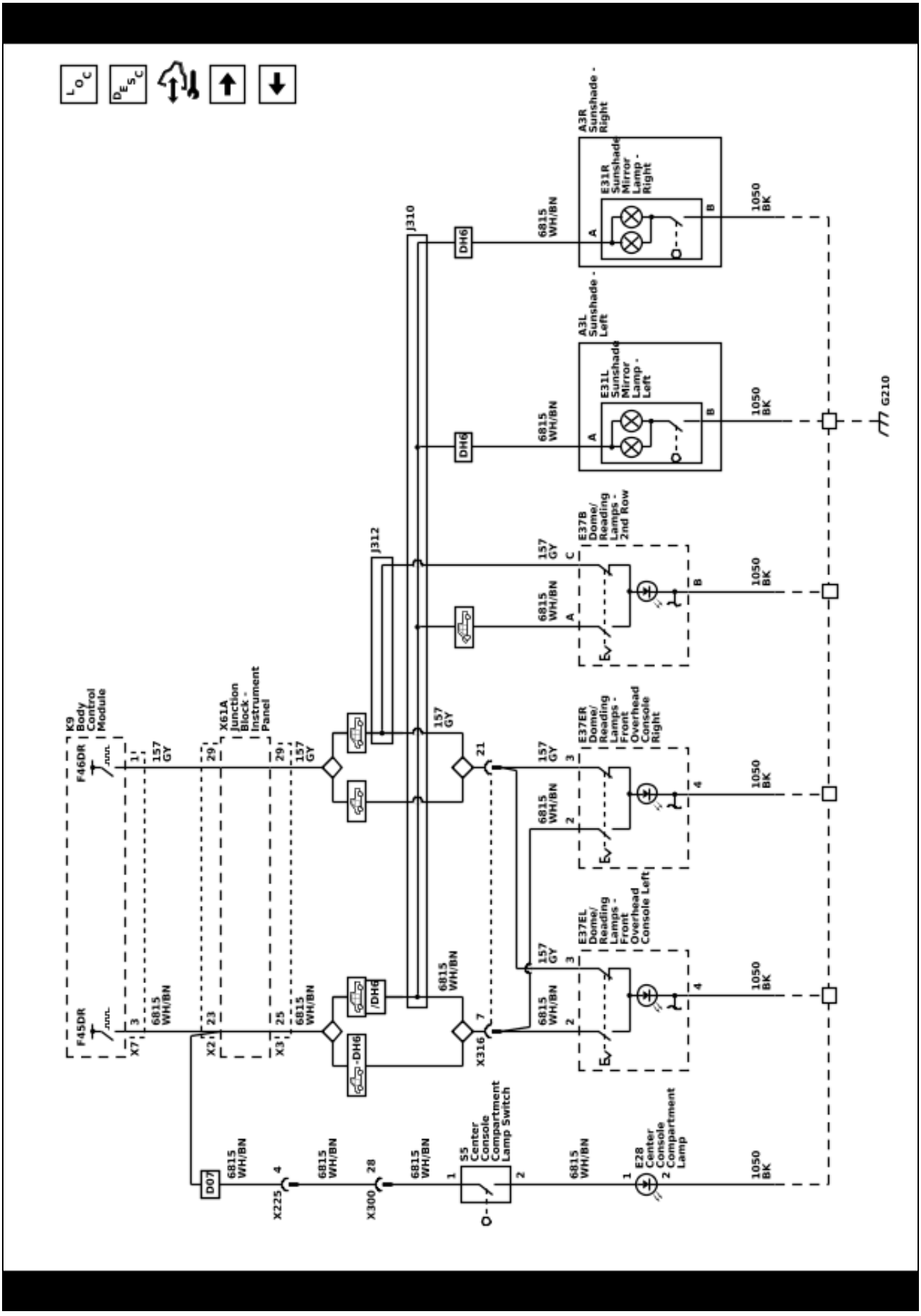
Exterior Lights Schematics (Mirror Cargo Lamps (DPN))



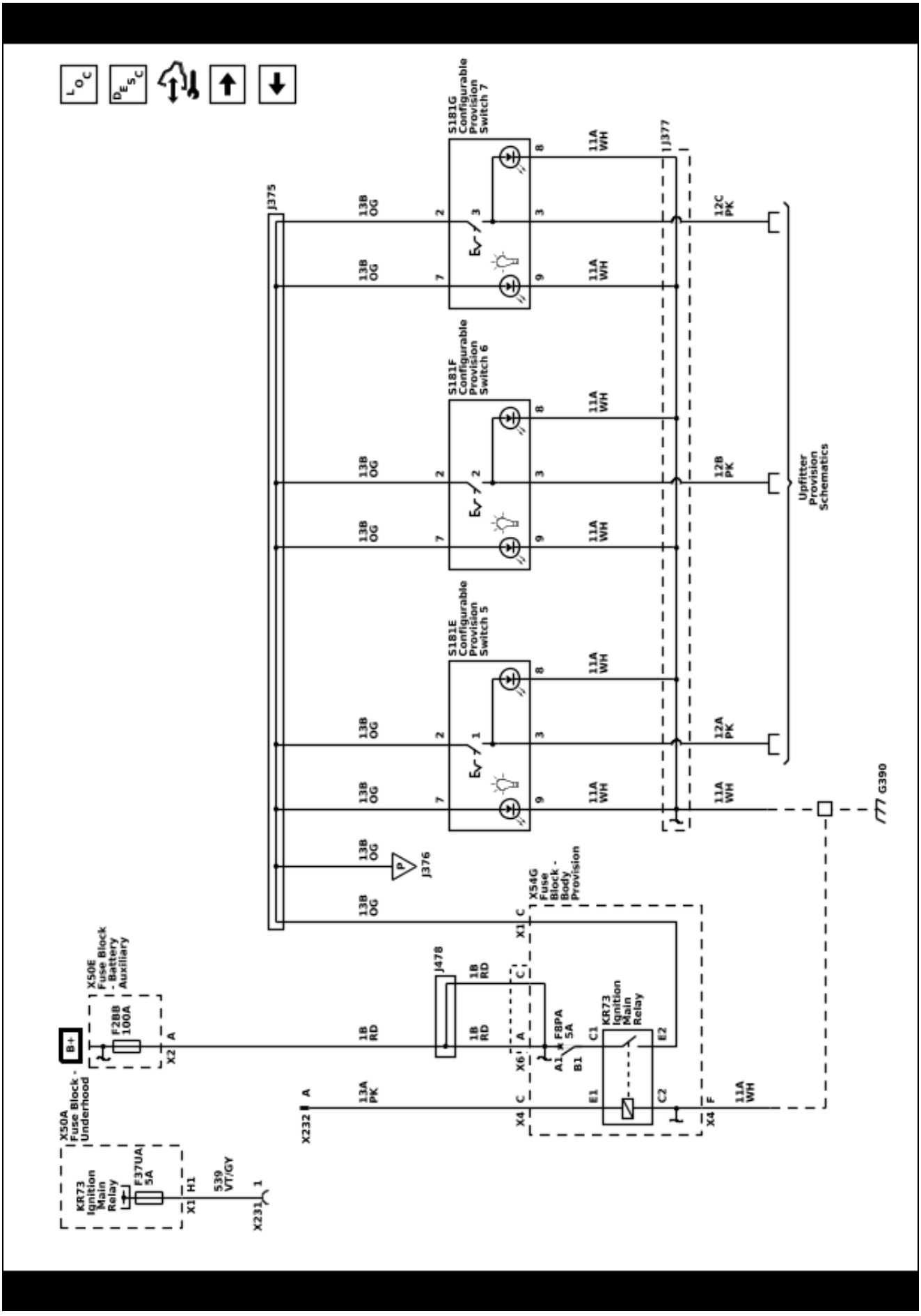
Interior Lights Schematics (Controls and Flood Lamps)



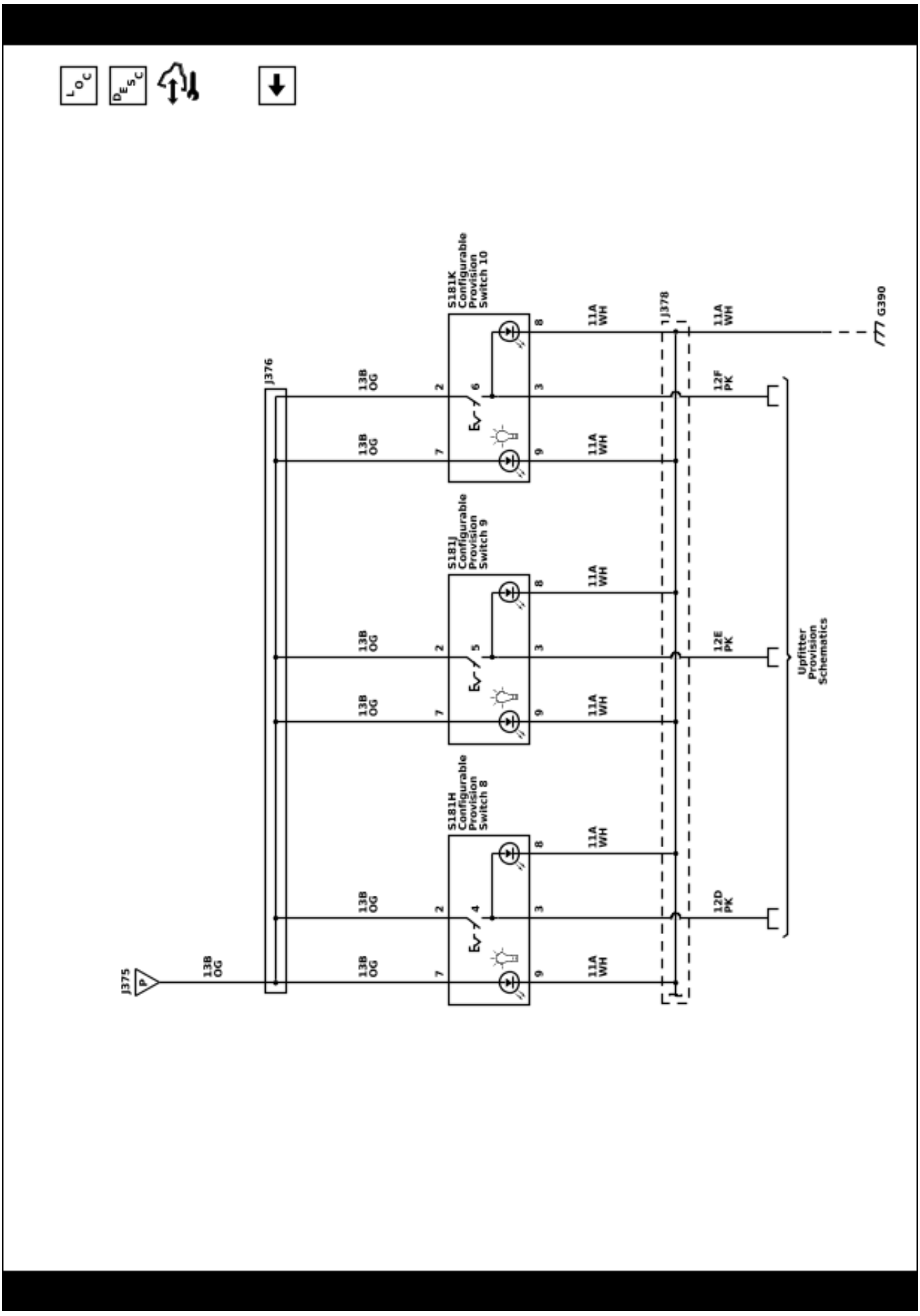
Interior Lights Schematics (Floor Console Compartment and Overhead Lamps)



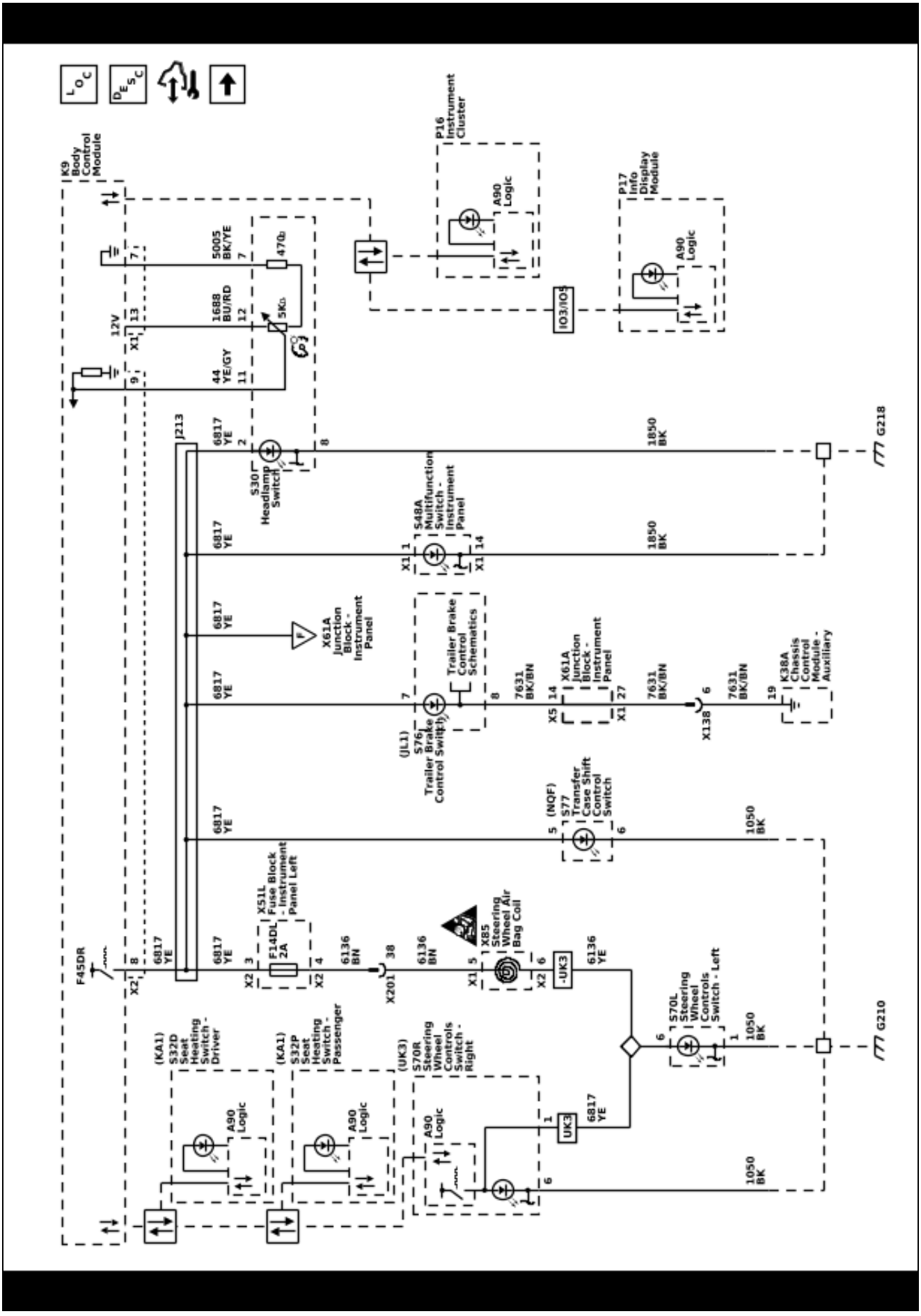
Interior Lights Schematics (Upfitter Switches at Headliner (UEH) (1 of 2))



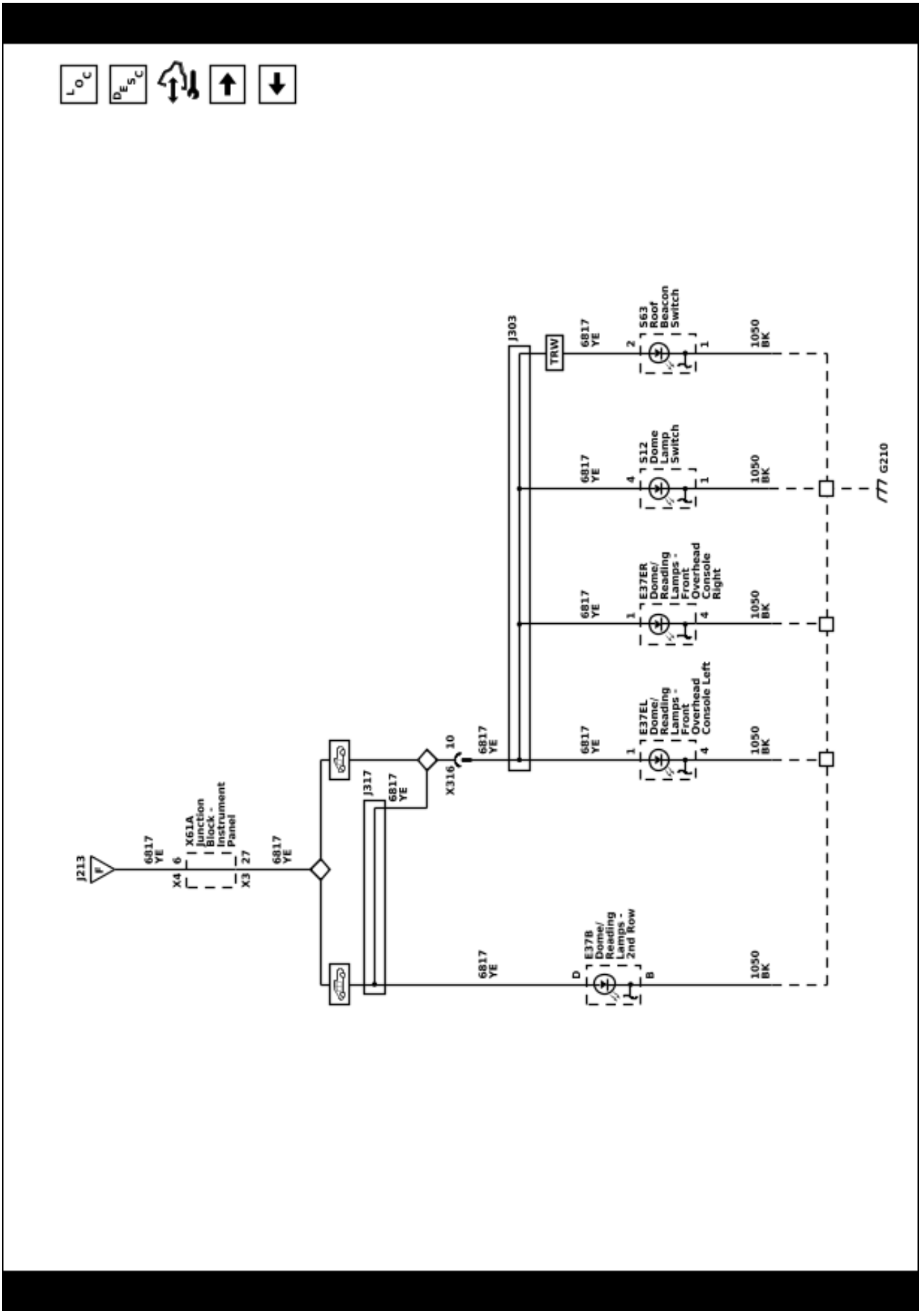
Interior Lights Schematics (Upfitter Switches at Headliner (UEH) (2 of 2))



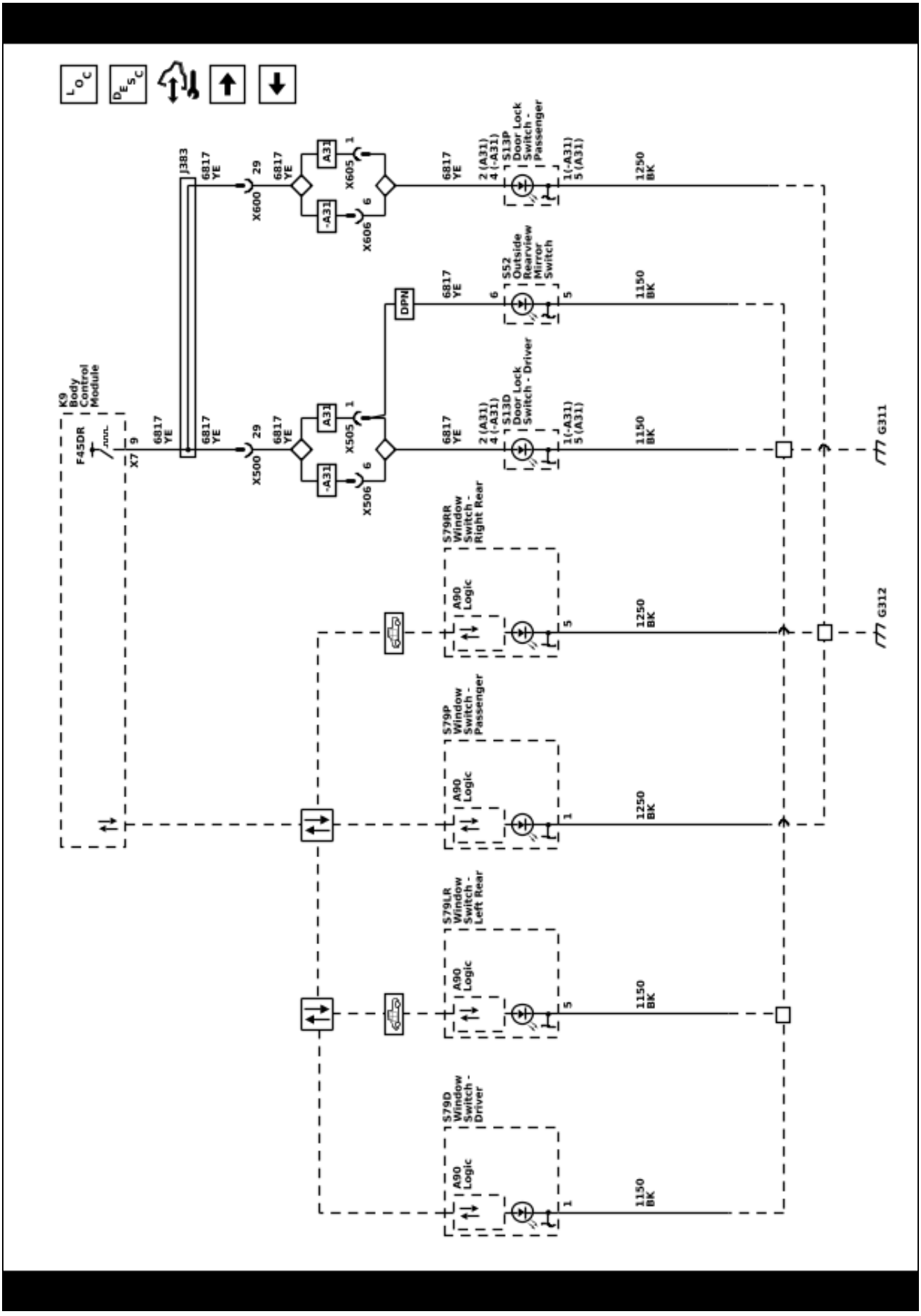
Interior Lights Dimming Schematics (Controls and Backlight - Instrument Panel)



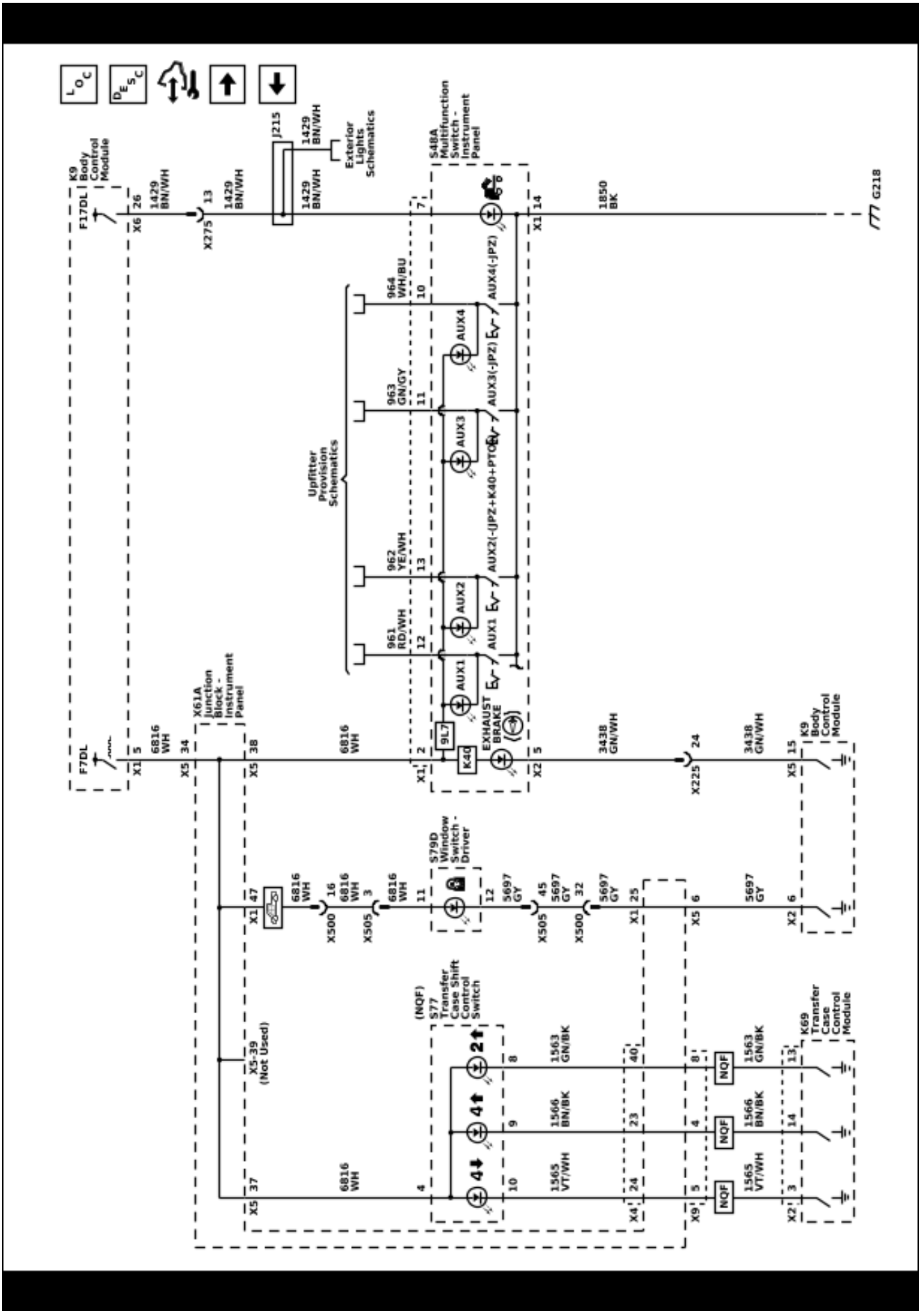
Interior Lights Dimming Schematics (Backlight - Overhead Lamps)



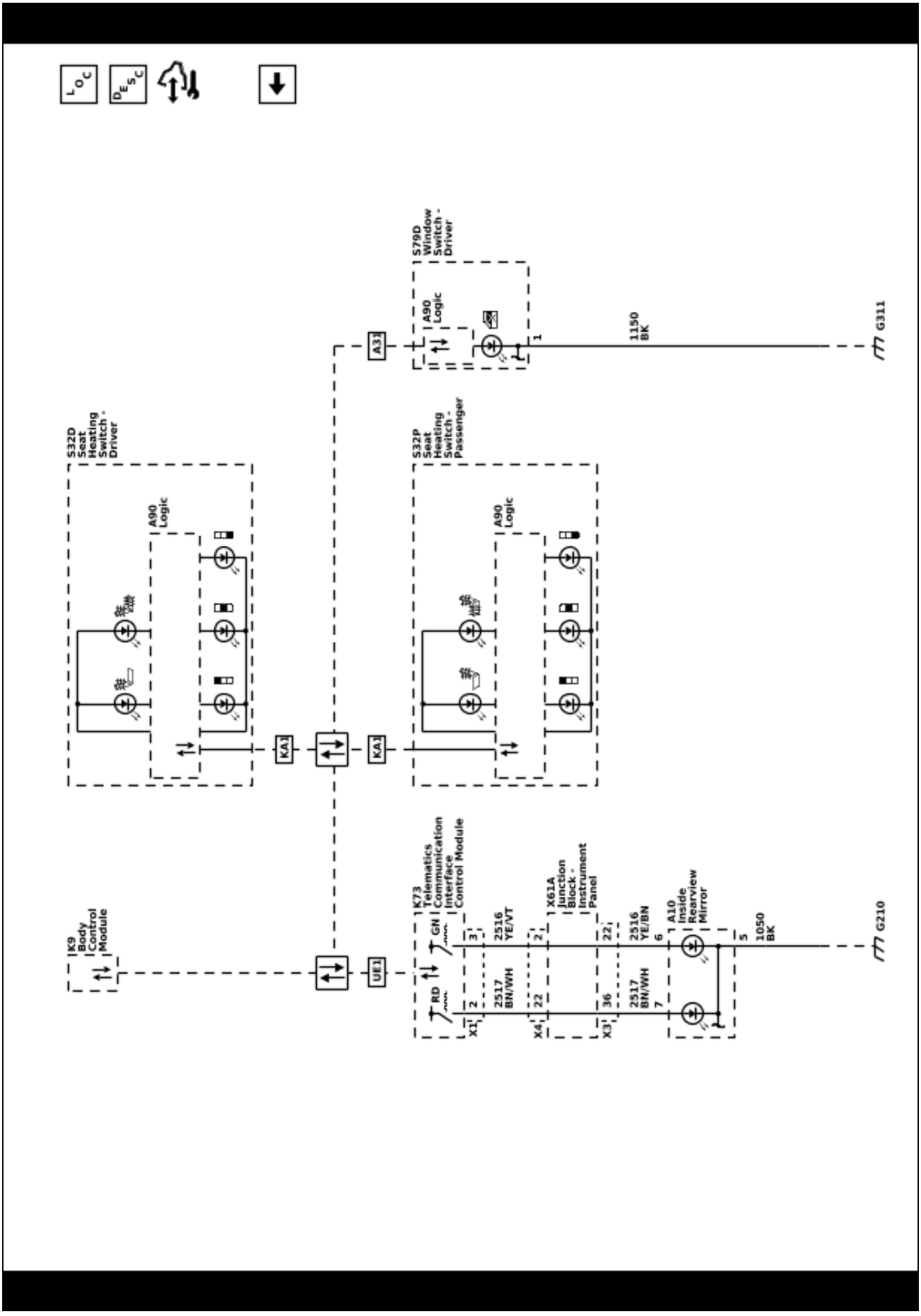
Interior Lights Dimming Schematics (Backlight - Doors)



Interior Lights Dimming Schematics (Indicators - Discrete)



Interior Lights Dimming Schematics (Indicators - Serial Data)



Description and Operation

Exterior Lighting Systems Description and Operation

The exterior lighting system consist of the following lamps:

- Backup lamps
- Front fog lamps
- Hazard warning lamps
- Headlamps
- Park, tail, license, and marker lamps
- Stop lamps
- Turn signal lamps
- Trailer lighting

Low Beam Headlamps

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch is placed in the ON position, for normal operation
- When the headlamp switch is placed in the AUTO position, for automatic lamp control
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

The BCM will also command the low beam headlamps ON during daylight conditions when the following conditions are met:

- Headlamp switch in the AUTO position
- Windshield wipers ON
- Vehicle in any gear but PARK

When the BCM commands the low beam headlamps ON, the vehicle operator will notice the interior backlighting for the instrument cluster and the various switches with backlighting control will dim to the level of brightness selected by the instrument panel dimmer switch.

The body control module (BCM) monitors three signal circuits from the headlamp switch. When the headlamp switch is in the AUTO position, all three signal circuits are open. When placed in the AUTO position, the BCM monitors inputs from the ambient light sensor to determine if headlamps are required or if daytime running lamps will be activated based on outside lighting conditions. When the headlamp switch is placed in the OFF position, the headlamp switch headlamps OFF signal circuit is grounded, indicating to the BCM that the exterior lamps should be turned OFF. With the headlamp switch in the PARK position, the headlamp switch park lamps ON signal circuit is grounded, indicating that the park lamps have been requested. When the headlamp switch is placed in the HEADLAMP position, both the headlamp switch park lamps ON signal circuit and the headlamp switch headlamps ON signal circuit are grounded. The BCM responds to the inputs by illuminating the park lamps and headlamps. When the low beam headlamps are requested, the BCM applies B+ to both low beam headlamp control circuits illuminating the low beam headlamps.

High Beam Headlamps

When the low beam headlamps are ON and the turn signal/multifunction switch is placed in the high beam position, ground is applied to the BCM through the high beam signal circuit. The BCM responds to the high beam request by applying ground to the high beam relay control circuit which energizes the high beam relay. With the high beam relay energized, the switch contacts close allowing battery voltage to flow through the 3 pin high beam fuse to the high beam control circuits illuminating the left and right high beam headlamps.

Flash to Pass

When the turn signal/multifunction switch is momentarily placed in the flash to pass position, ground is applied to the turn signal/multifunction switch. The turn signal/multifunction switch applies ground to the body control module (BCM) through the flash to pass switch signal circuit. The BCM responds to the flash to pass request by applying ground to the high beam relay control circuit. This energizes the high beam relay, closing the switch side contacts of the high beam relay, applying battery voltage to the 3 pin high beam fuse. Battery voltage is applied from the high beam fuse through the high beam control circuit to the high beam headlamp assemblies. This causes the high beam headlamps to illuminate at full brightness momentarily.

Front Fog Lamps

The front fog lamp relay is supplied with battery voltage at all times. The front fog lamp switch signal circuit is grounded momentarily by pressing the front fog lamp switch. The body control module (BCM) energizes the front fog lamp relay by applying ground to the front fog lamp relay control circuit. When the front fog lamp relay is energized, the relay switch contacts close and battery voltage is applied through the front fog lamp fuse to the front fog lamp supply voltage circuit which illuminates the front fog lamps.

Hazard Lamps

The hazard flashers may be activated in any power mode. The hazard switch signal circuit is momentarily grounded when the hazard switch is pressed. The body control module (BCM) responds to the hazard switch signal input by supplying battery voltage to all four turn signal lamps in an ON and OFF duty cycle. When the hazard switch is activated, the BCM sends a serial data message to the instrument panel cluster requesting both turn signal indicators to be cycled ON and OFF.

The instrument panel dimmer switch controls the brightness of the interior backlighting components. When the instrument panel dimmer switch is placed in a desired brightness position, the body control module (BCM) receives a signal from the instrument panel dimmer switch and responds by applying a pulse width modulated voltage to the hazard switch light emitting diode (LED) backlighting control circuit illuminating the LED to the desired level of brightness.

Park, Tail, and License Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, and license lamps control circuits illuminating the park, tail, and license lamps.

Stop Lamps

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the left and right stop lamp control circuits as well as the center high mounted stop lamp control circuit illuminating the left and right stop lamps and the center high mounted stop lamp.

Turn Signal Lamps

Ground is applied at all times to the turn signal/ multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the front and rear turn signal lamps through there respective control circuits. When a turn signal request is received by the BCM, a serial data message is sent to the instrument cluster requesting the respective turn signal indicator be pulsed ON and OFF.

Backup Lamps

Automatic Transmission

With the engine ON and the transmission in the REVERSE position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the REVERSE position. The BCM applies battery voltage to the backup lamps control circuit illuminating the backup lamps. Once the driver moves the gear selector out of the REVERSE position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamps control circuit. The engine must be ON for the backup lamps to operate.

Trailer Lighting

Backup Lamps

For backup lamp operation, the backup lamp relay is supplied with battery voltage at all times. With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the reverse position. The BCM energizes the backup lamp relay by applying battery voltage to the backup lamp relay control circuit. When the backup lamp relay is energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuses to the backup lamp control circuits which illuminates the backup lamps. Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, license lamps, and trailer park lamps control circuits illuminating the park, tail, license, and trailer park lamps.

Stop Lamps

For stop lamp operation, the left and right trailer stop/ turn signal lamp relay's are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM energizes the left and right trailer stop/turn signal lamp relay's by applying voltage to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse's to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the left and right trailer stop/turn signal lamp relay control circuits energizing the relay's in an ON and OFF cycle. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left and right trailer stop/turn signal fuse's to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

Battery Run Down Protection/ Inadvertent Power

To provide battery run down protection, the exterior lamps will be deactivated automatically under certain conditions. The BCM monitors the state of the headlamp switch. If the park or headlamp switch is ON

when the ignition switch is placed in either the CRANK or RUN position and then placed in the OFF position, the BCM initiates a 10 minute timer. At the end of the 10 minutes, the BCM will turn off the control power output to the park lamp controls as well as the headlamp relay coils, deactivating the exterior lamps. This feature will be cancelled if any power mode other than OFF becomes active. The BCM will disable battery run down protection if any of the following conditions exist. The park or headlamp switch is placed in the ON to OFF position, and back to the ON position during battery run down protection. The BCM determined that the park or headlamp switch was not active when the ignition was turned OFF.

Interior Lighting Systems Description and Operation

Interior Lamps

The interior lighting system consist of two groups. This first group includes lamps that may not be dimmed.

- Dome lamps
- Center console compartment lamps
- Reading lamps
- Sunshade mirror lamps

Dome Lamps

The dome lamp switch has 3 positions: DOOR, OFF, and ON. The ON position provides a ground for continuous operation and the dome lamp will remain illuminated until the switch is placed in either the DOOR or OFF position. When in the DOOR position, the dome lamp operation is controlled by the body control module (BCM). When any door is opened, the door ajar switch contacts close and the BCM receives a door-open input. The BCM illuminates the dome lamp when any door is opened or a door lock/unlock request is activated with the key fob. After all doors have been closed, the dome lamp will remain illuminated approximately 3 seconds after the last door closes. When the driver places the dome lamp switch in the OFF position, the dome lamp will be disabled. In the event that the dome lamp were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position and no doors opened, the BCM will deactivate the dome lamp control circuit to prevent total battery discharge. The dome lamps will turn OFF using the theater dimming feature when controlled by the BCM.

Center Console Compartment Lamp

The inadvertent power supply voltage circuit from the BCM provides battery voltage to the center console compartment lamp. When the center console is opened, the center console compartment lamp switch contacts close providing a path to ground and the center console compartment lamp illuminates. If the operator inadvertently leaves the center console compartment door open with the center console compartment lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Reading Lamps

The inadvertent power supply voltage circuit from the BCM provides battery positive voltage to each reading lamp. When a reading lamp switch is activated, the switch contacts close providing a path to ground and the reading lamp illuminates. If the operator inadvertently leaves a reading lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Sunshade Mirror Lamps

The inadvertent power supply voltage circuit from the BCM provides battery voltage to each set of sunshade mirror lamps. When the sunshade mirror cover is opened, a switch closes providing ground and the sunshade lamps illuminate. If the operator inadvertently leaves a sunshade mirror cover open with the lamps ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Keyless Entry Interior Illumination

When the operator uses the keyless entry transmitter in order to unlock the doors, the BCM receives a door-unlock signal. The BCM must receive inputs from various systems that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all doors are closed before the BCM will activate the interior lamps. After all doors have been closed, the courtesy lamps will turn OFF immediately if the ignition switch is turned to the ON position, the door locks are LOCKED, or approximately 20 seconds after the last door closes. The BCM will turn off the courtesy lamps through the theater dimming feature. The BCM keeps the courtesy lamps on for 40 seconds after an alarm event is completed.

Interior Lamps Dimming

The second group includes lamps which may be dimmed. This group may use a combination of light emitting diodes (LED), incandescent lamps, and pulse width modulation (PWM) illumination.

- Dome/reading lamps – front
- Dome/reading lamps – rear
- Door lock switch – driver
- Door lock switch – passenger
- Headlamp switch
- HVAC control head assembly
- Multifunction switch – instrument panel
- Outside rearview mirror switch
- Park brake switch
- Radio
- Roof beacon switch
- Seat memory switch – driver
- Steering wheel control switch – left
- Steering wheel control switch – right
- Sun roof switch
- Sun roof tilt switch
- Transfer case shift control switch
- Trailer brake control switch

- Window switch – driver
- Window switch – passenger

With the headlamp switch in the PARK or HEAD position, the park lamp switch signal circuit provides an input to the body control module (BCM). The BCM responds by applying voltage to the park lamps as well as the backlight dimming control circuits illuminating all components with interior backlighting. All interior backlighting turns ON at the dimming level indicated by the instrument panel dimmer switch. The instrument panel dimmer switch is a momentary type switch and utilizes a resistor ladder to increase and decrease the brightness of the interior backlighting components. The instrument panel dimmer switch provides a voltage signal to the BCM that will increase as the brightness of the lights are increased and decrease as the brightness of the lights are decreased. The BCM provides a low reference signal and a B+ circuit to the instrument panel dimmer switch. When the instrument panel dimmer switch is held in the desired position, the dimmed voltage setting is applied from the instrument panel dimmer switch through the instrument panel dimmer switch signal circuit to the BCM. The BCM interprets the signal and applies a pulse width modulated voltage through the backlighting control circuits illuminating the interior backlighting to the requested level of brightness.

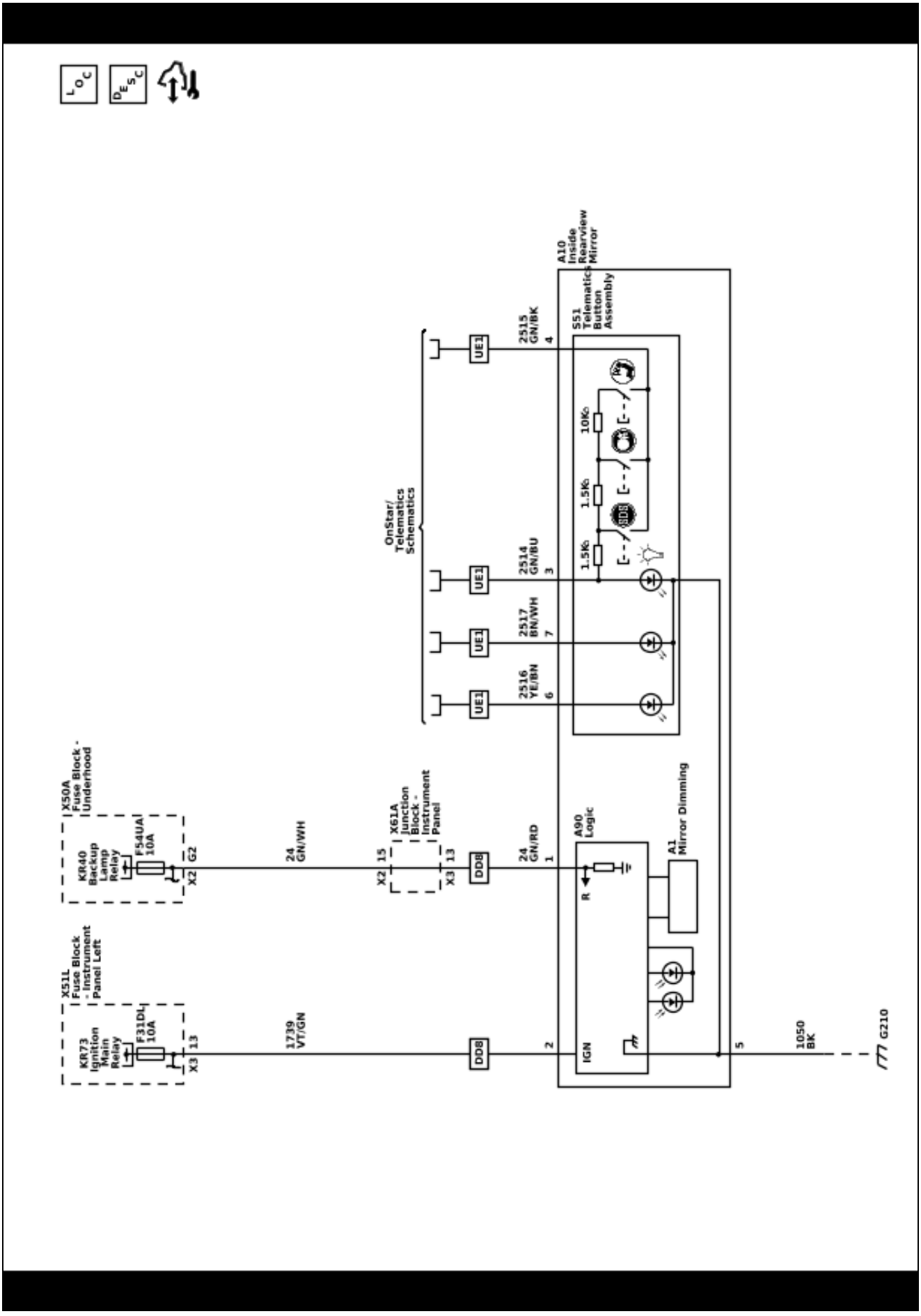
Battery Rundown Protection/ Inadvertent Power

The BCM inadvertent power supply voltage circuit provides battery voltage to all of the interior courtesy lamps. In the event that any of these lamps were to remain illuminated for a period of more than 10 minutes with the ignition switch in the OFF position, the BCM will deactivate the inadvertent power supply voltage circuit to prevent total battery discharge. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this 10 minute period, the timer resets for another 10 minutes.

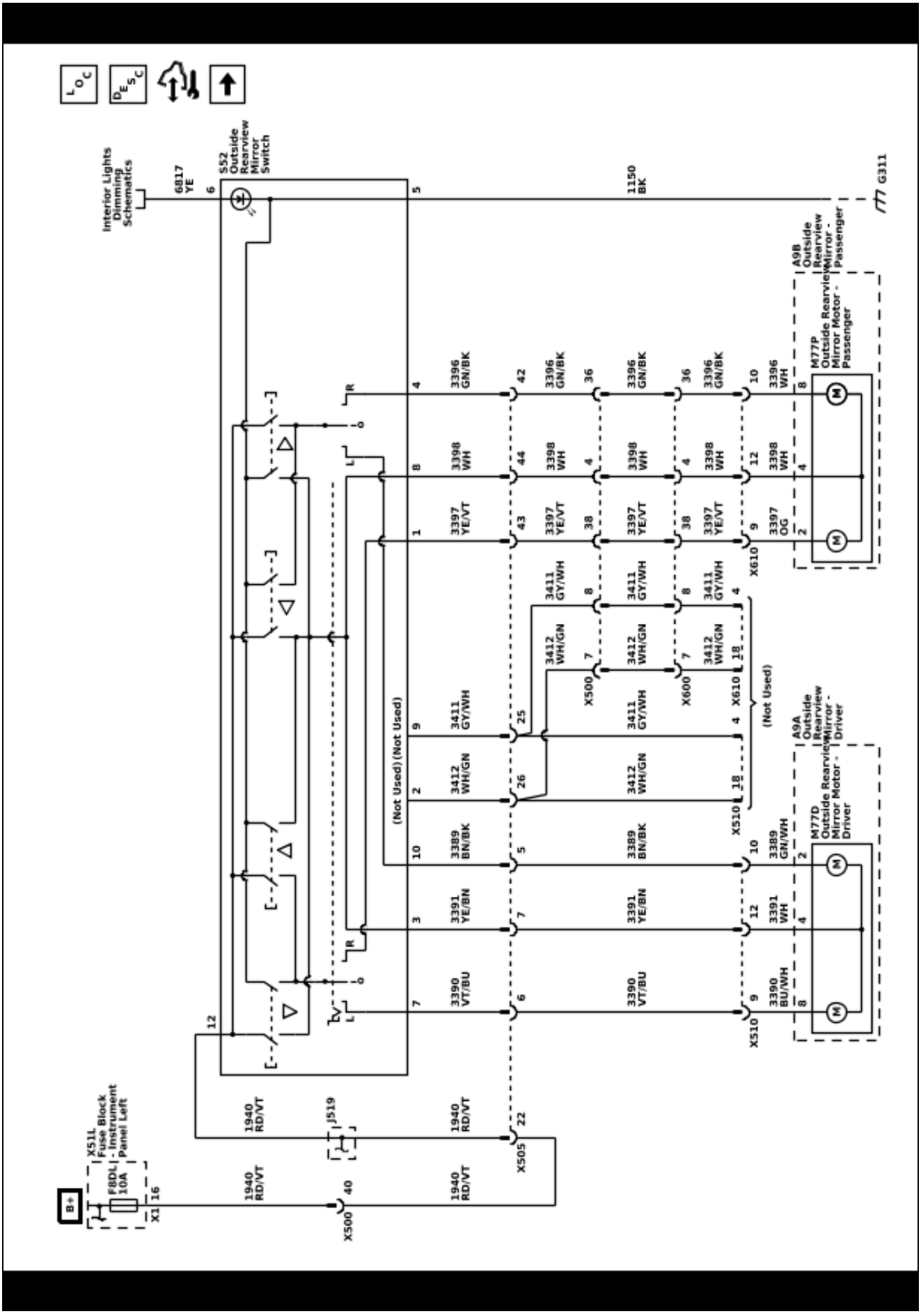
Mirrors

Schematic and Routing Diagrams

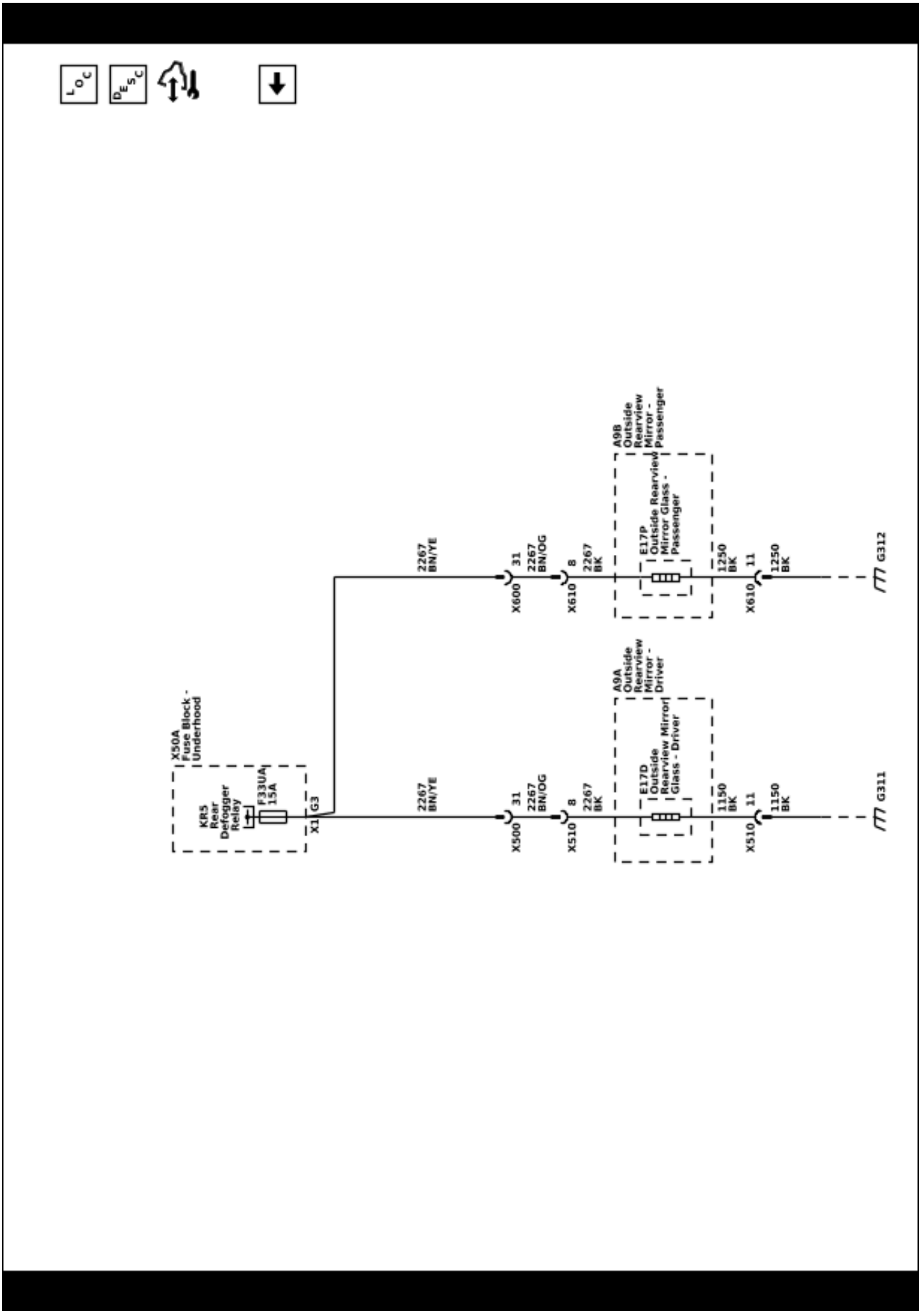
Inside Rearview Mirror Schematics (Inside Rearview Mirror (DD8/UE1))



Outside Rearview Mirror Schematics (Position (DPN))



Outside Rearview Mirror Schematics (Heating (DPN))



Description and Operation

Automatic Day-Night Mirror Description and Operation

Inside Rearview Mirror with the Automatic Day-Night Feature System Operation

The inside rearview mirror uses 2 photocell sensors. One sensor is the headlight sensor, located on the face side of the mirror. The headlight sensor is used to determine light conditions present at the mirror face. The other sensor is the ambient light sensor, located on the rear of the mirror or windshield side. The ambient light sensor is used to determine the exterior light conditions. With a low exterior light condition detected, and a high light condition from behind the car, at the headlight sensor, the inside rearview mirror will automatically darken the face of the mirror.

In the daytime, the mirror is in a normal state because of the high exterior light condition that is indicated by the ambient light sensor. With the gear selector lever in the REVERSE position and the engine running, backup lamp supply voltage is supplied as an input to the inside rearview mirror. The mirror monitors this input to disable the automatic day-night feature. This allows the driver to see objects in the mirror clearly when backing up, even during the night.

Driver Outside Rearview Mirror with Automatic Day-Night System Operation (If Equipped)

The automatic day-night feature of the driver outside rearview mirror is controlled by the inside rearview mirror. The inside rearview mirror supplies control and low reference to the driver outside rearview mirror. At night, with the automatic day-night feature enabled, the driver outside rearview mirror will automatically darken with the inside rearview mirror to reduce glare from headlamps behind the vehicle.

Outside Mirror Description and Operation

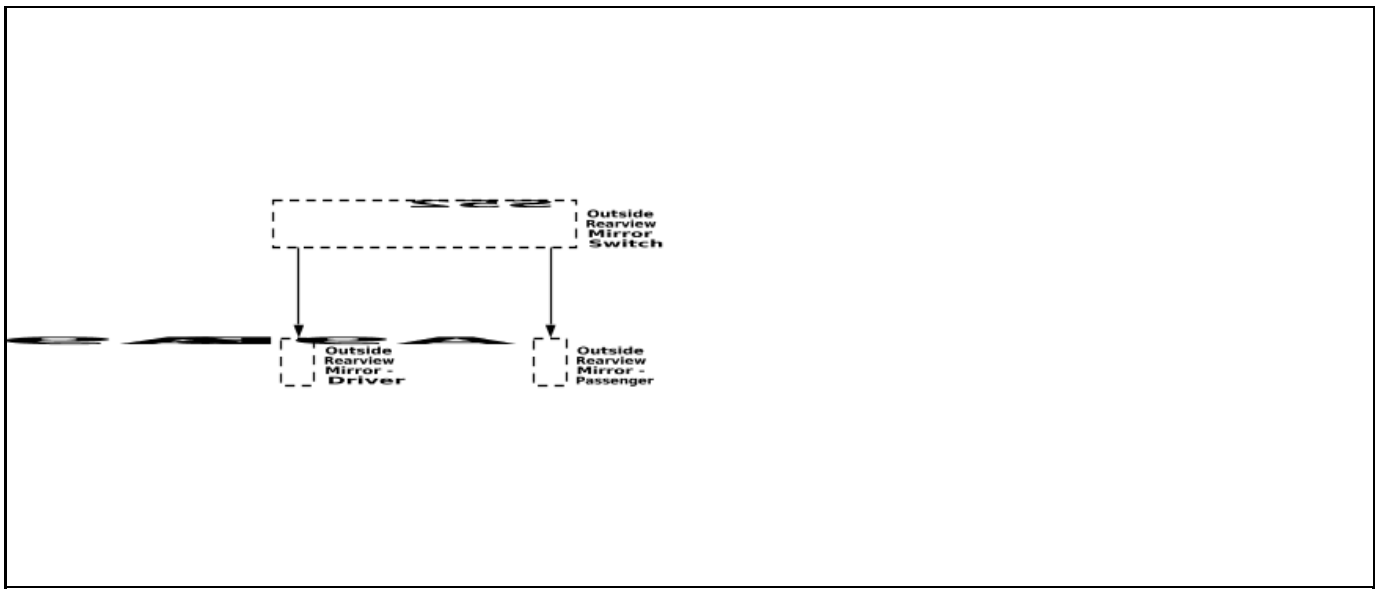
Power Mirror System Components

The power mirror system consists of the following components:

- Mirror direction switch — Controls the left, right, up and down movements of the mirrors
- Mirror select switch — Allows the operator to select the mirror to be moved
- Left outside mirror — Contains both the horizontal and vertical mirror motors
- Right outside mirror — Contains both the horizontal and vertical mirror motors

Each of the outside power mirrors contains 2 motors. The up-down motor operates the vertical directions and the left-right motor operates the horizontal directions. Each of the power mirror motors are internally circuit breaker protected.

Power Mirrors Without A45 Block Diagram



3270441

Power Mirror System Controls

The outside mirror switch incorporates a mirror select switch and a 4 position mirror direction switch.

The mirror select switch allows the driver to select the mirror to be moved by turning the switch to L position enabling the left outside mirror or turning the switch to R position enabling the right outside mirror.

The mirror direction switch is a 4 position switch that allows the operator to move the selected mirror up, down, left or right.

Power Mirror System Operation

The outside mirror switch receives power through the battery positive voltage circuit from the underhood fuse block. The outside mirror switch also receives a constant ground.

The 4 positions of the direction switch have multiple switch contacts. When not in use, the directional contacts are isolated from any circuit. Each of the contacts are connected to opposing sides of the appropriate mirror motors through the selector switch. The selector switch interrupts or completes these circuits depending on the position of the selector switch, L or R.

If the mirror select switch is placed in the L position and the up switch is pressed, battery voltage will be supplied to the driver outside mirror vertical motor through the driver mirror motor up control circuit and return to the mirror switch through the driver mirror motor left/down control circuit, then to ground and the mirror will move up. If the down switch is pressed, the driver mirror motor left/down control circuit supplies battery voltage and the driver mirror motor up control circuit completes the path to the mirror switch, then to ground and the mirror will move down.

The remainder of the mirror functions operate in the same manner as described above. Placing the mirror control switch in opposing positions, left/right or up/down, will reverse the voltage polarity to the mirror motor, utilizing the same circuits and the mirror will move accordingly.

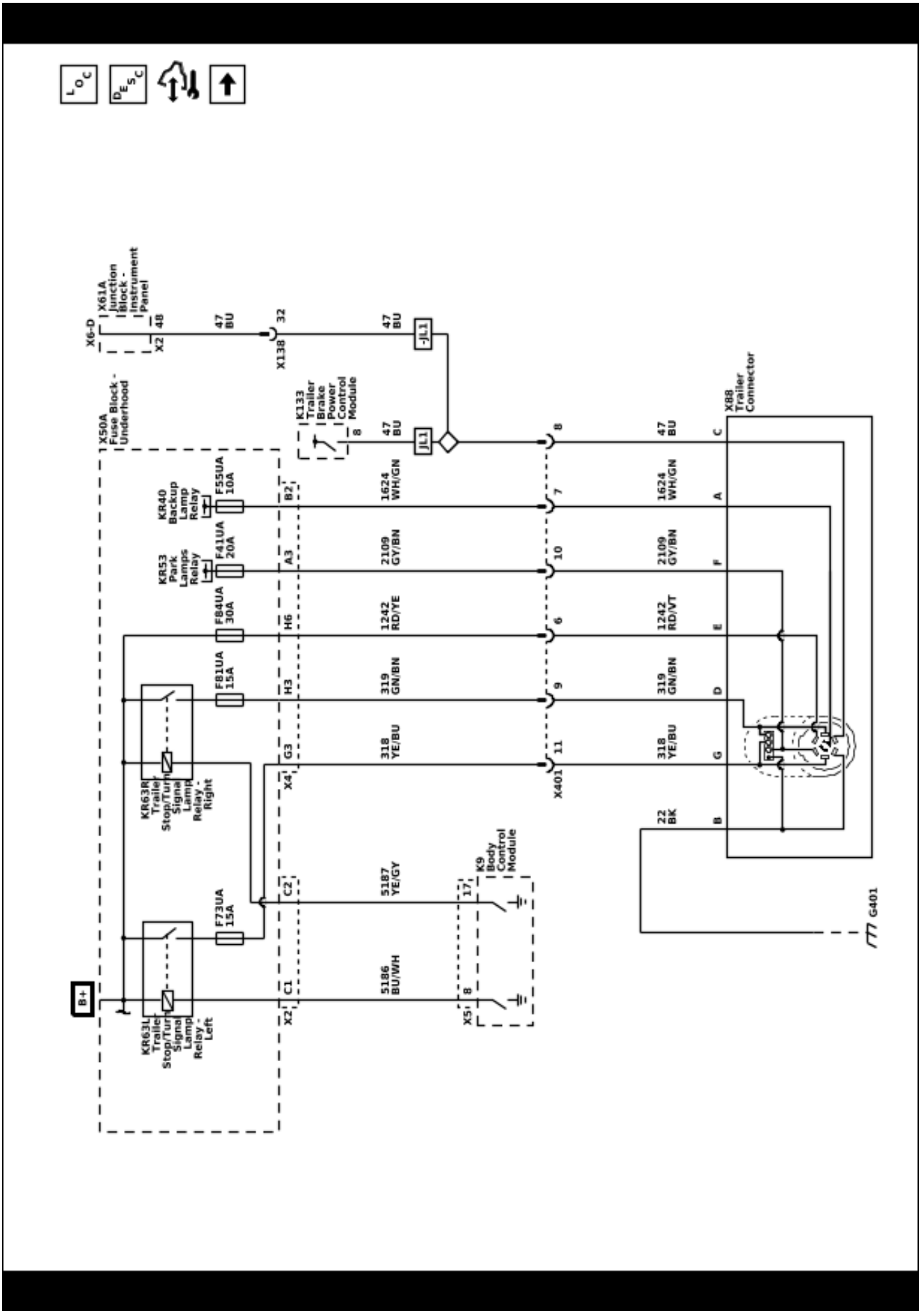
Heated Mirrors

The heated mirrors are controlled through the rear defog relay. Whenever the rear window defogger is turned ON, battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

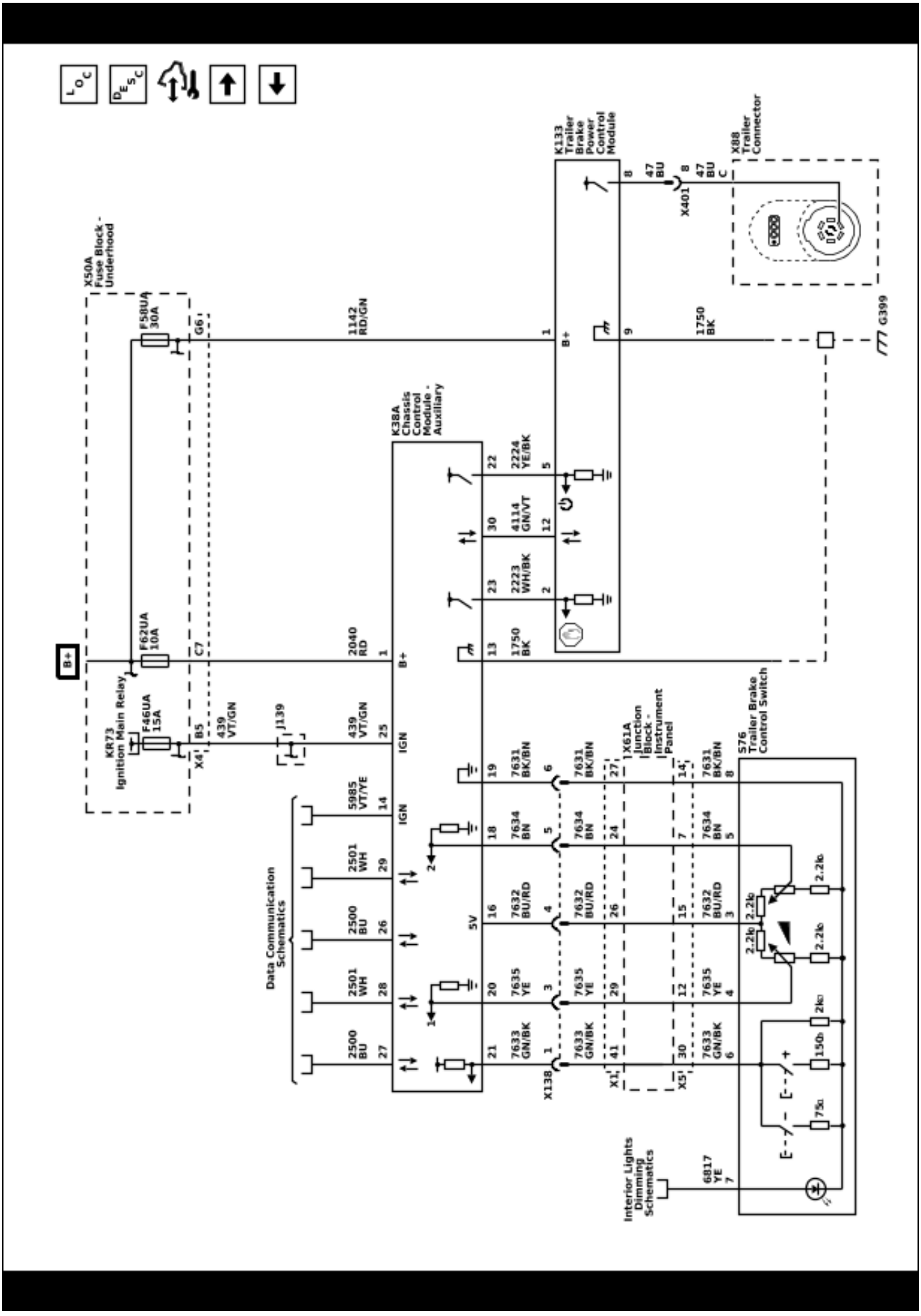
Trailering Systems

Schematic and Routing Diagrams

Trailering Systems Schematics (Trailer Connector (UY7))

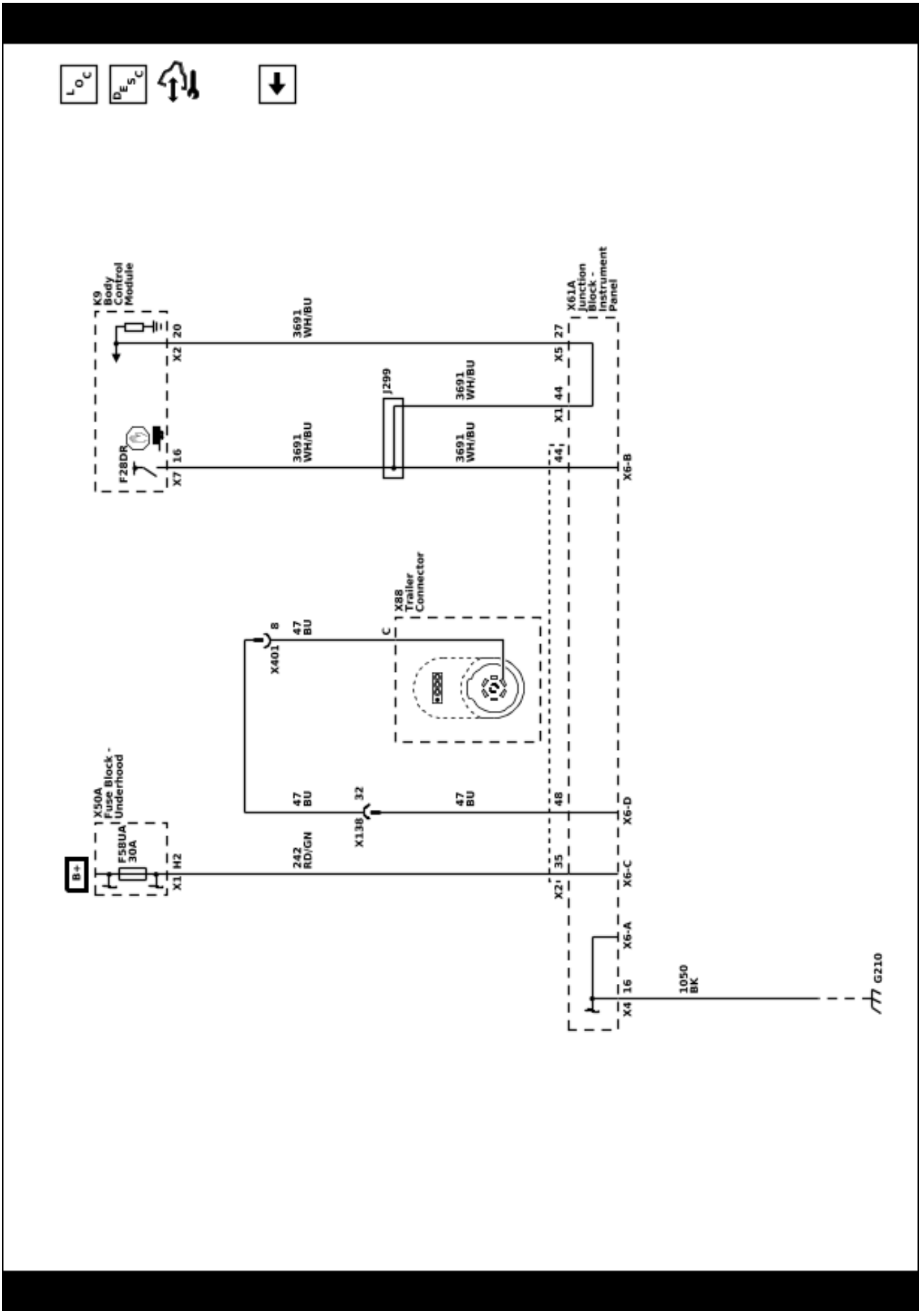


Trailering Systems Schematics (Trailer Brake (JL1))



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Trailering Systems Schematics (Trailer Brake Provisions (UY7-JL1))



Description and Operation
Trailering Description and Operation

Trailer Lighting

The K9 Body Control Module (BCM) is responsible for all trailer lighting. Anytime the BCM commands an exterior lighting system on, the BCM will also command the same trailer lighting system on regardless if a trailer is connected or not.

Backup Lamps

For trailer backup lamp operation, the trailer backup lamps relay is supplied with battery voltage at all times. With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the reverse position. The BCM responds to the backup lamp request by energizing the trailer backup lamps relay by applying battery voltage to the trailer backup lamps relay control circuit. When the trailer backup lamps relay is energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuse to the trailer backup lamps control circuit which illuminates the trailer backup lamps. Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the trailer backup lamps relay control circuit.

Park Lamps

For trailer park lamp operation, the trailer park lamps relay is supplied with battery voltage at all times. When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds to the park lamp request by energizing the park lamps relay by applying ground to the trailer park lamps relay control circuit. When the trailer park lamps relay is energized, the relay switch contacts close and battery voltage is applied through the trailer parks lamp fuse to the trailer park lamp control circuit which illuminates the trailer park lamps.

Stop Lamps

For trailer stop lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM energizes the left and right trailer stop/turn signal lamp relay's by applying ground to the left and right trailer stop/turn signal lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse's to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

Turn Signal Lamps

For trailer turn signal lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying pulsating ground to the left and right trailer stop/turn signal lamp relay control circuits energizing the relay's in an ON and OFF cycle. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left and right trailer stop/turn signal fuse's to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

Trailer Battery Charging System

Trailer battery charging is accomplished through constant battery voltage from the X50A Fuse Block – Underhood to the X88 Trailer Connector. Battery voltage is supplied to terminal E at the X88 Trailer Connector at all times. If equipped, the trailer battery will constantly be charged by the vehicle's electrical system anytime the trailer is connected. Some trailers require the B+ circuit to the X88 Trailer Connector for the trailer brakes to function.

Trailer Brakes (JL1)

The vehicle is equipped with the following trailer braking components:

- K38A Chassis Control Module-Auxiliary
- K133 Trailer Brake Power Control Module
- S76 Trailer Brake Control Switch
- Manual Trailer Brake Apply
- Trailer Gain Adjustment
- Trailer Brake Driver Information Center Display

A trailer brake control system is used to control the amount of trailer braking power that is made available to trailers with brakes that require a controlled electrical output signal for actuation.

The power output to the trailer brakes is based on both the amount of braking being applied by the vehicle's brake system and on the type of trailer brakes detected.

The Trailer Brake Control System is compatible with two types of Trailer Brake Systems as listed below:

1. **Electric Brakes** A controlled electrical output signal energizes an electric-magnet/lever arm assembly that directly actuates the brake mechanism. The GDS name for this system is "Electromagnetic Brakes".
2. **Electric Over Hydraulic Brakes** A controlled electrical output signal energizes a remote, trailer mounted hydraulic pump to build brake pressure in a closed hydraulic system on the trailer. The hydraulic fluid pressure actuates the brake mechanism. The GDS name for this system is "Electrohydraulic Brakes".

Trailer Brake Output Versus Trailer Brake Type

- The trailer brake system characterizes the trailer brakes as either Electric Brake or Electric Over Hydraulic Brake automatically. This characterization may be affected by the number, type, and age of the trailer brake magnets, as well as any other devices installed on the trailer brakes (i.e. adapters for Electric Over Hydraulic brake functionality).
- The trailer brake system is fully operational with either characterization.
- Sliding the manual trailer brake apply lever will produce output at zero speed for either characterization.
- The vehicle must be in motion for trailer brake output when using the brake pedal of the vehicle to apply the trailer brakes.

The user gain allows the driver to adjust the amount of trailer brake output to match the trailer load and road surface. The controller determines the desired trailer brake output and provides a control signal to the K133 Trailer Brake Power Control Module. The K133 Trailer Brake Power Control Module amplifies the signal and provides the output required to activate the Electric or Electric Over Hydraulic trailer brakes.

The trailer brake control can support up to a maximum of four axles with electric trailer brakes (8 brake magnets).

Connecting a trailer that is not compatible with the trailer brake system may result in reduced or complete loss of trailer braking. There may be an increase in stopping distance or trailer instability which could result in personal injury or damage to the vehicle, trailer or other property. An aftermarket controller may be available for use with incompatible trailer brake systems.

To determine the type of brakes on your trailer and the availability of controllers, check with your trailer manufacturer or dealer. Do not power up an aftermarket controller with the factory brake controller at the same time.

Chassis Control Module-Auxiliary

The K38A Chassis Control Module-Auxiliary is a serviceable GMLAN module. The chassis control module sends the low power commanded duty cycle signal to the trailer brake power control module. The trailer brake power control module amplifies the signal and provides an output that is required to drive the trailer brakes.

Trailer Brake Power Control Module

The K133 Trailer Brake Power Control Module (TBPM) is a solid state power switching module that supplies power to the trailer brakes at the input command duty cycle. Diagnostic messages are sent from the TBPM to the CCM on a dedicated LIN bus.

Trailer Brake Control Switch

The S76 Trailer Brake Control Switch contains the trailer gain and manual apply switches. It is located on the instrument panel to the left of the steering column. Refer to the instrument panel overview for more information on the location. The control panel and switches allows you to adjust the amount of output, referred to as trailer gain, available to the Electric or Electric Over Hydraulic brakes. It also allows you to manually apply the trailer brakes. The Trailer Brake Control Switch and switches are used along with the trailer brake display page on the driver information center to adjust and display power output to the trailer brakes.

Manual Trailer Brake Apply

The manual trailer brake apply lever is located on the S76 Trailer Brake Control Switch and is used to apply the trailer's Electric or Electric Over Hydraulic brakes independent of the vehicle's brakes. This lever is used in the trailer gain adjustment procedure to properly adjust the power output to the trailer brakes.

Sliding the lever will apply only the trailer brakes. The power output to the trailer is indicated in the trailer brake display page in the Driver Information Center (DIC). If the vehicle's service brakes are applied while using the manual trailer brake apply lever, the trailer output power will be the greater of the two.

The trailer and the vehicle's brake lamps will come on when either the vehicle's braking or manual trailer brakes are applied.

Trailer Gain Adjustment

Trailer gain should be set for a specific trailering condition and must be adjusted any time vehicle loading, trailer loading or road surface conditions change. It is important to re-adjust trailer gain any time the tow vehicle, trailer loading or road surface conditions change or if you notice trailer wheel lock-up at any time while you are towing.

Setting the trailer gain properly is needed for the best trailer stopping performance. A trailer that is over-gained may result in locked trailer brakes. A trailer that is under-gained may result in not enough trailer braking. Both of these conditions may result in poor stopping and stability of the vehicle and trailer.

Trailer Gain Adjustment Procedure

- Adjust trailer gain in 0.5 step increments up to 10 gain setting by using the gain adjustment +/− buttons on the Trailer Brake Control Switch switch. Pressing and holding a gain button will cause the trailer gain to continuously increment or decrement. To turn the output to the trailer off, set the gain to zero.
- Drive the tow vehicle and trailer combination on a level surface representative of the towing condition and free of traffic at approximately 32–40 km/h (20–25 mph) and fully apply the manual trailer brake apply lever mechanism located on the Trailer Brake Control Switch switch. Adjusting the trailer gain at slower speeds may result in an incorrect gain setting.
- Adjust the trailer gain to just below the threshold of trailer wheel lock-up . Trailer wheel lock-up may not occur if towing a heavily loaded trailer. In this case, adjust the trailer gain to the highest allowable setting for the towing condition.

Hill Start Assist

The hill start assist allows the driver to launch the vehicle without a roll back when the driver is moving their foot from the brake pedal to the accelerator pedal.

Refer to the hill start assist system in the anti-lock brake system description and operation document for more information.

Trailer Sway Control

The trailer sway control can detect the vehicle yaw instability, caused by an attached trailer. Refer to the trailer sway control system in the anti-lock brake system description and operation document for more information.

Trailer Gain and Output Display

This display menu can be accessed by scrolling through the DIC menu, or any time the trailer gain +/− button is depressed, or the manual trailer brake apply lever is actuated. The trailer output is displayed from 0 to full output and indicates the output power provided to the trailer brakes, relative to the gain setting.

After the electrical connection is made to a trailer equipped with electric brakes or electric over hydraulic brakes, the TRAILER CONNECTED message will be displayed momentarily on the DIC. The Trailer Brake Display Page can be selected on the DIC showing TRAILER GAIN and OUTPUT, after all vehicle related service messages are acknowledged by the driver. Depending on which instrument panel cluster is in the vehicle, the DIC may display dashed lines, a greyed out display, or it may be blank signifying a disconnected trailer or a trailer brake fault condition.

Trailer Brake Messages

The following indicators are used to inform the driver of several different conditions:

Trailer Connected

This message will be briefly displayed when a trailer with Electric or Electric Over Hydraulic brakes is first connected to the vehicle. This message will automatically turn off in about ten seconds. The driver can also acknowledge this message before it automatically turns off.

Check Trailer Wiring

This message will be displayed if:

- The system detects that a trailer with Electric or Electric Over Hydraulic brakes is connected to the vehicle and then the trailer harness becomes disconnected from the vehicle.
- The trailer connection is recognized initially and then a disconnect occurs while the vehicle is stationary. This message will automatically turn off in about thirty seconds. This message will also turn off if the driver acknowledges this message off or if the trailer harness is reconnected.
- A disconnect of the trailer wiring harness occurs while the vehicle is moving. The Check Trailer Wiring message will continue until the ignition is turned off. The message will also turn off if the driver acknowledges this message off or it the trailer harness is re-connected.
- There is an electrical fault in the wiring to the electric trailer brakes. The Check Trailer Wiring message will continue as long as there is an electrical fault in the trailer wiring. This message will also turn off if the driver acknowledges this message off.
- A poor connection at the 7–way connector may cause the Check Trailer Wiring message. Some aftermarket 7–way trailer side connector adapters or plugs may cause deformation or excessive wear to the vehicle's trailer terminals. It is recommended that you use an OEM or Pollak heavy duty 7–way trailer side connector adapter.

Service Trailer Brake System

This message will be displayed when there is a problem with the trailer brake control system. The trailer brake system may not be fully functional, or may not be functioning at all. The trailer brake system is designed to provide trailer braking, if possible, even when faults prevent it from being fully functional. This reduced functionality includes:

1. Providing trailer braking when the master cylinder pressure or brake pedal switch are faulted.
2. Providing trailer braking when hill start assist and trailer sway control communication is faulted.
3. Providing trailer braking when certain manual trailer brake apply lever faults are present.

These conditions should be repaired to allow the trailer brake system to be fully functional.

Trailering Diagnostic Tools

In some situations when diagnosing trailer lighting, or integrated trailer brakes, it may be necessary to connect the vehicle to a trailer to confirm proper operation. Performing this activity may prove difficult in the service environment since trailers are not often available for diagnostic use, may have existing electrical issues outside of the issues a technician is attempting to diagnose, or simply may be too unwieldily to connect for diagnosis.

With all this in mind, it may be helpful to build or create a tool that can be plugged into the vehicle's 7-way trailer connector and simulate a connected trailer. This tool would include park lamps, stop lamps, and a reverse lamp for lighting and trailer tire pressure monitoring diagnosis. It can be expanded to include trailer brake magnets to diagnose integrated trailer brake concerns. Also, an additional lamp can be included to diagnose the B+ circuit to the trailer.

Trailer issues are NOT covered under warranty, but these tools may be used to verify the vehicle is functioning properly and to help the customer understand and correct any trailer related issues if they so choose.

Available Trailer Presence Simulator Tool

Illustration	Tool Number/Description
 5166189	*EL-52641* Trailer Presence Simulator Tool

Simulated Trailer Lighting

Creating a tool to simulate a connected trailer can be used to diagnose issues with trailer lighting, trailer brake (if equipped), the Trailering App (if equipped), and trailer tire pressure monitoring system (if equipped).

If the vehicle is equipped with a K68 Trailer Lighting Control Module, the K68 Trailer Lighting Control Module monitors the current on the lighting circuits to determine a trailer has been connected. The K68 Trailer Lighting Control Module pulses current on the trailer lighting circuits every 10–15 s to monitor for a connected trailer. If a greater than 55mA draw is detected, the K68 Trailer Lighting Control Module recognizes this as a connected trailer. This will enable any trailer lighting controlled by the K68 Trailer Lighting Control Module. If the vehicle is also equipped with trailer tire pressure monitoring, the K68 Trailer Lighting Control Module will also use this trailer detection as a cue to enable the Trailering App and trailer tire pressure monitoring functions.

If the vehicle is not equipped with a K68 Trailer Lighting Control Module, the K9 Body Control Module controls the trailer lighting. The K9 Body Control Module does not actively monitor for a connected trailer. Instead, the K9 Body Control Module controls the trailer lights much like a parallel circuit with the vehicle lights.

Creating a Simulated Trailer Lighting Tool

Parts needed:

- 7-way RV trailer connector Qty: 1
- Combination trailer park/stop/turn lamp (greater than 55mA drawn when on) Qty: 2
- Reverse lamp Qty: 1
- 12 gauge wire and terminals/connectors Qty: As needed
- 18 gauge wire and terminals/connectors Qty: As needed
- Mounting board Qty: 1

1. Connect a 12 gauge wire to the ground terminal of the 7-way trailer connector and the ground circuit of each combination trailer park/stop/turn lamp and the reverse lamp in parallel.
2. Connect an 18 gauge wire between the park lamp terminal of the 7-way trailer connector and the park lamp circuit of each combination trailer park/stop/turn lamp in parallel.
3. Connect an 18 gauge wire between the left turn/stop lamp terminal of the 7-way trailer connector and the turn/stop lamp circuit of left trailer park/stop/turn lamp.
4. Connect an 18 gauge wire between the right turn/stop lamp terminal of the 7-way trailer connector and the turn/stop lamp circuit of right trailer park/stop/turn lamp.
5. Connect an 18 gauge wire between the reverse lamp terminal of the 7-way trailer connector and the reverse lamp.

   Note: A combination trailer lighting and trailer brake tool can be created on the same mounting board.
6. Mount the left combination trailer park/stop/turn lamp, right combination trailer park/stop/turn lamp, and reverse lamp to the mounting board.
7. Plug the 7-way RV trailer connector to the vehicle and verify functionality.

Simulated Trailer Brakes

Creating a tool to simulate trailer brakes can be used to diagnose trailer brake issues.

The trailer brake control system is compatible with two types of trailer brake systems: electromagnetic or electro-over hydraulic trailer brakes. The Brake System Control Module must determine which type of brakes the trailer is equipped with so the system can output correctly for the trailer's brake system. Because the Brake System Control Module has to determine the type of trailer brake system that is being used, it can be sensitive to a variety of trailer wiring issues.

The Trailer Brake Power Control Module continuously sends a test pulse out on the trailer brake control circuit (circuit 47) to determine if a trailer with trailer brakes has been connected. How the pulse reacts when a trailer is connected is how the Trailer Brake Power Control Module determines which type of braking system the trailer is equipped with.

Even after the system detects the trailer, Trailer Brake Power Control Module will continue to send this test pulse on the trailer brake control circuit, which now is monitoring both the truck and trailer circuitry. The trailer brake control circuit continues to be monitored for any faults so the driver can be notified of any issues that may occur within the truck or trailer, as well as, to determine when the trailer is disconnected from the truck.

Creating a Simulated Trailer Brake Tool

Parts needed:

- 7-way RV trailer connector Qty: 1
- Electric trailer brake magnets Qty: 2, 4, 6, or 8
- Reverse lamp Qty: 1
- Mounting board Qty: 1
- 12 gauge wire and terminals/connectors Qty: As needed

1. Connect a 12 gauge wire to the ground terminal of the 7-way trailer connector.
2. Connect a 12 gauge wire to the brake controller output terminal of the 7-way trailer connector.

Note: The trailer brake magnets must be connected in parallel. Connecting in series will create an excessive current draw and disable the trailer brake system.

3. Connect the trailer brake magnets to the 12 gauge wires from the 7-way trailer connector in parallel.

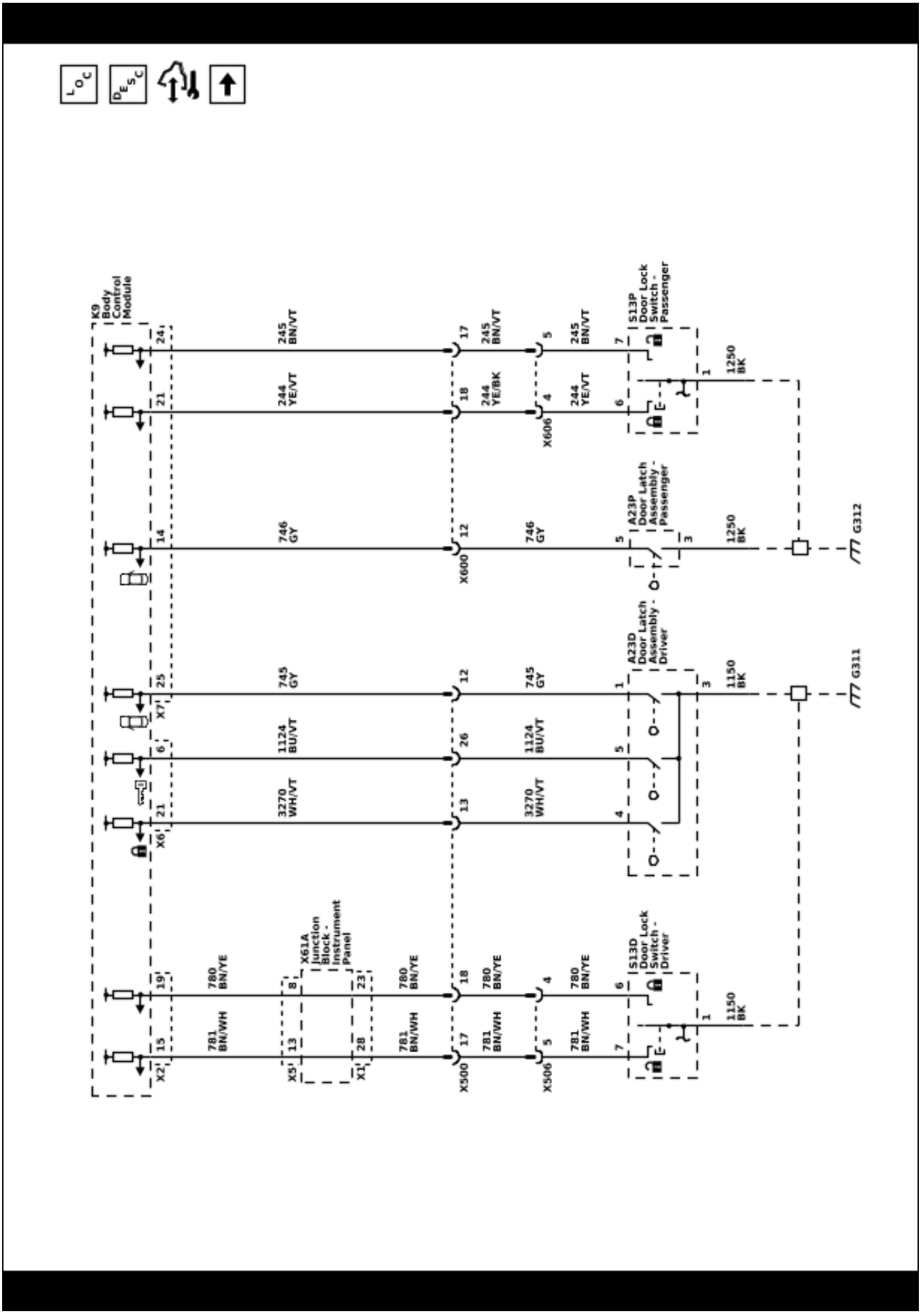
   Note: A combination trailer lighting and trailer brake tool can be created on the same mounting board.

4. Mount the trailer brake magnets to the mounting board.
5. Plug the 7-way RV trailer connector to the vehicle and verify functionality.

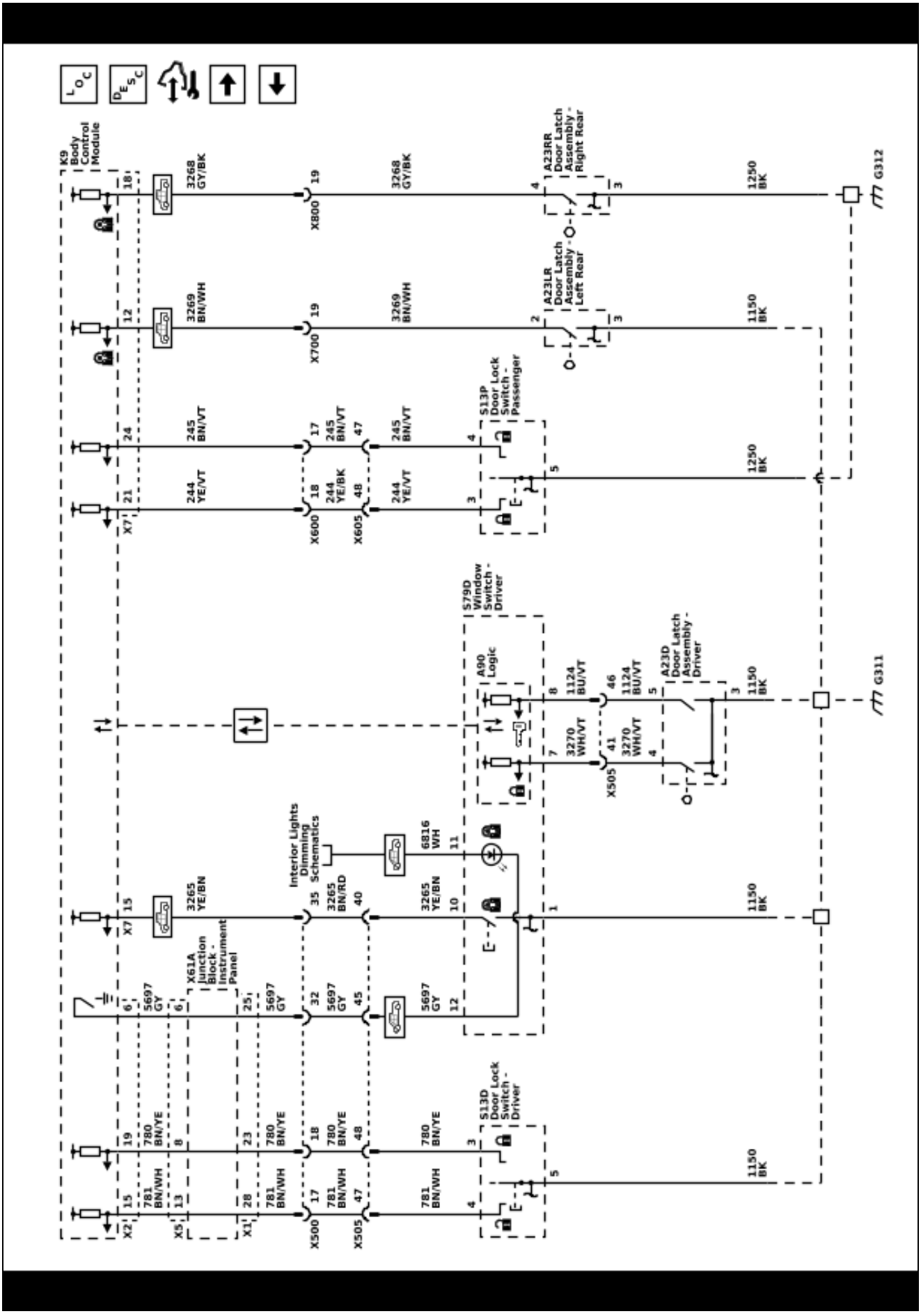
Vehicle Access

Schematic and Routing Diagrams

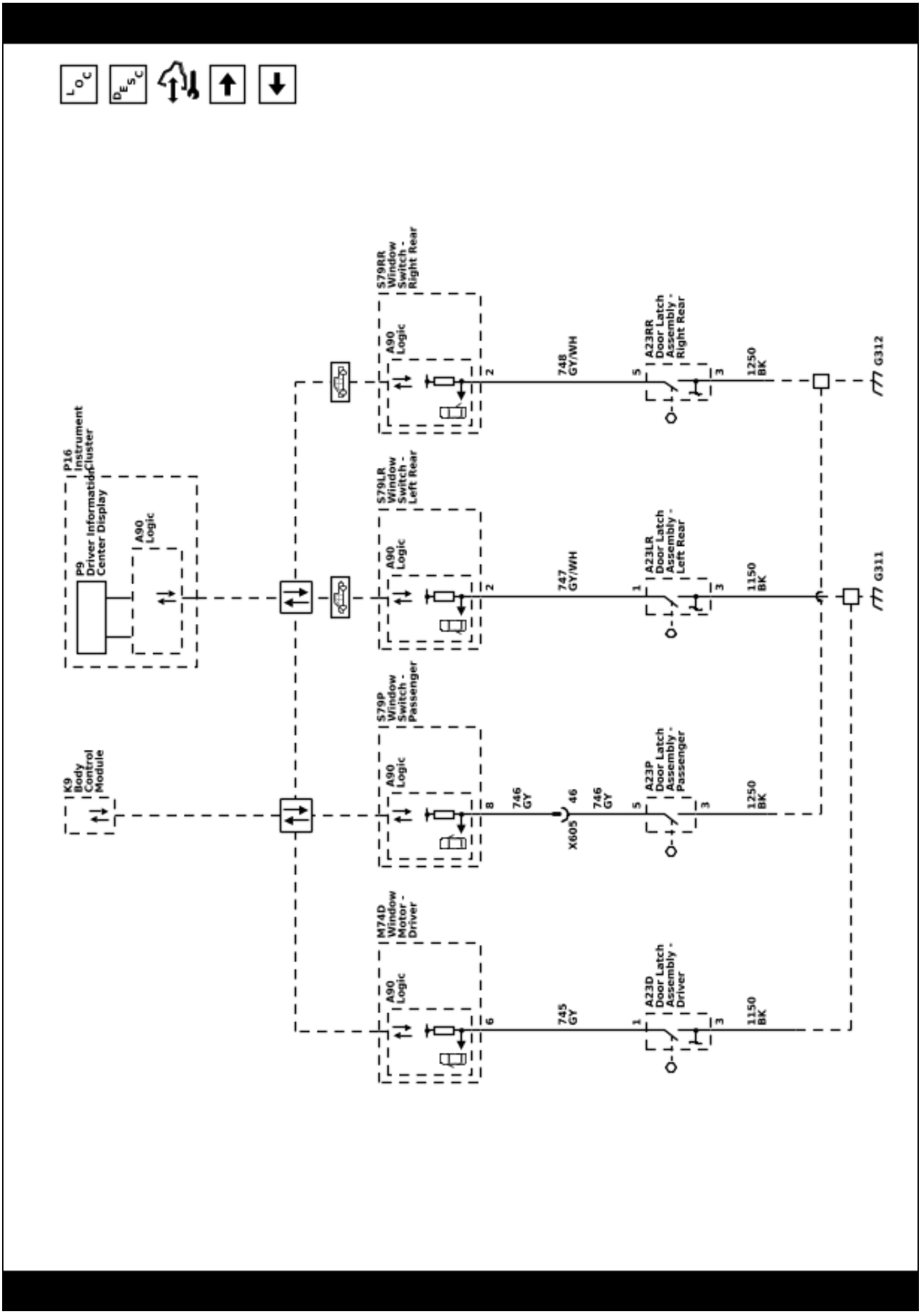
Door Lock/Indicator Schematics (Switches and Indicators (-A31))



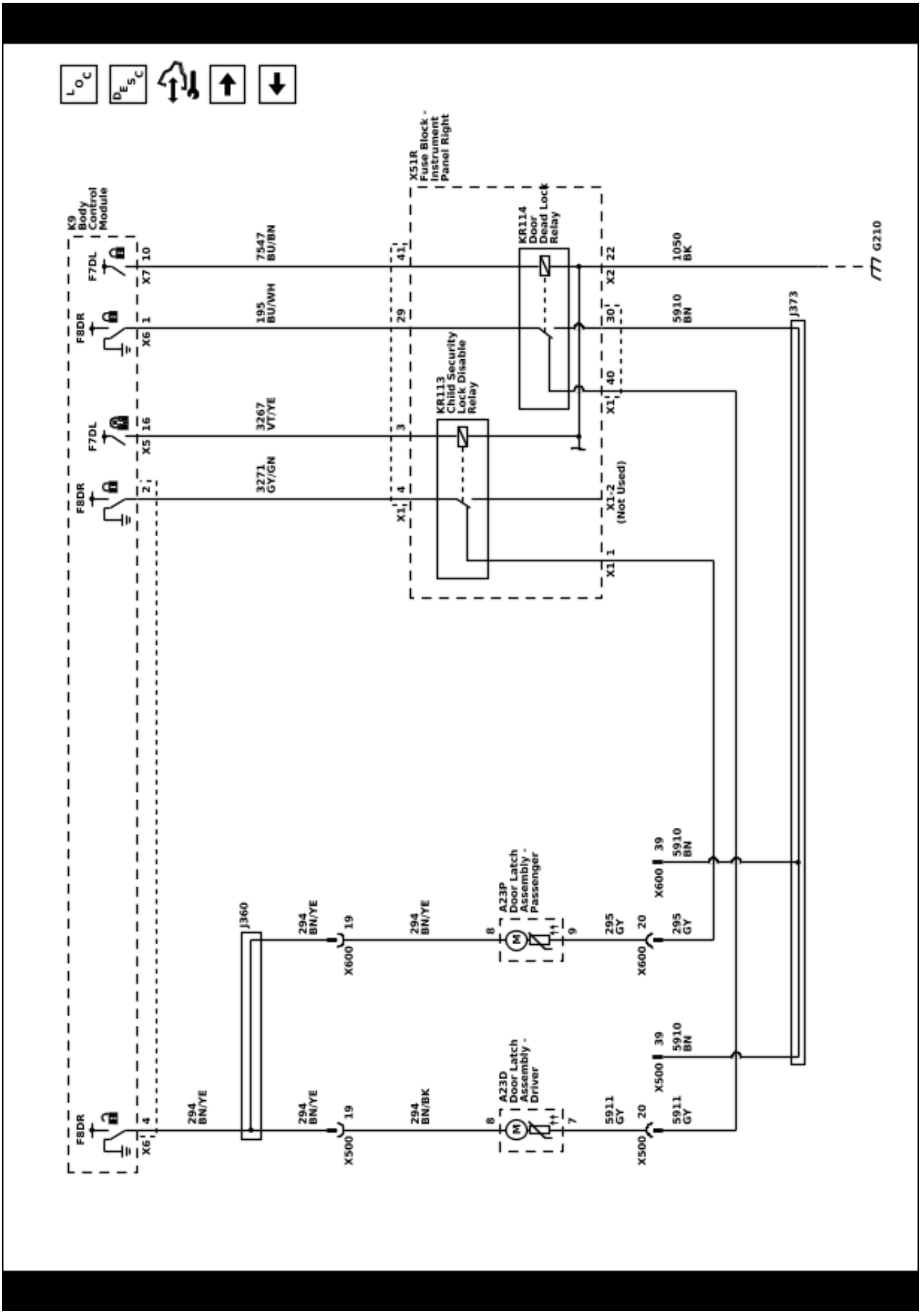
Door Lock/Indicator Schematics (Switches and Child Lock Status (A31))



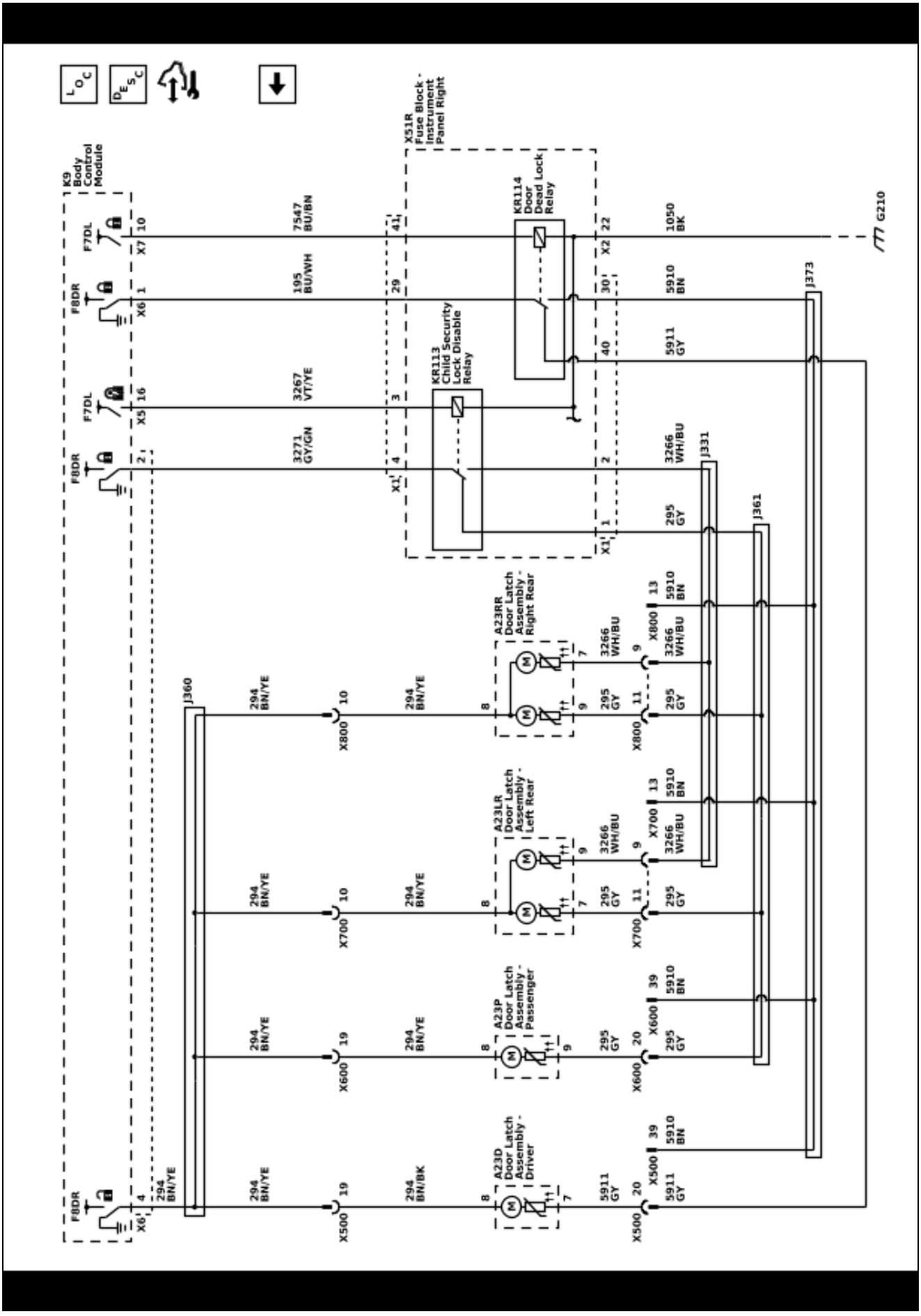
Door Lock/Indicator Schematics (Indicators (A31))



Door Lock/Indicator Schematics (Actuators (Standard Cab))

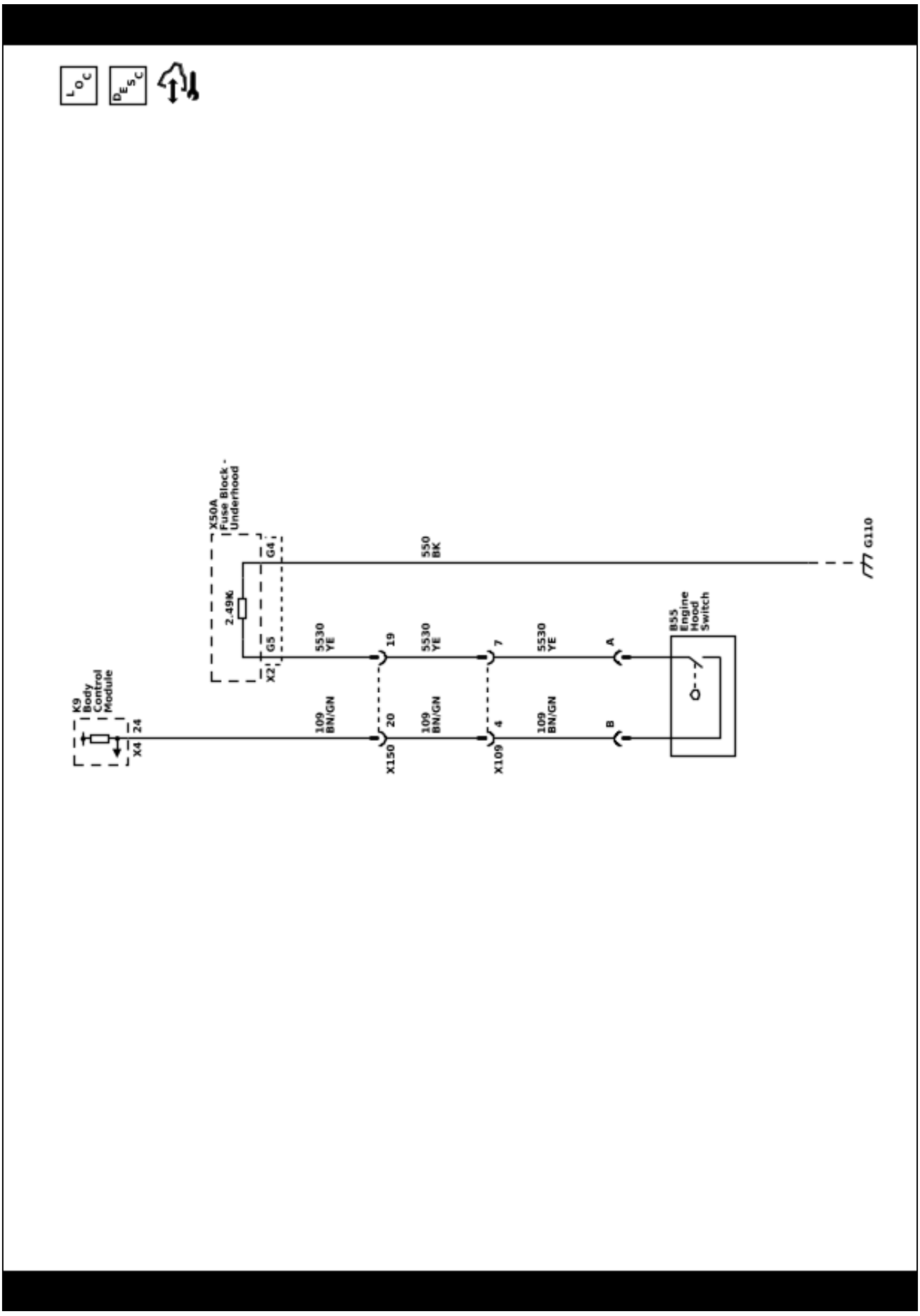


Door Lock/Indicator Schematics (Actuators (Crew Cab))



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Hood Latch Schematics (Hood Ajar Switch (BTV/PTO/UTJ))



Description and Operation

Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- Body control module
- Instrument cluster
- Driver door latch
- Passenger door latch
- Left rear door latch
- Right rear door latch
- Driver window motor (A31)
- Passenger window switch (A31)
- Left rear window switch (A31)
- Right rear window switch (A31)

Door Ajar System

Depending upon if the vehicle is a standard cab, extended cab or crew cab and/or is equipped with power windows or without power windows affects how the driver and passenger door ajar signal circuits are configured and monitored.

Driver Door Ajar (With A31)

The driver window motor will provide a 12V signal to the driver door ajar switch within the door latch to indicate the status of the door. When the driver door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The driver window motor will detect the voltage drop in the ajar signal circuit and will send a serial data message to the body control module. The body control module will then send a message to the instrument cluster which will illuminate the door ajar icon.

Passenger and Rear Doors Ajar (With A31)

The passenger and rear window switches provide a 12V signal to the respective door ajar switch within the door latch to indicate the status of the door. When the door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The window switch will detect the voltage drop in the ajar signal circuit and will send a serial data message to the body control module. The body control module will then send a message to the instrument cluster which will illuminate the door ajar icon.

Driver, Passenger and Rear Doors Ajar (Without A31)

The body control module provides a 12V signal to each door ajar switch within the door latch to indicate the status of the door. When the door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The body control module will detect the voltage drop in the ajar signal circuit and will send a message to the instrument cluster which will illuminate the door ajar icon

Hood Ajar Indicator Description and Operation

Hood Ajar Switch

The body control module (BCM) applies B+ to the hood ajar signal circuit and monitors the voltage to determine the position of the hood. When the hood is closed, the switch is open and voltage remains high. When the hood is open, the switch is closed and the voltage is pulled low.

The BCM uses the hood ajar switch as a content theft deterrent alarm trigger.

Hood Ajar Indicator/Message

When the hood is ajar, a message is displayed on the DIC or the hood ajar indicator will be illuminated.

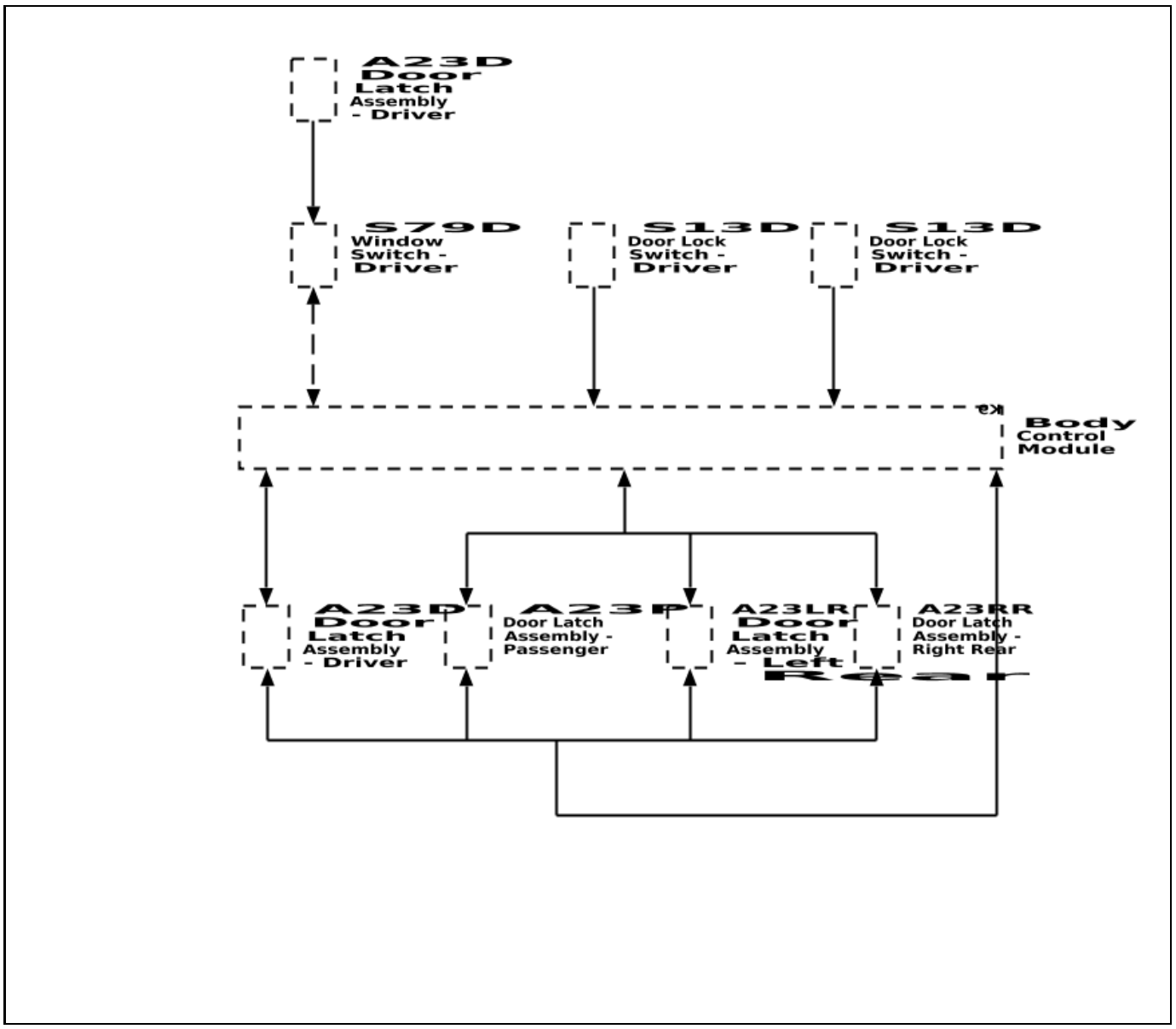
Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Child door lockout switch (Part of the driver window switch)
- Passenger door lock switch
- Front door lock actuators
- Rear door lock actuators (Extended and crew cab models)
- Body control module (BCM)
- Keyless entry control module
- Keyless entry transmitter
- Right instrument panel fuse block (Contains child security lock disable PCB relay)

Power Door Locks Block Diagram



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Door Lock System Controls

The power door lock system can be controlled by any of the following:

- A door lock switch LOCK or UNLOCK activation
- A keyless entry transmitter activation

Door Lock Operation

The BCM supplies a 12 volt signal to the lock and unlock signal circuits of the driver and passenger door lock switches. When the appropriate switch is pressed, a contact within the door lock switch closes providing a ground path for the signal circuit. The BCM will detect the voltage drop in the signal and will command the doors to perform the lock or unlock functions.

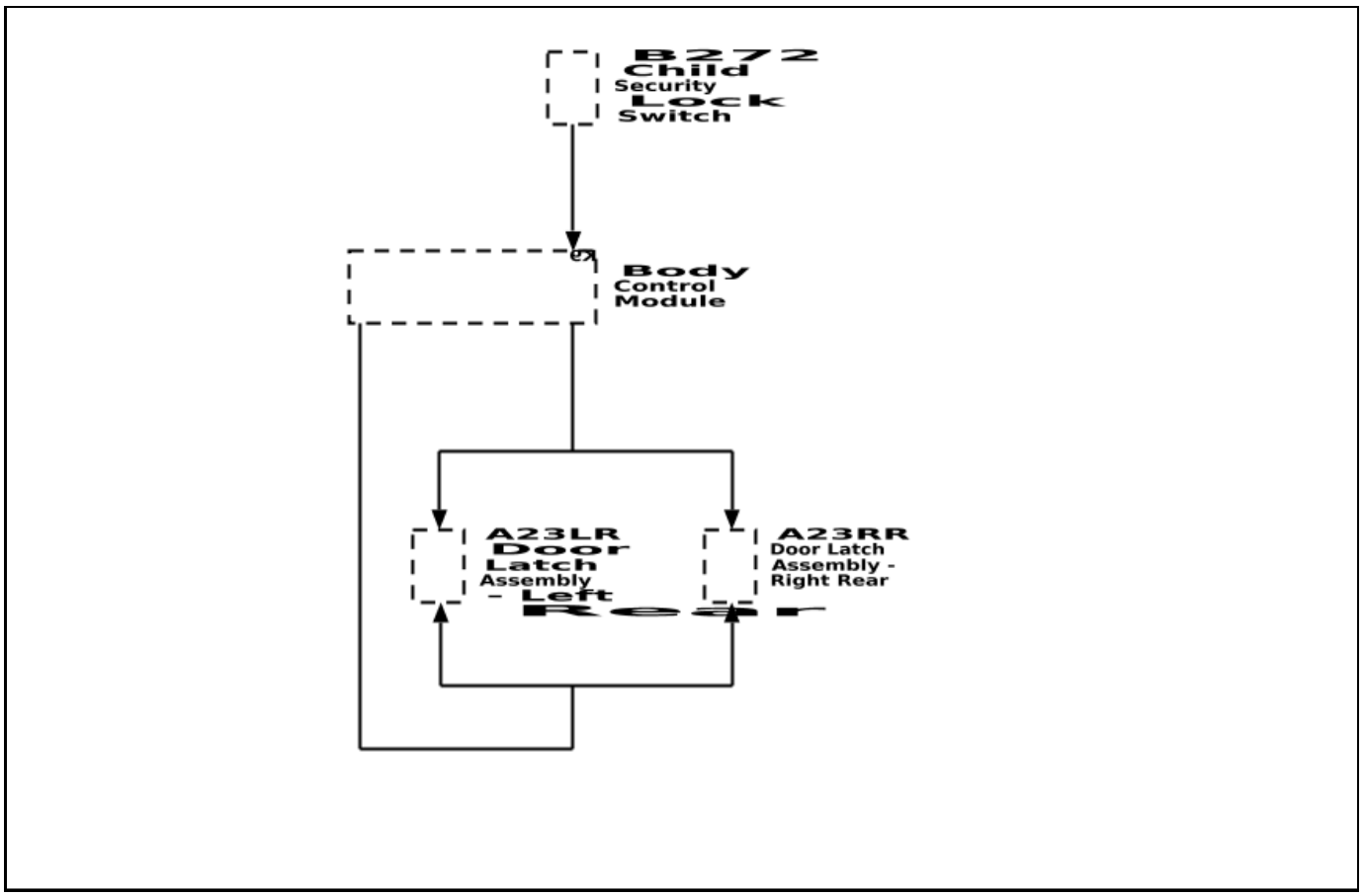
The BCM may also receive a LOCK or UNLOCK command from the keyless entry control module, refer to Keyless Entry System Description and Operation for information on the keyless entry system

The BCM, upon receipt of a lock switch lock or unlock signal, will supply voltage to the door lock actuator lock or unlock control circuits. Since the opposite side of the lock actuator is connected to ground through the other lock actuator control circuit, the doors will then lock or unlock as commanded.

The following three circuits are used to operate the lock:

- Driver door unlock
- Passenger doors unlock
- All doors lock

Power Door Child Lock Block Diagram



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Child Security Lockout System Operation

The child door lockout switch on the driver window switch controls the child locks on the rear doors. The lockout switch is an input to the body control module and the body control module controls the door lock security relay. When the body control module receives a command from the child door lockout switch, it will apply voltage to the child security lock disable relay coil, this will energize the relay and the contact within the relay will then direct the voltage to activate the left rear and right rear child locks and then isolate them from the normal door lock system to prevent the rear doors from being opened by using the interior rear door handles. An indicator will also illuminate to alert the driver that the child lockout system has been activated. Pushing the switch again will return normal function to the rear interior door handles and the indicator will go out.

The body control module monitors the voltage level of the child security motor status signal circuit, when the child locks have been activated, the contacts of the child security motor status switch (internal to the rear door latch) will close providing a ground path for the signal circuit pulling the voltage low. It is in this manner that the body control module is able to determine if the rear door latch has been successfully been locked out.

The body control module monitors the status of the child security lockout system, when the body control module detects a fault in the system, it will command the child lockout indicator to flash ON and OFF for 30 seconds to alert the driver that the child security lockout system may not be functioning properly.

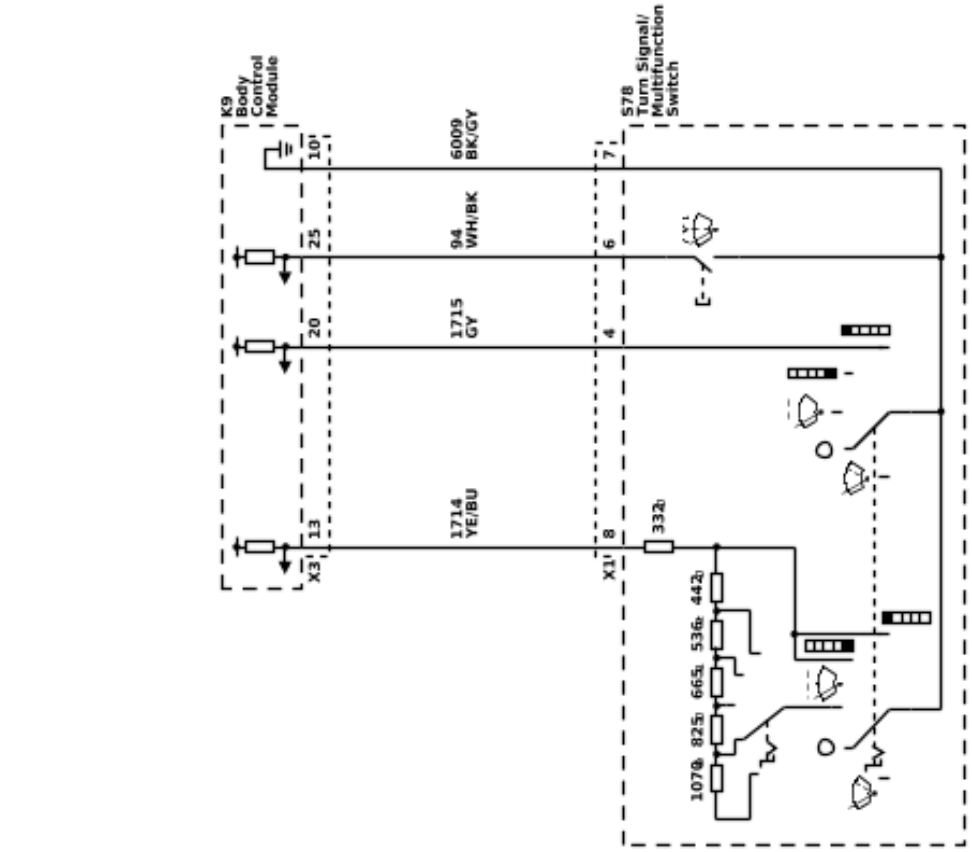
The body control module will command the child lockout indicator to flash ON and OFF for the following reasons:

- An open/high resistance in either child security motor status signal circuit
- The body control module detects that one or both rear door latches have not activated and are not locked out
- The body control module detects a short to ground or an open/high resistance in the child security lock disable relay control circuit
- A malfunctioning child security lock disable relay
- An open/high resistance in the child security lock motor control circuit

Wipers and Washers

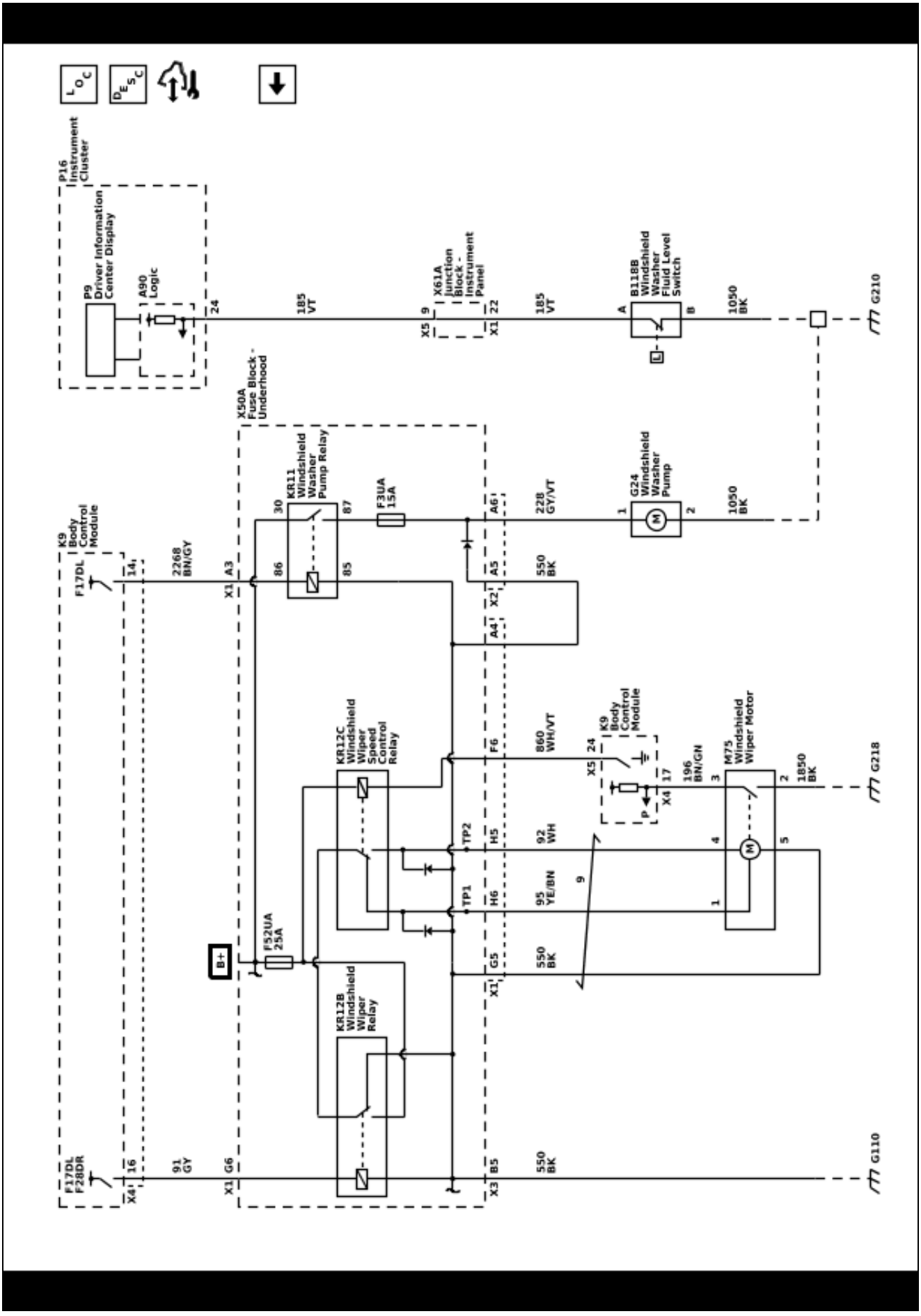
Schematic and Routing Diagrams

Wiper/Washer Schematics (Wiper/Washer Controls)



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Wiper/Washer Schematics (Wiper Motor and Washer Pump)



Description and Operation

Wiper/Washer System Description and Operation

Wiper/Washer System Components

The wiper/washer system consists of the following electrical components:

- Windshield Wiper Relay
- Windshield Wiper Speed Control Relay
- Windshield Washer Pump Relay
- Windshield Washer Fluid Pump
- Windshield Wiper Motor
- Window Wiper/Washer Switch
- Windshield Wiper Motor Fuse
- Windshield Washer Fluid Pump Fuse
- Body Control Module

Windshield Wiper System

The body control module (BCM) determines the front wipe/wash system mode of operation by monitoring several signals from the front wipe/wash switch as indicated in the wiper switch.

The front wipe/wash switch receives a reference ground signal from the BCM. Each input of the BCM provides a switched battery pull-up for each front wiper/washer switch output signal it receives. All the BCM inputs are recognized as active when the wiper switch provides a path to the referenced ground signal. The first signal received by the BCM is the result of 6 resistors in the front wiper switch configured as a resistor ladder network. This signal is connected to a BCM analog to digital input. Depending on the function selected (High, Low, Intermittent 1 thru 5, Mist, Off), the front wiper control switch connects a different set of resistors into the circuit resulting in different voltages appearing on the BCM A/D input. By monitoring this voltage, the BCM determines how to control the wiper motor On/Off Relay. It should be noted that High, Low, and Mist all have the same value on this signal circuit. The second signal received from the front wiper switch is active only when the front wiper switch is in the high speed wiper position. When the wiper switch is not in the high speed position, the switch is open and the signal circuit is pulled to battery by the BCM. When the wiper switch is in the high speed position, the switch pulls the circuit low. The BCM determines how to control the Wiper high/low speed relay from this input. The third signal received from the front wiper switch is from the momentary windshield wash control switch. When the washer switch is not active the switch is open and the signal circuit is pulled to battery by the BCM. When the washer switch is active, the switch pulls the circuit low. The BCM controls the windshield wash and windshield wash activated wiper operation based on this input.

The BCM controls front wiper motor operation through two output signals and the monitoring of one input signal. The two outputs (one high side drive, one low side drive) are used to control two external wiper motor relays: front wiper motor on/off relay: which provides the wiper motor with battery power when it is activated by the high side drive signal (switched battery) from the BCM. When left deactivated, the normally closed contacts provide a ground to the wiper motor. Wiper high/low speed relay: when activated by a low side drive signal (ground) from the BCM, it switches the power supplied by the wiper motors on/off relay to the motors high speed input. When left deactivated, the normally closed contacts connect the power supplied by the wiper motors on/off relay to the motors low speed input. The input used by the BCM is from the park switch located in the wiper motor assembly. When the wiper blades are not in the park position, the wiper park switch is open and the circuit is pulled up to battery by the BCM. When the wiper blades are in the park position at the bottom of the glass, the wiper park switch closes to ground pulling the park signal circuit low.

To initiate low speed operation, the BCM only energizes the front wiper motor on/off relay. This allows battery voltage from the wiper fuse to be applied through the switched contacts of the wiper motor on/off relay, through the normally closed contacts of the wiper high/low speed relay, to the low speed control circuit of the windshield wiper motor.

Redundant high speed switch pass through. The BCM provides redundant circuitry which places battery power on its wiper motor on/off relay output with activation of its low assertion high speed wiper switch input. The BCM shall be capable of doing this, even if the module has lost all microprocessor control. This redundant circuit shall supply power while in the RUN and CRANK power modes. however; while in the CRANK power mode, the pass through shall only be active if the BCM is NOT in a computer operating properly state.

To initiate high speed operation, the BCM energizes both the front wiper motor on/off relay and the wiper high/low speed relay . This allows battery voltage from the wiper fuse to be applied through the switched contacts of the wiper motor on/off relay, through the switched contacts of the wiper high/low speed relay, to the high speed control circuit of the windshield wiper motor.

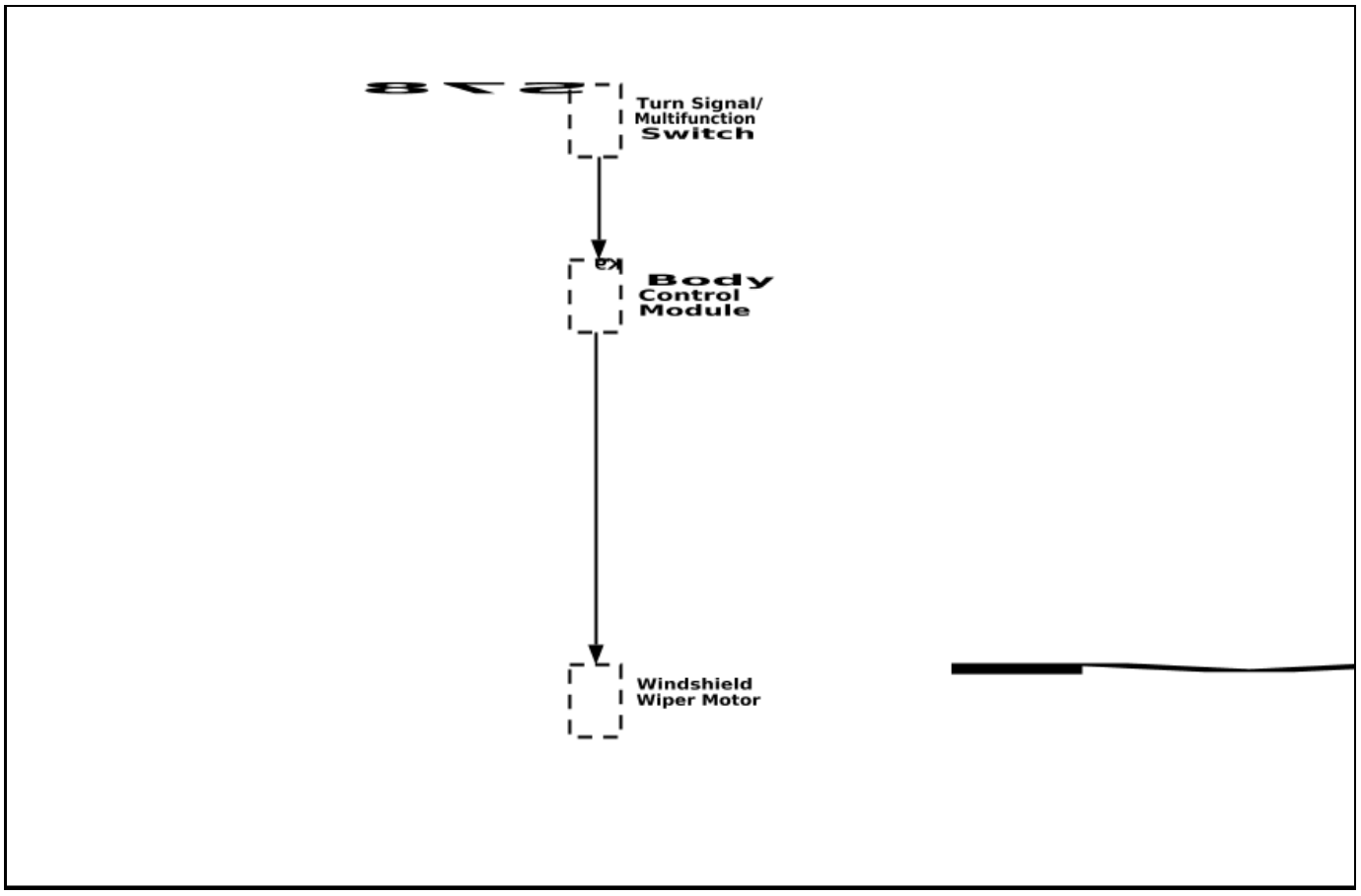
Parking the wiper motor. In order to perform an accurate read of the park switch and to ensure the wipers will come to rest while still in the park position, parking of the wipers only occurs while in a low speed wiper mode. This requires that if the wipers are performing a high speed wiper operation at the time they are required to park, the BCM shall transition the Wipers to low speed by deactivating the wiper high/low relay before attempting to park. In order to park the wipers, the BCM monitors the park circuit until the park switch pulls the park circuit to ground. At this time, the BCM will immediately deactivate the wiper motor on/off relay. The relay contacts will switch back to their normally closed position and will apply ground to the wiper motor power inputs through the normally closed contacts of the wiper high/low relay. This deactivates and dynamically brakes the wiper motor in the park position. When the wiper switch is turned to the OFF position while the wiper motor is somewhere in mid-cycle, the BCM will continue to operate the motor until the wipers reach the park position. If the BCM is running the wiper motor and does not see a state transition of the park switch after 8 s, the wipers will stop immediately when the wiper switch is turned to OFF. If the ignition is turned OFF while the wipers are in mid-cycle, the wipers will stop immediately, regardless of position. The BCM will park the wipers next time the ignition is turned ON.

The windshield wiper system MIST operation is identical to LOW speed operation, except that the MIST switch is a press and release type switch. When the wiper switch is moved to the MIST position and released, low speed wiper motor operation is started and will continue until 1 cycle is complete. If the wiper switch is moved to the MIST position and held, the wiper motor will operate in the LOW speed mode until the switch is released.

Windshield wiper intermittent operation is a low speed wiper motor function with a variable delay interval between the wiper motor cycles. The duration of the delay is controlled by the front wiper control switches intermittent 1 thru intermittent 5 settings. The wiper operation is as follows

1. The BCM will initiate a single wipe by activating its front wiper ON/OFF relay output.
2. At the completion of a single wipe, the BCM will park the wipers as described above.
3. The BCM will then pause the wipers in their park position for the time duration associated with intermittent delay switch setting.
4. When the delay time expires repeat Steps 1 and 3 until the system is turned off or taken out of intermittent mode. If the wiper switch is moved from a longer delay interval to a shorter delay interval, the BCM will command an immediate wipe cycle and reset the delay timer to the shorter delay interval.

Intermittent wiper operation may be vehicle speed sensitive. When enabled, the speed compensated intermittent feature causes the intermittent wiper delay intervals to become shorter as a function of increased speed. As vehicle speed is reduced the intervals will become closer to the predetermined

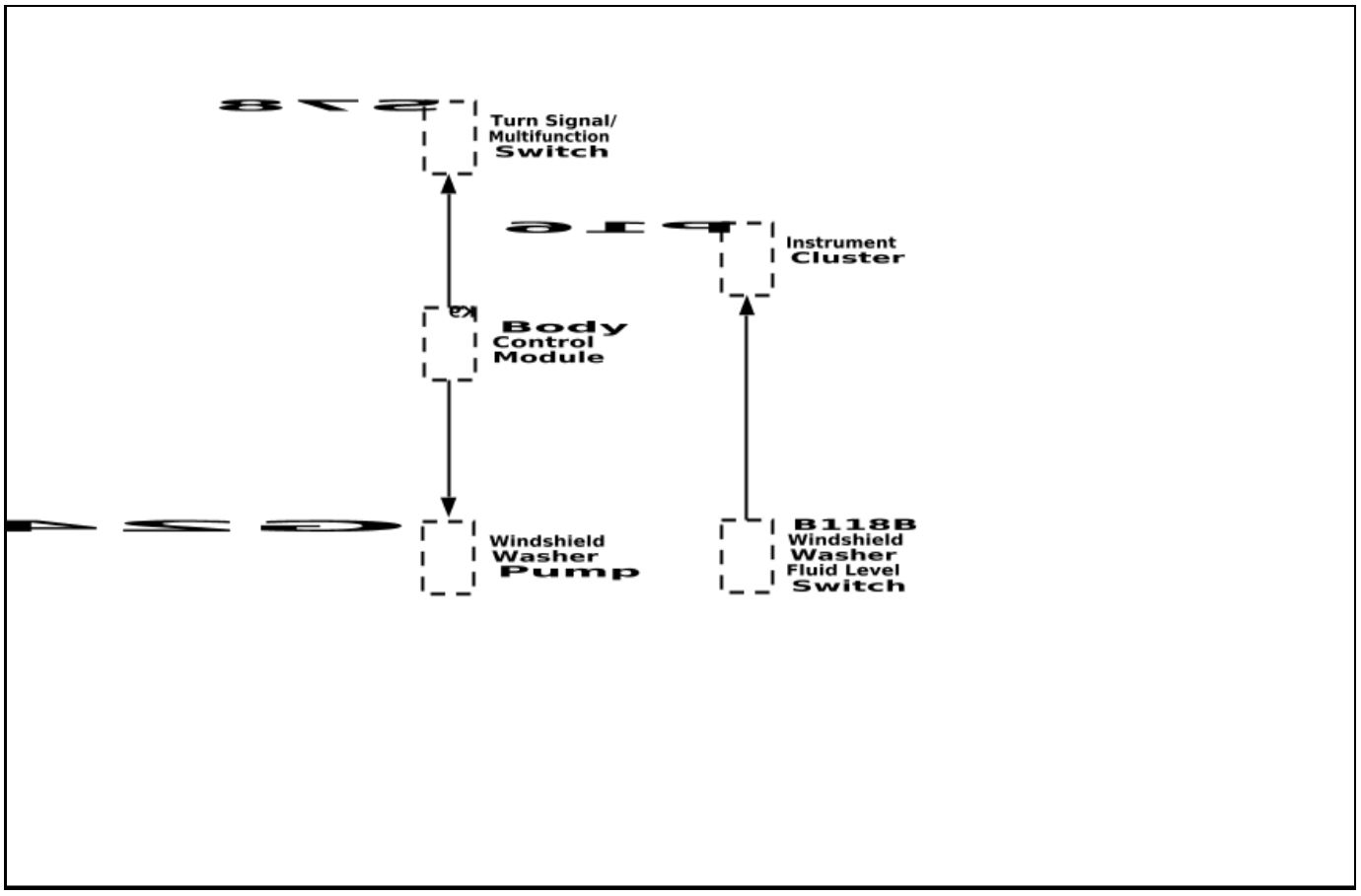


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Windshield Washer System

The BCM controls the windshield wash operation and windshield wash activated wiper operation. When the BCM detects the activation of the momentary windshield wash control switch, it activates its washer pump relay drive output which supplies battery power to the coil of the washer pump relay. This energizes the relay, which switches battery power to the pump motor. The BCM will also activate continuous low speed windshield wipes as described above. Upon deactivation of the windshield wash control switch, the wiper control module (BCM) shall deactivate the wash motor and will also park the wiper motor as described above unless the drip wipe feature is enabled. On some vehicles the drip wipe feature will be enabled and cause the system to provide additional wiping of the windshield after the switch has been released and fluid is no longer being applied. The front wash feature may attempt to detect a stuck switch. When enabled, activation of the wash feature shall be limited to 10 seconds.

On vehicles with the Rear Wash feature a single reversing wash motor may be utilized for both the front and rear wash operation. In this system the wash motor is operated in one direction to spray fluid on the front windshield and then operated in the reverse direction to spray fluid on the rear window. The BCM Controls the reversing wash motor through two High Side Drive outputs. One controls the Front Wiper Motor Relay and one controls the Rear Wiper Relay.


Turn Signal/
Multifunction
Switch
Instrument
Cluster
Body
Control
Module
Windshield
Washer
Pump
B118B
Windshield
Washer
Fluid Level
Switch

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BLANK

Section 3

Brakes

Park Brake 3-3
Description and Operation 3-3
Park Brake System Description and Operation 3-3

BLANK

Park Brake

Description and Operation

Park Brake System Description and Operation

System Component Description

The park brake system consists of the following:

Park Brake Pedal Assembly: Receives and transfers park brake system apply input force from driver to park brake cable system. Releases park brake system apply force on vehicles without a park brake release handle through the partial application of the park brake pedal.

Park Brake Release Handle Assembly (If equipped): Releases applied park brake system when pulled.

Park Brake Cables: Transfers input force received from park brake pedal, through the park brake cable, to park brake apply lever.

Park Brake Apply Pedal: Multiplies and transfers input force to park brake actuator.

Park Brake Actuator/Adjuster: Uses multiplied input force from apply lever to expand park brake shoe toward the friction surface of the park brake drum.

Star wheel park brake actuators are also used to control clearance between the park brake shoe and the friction surface of the park brake drum.

Park Brake Shoe: Applies mechanical output force from park brake actuator to friction surface of the drum in the park brake drum.

System Operation

The parking brake is a single drum design, mounted around the propeller shaft, forward of the rear differential. When the parking brake pedal is depressed, the parking cable is pulled, overcoming spring pressure within the parking brake and pushing the brake shoes into contact with the inside of the parking brake drum. When the operator disengages the parking brake pedal, spring tension in the parking brake pulls the park brake shoes to their original (disengaged) position. The parking brake self-adjusts for brake shoe wear by using a star wheel mechanism.

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Section 4

Driver Information and Entertainment

Image Display Cameras 4-3
Schematic and Routing Diagrams 4-3
Image Display Camera Schematics 4-4
Description and Operation 4-6
Rearview Camera Full Display Mirror Description and Operation 4-6
Rear Vision Camera Description and Operation (with IOB/IOR/IO3) 4-6
Rear Vision Camera Description and Operation (with IO5/IO6) 4-6

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Image Display Cameras

Schematic and Routing Diagrams

Image Display Camera Schematics (Rearview Camera (UVC+IOB/IO3))

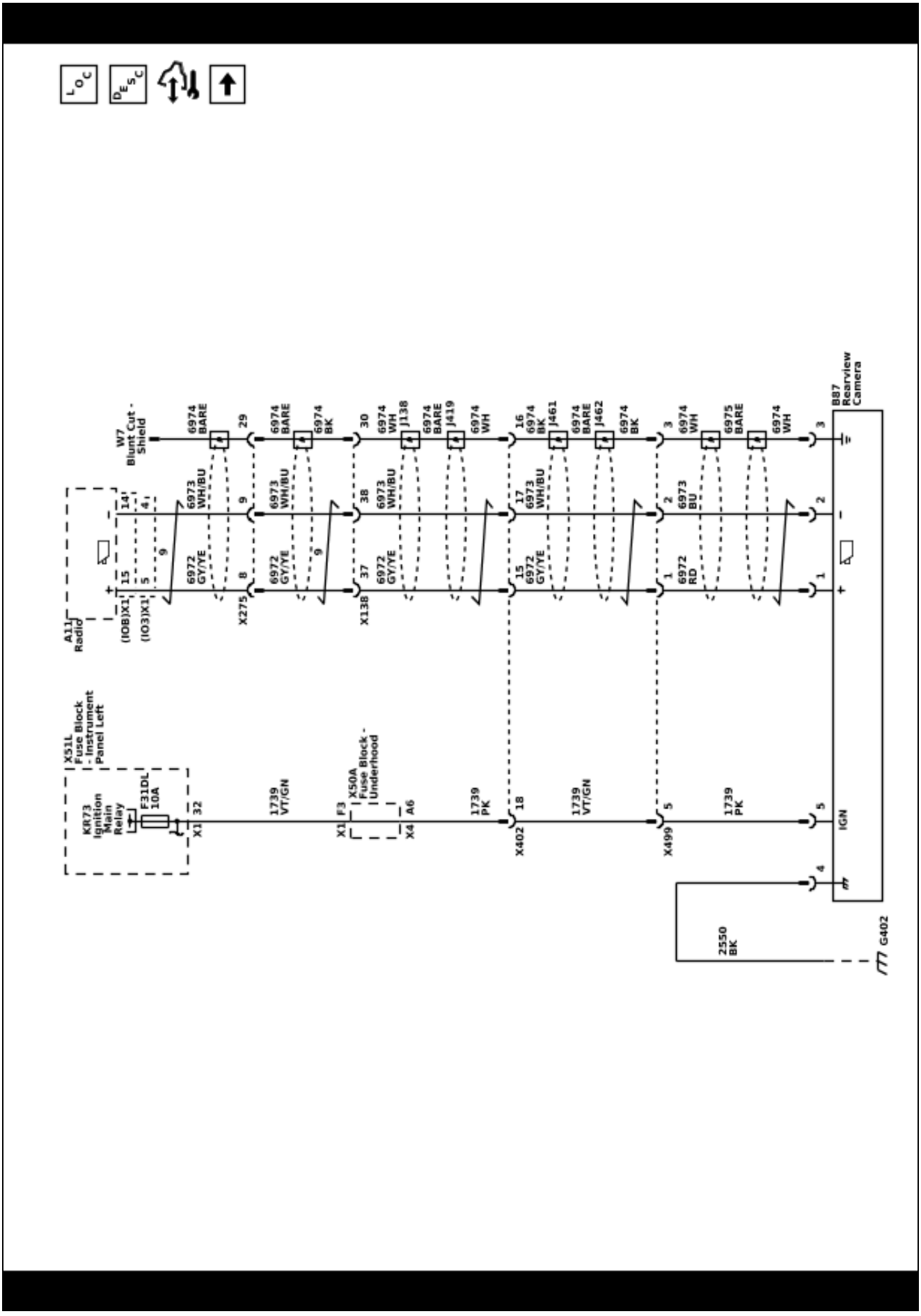
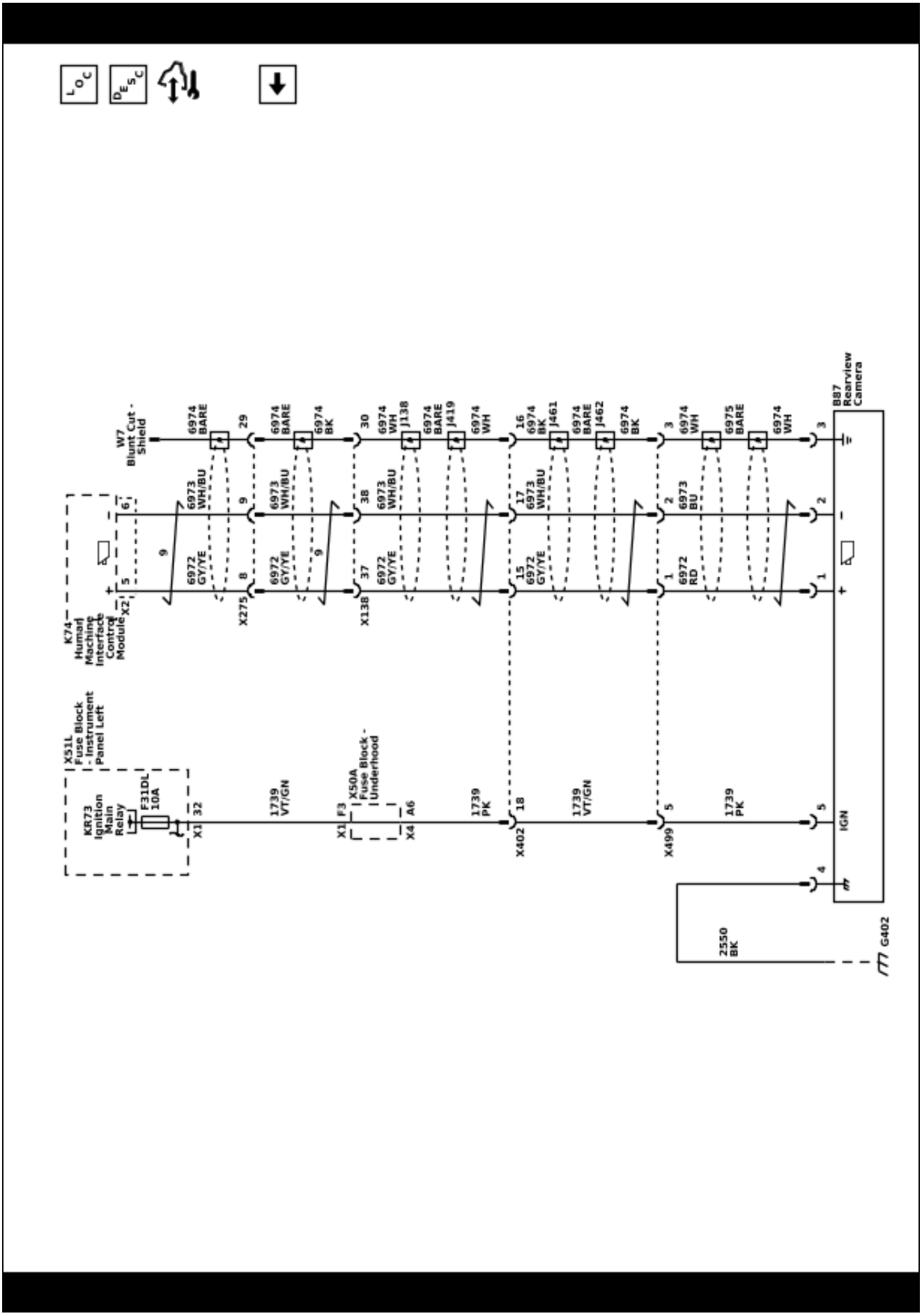


Image Display Camera Schematics (Rearview Camera (UVC+IO5))



Description and Operation

Rearview Camera Full Display Mirror Description and Operation

If equipped, full display mirror provides a wider field of view than normally seen from the inside rearview mirror to assist when driving and changing lanes. When the tab under the inside rearview mirror is pulled rearward, a view of the area behind the vehicle displays on the mirror. The inside rearview camera full display mirror is connected to the outside rearview camera via a shielded coaxial cable.

When the tab under the inside rearview mirror is pulled rearward, a view of the area behind the vehicle displays on the mirror.

Adjust the rearview mirror for a clear view of the area behind the vehicle before turning on full display mirror. Use the three buttons on the bottom of the mirror to adjust the brightness, zoom, and tilt of the display. Make sure the light sensor is not covered when adjusting the brightness.

The inside rearview camera full display mirror may not work properly or display a clear image if:.

- It is dark.
- The sun or the beam of headlamps are shining directly into the camera lens.
- Ice, snow, mud, or anything else builds up on the camera lens. Clean the lens, rinse it with water, and wipe it with a soft cloth.

When the mirror detects that the camera is not sending a valid video signal, it “blue screens” with a “no video” decal for 3 seconds, then reverts back to the mirror.

Rear Vision Camera Description and Operation (with IOB/IOR/IO3)

Rear Vision Camera System Operation

The rear vision camera system consists of a video camera located at the rear of the vehicle and the Rado.

When the transmission is placed into REVERSE, a signal indicates to the Radio that the vehicle is in reverse and image display is requested. The rear vision camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rear vision camera to the radio. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and a degraded video image. The shield is provided a ground path by the rear vision camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

If a malfunction is detected in the system, Service Rear Vision Camera may be displayed on the Infotainment screen as an indicator to the customer that a problem exists that requires service.

Rear Vision Camera Description and Operation (with IO5/IO6)

Rear Vision Camera System Operation

The rear vision camera system consists of a video camera located at the rear of the vehicle and the Human Machine Interface Control Module.

When the transmission is placed into REVERSE, a signal indicates to the Human Machine Interface Control Module that the vehicle is in reverse and image display is requested. The rear vision camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rear vision camera to the Human Machine Interface Control Module. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and a degraded video image. The shield is provided a ground path by the rear vision camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

If a malfunction is detected in the system, Service Rear Vision Camera may be displayed on the Info Display Module as an indicator to the customer that a problem exists that requires service.

Section 5

Engine/Propulsion

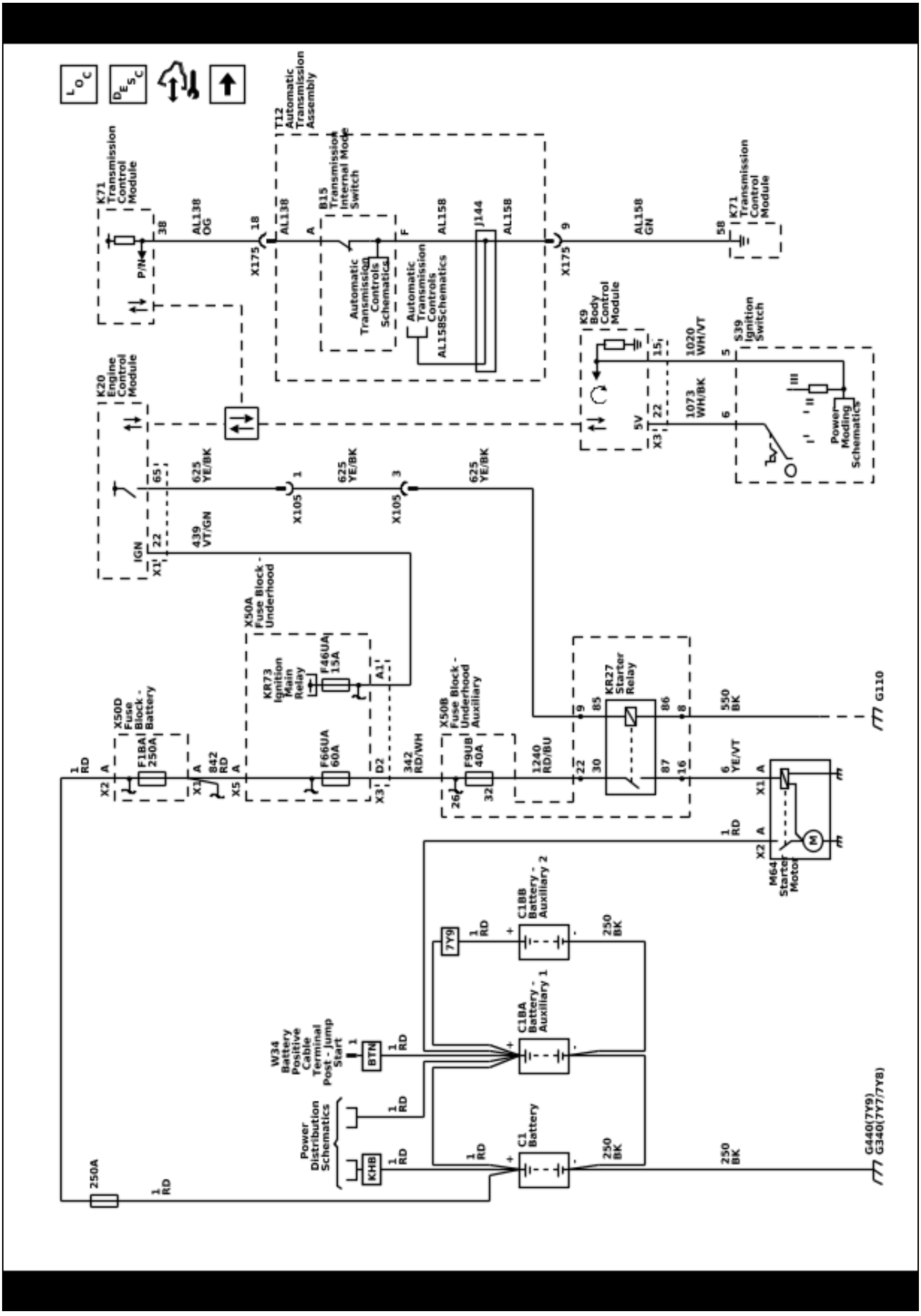
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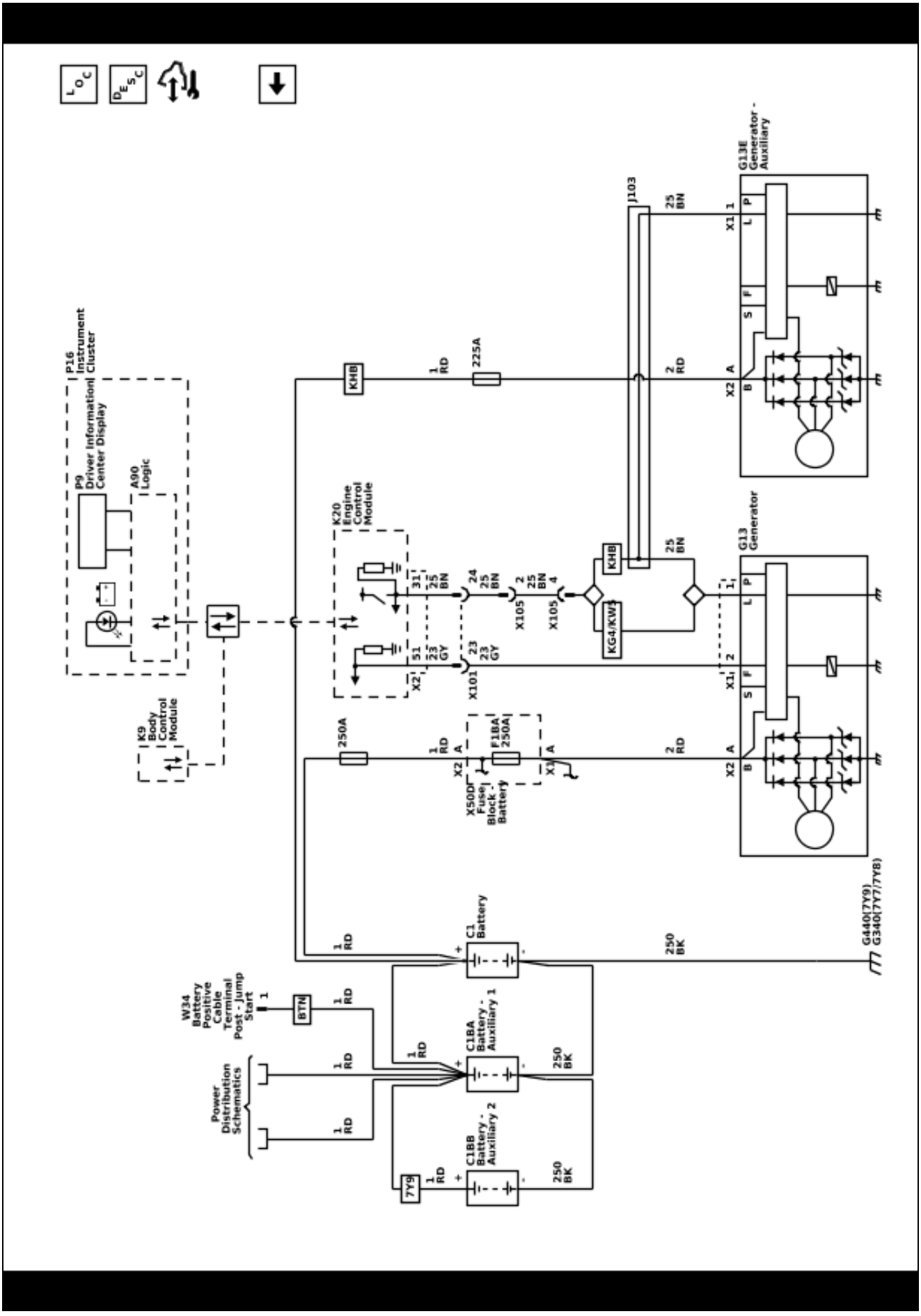
12 V Starting and Charging

Schematic and Routing Diagrams

Starting and Charging Schematics (Starting)



Starting and Charging Schematics (Charging)



Description and Operation

Battery Description and Operation

Warning: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- ***Always shield your eyes and avoid leaning over the battery whenever possible.***
- ***Do not expose the battery to open flames or sparks.***
- ***Do not allow the battery electrolyte to contact the eyes or the skin. Flush immediately and thoroughly any contacted areas with water and get medical help.***
- ***Follow each step of the jump starting procedure in order.***
- ***Treat both the booster and the discharged batteries carefully when using the jumper cables.***

Batteries that are no longer wanted must be disposed of by an approved battery recycler and must never be thrown in the trash or sent to a landfill.

Batteries that are not part of the vehicle itself, not the battery under the hood, must only be transported on public streets for business purposes via approved hazardous material transportation procedures.

Battery storage, charging and testing facilities in repair shops must meet various requirements for ventilation, safety equipment, material segregation, etc.

The maintenance free battery is standard. There are no vent plugs in the cover. The battery is completely sealed except for 2 small vent holes in the side. These vent holes allow the small amount of gas that is produced in the battery to escape.

The battery has 3 functions as a major source of energy:

- Engine cranking
- Voltage stabilizer
- Alternate source of energy with generator overload

Battery Low Start Vehicle Message

The body control module (BCM) monitors battery positive voltage to determine battery state of charge. If one or more of the BCM battery positive voltage terminals measure less than approximately 11.6V compared to the BCM ground circuits, this message will display and four chimes may sound. Start the vehicle immediately. If the vehicle is not started and the battery continues to discharge, the climate controls, heated seats, and audio systems will shut off and the vehicle may require a jump start. These systems will function again after the vehicle is started.

Battery Ratings

A battery has 2 ratings:

- Cold cranking amperage
- Amperage hours

When a battery is replaced use a battery with similar ratings. See battery specification label on the original battery.

Amperage Hours

The amperage hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amperage hour rating is cumulative, so in order to know how many constant amperage the battery will output for 20 h, you have to divide the amperage hour rating by 20. Example: If a battery has an amperage hour rating of 74, dividing by 20 = 3.75. Such a battery can carry a 3.75 A load for 20 hours before dropping to 10.5 V. (10.5 V is the fully discharged level, at which point the battery needs to be recharged.) A battery with an amperage hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

Cold Cranking Amperage

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. The cold cranking amperage rating is the minimum amperage the battery must maintain for 30 seconds at −18°C (0°F) while maintaining at least 7.2 V. See battery label for the cold cranking amperage rating of this battery.

Charging System Description and Operation

Electrical Power Management Overview

The electrical power management system is designed to monitor and control the charging system and send diagnostic messages to alert the driver of possible problems with the battery and generator. This electrical power management system primarily utilizes existing on-board computer capability to maximize the effectiveness of the generator, to manage the load, improve battery state-of-charge and life, and minimize the system's impact on fuel economy. The electrical power management system performs 3 functions:

- Monitor the battery voltage and estimate the battery condition
- Take corrective actions by boosting idle speeds, and adjusting the regulated voltage
- Perform diagnostics and driver notification

The battery condition is estimated during ignition/vehicle off and during ignition/vehicle on. During ignition/vehicle off the state-of-charge of the battery is determined by measuring the open-circuit voltage. The state-of-charge is a function of the acid concentration and the internal resistance of the battery, and is estimated by reading the battery open circuit voltage when the battery has been at rest for several hours.

Any time the ignition/vehicle is on, the vehicle algorithm continuously estimates battery state-of-charge based on adjusted net amp hours, battery capacity, initial state-of-charge, and calculated temperature.

While the engine is running, the battery degree of discharge is primarily determined by the integrated battery current sensor, to obtain net amp hours.

In addition, the electrical power management function is designed to perform regulated voltage control to improve battery state-of-charge, battery life, and fuel economy. This is accomplished by using knowledge of the battery state-of-charge and temperature to set the charging voltage to an optimum battery voltage level for recharging without detriment to battery life.

Charging System Components

Generator

The engine drive belt drives the generator. When the rotor is spun, it induces an alternating current (AC) into the stator windings. The AC voltage is then sent through a series of diodes for rectification. The rectified voltage has been converted into a direct current (DC) for use by the vehicles electrical system to maintain electrical loads and the battery charge. The voltage regulator integral to the generator controls the output of the generator; It is not serviceable. The voltage regulator controls the amount of current provided to the rotor. If the generator has field control circuit fault, the generator defaults to an output voltage of 13.8 V.

The generator is serviced as a complete assembly. If there is a diagnosed fault in the generator, it must be replaced as an assembly.

Generator Pulley

The pulley drives the Generator via the engine drive belt. There are 2 types of pulleys:

1. Conventional solid Pulley which is bolted to the Generator stator shaft. This Pulley can be serviced separately.

2. One Way Clutch Pulley or Overrunning Alternator Decoupler Pulley allows the Generator to spin freely when the engine rapidly slows down on sudden deceleration. This part is not serviceable and the Generator needs to be replaced as an assembly.

Body Control Module (BCM)

The BCM communicates with the Engine Control Module (ECM) and the instrument cluster for electrical power management operation. The BCM determines the output of the generator and sends the information to the ECM for control of the generator turn on signal circuit. It monitors the generator field duty cycle signal circuit information sent from the ECM for control of the generator. It monitors the battery current sensor, the battery positive voltage circuit, and estimates battery temperature to determine battery state of charge. The BCM also performs idle boost.

Battery Current Sensor (if applicable)

The Battery Current Sensor is a serviceable component that is connected to the negative battery cable at the battery. The battery current sensor is a 3-wire hall effect current sensor. The battery current sensor monitors the battery current. It directly inputs to the BCM. It creates a 5 volt Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. Between 0–5% and 95–100% are for diagnostic purposes.

Battery Sensor Module (if applicable)

The BCM monitors the Battery Sensor Module for battery state of current, state of health, and battery charge via serial data. If the battery is determined to be in poor state of health or having a low state of charge, the BCM will not allow the ECM to perform an auto-stop.

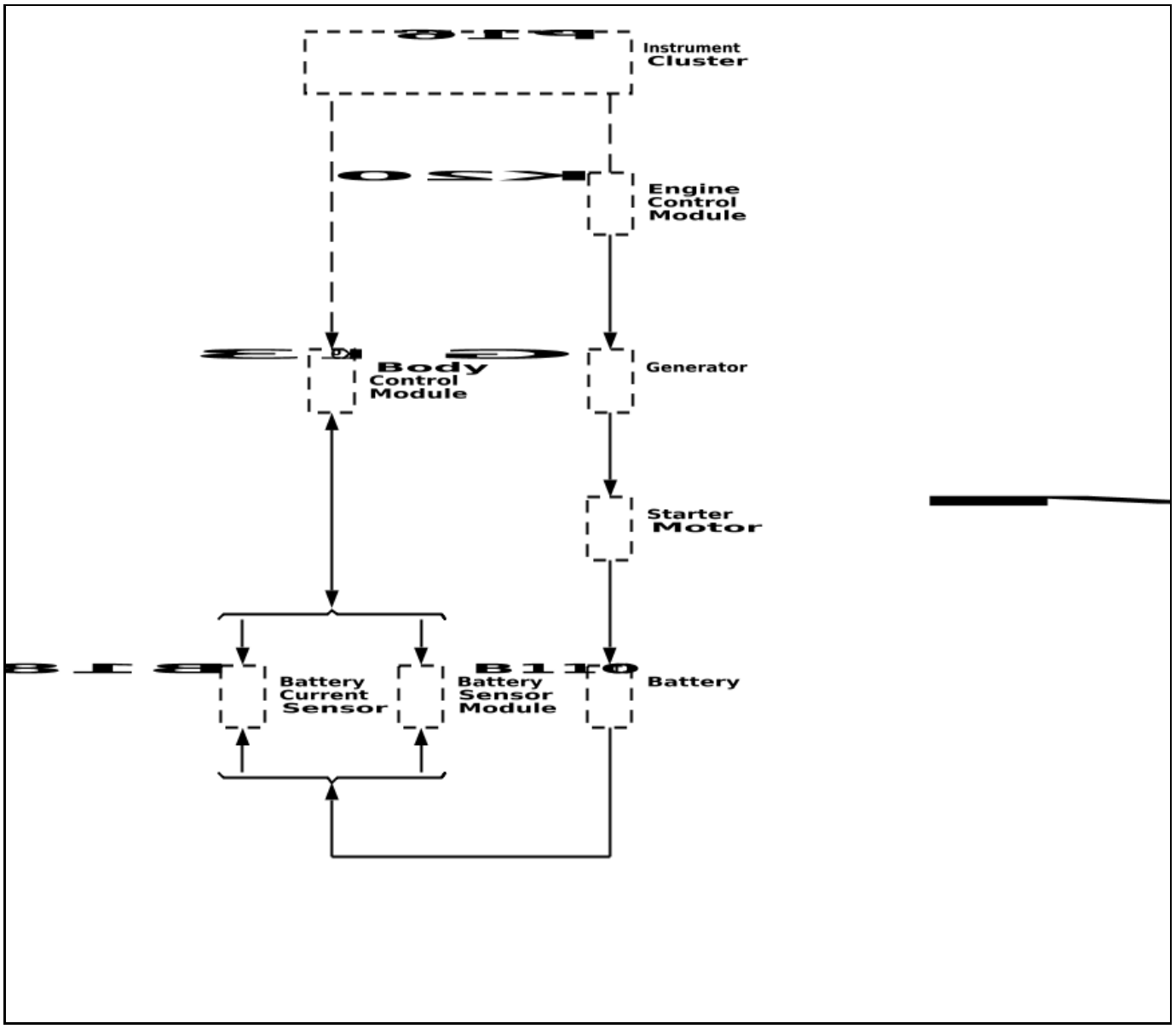
Engine Control Module (ECM)

When the engine is running, the generator turn-on signal is sent to the generator from the ECM, turning on the regulator. The generator's voltage regulator controls current to the rotor, thereby controlling the output voltage. The rotor current is proportional to the electrical pulse width supplied by the regulator. When the engine is started, the regulator senses generator rotation by detecting AC voltage at the stator through an internal wire. Once the engine is running, the regulator varies the field current by controlling the pulse width. This regulates the generator output voltage for proper battery charging and electrical system operation. The generator field duty terminal is connected internally to the voltage regulator and externally to the ECM. When the voltage regulator detects a charging system problem, it grounds this circuit to signal the ECM that a problem exists. The ECM monitors the generator field duty cycle signal circuit, and receives control decisions based on information from the BCM.

Instrument Cluster

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

The instrument cluster also provides customer notification if there is a concern with the charging system. There are two means of notification: a charge indicator on the instrument cluster and/or a service system message displayed on the Driver Information Center (DIC) if equipped.



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Charging System Operation

The purpose of the charging system is to maintain the battery charge and vehicle loads. There are 6 modes of operation and they include:

- Battery Sulfation Mode
- Charge Mode
- Fuel Economy Mode
- Head lamp Mode
- Start Up Mode
- Voltage Reduction Mode

The ECM Controls the Generator through the generator turn–on signal circuit, also known as the Generator L-terminal. The ECM monitors the generator performance though the Generator field duty cycle signal circuit, also known as the generator F-terminal.

The Generator turn–on signal (Generator L-terminal) is a Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. 0–5% and 95–100% are for diagnostic purposes, with 0–5% monitoring for an open circuit and 95–100% monitoring for a short to ground at a fixed 13.8 V. The following table shows the commanded duty cycle and output voltage of the Generator:

Commanded Duty Cycle	Generator Output Voltage (+/- .25 V)
0–5%	13.8 V
10%	11 V
20%	11.56 V
30%	12.13 V
40%	12.69 V
50%	13.25 V
60%	13.81 V
70%	14.38 V
80%	14.94 V
90%	15.5 V
95–100%	13.8 V

The Generator provides a PWM feedback signal of the Generator voltage output through the Generator field duty cycle signal circuit to the ECM. This information is sent to the Body Control Module (BCM). The Generator field duty cycle signal (Generator F-terminal) is a PWM signal of 60–460 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–100%. 0–5% is reserved for diagnostic purposes.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage displayed in the DIC to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Charging System Modes

Battery Sulfation Mode

The BCM will enter this mode when the interpreted Generator output voltage is less than 13.2 V for 45 minutes. When this condition exists the BCM will enter Charge Mode for 2–3 minutes. The BCM will then determine which mode to enter depending on voltage requirements.

Charge Mode

The BCM will enter Charge Mode when ever one of the following conditions are met:

- Windshield wipers are ON for more than 3 s.
- Climate Control Voltage Boost Mode Request is true, as sensed by the HVAC control module via serial data. High speed cooling fan, rear defogger, and HVAC high speed blower operation can cause the BCM to enter the Charge Mode.
- The estimated battery temperature is less than 0° C (32°F).
- Battery State of Charge is less than 80%.
- Vehicle speed is greater than 145 km/h (90 mph)
- A current sensor malfunction exists.
- System voltage is determined to be below 12.56 V

When any one of these conditions is met, the system will set targeted generator output voltage to a charging voltage between 13.9–15.5 V, depending on the battery state of charge and estimated battery temperature.

Fuel Economy Mode

The BCM will enter Fuel Economy Mode when the estimated battery temperature is at least 0°C (32°F) but less than or equal to 80°C (176°F), the calculated battery current is less than 15 A and greater than −8 A, and the battery state-of-charge is greater than or equal to 80%. Its targeted generator output voltage is the open circuit voltage of the battery and can be between 12.5–13.1 V. When fuel economy mode is active, the generator is not charging, only maintaining open circuit battery voltage. The BCM will exit this mode and enter Charge Mode when any of the conditions described above are present.

Headlamp Mode

The BCM will enter Headlamp Mode when ever the head lamps are ON (high or low beams). Voltage will be regulated between 13.9–14.5 V.

Start Up Mode

When the engine is started the BCM sets a targeted generator output voltage of 14.5 V for 30 s.

Tow/Haul Mode (if applicable)

Pressing the Tow/Haul Mode button located on the center stack, the vehicle system voltage is raised and the remote (non-vehicle) battery will be charged. Having the headlamps on will raise the system voltage and if the Tow/Haul button is applied it will not serve any purpose. The voltage is regulated between 13.9-14.5 V.

Instrument Cluster Operation

Charge Indicator Operation

The instrument cluster illuminates the charge indicator and displays a warning message in the driver information center if equipped, when the one or more of the following occurs:

- The ECM detects that the generator output is less than 11 V or greater than 16 V. The instrument cluster receives a serial data message from the ECM requesting illumination.
- The instrument cluster determines that the system voltage is less than 11 V or greater than 16 V for more than 30 s. The instrument cluster receives a serial data message from the BCM indicating there is a system voltage range concern.
- The instrument cluster performs the displays test at the start of each ignition cycle. The indicator illuminates for approximately 3 s.

Driver Information Center Message: BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM

The BCM and the ECM will send a serial data message to the driver information center for the BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM message to be displayed. It is displayed when a charging system DTC is a current DTC. The message is turned off when the conditions for clearing the DTC have been met.

Voltmeter Gauge and/or System Voltage Display (if equipped)

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage display in the driver information center to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Electrical Power Management Description and Operation (Gasoline)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Electrical Power Management Description and Operation (Diesel)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition. Idle boost consists of three steps: idle boost 1, idle boost 2, and idle boost 3 (approximately 750, 900, and 1050 rpm respectively). Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Starting System Description and Operation

Starter Motor Operation (Without KL9)

The starter motors are non-repairable. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the crank signal is removed, the starter relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

Enhanced Starter Motor Operation (KL9)

The Engine Stop/Start system in GM vehicles automatically turns off the engine when the vehicle comes to a stop under certain driving conditions, and can quickly restart the engine in about 0.3 seconds when commanded to do so.

In order to smoothly restart the engine as quickly as possible while managing the greater number of engine starts, the Stop/Start system uses an enhanced starter motor that operates differently from a conventional starter motor. It has a high performance electric motor and a stronger pinion engagement mechanism than a conventional starter. It also has independent control of the pinion and motor.

The enhanced starter motor continues using the typical pinion engagement mechanism with a starter solenoid that drives the pinion gear to engage or disengage the flywheel of the engine. When engaged, the starter motor can rotate the engine flywheel and, in turn, the crankshaft.

On the enhanced starter of a Stop/Start system the operation is done in two separate functions inside the solenoid, Starter Motor and Pinion Actuator. Each function controlled individually by the ECM. There are two separate relays to control the two separate parts of the enhanced solenoid:

- KR27 Starter Motor Relay
- KR27C Starter Pinion Actuator Relay

The two individually-controlled relays allow for smooth engagement of the pinion gear into the flywheel with minimum noise and wear.

When the vehicle is coming to a stop, just before the engine stops rotating (at approximately 50 RPM) during stop/start operation, the ECM energizes the Starter Pinion Solenoid Actuator Relay to easily push the pinion gear into the flywheel gear without gear clash. (Fig. 8) When the engine stops rotating during Stop/Start operation (Auto Stop mode), the starter pinion gear is fully engaged, ready for the starter motor to become energized to quickly start the engine again.

A secondary need for the starter pinion to be driven into the flywheel gear before the engine stops rotating is to address quickly changing demands on the engine. For example, when a driver is slowing nearly to a stop — and the Stop/Start system is preparing for Auto Stop mode — but suddenly decides to release the brake and accelerate

In this situation, the engine has already stopped rotating, or nearly so. A conventional starter cannot restart the engine until the engine has completely stopped. However, with the enhanced starter, the starter pinion gear is fully engaged and ready to begin rotating the engine even before it fully stops turning. Otherwise, the engine would actually have to stop rotating before the pinion can engage smoothly to begin a restart.

To prevent a lag in engine operation, the ECM uses predictive speed matching of the flywheel gear speed and the pinion gear speed to engage the pinion gear into the flywheel gear without gear clash before the engine fully stops. By predicting how long it takes the starter motor to spin up using an algorithm, the pinion gear speed can be matched to the flywheel gear speed. The result is an almost instant restart that is possible at extremely low engine speeds.

Circuit Description

Keyless Start

When the Ignition mode switch is placed in the crank position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the crank position. The BCM then sends a serial data message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the brake pedal is applied and for manual transmission the clutch is fully depressed or for automatic transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the starter relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Key Start

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

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Section 6

HVAC

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Heating, Ventilation, and Air Conditioning

Description and Operation

Heating and Air Conditioning System Description and Operation

Engine Coolant

Engine coolant is the key element of the heating system. The engine thermostat controls the normal engine operating coolant temperature. Coolant pumped out of the engine enters the heater core through the inlet heater hose. The air flowing through the (Heating, Ventilation and Air Conditioning) HVAC module absorbs the heat of the coolant flowing through the heater core. The coolant then exits the heater core through the heater outlet hose and returns back to the engine block.

Auxiliary Electric Heater

Some Vehicles come with an auxiliary electric heater. This 12V electrically powered heating element is positioned directly behind the regular coolant flow based heater core in the HVAC case. All airflow goes through the regular heater core first, and then through the auxiliary electric heater. The auxiliary electric heater is active when the outside ambient temperature is below **8°C (46°F)** , the coolant temperature is below **75°C (167°F)** , and the temperature air mix door is near the full hot position.

A/C Cycle

Refrigerant is the key element in an air conditioning system. R-134a is presently the only approved refrigerant for this vehicle. R-134a is a very low temperature gas that can transfer the undesirable heat from the passenger compartment to the outside air.

The (Air Conditioning) A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure in the A/C system. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the high pressure A/C switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line, to the (Thermal Expansion Valve) TXV.

The TXV is located at the evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the TXV, the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the TXV. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant to boil inside the evaporator core.

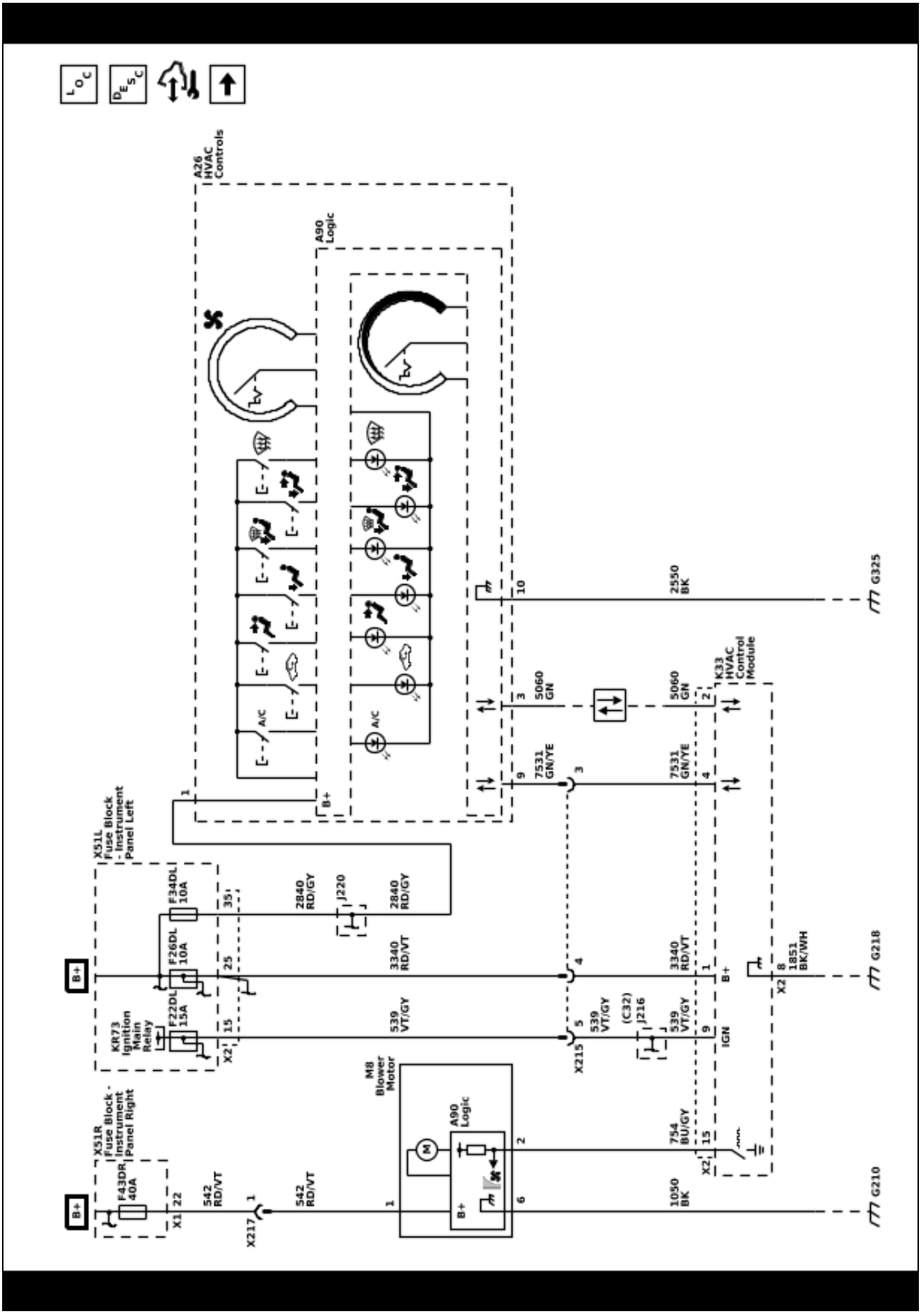
The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the compressor, in a vapor state. This completes the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

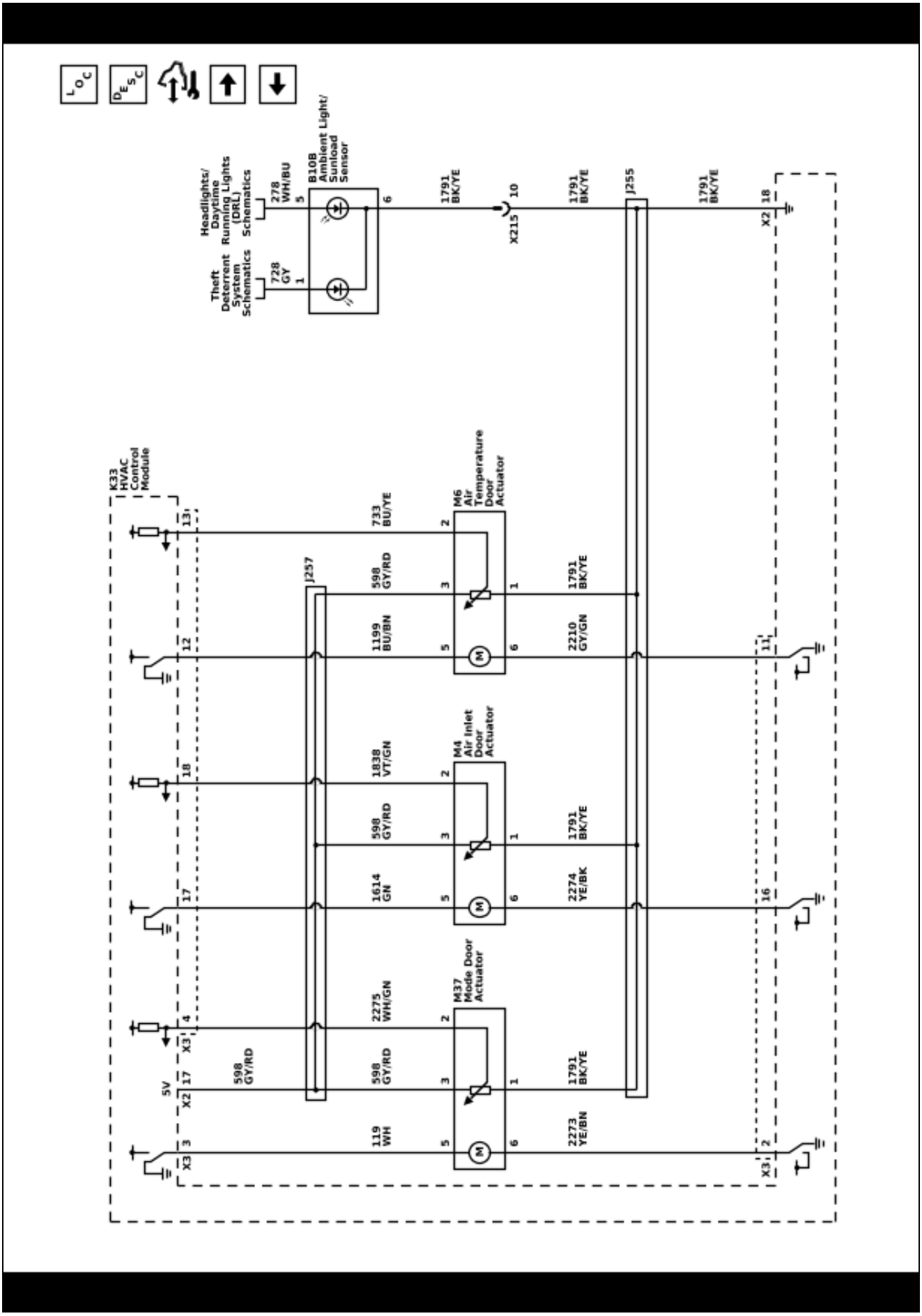
HVAC - Manual

Schematic and Routing Diagrams

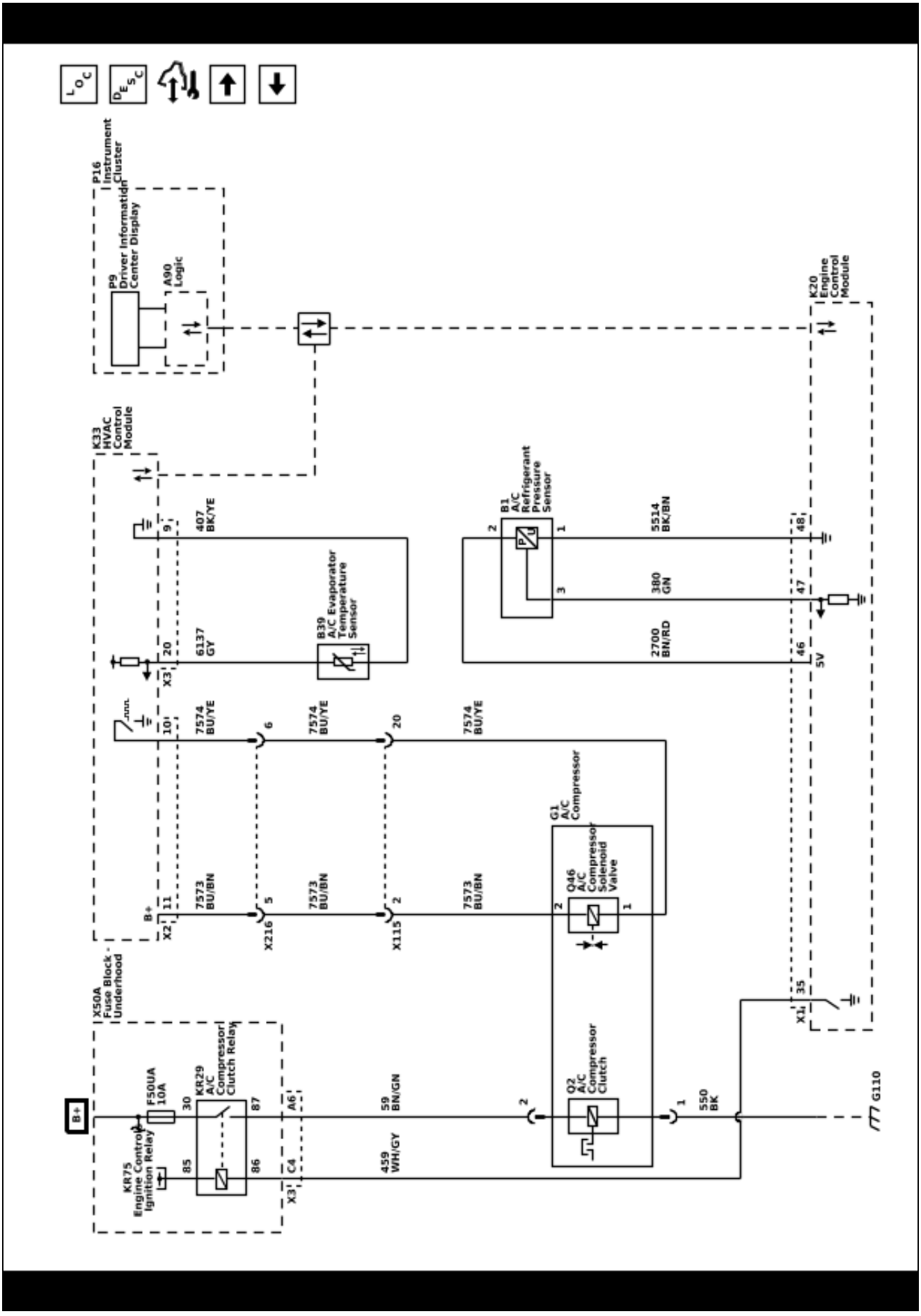
HVAC Schematics (Power, Ground, Serial Data and Controls)



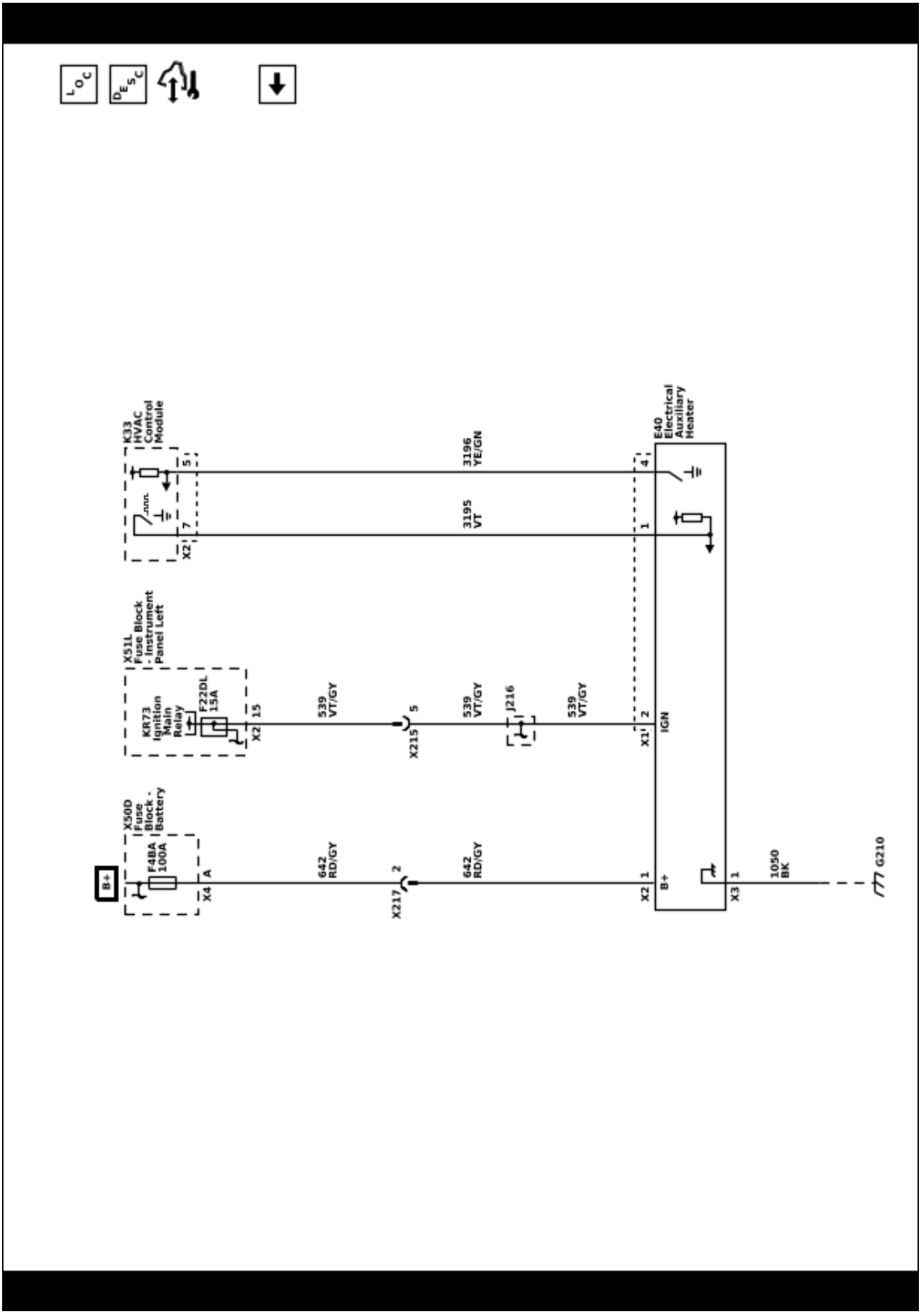
HVAC Schematics (Ambient Light/Sunload Sensor and Mode Doors)



HVAC Schematics (A/C Compressor Controls)



HVAC Schematics (Auxiliary Heater (C32))



Description and Operation

Manual HVAC Description and Operation

The air temperature and the air delivery description and operation are divided into eight areas:

- HVAC Control Components
- Air Speed
- Air Delivery
- Heating and A/C Operation
- Recirculation Operation
- Engine Coolant and A/C System Refrigerant

HVAC Control Components

HVAC Control

The HVAC control contains all switches, buttons, and dials which are required to control the functions of the HVAC system and serve as interface between the operator and the HVAC control module. The selected values are passed to the HVAC control module via LIN-Bus.

HVAC Control Module

The HVAC control module is a GMLAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The battery positive voltage circuit provides power that the HVAC control module uses for keep alive memory. If the battery positive voltage circuit loses power, all HVAC DTCs and settings will be erased from keep alive memory. The body control module (BCM), which is the vehicle mode master, provides a device ON-Signal. The HVAC control module provides blower, air delivery mode and air temperature settings.

Actuators

Doors in the HVAC case assembly are used to control air flow. The HVAC control module operates the doors through the use of actuators, with one actuator being used for each door. The system has the following air control doors and associated actuators: mode, temperature, and recirculation.

Each actuator used in the system is a 5-wire bi-directional electric motor that incorporate a feedback potentiometer. The five circuits are, low reference, 5 V reference, actuator position signal, and two control circuits. The control circuits use either a ground or 12 V value to coordinate the actuator movement. In order to move the actuator, the HVAC control module grounds one of the control circuits while providing the other with 12 V. The HVAC control module reverses the polarity of the control circuits to move the actuator in the opposite direction.

When the actuator shaft rotates, the potentiometer's sliding contact changes the door position signal between 0–5 V. The HVAC control module converts the voltage signal to counts. The total range of the counts is 0–1024, with an operating range between 20–1000. The actual operating range of an actuator is determined during calibration. During calibration, the actuator is moved though its full range of travel and the module stores the minimum and maximum value. Based on the desired system operation, the module sets a commanded, or targeted, value for the actuators. The control circuits are operated to move the door to the required position, and the changing position signal is sent to the module. Once the actual position signal and the commanded value are the same, the module ceases operating the control circuits and the actuator (and door) remain in the desired position.

Blower Motor

The blower motor speed control signal from the HVAC Control Module, battery positive and ground circuits enable the blower motor to operate. The blower motor control circuitry is integrated within the blower motor assembly. The HVAC control module provides a low side pulse width modulation (PWM) signal to the blower motor to request a specific motor speed. The blower motor translates the PWM signal and drives the motor accordingly.

Evaporator Temperature Sensor

The evaporator temperature sensor is a 2-wire negative temperature coefficient thermistor. The sensor operates within a temperature range of −40 to +85°C (−40 to +185°F). The sensor is installed near the evaporator core to measure the air temperature exiting the core.

Based on vehicle operating conditions and operator settings, the HVAC software algorithms will determine a target evaporator air temperature. The operation of the compressor solenoid will be adjusted as needed to quickly reach and maintain the targeted temperature.

A/C Refrigerant Pressure Sensor

The A/C refrigerant pressure sensor is a 3-wire piezoelectric pressure transducer. A 5 V reference voltage, low reference, and signal circuits enable the sensor to operate. The A/C pressure signal can be between 0.2–4.8 V. When the A/C refrigerant pressure is low, the signal value is near 0 V. When the A/C refrigerant pressure is high, the signal value is near 5 V. The engine control module (ECM) converts the voltage signal to a pressure value. When pressure is too high or too low, the ECM will not allow the A/C compressor clutch to engage.

A/C Compressor

The A/C compressor uses a conventional belt driven magnetic clutch to engage and mechanically turn the compressor. When the A/C switch is pressed, the HVAC control module sends an A/C request message to the ECM via serial data. If specific criteria is met, the ECM then grounds the A/C compressor clutch relay control circuit, which will switch the A/C compressor clutch relay. With the relay contacts closed, battery voltage is supplied to the permanently grounded A/C compressor clutch. The A/C compressor clutch will then be activated.

This A/C system utilizes a variable displacement solenoid valve to alter the amount of displacement created by the turning of the compressor. The HVAC control module provides both battery voltage and a pulse width modulated ground to the variable displacement solenoid valve. When the A/C switch is pressed, the HVAC control module grounds the variable displacement solenoid using a (PWM) signal in

order to determine the amount of compressor displacement. The performance of the A/C compressor is regulated based on cooling load.

Air Speed

The blower control switch is part of the HVAC controls. The selected value of the blower switch position is sent to the HVAC control module via LIN-Bus. The blower motor control circuitry is integrated within the blower motor assembly. The HVAC control module provides a low side pulse width modulation (PWM) signal to the blower motor to request a specific motor speed. The blower motor translates the PWM signal and drives the motor accordingly.

Afterblow

Afterblow is a feature that dries the evaporator core by operating the blower motor after the engine is turned OFF under certain conditions. This reduces the amount of microbial growth that can create undesirable odors. For additional information on afterblow, the default setting, and changing the setting, refer to Afterblow Configuration.

Air Delivery

The HVAC control module controls the distribution of air by the use of recirculation and mode door actuator. The modes that may be selected are:

- Defrost
- Defog
- Panel
- Floor

The desired air distribution mode can be selected with the air distribution switches at the HVAC control. The HVAC control delivers the values to the HVAC control module via LIN-Bus. The HVAC control module controls the mode door actuator so that it drives the door to the calculated position. Depending on the position of the door, air is distributed through various ducts leading to the outlets in the dash. Turning the mode door to the defrost position, the HVAC control module will move the recirculation actuator to outside air, reducing window fogging. When defrost is selected, the blower motor will be activated, regardless of the coolant temperature. The HVAC control module enables a high volume of air delivered to the front defrost vents. A/C is available in all modes.

The rear window defogger does not affect the HVAC system.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following can affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation actuator setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting

When the A/C switch is pressed, the HVAC controls sends a signal to the HVAC control module via LIN-Bus. The HVAC control module evaluates this signal and sends an A/C request signal to the ECM via CAN-Bus. The ECM checks all preconditions before releasing and if all conditions are met sends a release signal back to the HVAC control module. The ECM will provide a ground for the A/C compressor relay enabling it to close its internal contacts to send battery voltage to the A/C compressor clutch coil. The A/C compressor clutch will be activated. The performance of the A/C compressor is regulated via a variable A/C compressor solenoid valve. The HVAC control module supplies battery voltage to the A/C compressor. When the A/C switch is pressed, the HVAC control module provides a pulse width modulation (PWM) signal to the A/C compressor solenoid valve in order to command the performance of the A/C compressor.

The following conditions must be met in order to activate the A/C compressor:

- Battery voltage is between 9–18 V
- Engine coolant temperature is less than 124°C (255°F)
- Engine speed is greater than 600 RPM
- Engine speed is less than 5 500 RPM
- A/C high side pressure is between 269–2 929 kPa (39–425 PSI)
- Throttle position is less than 100%
- Evaporator temperature is greater than 3°C (38°F)
- ECM does not detect immoderate torque load
- ECM does not detect insufficient idle quality
- The ambient temperature is above 1°C (34°F)

The sensor information is used by the ECM to determine the following:

- The A/C high side pressure
- An A/C system load on the engine
- An immoderate A/C high side pressure
- The heat load at the A/C condenser

The air streams into the passenger compartment through the heater core and the evaporator core. The air temperature actuator drives the mixed air door to direct the airflow. If the interior temperature should be increased, the mixed air door is put into the position in which more air streams through the heater core. If the interior temperature should be decreased, the mixed air door is put into the position in which more air streams through the evaporator core.

Recirculation Operation

The recirculation switch is integrated into the HVAC control. The selected recirculation setting is sent to the HVAC control module via LIN-Bus. The HVAC control module controls the air intake using the recirculation actuator. In recirculation mode the recirculation door is positioned to block outside air from entering and circulate the air within the vehicle. In outside air mode the recirculation door is positioned to route outside air into the vehicle.

Recirculation is only available if the defrost mode is not active. When the defrost mode is active, the recirculation actuator positions the recirculation door so that outside air is circulated to the windshield to reduce fogging.

Electric Auxiliary Heater (C32)

Some models are equipped with an auxiliary electric heater to assist in warming the passenger compartment when the engine coolant has not sufficiently warmed to operating temperature. The heater is a 12 V positive temperature coefficient heating element located in the HVAC case just downstream of the traditional heater core. The HVAC control module will activate it when the outside temperature is less than approximately 8°C (46°F), the engine coolant temperature is less than approximately 75°C (167°F), and the temperature blend door is commanded to the full hot position.

Engine Coolant and A/C System Refrigerant

For information on engine coolant, coolant flow, A/C refrigerant, and the A/C refrigerant cycle, refer to *Heating and Air Conditioning System Description and Operation on page 6-3*.

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Section 7

Power and Signal Distribution

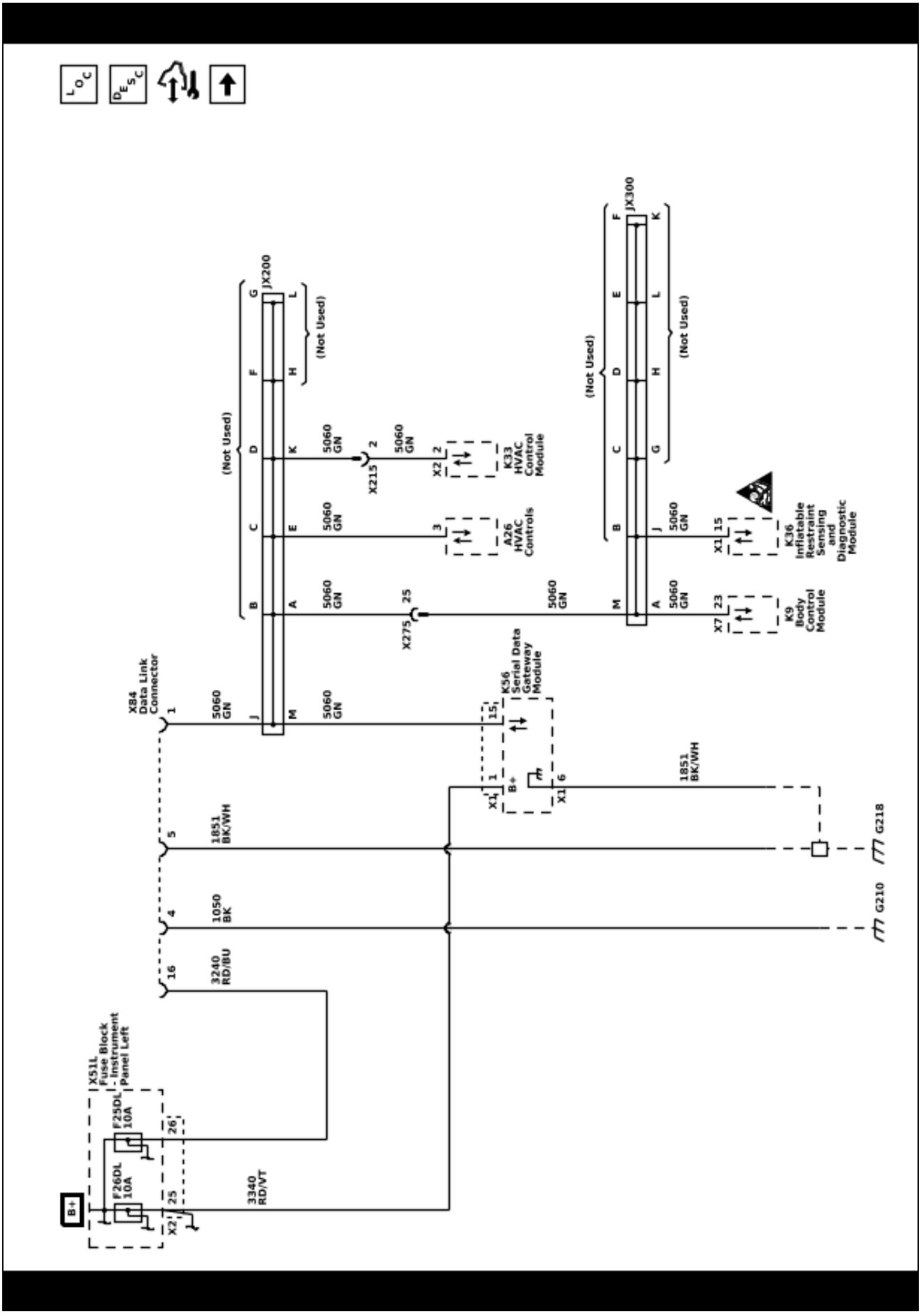
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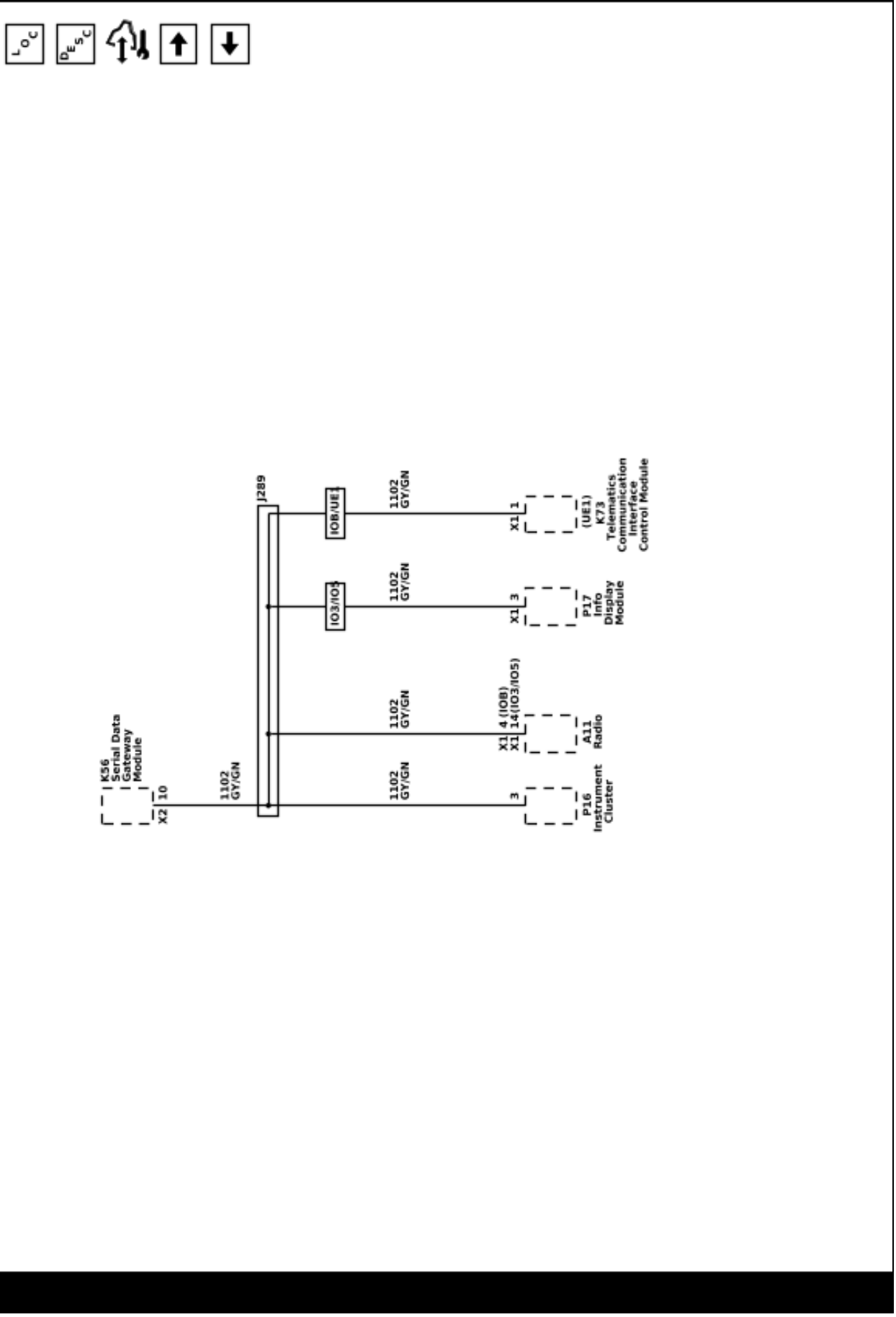
Data Communications

Schematic and Routing Diagrams

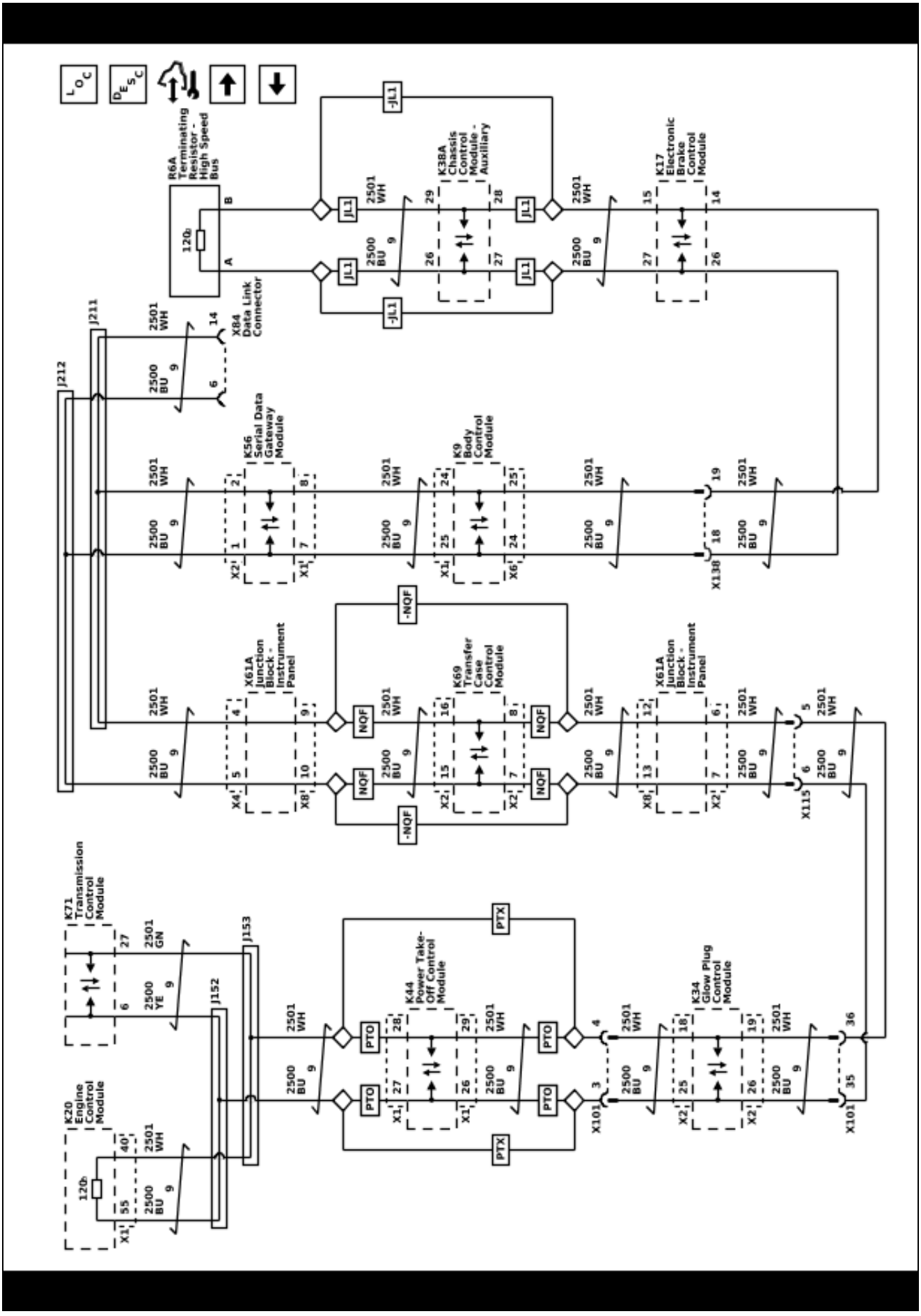
Data Communication Schematics (Data Link Power and Ground, and Low Speed GMLAN)



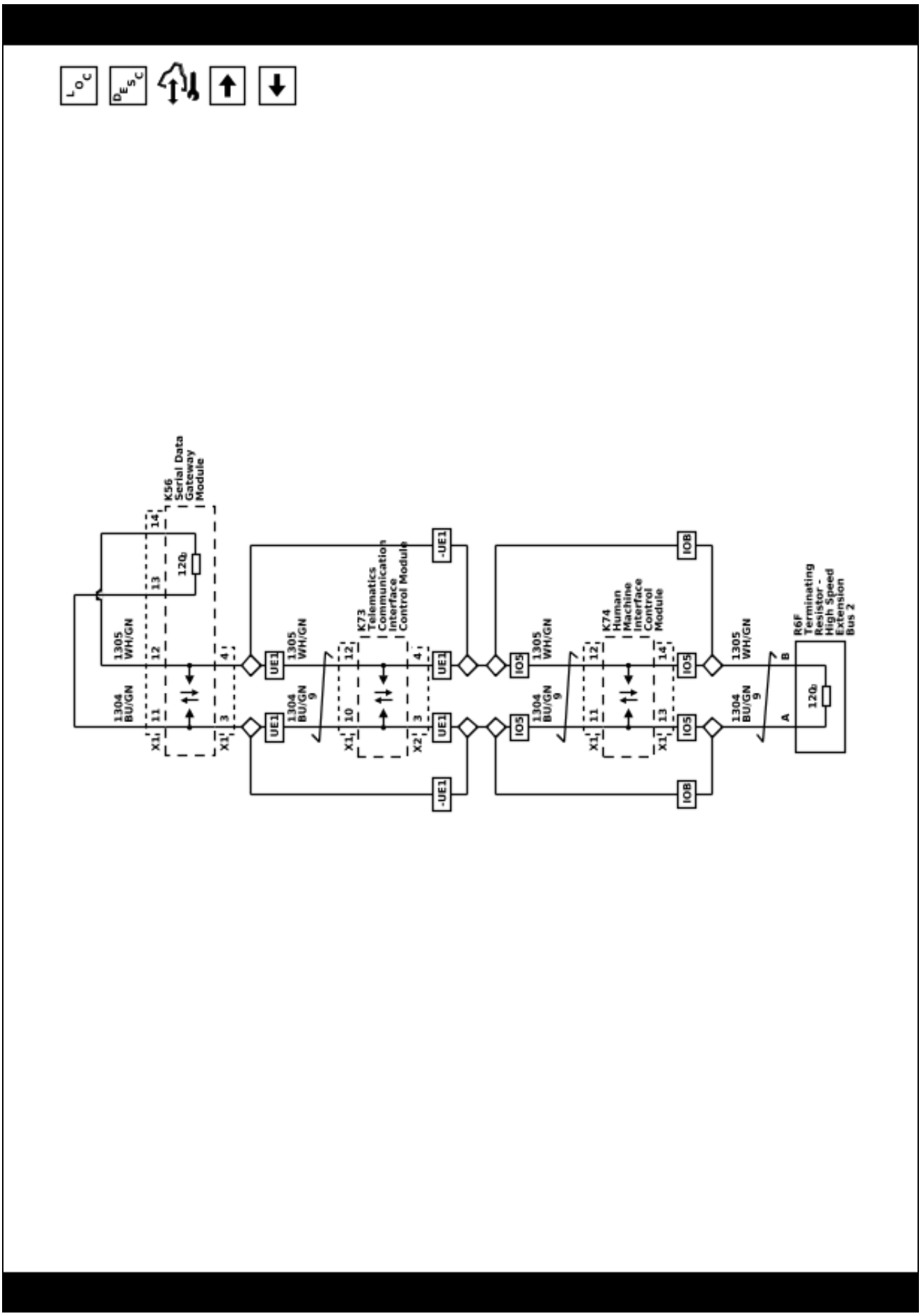
Data Communication Schematics (Gateway Isolated Low Speed GMLAN)



Data Communication Schematics (High Speed GMLAN)

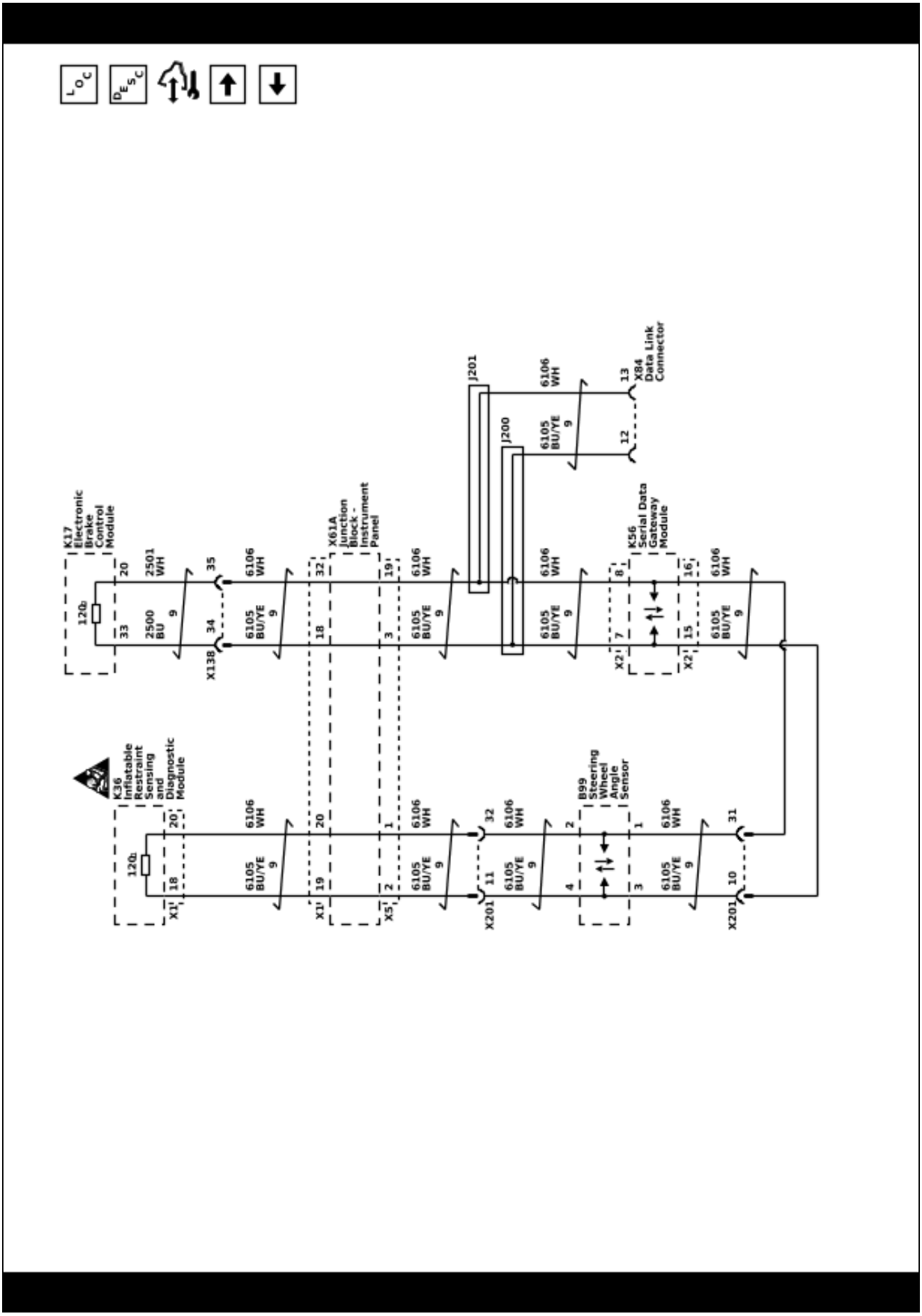


Data Communication Schematics (Gateway Isolated High Speed GMLAN (IO5/UE1))

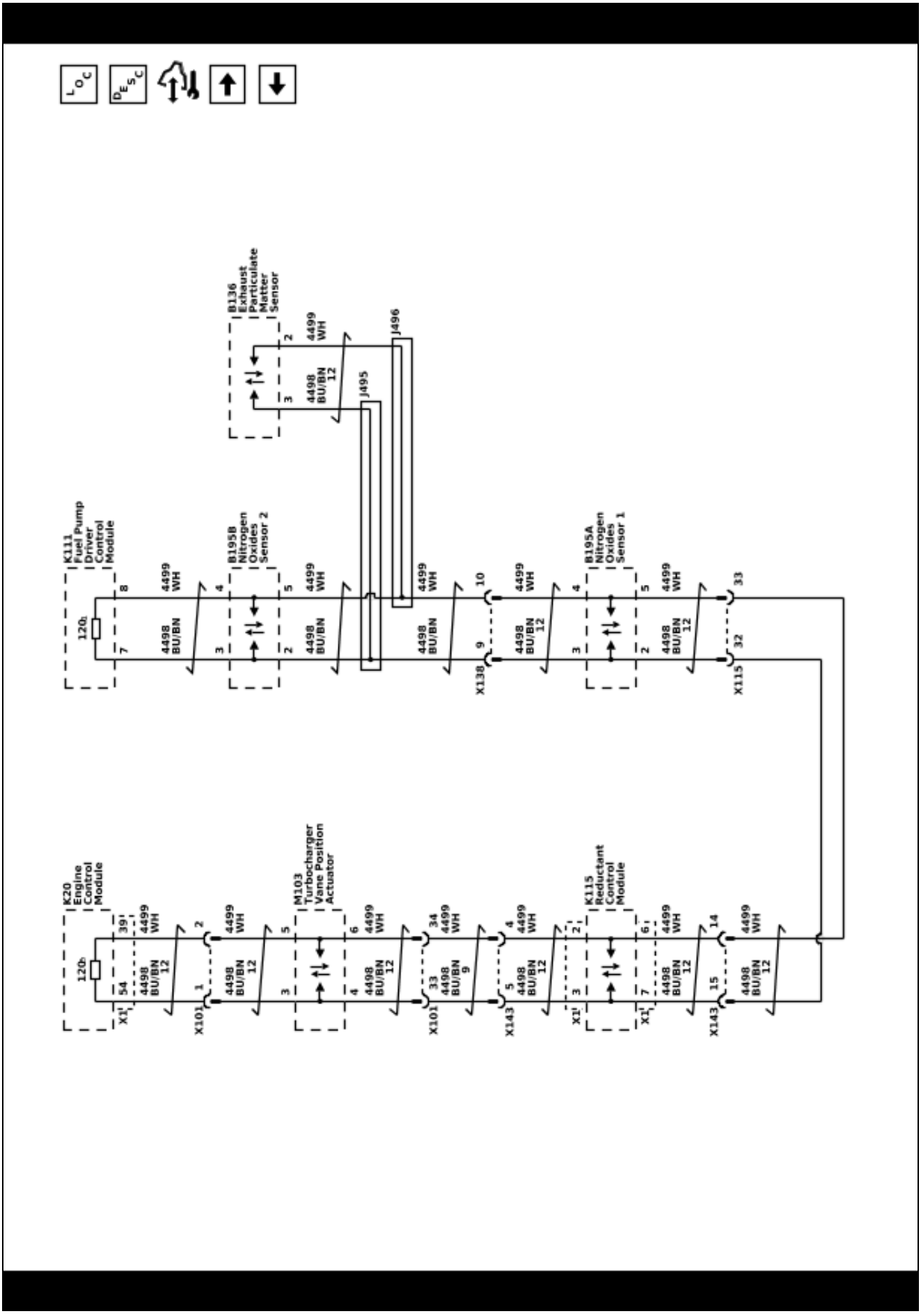


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Data Communication Schematics (Chassis Expansion Bus)

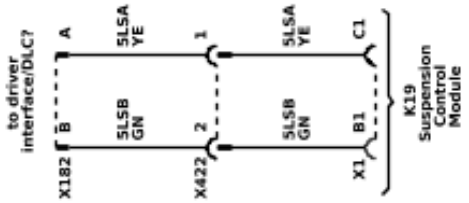


Data Communication Schematics (Powertrain Expansion Bus)



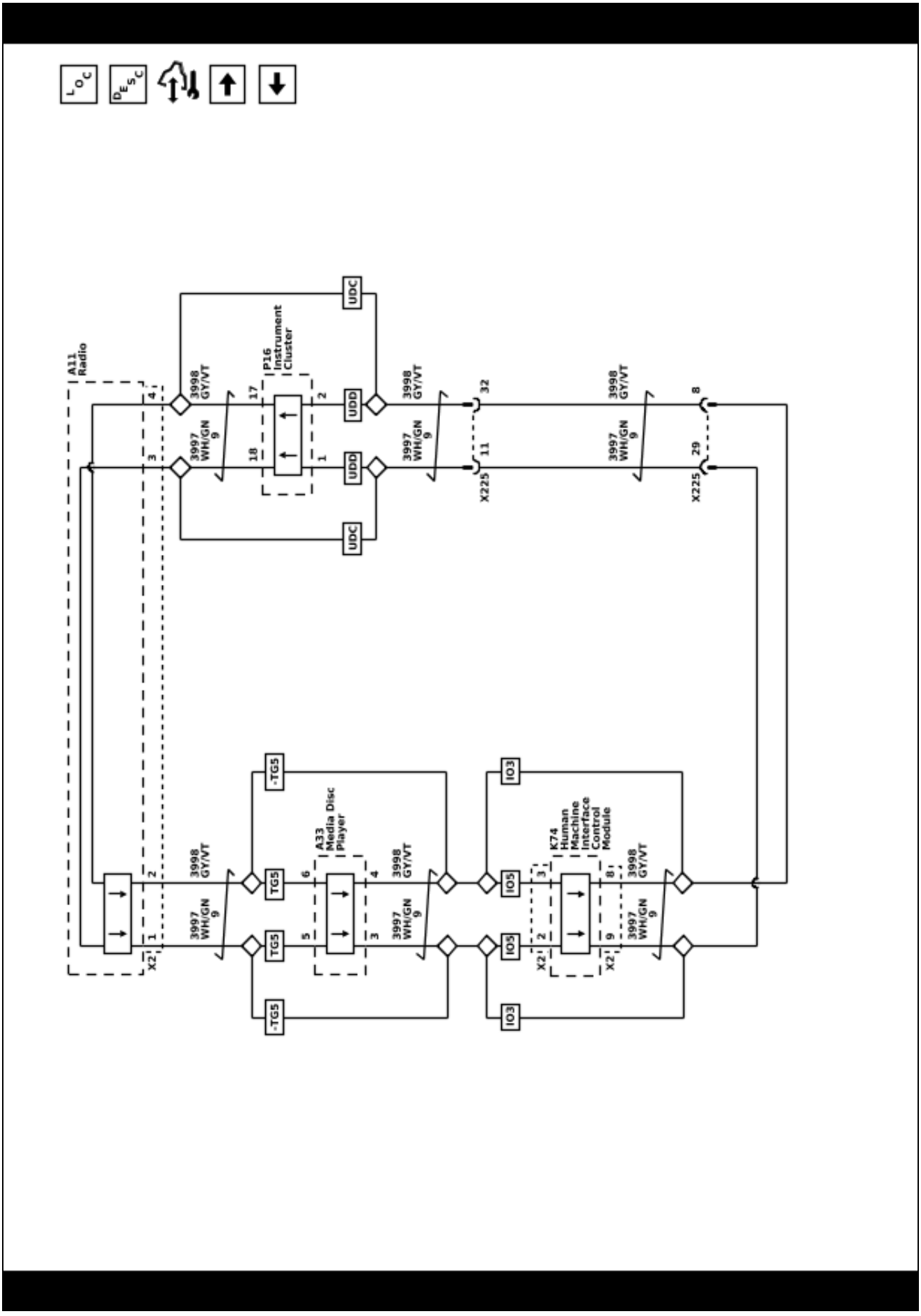
Data Communication Schematics (CAN Data (91B/91C/91D/91E))



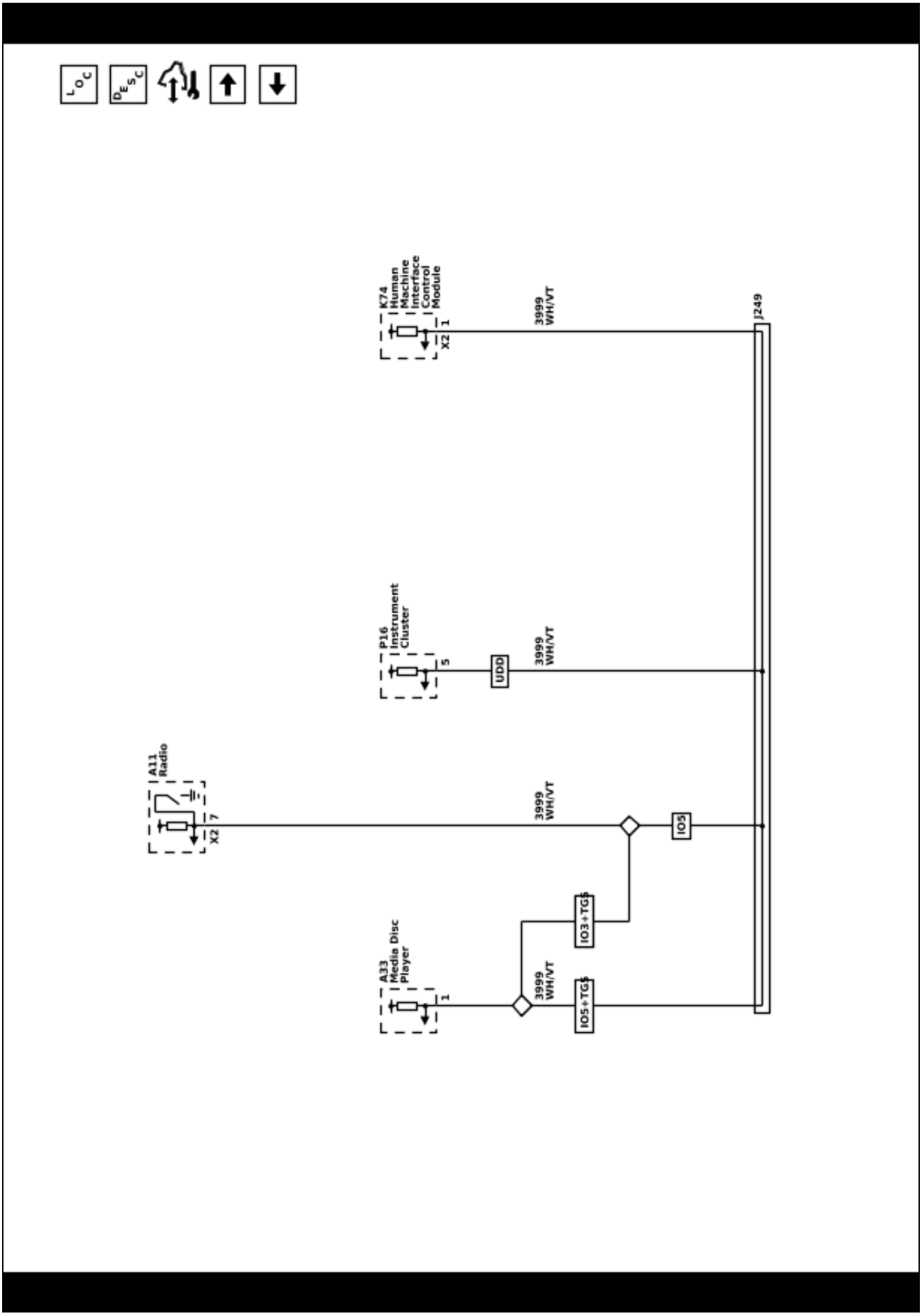


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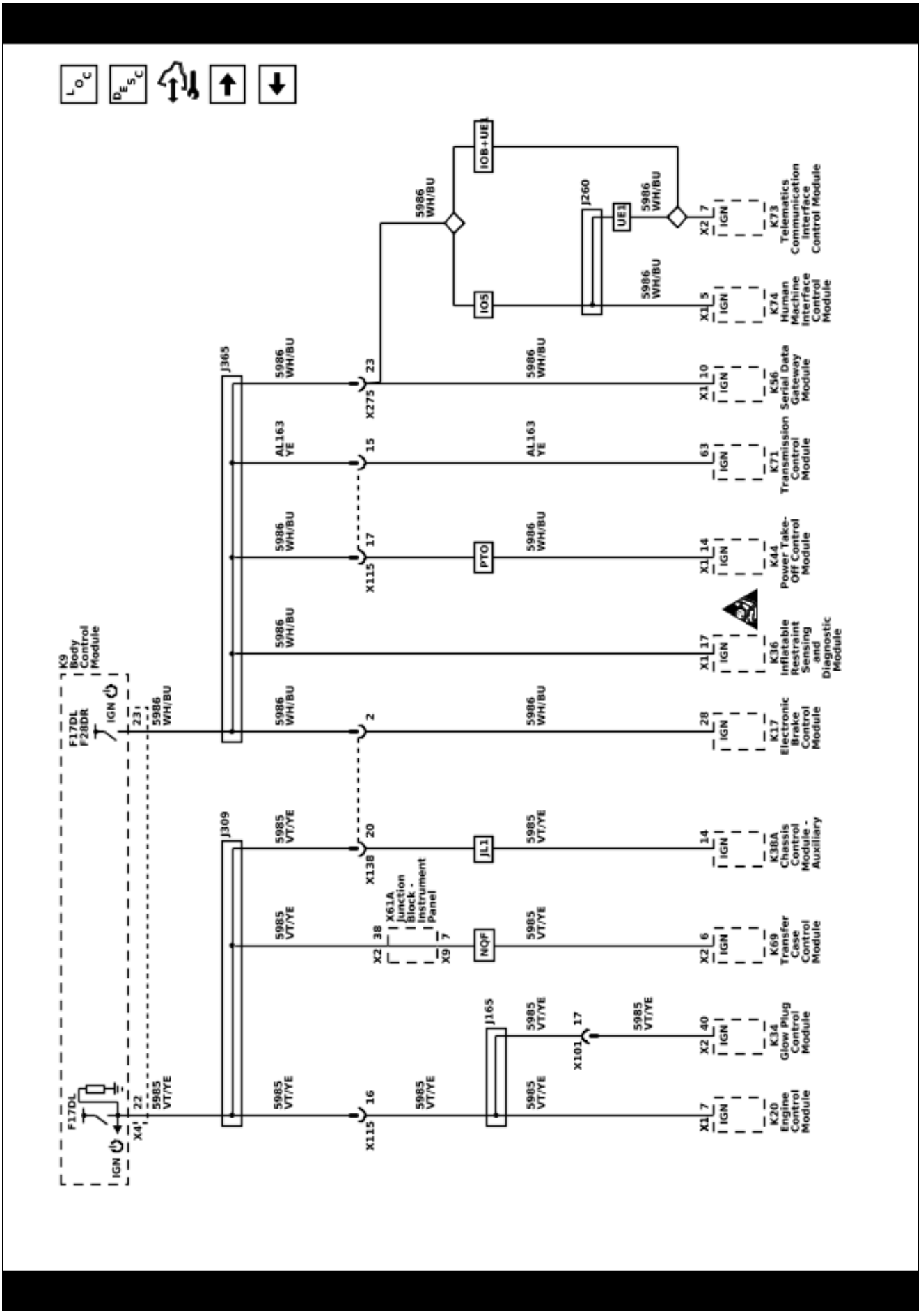
Data Communication Schematics (MOST Communication Bus (IO3/IO5))



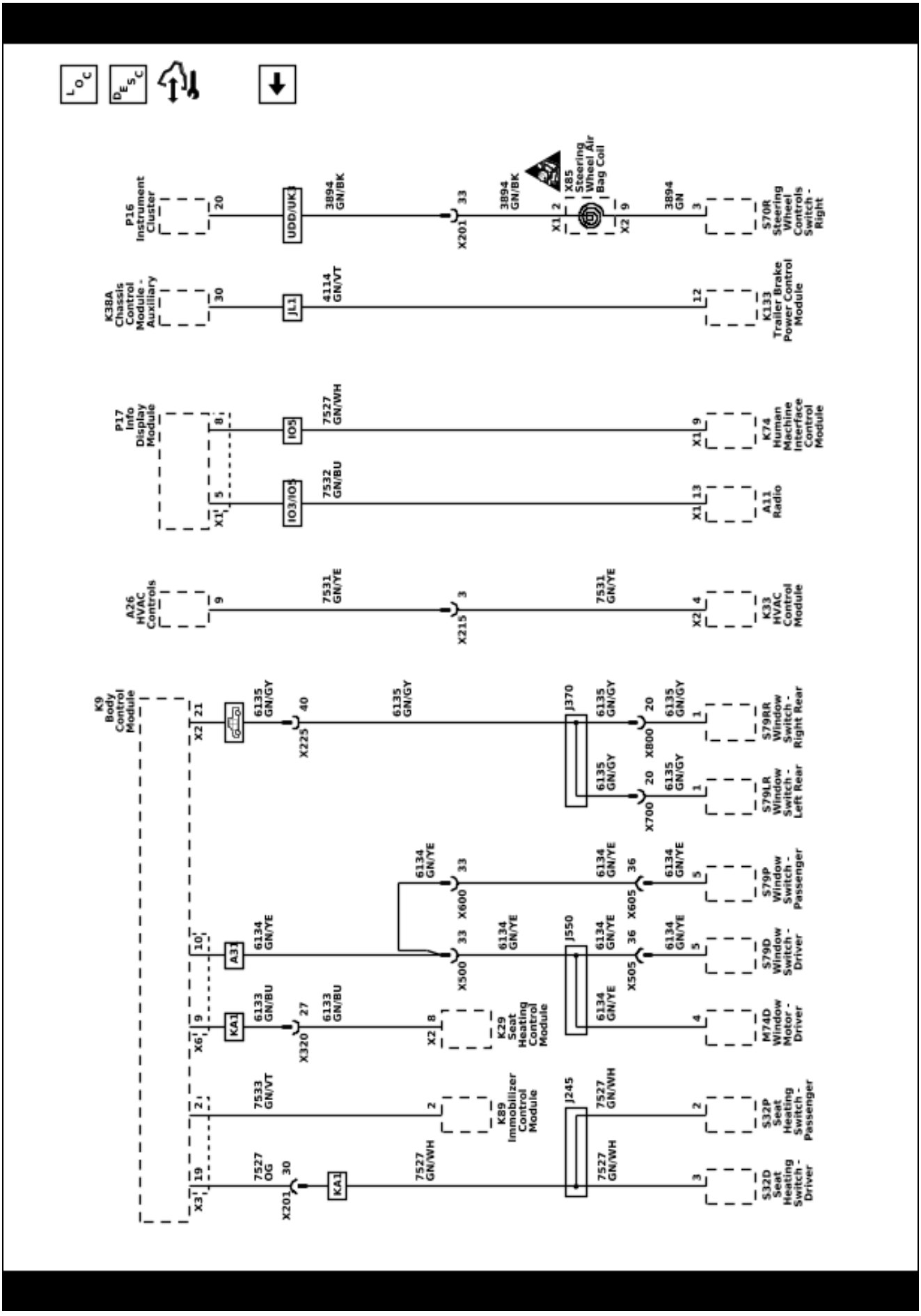
Data Communication Schematics (MOST Communication Enable (IO3/IO5))



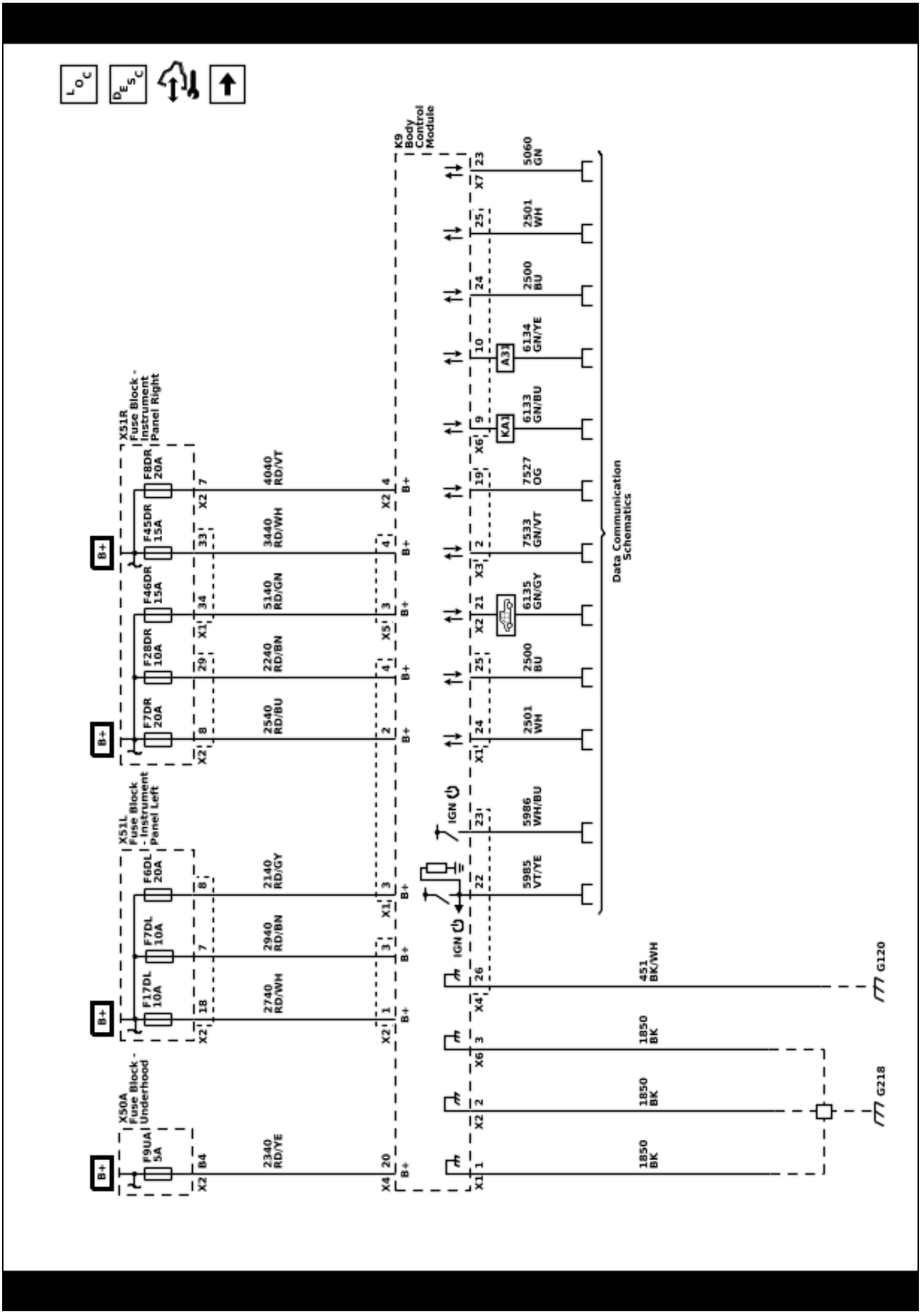
Data Communication Schematics (Accessory Wakeup and Communications Enable)



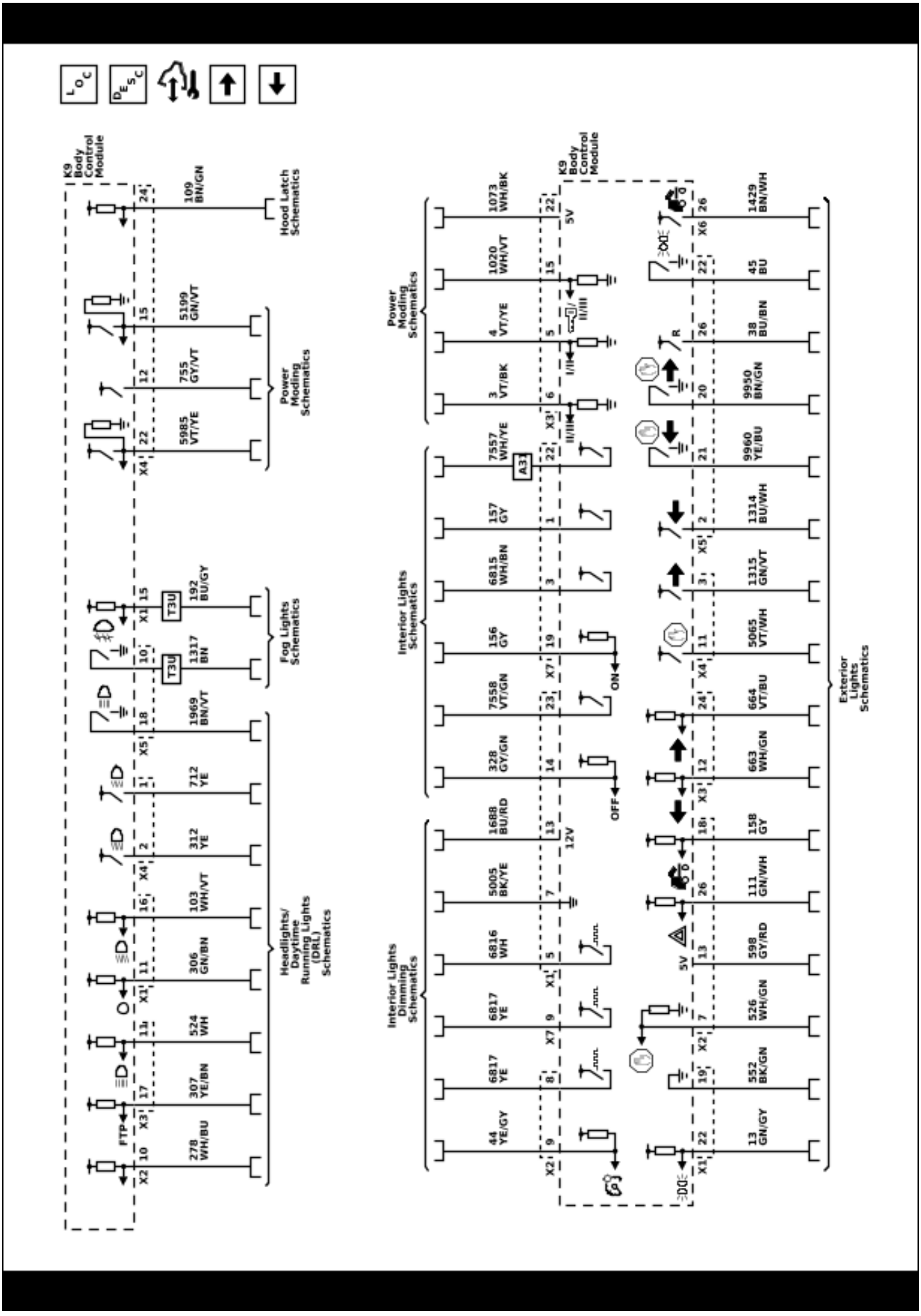
Data Communication Schematics (Local Interconnect Network)



Body Control System Schematics (Module Power, Ground and Serial Data)

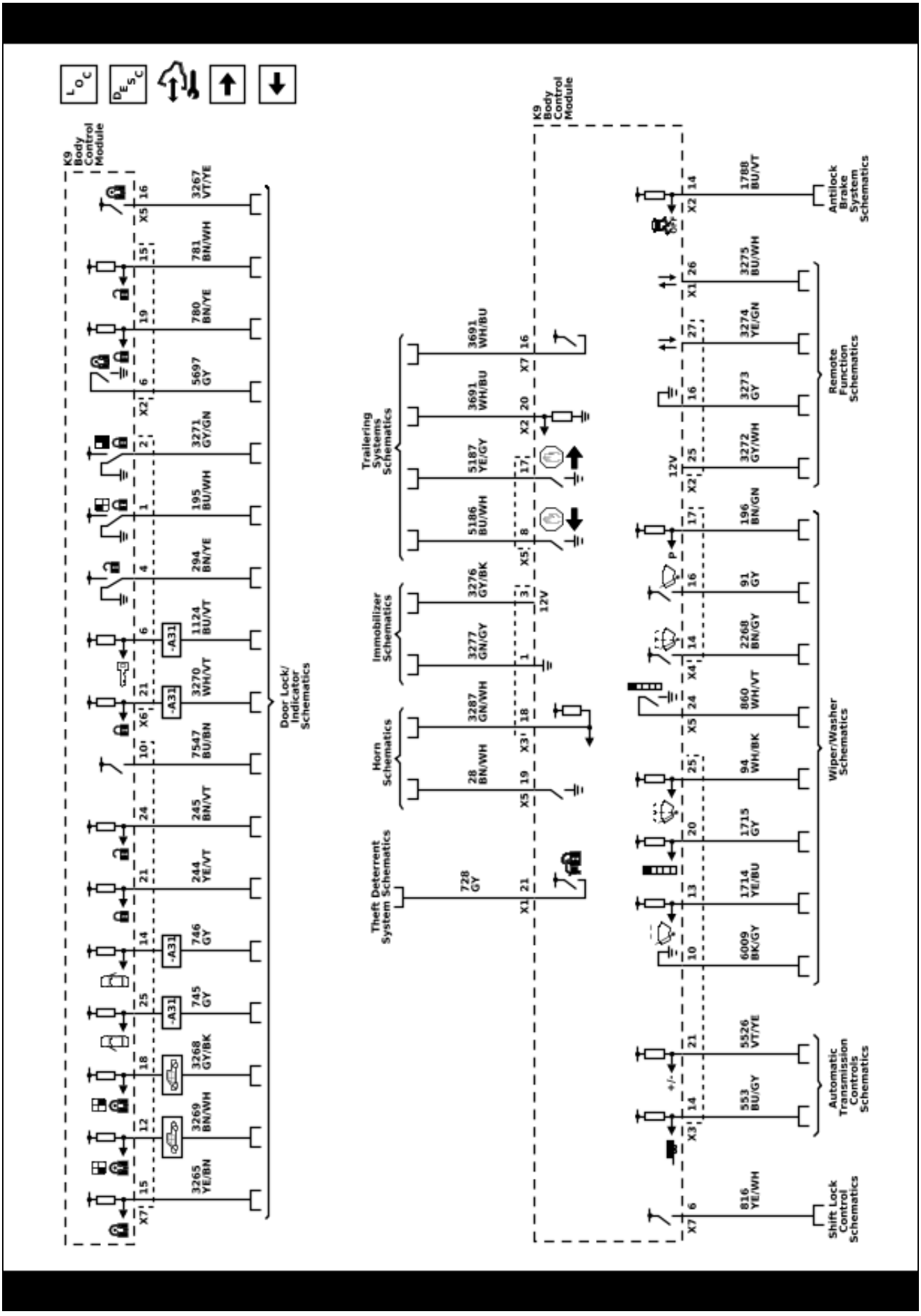


Body Control System Schematics (Subsystem References (1 of 3))

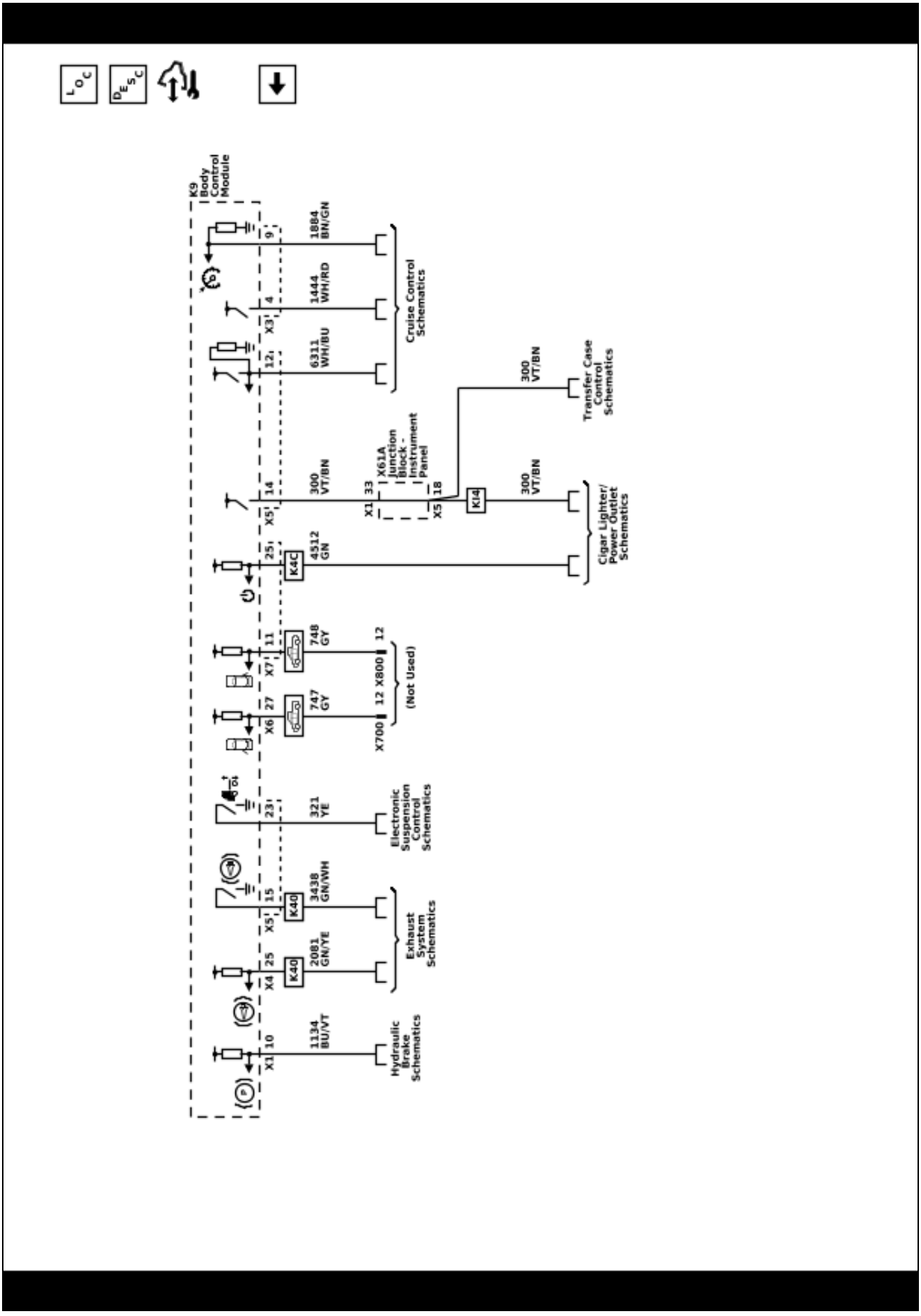


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Body Control System Schematics (Subsystem References (2 of 3))



Body Control System Schematics (Subsystem References (3 of 3))



Description and Operation

Body Control System Description and Operation

The body control system consists of the body control module (BCM), communications, and various input and outputs. Some inputs, outputs and messages require other modules to interact with the BCM. The BCM also has discrete input and output terminals to control the vehicle's body functions. The BCM is wired to the high speed GMLAN serial data bus, low speed GMLAN serial data bus and Multiple LIN buses and acts as a gateway between them.

Power Mode Master

This vehicle body control module (BCM) functions as the power mode master (PMM). The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determining the power mode that will be sent over the serial data circuits to the other modules that need this information; the PMM will activate relays and other direct outputs of the PMM as needed. Refer to *Power Mode Description and Operation on page 7-693* for a complete description of power mode functions.

Gateway

The body control module (BCM) in this vehicle functions as a gateway or translator. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus for communication between the various modules. The gateway will interact with each network according to that network's transmission protocol.

All communication between the BCM and a scan tool is on the high speed GMLAN serial data circuits. A lost communication DTC typically is set in modules other than the module with a communication failure.

Body Control

The various body control module (BCM) input and output circuits are illustrated in the corresponding functional areas on the BCM electrical schematics. Refer to the *Body Control System Schematics on page 7-15* for more detailed information.

Data Link Communications Description and Operation

Note: This is an overview of different serial data buses used by GM devices to communicate with each others. Use *Data Communication Schematics on page 7-4* to find out which serial data buses are configured for a specific vehicle.

Circuit Description

There are many components in a vehicle that rely on information from other sources, transmit information to other sources, or both. Serial data communication networks provide a reliable, cost effective, way for various components of the vehicle to “talk” to one another and share information.

GM uses a number of different communication buses to insure the timely and efficient exchange of information between devices. When compared to each other, some of these buses are different in nature as far as speed, signal characteristics, and behavior. An example of this is the High Speed GMLAN and Low Speed GMLAN buses.

On the other hand, when other buses are compared to each other they have similar characteristics and simply operate in parallel. In this case they are used to group together components which have high interaction. Examples are the High Speed GMLAN, Powertrain Expansion, and Chassis Expansion buses. This allows them to communicate with each other on a bus with reduced message congestion insuring faster and the more timely exchange of information than if all vehicle devices were on a single bus.

The majority of information that exists within a given network generally stays local; however some information will have to be shared on other networks. Control modules designated as Gateway’s perform the function of transferring information between the various buses. A Gateway module is connected to at least 2 buses and will interact with each network according to its message strategy and transmission models.

GMLAN provides the capability for a receiving device to monitor message transmissions from other devices in order to determine if messages of interest are not being received. The primary purpose is to allow reasonable default values to be substituted for the information no longer being received. Additionally, a device may set a Diagnostic Trouble Code to indicate that the device it is expecting information from is no longer communicating.

High Speed GMLAN Circuit Description

A High Speed GMLAN Bus is used where data needs to be exchanged at a high enough rate to minimize the delay between the occurrence of a change in sensor value and the reception of this information by a control device using the information to adjust vehicle system performance.

The High Speed GMLAN serial data network consists of two twisted wires. One signal circuit is identified as GMLAN-High and the other signal circuit is identified as GMLAN-Low. At each end of the data bus there is a 120 Ω termination resistor between the GMLAN-High and GMLAN-Low circuits.

Data symbols (1’s and 0’s) are transmitted sequentially at a rate of 500 Kbit/s. The data to be transmitted over the bus is represented by the voltage difference between the GMLAN-High signal voltage and the GMLAN-Low signal voltage.

When the two wire bus is at rest the GMLAN-High and GMLAN-Low signal circuits are not being driven and this represents a logic “1”. In this state both signal circuits are at the same voltage of 2.5 V. The differential voltage is approximately 0 V.

When a logic “0” is to be transmitted, the GMLAN-High signal circuit is driven higher to about 3.5 V and the GMLAN-Low circuit is driven lower to about 1.5 V. The differential voltage becomes approximately 2.0 (+/- 0.5) V.

Chassis High Speed GMLAN Circuit Description

The GMLAN Chassis Expansion Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for chassis components. This implementation splits message congestion between two parallel buses helping to insure timely message transmission and reception. Sometimes communication is required between the Chassis Expansion Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K17 Electronic Brake Control Module (EBCM) as the Gateway module. Since the High Speed GMLAN Chassis Expansion Bus and primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

Powertrain High Speed GMLAN Circuit Description

The GMLAN Powertrain Expansion Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for Powertrain components. The bus is optional based upon feature content. Sometimes communication is required between the Powertrain Expansion Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K20 Engine Control Module (ECM) as the Gateway module. Since the High Speed GMLAN Powertrain Expansion Bus and the primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

Media Oriented Systems Transport (MOST) Circuit Description

The MOST Infotainment network is a dedicated high speed multimedia streaming data bus independent from GMLAN. The MOST bus will be configured in a physical hardwired loop with each device within the bus sends and receives data on an assigned MOST addresses in a set order. Each device on the MOST bus will be required to have twisted pair copper wires (2 transmit TX, 2 receive RX, and 1 electronic control line which is a 12 V wakeup signal line). The A11 Radio is the MOST Master and will monitor the bus for vehicle configuration, Infotainment data messages and errors on the bus. The MOST initialization consists of a short 100 ms low voltage pulse on the electronic control line (or MOST control line) connected to all devices contained on the MOST ring. This wakeup message once received by each device, will first respond with a generic device response. Once these initial responses on the MOST bus are reported successfully without error to the A11 Radio, the second data request will record the MOST device addresses, their functionality requirements and capabilities within. The A11 Radio will learn this information and also record the address node sequence on the MOST bus at this point. This node address list will now be stored within the A11 Radio as the MOST bus configuration (called “Last Working MOST ID of Node 1 – 9” on scan tool data display).

When MOST receive, transmit, or control line faults are detected, transmit/receive messages will not received as expected from the wakeup request. The A11 Radio and the K74 Human Machine Interface Control Module will then perform diagnostics to isolate these MOST faults. If the MOST control line is shorted low to 0 V for excess amount of time, the A11 Radio will set a U2098 DTC and K74 Human Machine Interface Control Module will set a U0029 02 DTC. At this point the MOST bus will be unable to communicate until the shorted MOST control line is repaired.

Once the shorted MOST control line diagnostics pass, the A11 Radio will attempt to resend the initial short pulse attempts up to 3 times on the MOST control line. If the expected responses are not received, the A11 Radio continues into a failure mode setting a U0028 DTC and will continue on to send one 300 ms long pulse, which will enable the furthest upstream transmitting device to become the surrogate MOST Master in this MOST fault/diagnostic mode. When the A11 Radio receives this new MOST Master identity, the surrogate MOST master device can be identified based on scan tool data parameter “Surrogate MOST Master Node Upstream Position”. The scan tool should be used to determine the MOST bus configuration and direction by utilizing the “Last Working MOST ID of Node 1 – 9” parameters from the A11 Radio data display. When a fault is present, it will indicate the newly enabled “Surrogate MOST Master Node Upstream Position” from the A11 Radio. This will assist in determining where the MOST bus/control is at fault. The MOST device upstream from the surrogate MOST master device, transmit, receive, or control lines will be the suspect areas for diagnostics at this point. These faults can be associated with any of the MOST transmit, receive, or control line twisted copper wires or possibly an internal device fault.

The K74 Human Machine Interface Control Module will set a U0029 00 DTC when it diagnoses a MOST bus not communicating properly after one attempt. When the DTC U0029 00 is set by the K74 Human Machine Interface Control Module without the corresponding DTC U0028 from the A11 Radio, it will be an indication of an intermittent wiring/device condition.

Low Speed GMLAN Circuit Description

Low Speed GMLAN Bus is used in applications where a high data rate is not required which allows for the use of less complex components. It is typically used for operator controlled functions where the response time requirements are slower than those required for dynamic vehicle control.

The Low Speed GMLAN Serial Data Network consists of a single wire, ground referenced bus with high side voltage drive. During on road vehicle operation data symbols (1’s and 0’s) are transmitted sequentially at the normal rate of 33.3 Kbit/s. For component programming only, a special high speed data mode of 83.3 Kbit/s may be used.

Unlike the high speed dual wire networks, the single wire low speed network does not use terminating resistors at either end of the network.

The data symbols to be transmitted over the bus are represented by different voltage signals on the bus. When the Low Speed GMLAN Bus is at rest and is not being driven, there is a low signal voltage of approximately 0.2 V. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven higher to around 4.0 V or higher.

Local Interconnect Network (LIN) Circuit Description

The Local Interconnect Network (LIN) Bus consists of a single wire with a transmission rate of 10.417 Kbit/s. This bus is used to exchange information between a master control module and other smart devices which provide supporting functionality. This type of configuration does not require the capacity or speed of either a High Speed GMLAN Bus or Low Speed GMLAN Bus and is thus relatively simpler.

The data symbols (1's and 0's) to be transmitted are represented by different voltage levels on the communication bus. When the LIN Bus is at rest and is not being driven, the signal is in a high voltage state of approximately Vbatt. This represents a logic "1". When a logic "0" is to be transmitted, the signal voltage is driven low to about ground (0.0 V).

Communication Enable Circuit Description

Devices on High Speed GMLAN Bus enable or disable communication based on the voltage level of the communication enable circuit. When the circuit voltage is high (around 12 V), communications are enabled. When the circuit is low, communications are disabled.

Data Link Connector (DLC)

The X84 Data Link Connector (DLC) is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and is required to provide the following:

- Terminal 1 Low speed GMLAN communications terminal
- Terminal 4 Scan tool power ground terminal
- Terminal 5 Common signal ground terminal
- Terminal 6 High speed GMLAN serial data bus (+) terminal
- Terminal 12 Chassis high speed GMLAN serial bus (+) terminal
- Terminal 13 Chassis high speed GMLAN serial bus (-) terminal
- Terminal 14 High speed GMLAN serial data bus (-) terminal
- Terminal 16 Scan tool power, battery positive voltage terminal

Serial Data Reference

The scan tool communicates over the various buses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every device that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm (or Not Connected) for that optional device. In order to avert misdiagnoses of No Communication with a specific device, refer to Data Link References for a list of devices and the buses they communicate with. Use schematics and specific vehicle build RPO codes to determine optional devices.

Serial Data Gateway Module Description and Operation

The K56 Serial Data Gateway Module is used to handle communications between multiple GMLAN busses and functions as a gateway to isolate the secure networks from the unsecured networks. It was created to mitigate bus loading to support cyber security and new active/advanced safety features like Limited Ability Autonomous Driving and Enhanced Collision Avoidance (if equipped). The K56 Serial Data Gateway Module is used as a frame-to-frame gateway for all functional messages.

Depending on the vehicle contents, the K56 Serial Data Gateway Module is gating between primary High Speed GMLAN Bus, Gateway Expansion High Speed GMLAN Bus, Gateway Isolated High Speed GMLAN Bus, and Chassis High Speed GMLAN Bus. The K56 Serial Data Gateway Module is also gating between primary Low Speed GMLAN Bus and Gateway Isolated Low Speed GMLAN Bus.

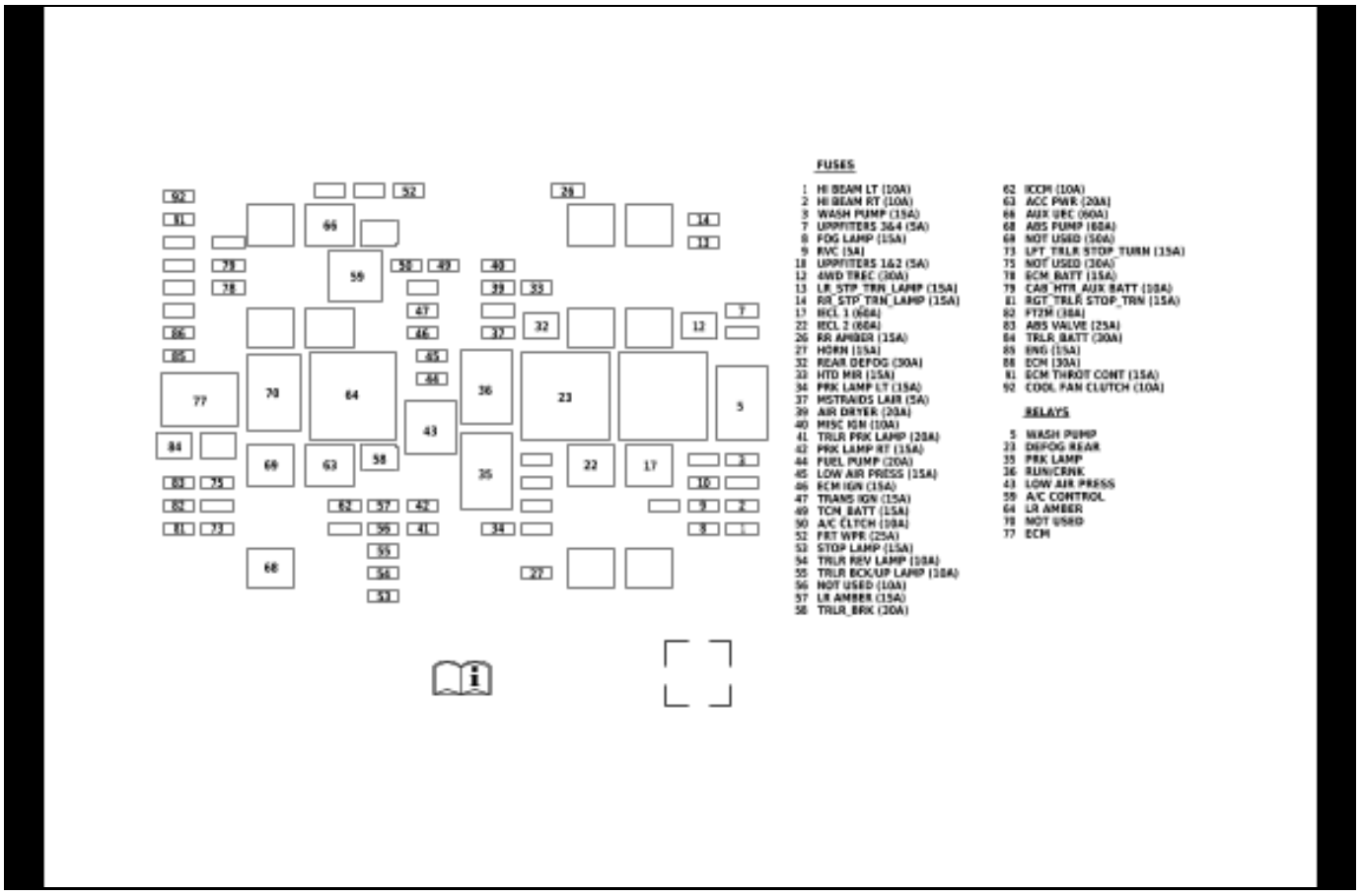
Communication between the K56 Serial Data Gateway Module and a scan tool is done through the primary High Speed GMLAN Bus.

Electrical Component and Inline Harness Connector End Views

Component Locator

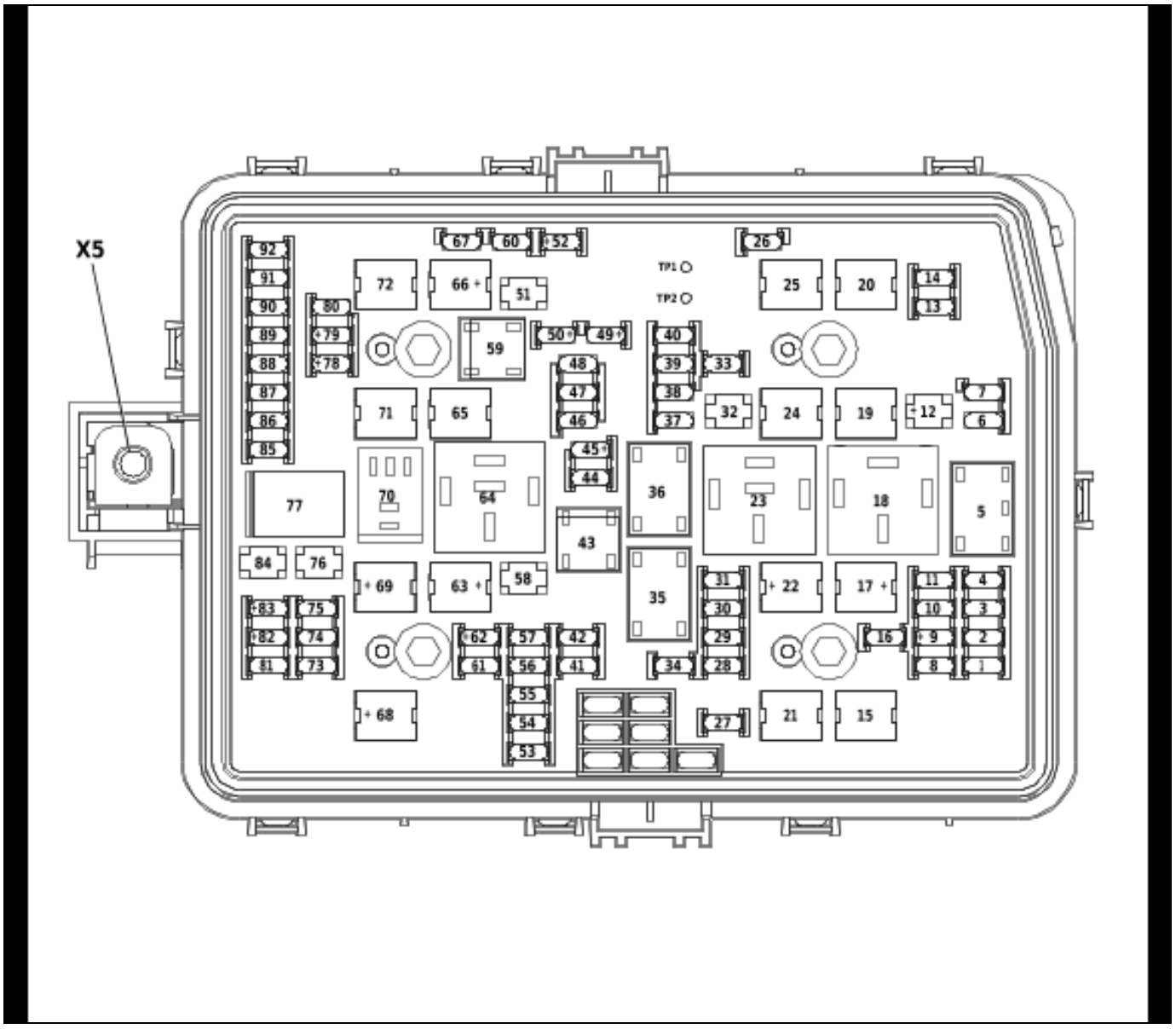
Electrical Center Identification Views

X50A Fuse Block - Underhood Label



4894090

X50A Fuse Block - Underhood Top View



4894093

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	HI BEAM LT	F1UA	10A	• E4E Headlamp - Left High Beam • X107 Accessory Wiring Harness Package - Snow Plow Tee Left to Snow Plow Headlight - Left (UNL)
2	HI BEAM RT	F2UA	10A	• E4F Headlamp - Right High Beam • X117 Accessory Wiring Harness Package - Snow Plow Tee Right to Snow Plow Headlight - Right (UNL)
3	WASH PUMP	F3UA	15A	• G24 Windshield Washer Pump
7	UPPFITERS 3 and 4	F7UA	5A	• F6DR
8	FOG LAMP	F8UA	15A	• E29LF Fog Lamp - Left Front (T3U) • E29RF Fog Lamp - Right Front (T3U)
9	RVC	F9UA	5A	• K9 Body Control Module

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
10	UPPFITERS 1 and 2	F10UA	5A	• F5DL
12	4WD TREC	F12UA	30A	• K69 Transfer Case Control Module (NQF)
13	LR_STP_TRN_LA-MP	F13UA	15A	• E5S Tail/Stop and Turn Signal Lamp - Left (-UEA) • E42L Tail Lamp Assembly - Left (UEA) • X405 Body Builder Connection to Chassis Front Wiring Harness (5DX) • X495 Body Builder Connection to Chassis Rear Wiring Harness - Right (5DY)
14	RR_STP_TRN_L-AMP	F14UA	15A	• E5T Tail/Stop and Turn Signal Lamp - Right (-UEA) • E42R Tail Lamp Assembly - Right (UEA) • X405 Body Builder Connection to Chassis Front Wiring Harness (5DX) • X495 Body Builder Connection to Chassis Rear Wiring Harness - Right (5DY)
17	IECL 1	F17UA	60A	• X51L Fuse Block - Instrument Panel Left
22	IECL 2	F22UA	60A	• X51L Fuse Block - Instrument Panel Left
26	RR AMBER	F26UA	15A	• X405 Body Builder Connection to Chassis Front Wiring Harness (5DX) • X495 Body Builder Connection to Chassis Rear Wiring Harness - Right (5DY)
27	HORN	F27UA	15A	• P12 Horn
32	REAR DEFOG	F32UA	30A	• E18 Rear Defogger Grid (C49)
33	HTD MIR	F33UA	15A	• E17D Outside Rearview Mirror Glass - Driver (DPN) • E17P Outside Rearview Mirror Glass - Passenger (DPN)
34	PRK LAMP LT	F34UA	15A	• E2LM Side Marker Lamp - Left Middle (DPN) • E3A Roof Clearance Lamp - Left Front Outer • E3C Roof Clearance Lamp - Front Middle • E3E Roof Clearance Lamp - Right Front Outer • E4S Park/Turn Signal Lamp - Left Upper • E4Q Park/Turn Signal Lamp - Left Lower • E5S Tail/Stop and Turn Signal Lamp - Left (-UEA) • E42L Tail Lamp Assembly - Left (UEA) • X107 Accessory Wiring Harness Package - Snow Plow Tee Left to Snow Plow Headlight - Left (UNL) • X405 Body Builder Connection to Chassis Front Wiring Harness (5DX) • X495 Body Builder Connection to Chassis Rear Wiring Harness - Right (5DY)
37	MSTRAIDS LAIR	F37UA	5A	• X231 Body Wiring Harness to Upfitter Wiring Harness
39	AIR DRYER	F39UA	20A	• E91 Air Dryer Valve Heater (JPY)
40	MISC IGN	F40UA	10A	• S48A Multifunction Switch - Instrument Panel • X191 Engine Wiring Harness - Chassis to Engine Wiring Harness - Chassis (PTO)
41	TRLR PRK LAMP	F41UA	20A	• X88 Trailer Connector (UY7)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
42	PRK LAMP RT	F42UA	15A	• E2RM Side Marker Lamp - Right Middle (DPN) • E4R Park/Turn Signal Lamp - Right Lower • E4T Park/Turn Signal Lamp - Right Upper • E5T Tail/Stop and Turn Signal Lamp - Right (-UEA) • E42R Tail Lamp Assembly - Right (UEA) • X117 Accessory Wiring Harness Package - Snow Plow Tee Right to Snow Plow Headlight - Right (UNL) • X405 Body Builder Connection to Chassis Front Wiring Harness (5DX) • X495 Body Builder Connection to Chassis Rear Wiring Harness - Right (5DY)
44	FUEL PUMP	F44UA	20A	• Not Used
45	LOW AIR PRESS	F45UA	15A	• KR99 Air Suspension Relay
46	ECM IGN	F46UA	15A	• K20 Engine Control Module • K38A Chassis Control Module - Auxiliary (JL1) • K111 Fuel Pump Control Module
47	TRANS IGN	F47UA	15A	• K34 Glow Plug Control Module • K71 Transmission Control Module
49	TCM_BATT	F49UA	15A	• K71 Transmission Control Module
50	A/C CLTCH	F50UA	10A	• KR29 A/C Compressor Clutch Relay
52	FRT WPR	F52UA	25A	• KR12B Windshield Wiper Relay • KR12C Windshield Wiper Speed Control Relay
53	STOP LAMP	F53UA	15A	• E6 Center High Mounted Stop Lamp • K19 Suspension Control Module connector (91B/91C/91D/91E) • X405 Body Builder Connection to Chassis Front Wiring Harness (5DX) • X495 Body Builder Connection to Chassis Rear Wiring Harness - Right (5DY)
54	TRLR REV LAMP	F54UA	10A	• A10 Inside Rearview Mirror (DD8) • E5A Backup Lamp - Left (-UEA) • E5B Backup Lamp - Right (-UEA) • E42L Tail Lamp Assembly - Left (UEA) • E42R Tail Lamp Assembly - Right (UEA) • P3 Backup Alarm (UZF) • X405 Body Builder Connection to Chassis Front Wiring Harness (5DX) • X495 Body Builder Connection to Chassis Rear Wiring Harness - Right (5DY)
55	TRLR BCK/UP LAMP	F55UA	10A	• X88 Trailer Connector (UY7)
56	NOT USED	F56UA	10A	• Not Used
57	LR AMBER	F57UA	15A	• X405 Body Builder Connection to Chassis Front Wiring Harness (5DX) • X495 Body Builder Connection to Chassis Rear Wiring Harness - Right (5DY)
58	TRLR_BRK	F58UA	30A	• K133 Trailer Brake Power Control Module (JL1) • X61A Junction Block - Instrument Panel
62	ICCM	F62UA	10A	• K38A Chassis Control Module - Auxiliary (JL1)
63	ACCY PWR	F63UA	20A	• X405 Body Builder Connection to Chassis Front Wiring Harness (5DX) • X495 Body Builder Connection to Chassis Rear Wiring Harness - Right (5DY)

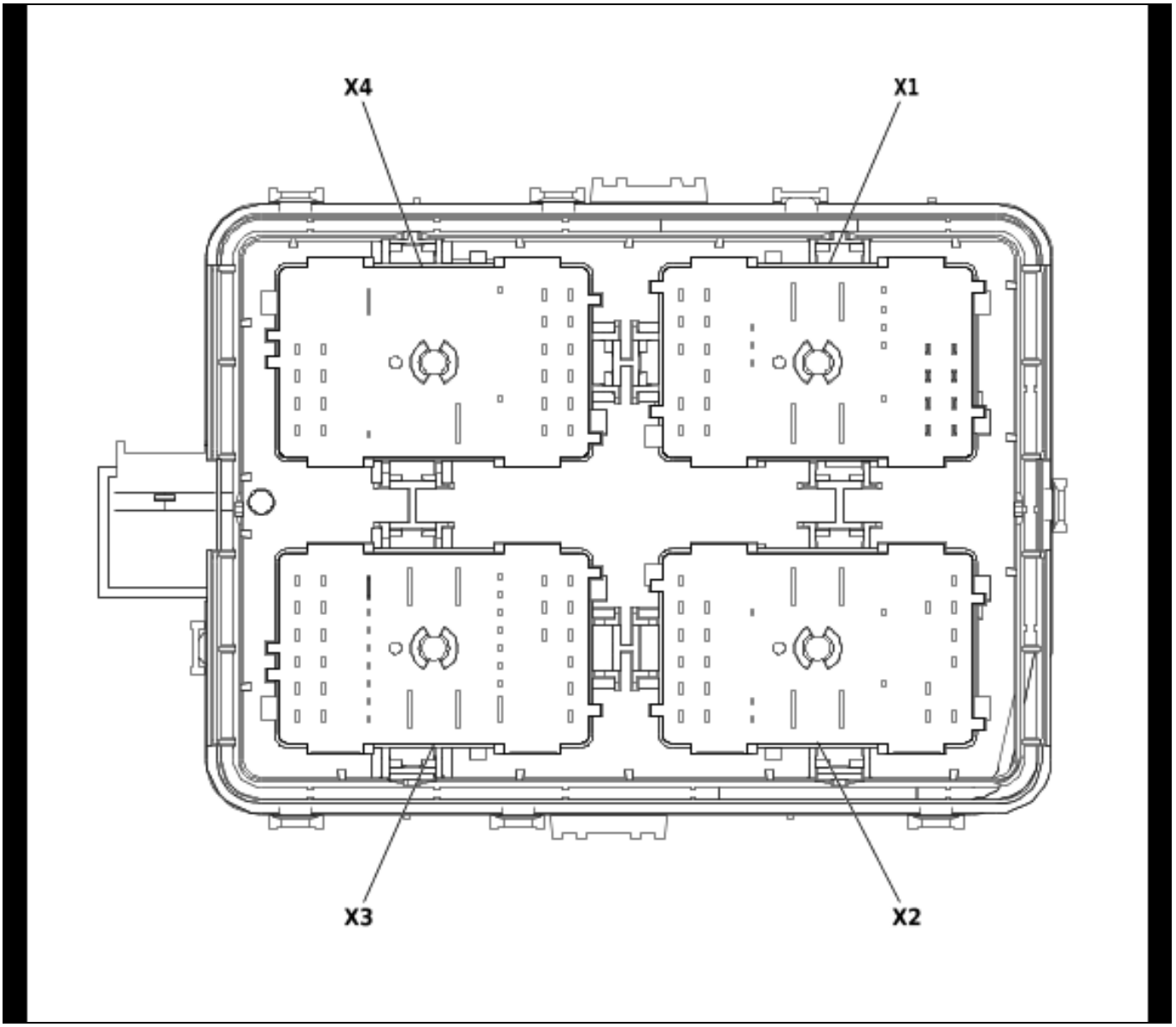
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
66	AUX UEC	F66UA	60A	• X50B Fuse Block - Underhood Auxiliary
68	ABS PUMP	F68UA	60A	• K17 Electronic Brake Control Module
69	NOT USED	F69UA	50A	• Not Used
73	LFT_TRLR STOP_TURN	F73UA	15A	• X88 Trailer Connector (UY7)
75	NOT USED	F75UA	30A	• Not Used
78	ECM_BATT	F78UA	15A	• K20 Engine Control Module
79	CAB_HTR_AUX BATT	F79UA	10A	• K115 Reductant Control Module
81	RGT_TRLR STOP_TURN	F81UA	15A	• X88 Trailer Connector (UY7)
82	FTZM	F82UA	30A	• K111 Fuel Pump Control Module
83	ABS VALVE	F83UA	25A	• K17 Electronic Brake Control Module
84	TRLR_BATT	F84UA	30A	• X88 Trailer Connector (UY7)
85	ENG	F85UA	15A	• B75C Multifunction Intake Air Sensor
86	ECM	F86UA	30A	• K20 Engine Control Module
91	ECM THROT CONT	F91UA	15A	• K20 Engine Control Module
92	COOL FAN CLUTCH	F92UA	10A	• KR20F Cooling Fan Relay
Relays				
5	WASH PUMP	KR11 Windshield Washer Pump Relay	—	• F3UA
23	DEFOG REAR	KR5 Rear Defogger Relay	—	• F32UA • F33UA
35	PRK LAMP	KR53 Park Lamps Relay	—	• F34UA • F41UA • F42UA
36	RUN/CRNK	KR73 Ignition Main Relay	—	• F7UA • F10UA • F37UA • F39UA • F40UA • F44UA • F46UA • F47UA • KR99 Air Suspension Relay
43	LOW AIR PRESS	KR99 Air Suspension Relay	—	• Not Used
59	A/C CONTROL	KR29 A/C Compressor Clutch Relay	—	• Q2 A/C Compressor Clutch (C67)
64	LR AMBER	KR68L Turn Signal Lamps Relay - Left	—	• F57UA
70	NOT USED	—	—	• Not Used

Usage Table (cont'd)

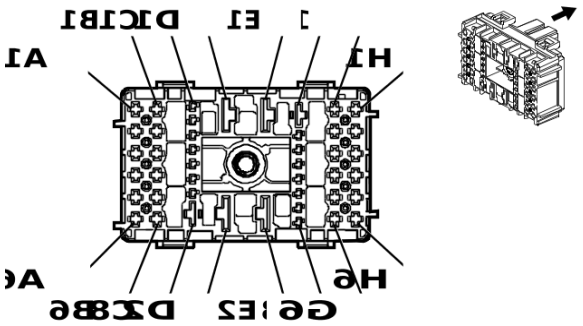
No.	Device Label Name	Device Assigned Name	Rating	Description
77	ECM	KR75 Engine Controls Ignition Relay	—	• F85UA • F86UA • F91UA • F92UA • KR29 A/C Compressor Clutch Relay
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR12B Windshield Wiper Relay	—	• KR12C Windshield Wiper Speed Control Relay
—	—	KR12C Windshield Wiper Speed Control Relay	—	• M75 Windshield Wiper Motor
—	—	KR3 Horn Relay	—	• F27UA
—	—	KR40 Backup Lamp Relay	—	• F54UA • F55UA
—	—	KR46 Front Fog Lamp Relay	—	• F8UA
—	—	KR48 Headlamp High Beam Relay	—	• F1UA • F2UA
—	—	KR59 Stop Lamp Relay	—	• F53UA
—	—	KR63L Trailer Stop/Turn Signal Lamp Relay - Left	—	• F73UA
—	—	KR63R Trailer Stop/Turn Signal Lamp Relay - Right	—	• F81UA
—	—	KR68R Turn Signal Lamps Relay - Right	—	• F26UA
—	—	KR150 Relay - Spare	—	• Not Used
—	—	KR182L Stop/Turn Signal Lamp Relay - Left	—	• F13UA
—	—	KR182R Stop/Turn Signal Lamp Relay - Right	—	• F14UA
Test Points				
TP1	CKT 95	TP1	—	• KR12C Windshield Wiper Speed Control Relay
TP2	CKT 92	TP2	—	• KR12C Windshield Wiper Speed Control Relay

X50A Fuse Block - Underhood Bottom View



4894101

X50A Fuse Block - Underhood X1



4994109

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33384590
Service Connector: 19370824
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series(BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19369711	J-35616-14 (GN)	EL-38125-560A
II	84779405	J-35616-35 (VT)	J-38125-215A

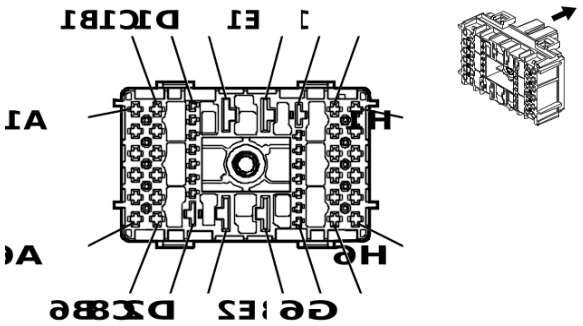
X50A Fuse Block - Underhood X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.75	BU / WH	1314	Left Front Turn Signal Lamp Control	II	—
A2	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	II	—
A3	0.35	BN / GY	2268	Windshield Washer Relay Control	II	—
A4	0.5	BK	550	Ground	II	—
A5	0.75	BK / WH	451	Signal Ground	II	—
A6	0.75	BN / GN	9950	Stop/Turn Signal Lamp Relay - Right Low Control	II	—
B1	—	—	—	Not Occupied	—	—
B2	2	RD / GY	1342	Battery Positive Voltage	II	—
B3 - B4	—	—	—	Not Occupied	—	—
B5	0.75	YE / BU	18	Left Rear Stop/Turn Signal Lamp Control	II	—
B6	0.75	BN / GN	19	Right Rear Stop/Turn Signal Lamp Control	II	—
C1	0.75	YE	712	Left Headlamp Low Beam Control	I	—
C2	—	—	—	Not Occupied	—	—
C3	0.75	YE	312	Right Headlamp Low Beam Control	I	—
C4 - C6	—	—	—	Not Occupied	—	—
C7	0.75	YE / BU	9960	Stop/Turn Signal Lamp Relay - Left Low Control	I	—
C8 - F1	—	—	—	Not Occupied	—	—
F2	0.35	BN / VT	193	Rear Defogger Relay Control	I	—
F3	0.35	VT / GN	1739	Run/Crank Ignition 1 Voltage	I	—
F4	0.5	BU / WH	1314	Left Front Turn Signal Lamp Control	I	—

X50A Fuse Block - Underhood X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
F5	0.75	GN / VT	1315	Right Front Turn Signal Lamp Control	I	—
F6	0.35	WH / VT	860	Windshield Wiper Switch High Signal	I	—
F7	0.75	GN / VT	619	Right Rear Turn Signal Lamp Control	I	—
F8	0.5	GN / VT	1315	Right Front Turn Signal Lamp Control	I	—
G1	—	—	—	Not Occupied	—	—
G2	2.5	BN / VT	293	Rear Defogger Grid Control	II	—
G3	0.5	BN / YE	2267	Outside Rearview Mirror Heater Control	II	—
G4	0.35	GN / VT	5199	Run/Crank Relay Coil Control	II	—
G5	2	BK	550	Ground	II	—
G6	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	II	—
H1	0.5	VT / GY	539	Run/Crank Ignition 1 Voltage	II	—
H2	2.5	RD / GN	242	Battery Positive Voltage	II	—
H3	1.5	VT / GY	139	Run/Crank Ignition 1 Voltage	II	—
H4	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	II	—
H5	2	WH	92	Windshield Wiper Motor High Speed Control	II	—
H6	2	YE / BN	95	Windshield Wiper Motor Low Speed Control	II	—

X50A Fuse Block - Underhood X2



4994132

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33384594
Service Connector: 19371174
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series(GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19369711	J-35616-14 (GN)	EL-38125-560A
II	84779405	J-35616-35 (VT)	J-38125-215A
III	Not required	J-35616-22 (RD)	No Tool Required

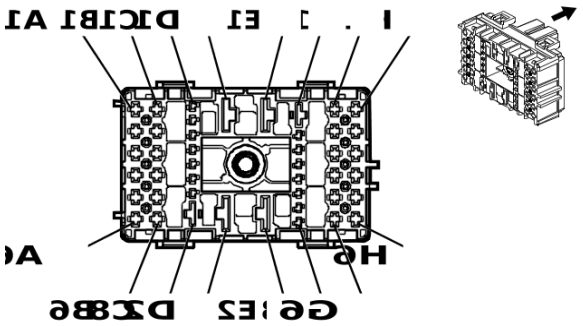
X50A Fuse Block - Underhood X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—
A3	0.5	WH	711	Left Headlamp High Beam Control	II	—
A4	0.5	WH	311	Right Headlamp High Beam Control	II	—
A5	0.5	BK	550	Ground	II	—
A6	0.75	GY / VT	228	Windshield Washer Pump Control	II	—
B1 - B2	—	—	—	Not Occupied	—	—
B3	0.5	BN / VT	2234	Front Fog Lamp Control	II	—
B4	0.5	RD / YE	2340	Battery Positive Voltage	II	—
B5	0.5	VT / GN	39	Run/Crank Ignition 1 Voltage	II	—
B6	0.75	GN / VT	1315	Right Front Turn Signal Lamp Control	II	—
C1	0.35	BU / WH	5186	Left Trailer Turn Signal Lamp Control	I	—
C2	0.35	YE / GY	5187	Right Trailer Turn Signal Lamp Control	I	—
C3	0.5	BN	1317	Fog Lamp Relay Control	I	—
C4	0.35	BN / VT	1969	Headlamp High Beam Relay Control	I	—
C5	0.75	BU / WH	1314	Left Front Turn Signal Lamp Control	I	—
C6 - D1	—	—	—	Not Occupied	—	—
D2	10	RD / VT	842	Battery Positive Voltage	III	—
E1	—	—	—	Not Occupied	—	—
E2	10	RD / BU	42	Battery Positive Voltage	III	—
F1	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
F2	0.5	VT / WH	5065	Stop Lamp Relay Coil Control	I	—
F3	0.35	BU / BN	38	Backup Lamp Relay Control	I	—
F4	0.35	BN / WH	28	Horn Relay Control	I	—
F5	—	—	—	Not Occupied	—	—
F6	0.75	YE	312	Right Headlamp Low Beam Control	I	—
F7	—	—	—	Not Occupied	—	—
F8	0.75	YE	712	Left Headlamp Low Beam Control	I	—
G1	0.75	BN / GY	29	Horn Control	II	—
G2	0.5	GN / WH	24	Backup Lamp Control	II	—
G3	2	RD / GN	968	Configurable Provision 4 Control	II	—
G4	0.5	BK	550	Ground	II	—
G5	0.5	YE	5530	Hood Open Switch Signal	II	—
G6 - H1	—	—	—	Not Occupied	—	—
H2	0.5	VT / GY	709	Left Park Lamp Control	II	—
H3	0.5	VT / GY	709	Left Park Lamp Control	II	—
H4	—	—	—	Not Occupied	—	—
H5	0.5	GY / BN	309	Right Park Lamp Control	II	—
H6	0.35	BU	45	Park Lamp Relay Control	II	—

X50A Fuse Block - Underhood X3



4992608

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 33384584
Service Connector: 19371176
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19369711	J-35616-14 (GN)	EL-38125-560A
II	84779405	J-35616-35 (VT)	J-38125-215A
III	Not required	J-35616-22 (RD)	No Tool Required

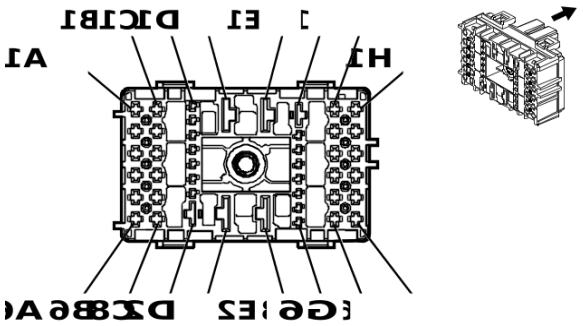
X50A Fuse Block - Underhood X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	VT / GN	439	Run/Crank Ignition 1 Voltage	II	—
A2	0.5 0.75	VT / BK GN	2139 AL123	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	II	— —
A3	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	II	—
A4	—	—	—	Not Occupied	—	—
A5	1 1	RD RD	AL110 AL170	Battery Positive Voltage Battery Positive Voltage	II	— —
A6	0.75	BN / GN	59	Air Conditioning Compressor Clutch Control	II	—
B1 - B4	—	—	—	Not Occupied	—	—
B5	2.5	BK	550	Ground	II	—
B6	1	BK / WH	451	Signal Ground	II	—
C1	0.5	GN / GY	465	Fuel Pump Primary Relay Control	I	—
C2 - C3	—	—	—	Not Occupied	—	—
C4	0.5	WH / GY	459	Air Conditioning Compressor Clutch Relay Control	I	—
C5 - D1	—	—	—	Not Occupied	—	—
D2	10	RD / WH	342	Battery Positive Voltage	III	—
E1 - F2	—	—	—	Not Occupied	—	—
F3	0.5	RD / BN	440	Battery Positive Voltage	I	—
F4	0.5	YE	5991	Powertrain Relay Coil Control	I	—
F5	0.75	RD / WH	3440	Battery Positive Voltage	I	—

X50A Fuse Block - Underhood X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
F6	—	—	—	Not Occupied	—	—
F7	0.5	GY / YE	5297	Exhaust Camshaft Position Sensor 1 Voltage Reference	I	—
F8	—	—	—	Not Occupied	—	—
G1	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	II	—
G2 - G6	—	—	—	Not Occupied	—	—
H1	2.5	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	II	—
H2 - H5	—	—	—	Not Occupied	—	—
H6	0.75	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	II	—

X50A Fuse Block - Underhood X4



4993031

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 33384574
Service Connector: 19371188
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19369711	J-35616-14 (GN)	EL-38125-560A
II	84779405	J-35616-35 (VT)	J-38125-215A
III	Not required	J-35616-22 (RD)	No Tool Required

X50A Fuse Block - Underhood X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.75	VT / GY	1054	Stop Lamp Control	II	—
A2	2	VT / GY	709	Left Park Lamp Control	II	—
A3	5	GY / BN	2109	Trailer Park Lamp Control	II	—
A4	2	GY / BN	309	Right Park Lamp Control	II	—
A5	—	—	—	Not Occupied	—	—
A6	0.5	PK	1739	Run/Crank Ignition 1 Voltage	II	—
B1	2	GN / WH	24	Backup Lamp Control	II	—
B2	2	WH / GN	1624	Trailer Backup Lamp Control	II	—
B3	—	—	—	Not Occupied	—	—
B4	2	YE / BN	618	Left Rear Turn Signal Lamp Control	II	—
B5	1.5	VT / GN	439	Run/Crank Ignition 1 Voltage	II	—
B6 - C6	—	—	—	Not Occupied	—	—
C7	1	RD	2040	Battery Positive Voltage	I	—
C8 - D1	—	—	—	Not Occupied	—	—
D2	10	RD / YE	442	Battery Positive Voltage	III	—
E1	10	RD / YE	1042	Battery Positive Voltage	III	—
E2 - F5	—	—	—	Not Occupied	—	—
F6	0.5	GN / GY	465	Fuel Pump Primary Relay Control	I	—
F7 - G2	—	—	—	Not Occupied	—	—
G3	1.5	YE / BU	318	Left Rear Trailer Stop/Turn Lamp Control	II	—

X50A Fuse Block - Underhood X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
G4 - G5	—	—	—	Not Occupied	—	—
G6	2	RD / GN	1142	Battery Positive Voltage	II	—
H1 - H2	—	—	—	Not Occupied	—	—
H3	2	GN / BN	319	Right Rear Trailer Stop/Turn Lamp Control	II	—
H4	2.5	RD / VT	A40	Battery Positive Voltage	II	—
H5	2	RD / VT	1940	Battery Positive Voltage	II	—
H6	2	RD / YE	1242	Battery Positive Voltage	II	—

X50A Fuse Block - Underhood X5

—

Connector Part Information

Harness Type: Battery Distribution Engine Compartment Cable
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: Ring Terminal

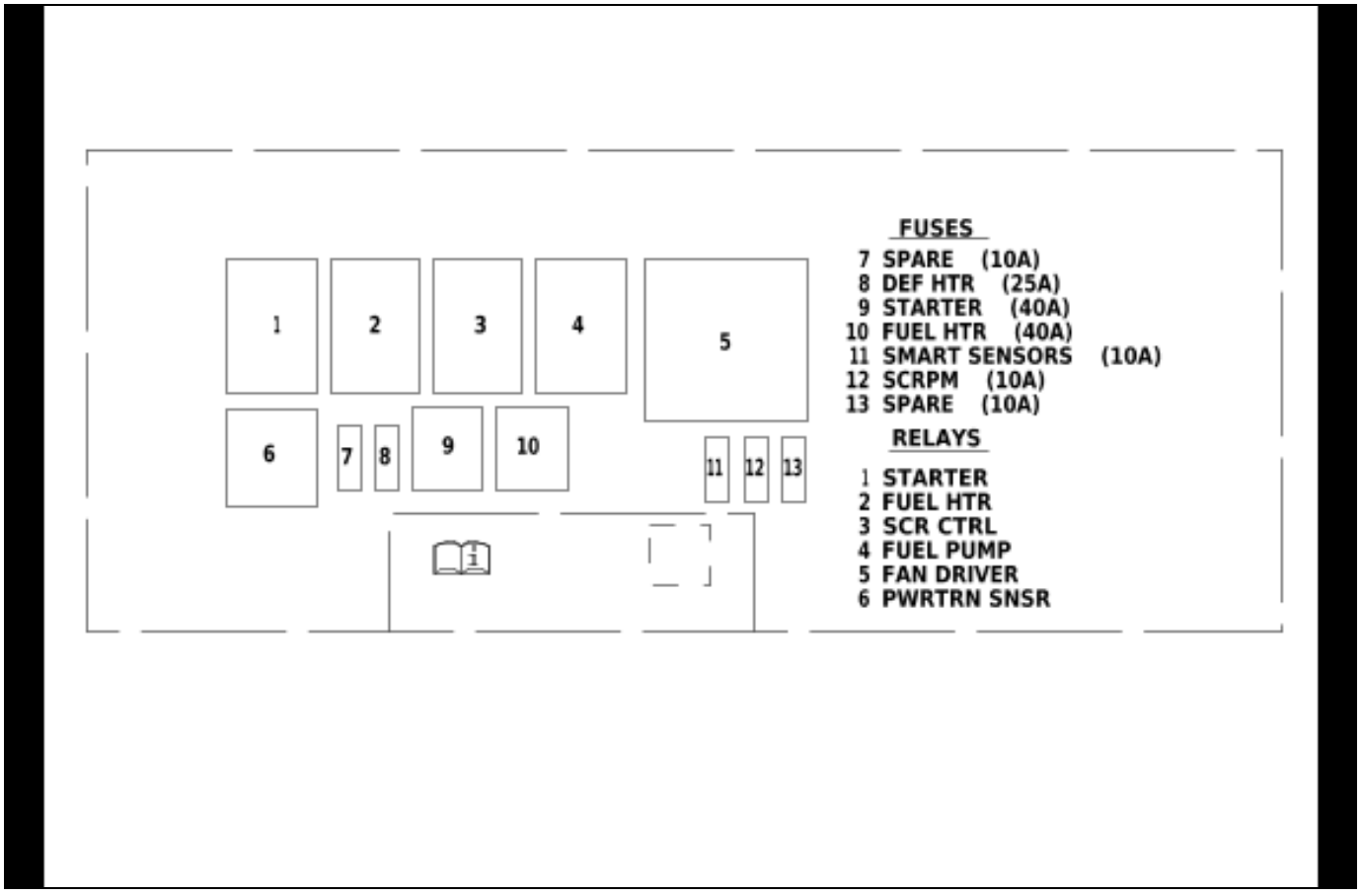
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50A Fuse Block - Underhood X5

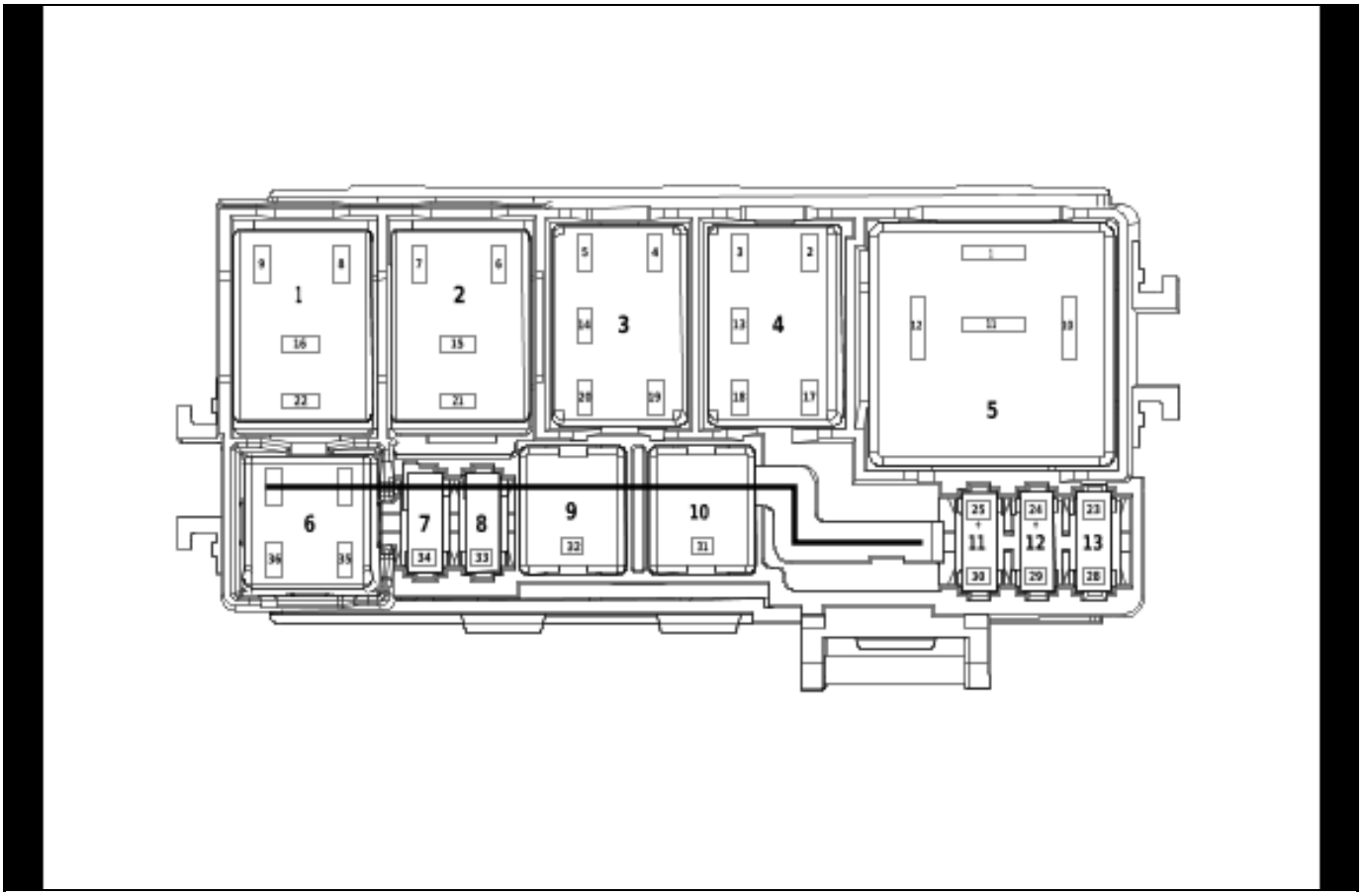
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD	842	Battery Positive Voltage	I	—

X50B Fuse Block - Underhood Auxiliary Label



4917818

X50B Fuse Block - Underhood Auxiliary Top View



4894087

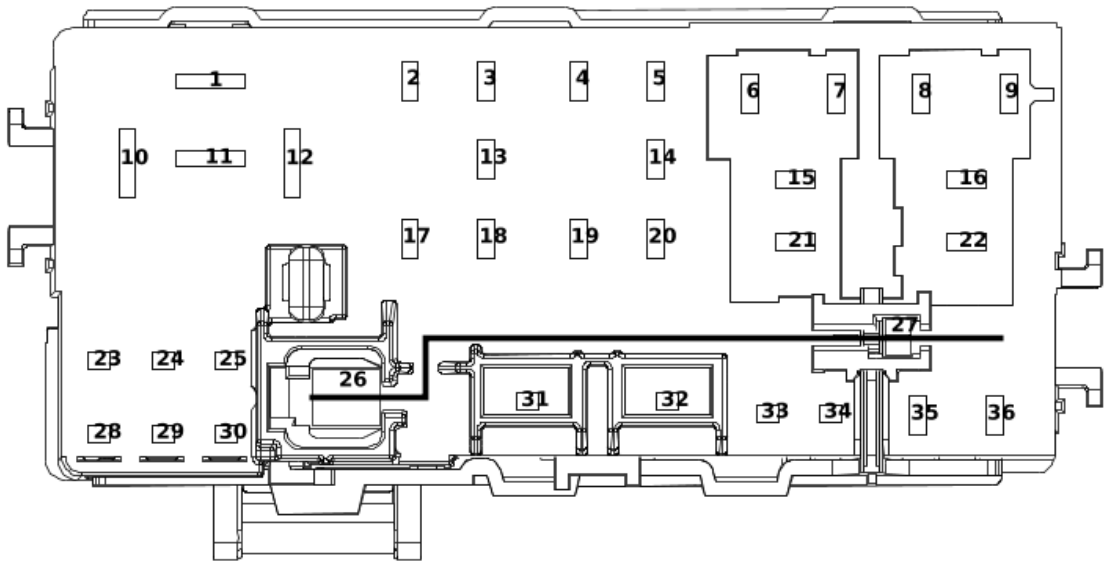
Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
7	SPARE	F7UB	—	• Not Used
8	DEF HTR	F8UB	25A	• KR121A Reductant Control Module Relay 1
9	STARTER	F9UB	40A	• KR27 Starter Relay
10	FUEL HTR	F10UB	40A	• KR22 Fuel Heater Relay
11	SMART SENSORS	F11UB	10A	• B136 Exhaust Particulate Sensor • B195A Nitrogen Oxides Sensor 1 • B195B Nitrogen Oxides Sensor 2 • K111 Fuel Pump Driver Control Module • M103 Turbocharger Vane Position Actuator
12	SCRPM	F12UB	10A	• K111 Fuel Pump Driver Control Module • K115 Reductant Control Module
13	SPARE	F13UB	—	• Not Used
Relays				
1	STARTER	KR27 Starter Relay	—	• M64 Starter Motor
2	FUEL HTR	KR22 Fuel Heater Relay	—	• E11A Fuel Heater/Water in Fuel Sensor
3	SCR CTRL	KR121A Reductant Control Module Relay 1	—	• K115 Reductant Control Module

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
4	FUEL PUMP	KR23B Fuel Pump Relay - Secondary	—	• Not Used
5	FAN DRIVER	KR20F Cooling Fan Relay	—	• Q85 Cooling Fan Clutch
6	PWRTRN SNSR	KR121B Reductant Control Module Relay 2	—	• F11UB • F12UB

X50B Fuse Block - Underhood Auxiliary Wire Entry



4894089

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 35209870
Service Connector: Service by Component Assembly - See Part Catalog
Description: Wire Entry Fuse Block

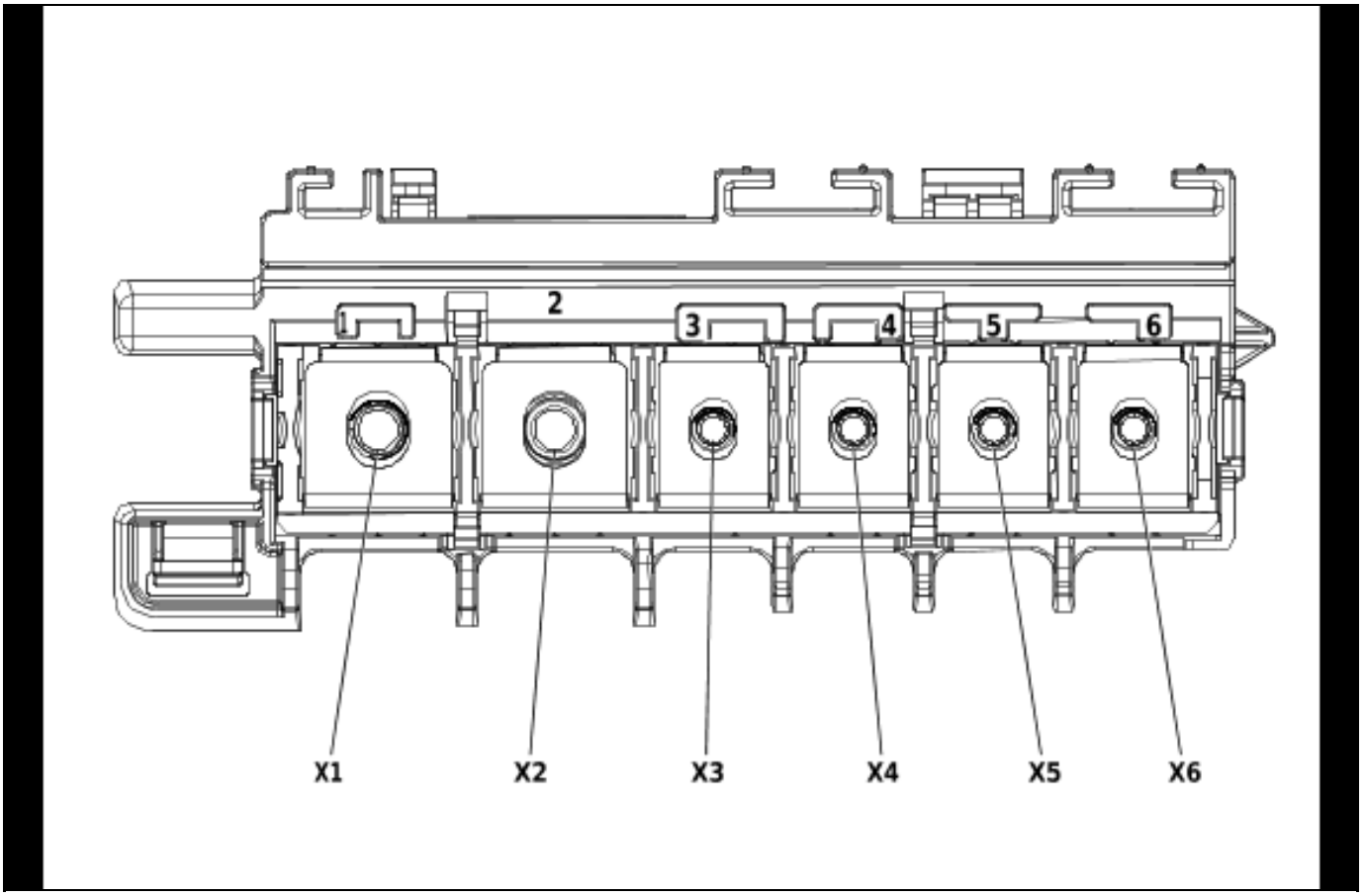
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19371175	J-35616-2A (GY)	EL-38125-560A
II	Not required	J-35616-22 (RD)	No Tool Required
III	Not required	J-35616-42 (RD)	No Tool Required
IV	Not required	J-35616-43 (RD)	No Tool Required
V	Not required	J-35616-4A (PU)	No Tool Required

X50B Fuse Block - Underhood Auxiliary Wire Entry

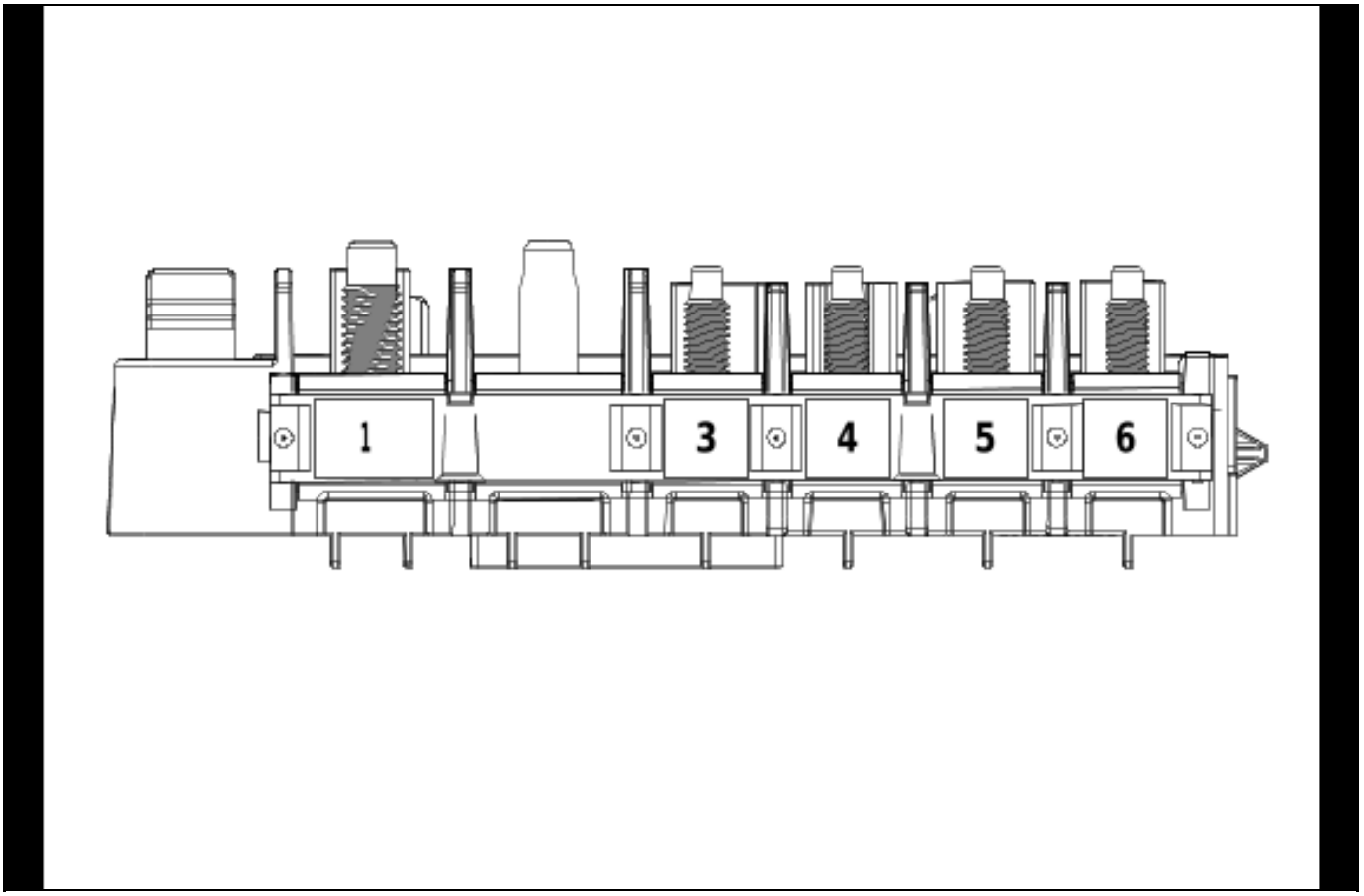
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / YE	5297	Exhaust Camshaft Position Sensor 1 Voltage Reference	I	—
4	0.5	GN / BU	3889	Powertrain Sensor Bus Relay Control	V	—
5	2.5	BU	3921	Diesel Exhaust Fluid Heater Control 1	V	—
6	0.5	BU / GN	7071	Fuel Heater Control	III	—
7	0.5	VT / GN	355	Fuel Filter Heater Control Circuit	III	—
8	1	BK	550	Ground	III	—
9	0.5	YE / BK	625	Starter Enable Relay Control	III	—
10	1	BK	550	Ground	I	—
11	0.5	WH	2368	Cooling Fan Control Signal	I	—
12	0.5	WH / BK	2366	Cooling Fan Speed Control Signal	I	—
15	2.5	VT / GN	355	Fuel Filter Heater Control Circuit	III	—
16	3	YE / VT	6	Starter Solenoid Crank Ignition Voltage	III	—
19	0.5 2.5	RD / WH RD / WH	1340 1340	Battery Positive Voltage Battery Positive Voltage	V	— —
20	0.5	RD / WH	1340	Battery Positive Voltage	V	—
21	2.5	VT / GN	355	Fuel Filter Heater Control Circuit	III	—
22	2.5	RD / BU	1240	Battery Positive Voltage	III	—
24	0.5	VT / BU	974	Reductant Control Module Relay 2 Suppiled Power	V	—
25	2.5	VT / BU	974	Reductant Control Module Relay 2 Suppiled Power	V	—
26	10	RD / WH	342	Battery Positive Voltage	II	—
29	0.5	VT / GN	4320	Powertrain Sensor Bus Enable	V	—
30	2.5	VT / BU	3674	NOx Sensor 1 Control	V	—
31	2.5	VT / GN	355	Fuel Filter Heater Control Circuit	IV	—
32	2.5	RD / BU	1240	Battery Positive Voltage	IV	—
33	2.5	RD / WH	1340	Battery Positive Voltage	V	—
35	0.5 2.5	VT / BU VT / BU	974 974	Reductant Control Module Relay 2 Suppiled Power Reductant Control Module Relay 2 Suppiled Power	V	— —
36	0.5	GN / BU	3889	Powertrain Sensor Bus Relay Control	V	—

X50D Fuse Block - Battery Top View



4894079

X50D Fuse Block - Battery Side View

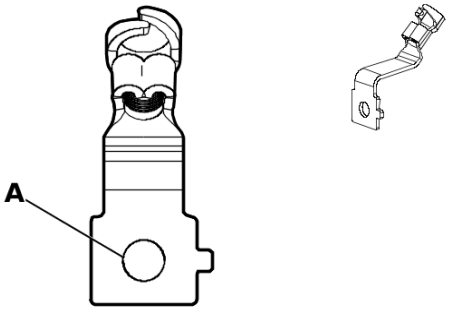


4894085

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	—	F1BA	250A	• G13 Generator • X50A Fuse Block Underhood
2	—	—	—	• C1 Battery
3	—	F3BA	125A	• K34 Glow Plug Control Module
4	—	F4BA	100A	• E40 Electrical Auxiliary Heater (C32)
5	—	F5BA	60A	• X51R Fuse Block - Instrument Panel Right
6	—	F6BA	60A	• X51R Fuse Block - Instrument Panel Right

X50D Fuse Block - Battery X1 (Fuse Block)



5239090

Connector Part Information

Harness Type: Battery Distribution Engine Compartment Cable
OEM Connector: 13591949
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

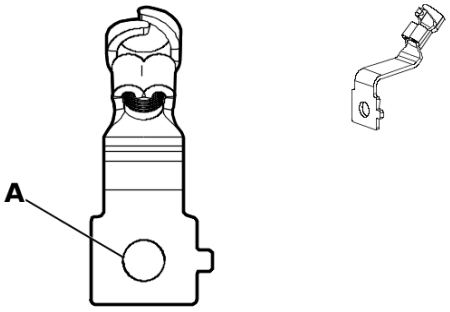
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50D Fuse Block - Battery X1 (Fuse Block)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD	842	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X1 (Generator)



5239090

Connector Part Information

Harness Type: Generator Battery Jumper Cable
OEM Connector: 13591949
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

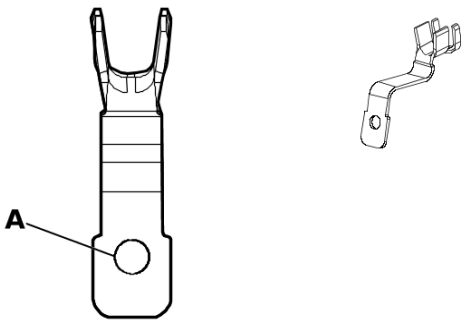
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50D Fuse Block - Battery X1 (Generator)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD	2	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X2



5239188

Connector Part Information

Harness Type: Battery Positive/Fuse Block - Battery Power
OEM Connector: 161987
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

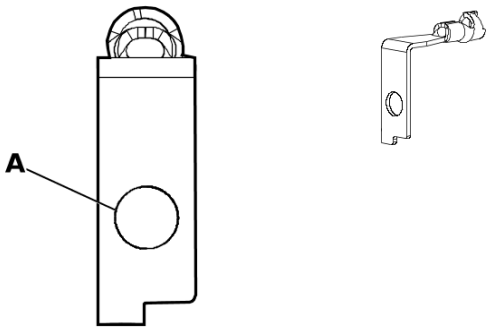
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50D Fuse Block - Battery X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD	1	Unfused Battery Positive Voltage	I	—

X50D Fuse Block - Battery X3



5239337

Connector Part Information

Harness Type: Diesel Glowplug Wiring Harness
OEM Connector: BDI 12386
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

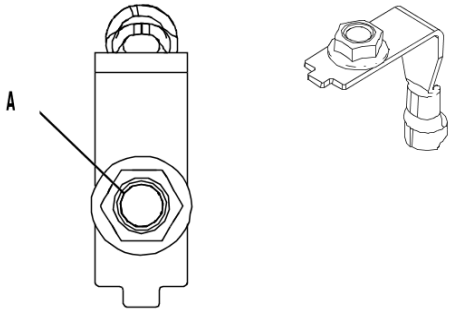
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50D Fuse Block - Battery X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD	842	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X4 (C32)



4425476

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33265775
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

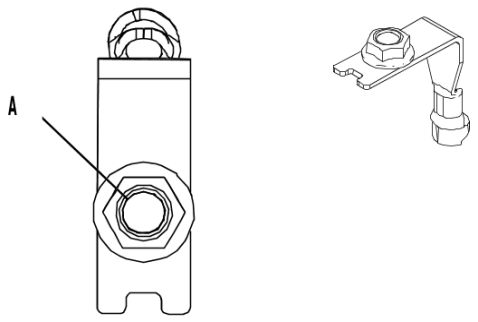
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50D Fuse Block - Battery X4 (C32)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD / GY	642	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X5



4426162

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33265821
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

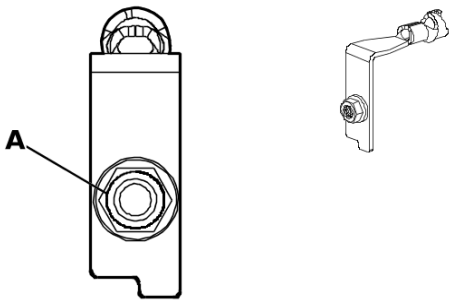
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50D Fuse Block - Battery X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	6	RD / GY	142	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X6



5162282

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35077346
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

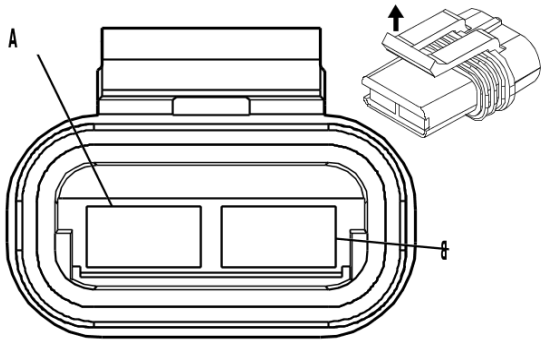
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50D Fuse Block - Battery X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	6	RD / GN	242	Battery Positive Voltage	I	—

X55BA Fuse Holder 1 - Brake Booster



523591

Connector Part Information

Harness Type: Brake Pedal Position Sensor Harness
OEM Connector: 1667639C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 630 Metri-Pack Series, Sealed(BK)

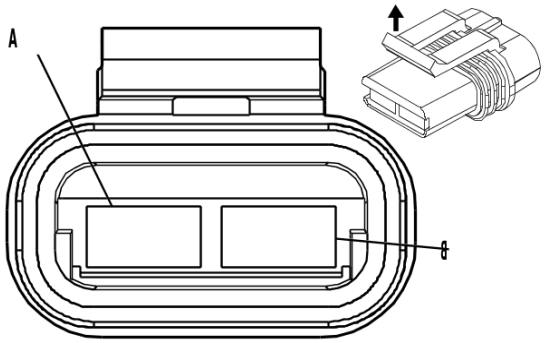
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

X55BA Fuse Holder 1 - Brake Booster

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	YE / GY	90DC	Battery Positive Voltage	I	—
B	2	GY	90EA	Battery Positive Voltage	I	—

X55BB Fuse Holder 2 - Brake Booster



523591

Connector Part Information

Harness Type: Brake Pedal Position Sensor Harness
OEM Connector: 1667639C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 630 Metri-Pack Series, Sealed(BK)

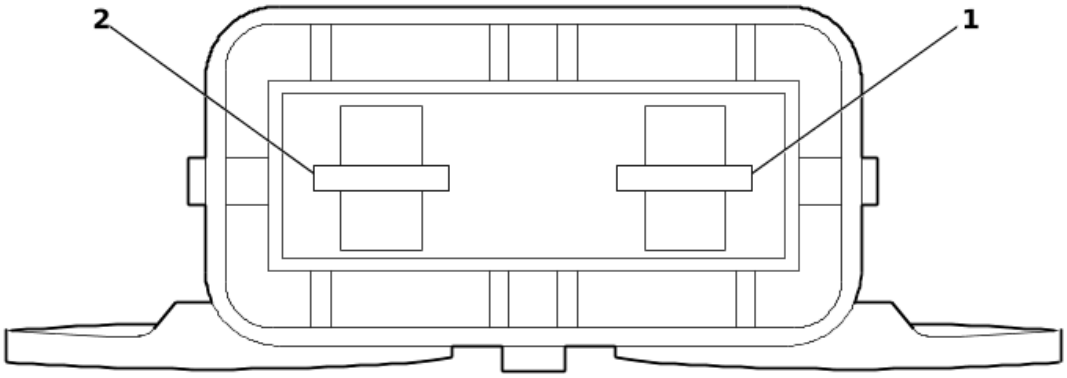
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

X55BB Fuse Holder 2 - Brake Booster

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY	90H	Brake Booster Pump Motor Active Signal	I	—
B	2	GY	90HB	Brake Booster Pump Motor Active Signal	I	—

X55BC Fuse Holder 3 - Brake Booster



5211405

Connector Part Information

Harness Type: Battery to Battery Cable
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Maxi-Fuseholder

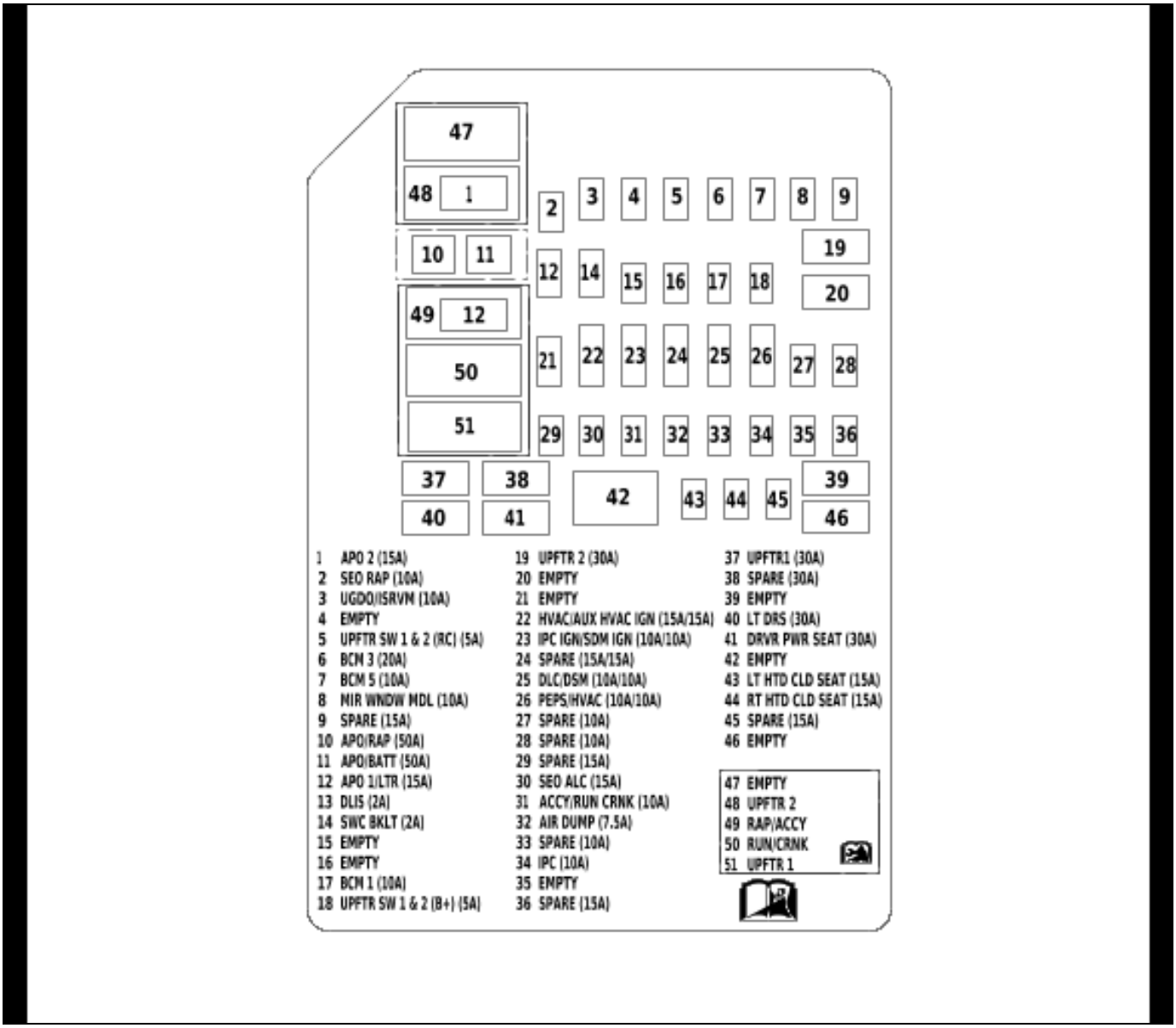
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X55BC Fuse Holder 3 - Brake Booster

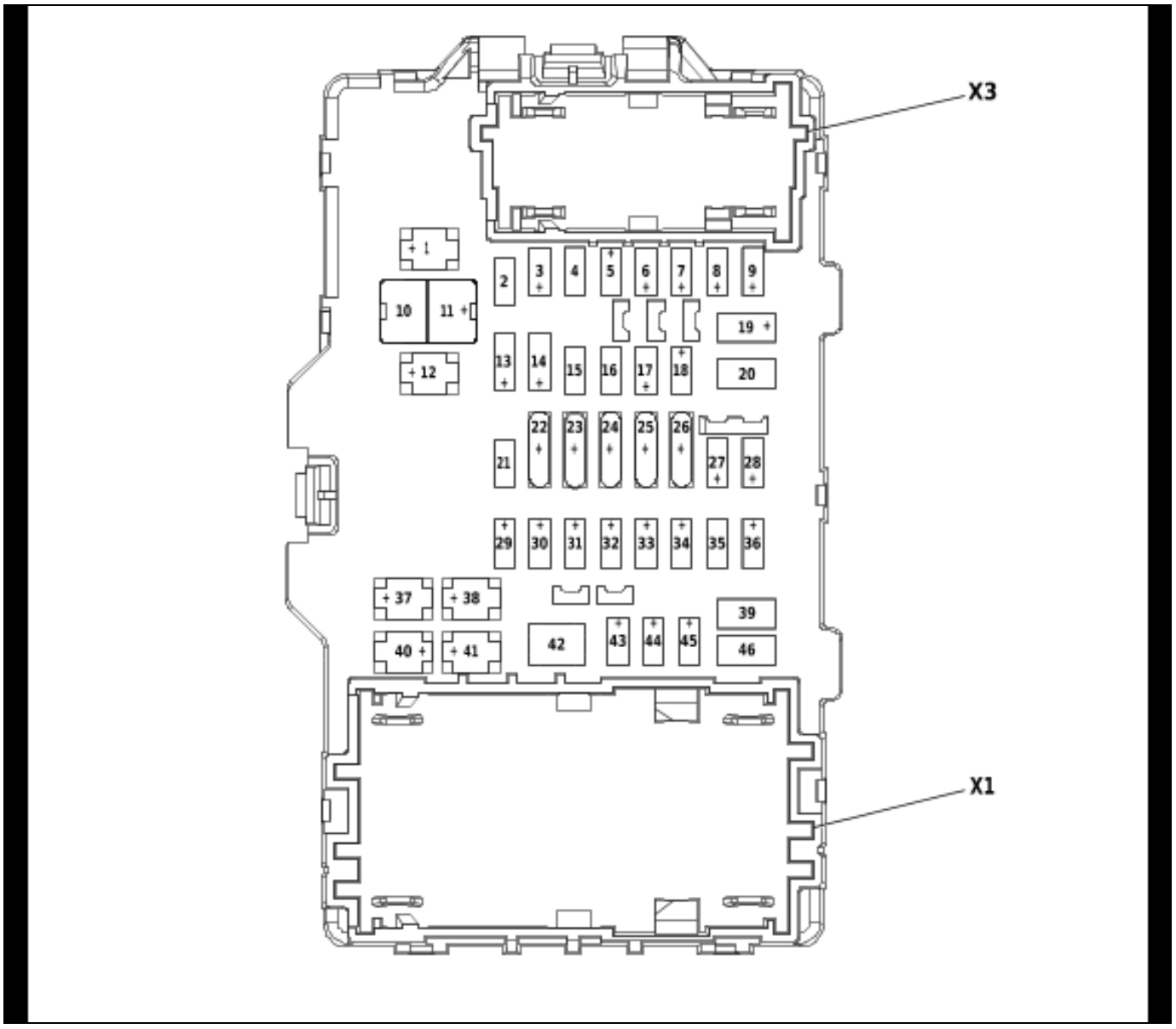
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	RD	1	Unfused Battery Positive Voltage	I	—
2	—	RD	90J	Battery Positive Voltage	I	—

X51L Fuse Block - Instrument Panel Left Label



4894103

X51L Fuse Block - Instrument Panel Left Top View



4894104

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	APO 2	F1DL	15A	• X80G Accessory Power Receptacle - Instrument Panel (-D07) • X80K Accessory Power Receptacle - Instrument Panel 2 (D07)
2	SEO RAP	F2DL	10A	• X61A Junction Block-Instrument Panel • T22 Modile Device Wireless Charger Module (K4C)
3	UGDO/ISRVM	F3DL	10A	• S63 Roof Beacon Switch (TRW)
4	EMPTY	F4DL	—	• Not Used
5	UPFTR SW 1 and 2 (RC)	F5DL	5A	• KR161A Configurable Provision Relay 1 (9L7) • KR161B Configurable Provision Relay 2 (9L7)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
6	BCM 3	F6DL	20A	• K9 Body Control Module • E4H Headlamp - Right Low Beam • E4S Park/Turn Signal Lamp - Left Upper • E4Q Park/Turn Signal Lamp - Left Lower • E4Y Turn Signal Reapeater Lamp - Left (DPN) • KR68L Turn Signal Lamps Relay - Left (5DX/5DY) • X107 Accessory Wiring Harness Package - Snow Plow Tee Left to Snow Plow Headlight - Left (UNL)
7	BCM 5	F7DL	10A	• K9 Body Control Module • KR40 Backup Lamp Relay • KR113 Child Security Lock Disable Relay • KR114 Door Dead Lock Relay • S48A Multifunction Switch - Instrument Panel • S77 Transfer Case Shift Control Switch (NQF) • S79D Window Switch - Driver (Crew Cab)
8	MIR WNDW MDL	F8DL	10A	• S52 Outside Rearview Mirror Switch (DPN) • S79D Window Switch - Driver (A31)
9	SPARE	F9DL	15A	• Not Used
10	APO/RAP	F10DL	50A	• F1DL • F12DL
11	APO/BATT	F11DL	50A	• F1DL • F12DL
12	APO 1/LTR	F12DL	15A	• X80J Accessory Power Receptacle - Instrument Panel 1 (D07)
13	DLIS	F13DL	2A	• S39 Ignition Switch
14	SWC BKLT	F14DL	2A	• S70L Steering Wheel Controls Switch - Left (-UK3)
15	EMPTY	F15DL	—	• Not Used
16	EMPTY	F16DL	—	• Not Used

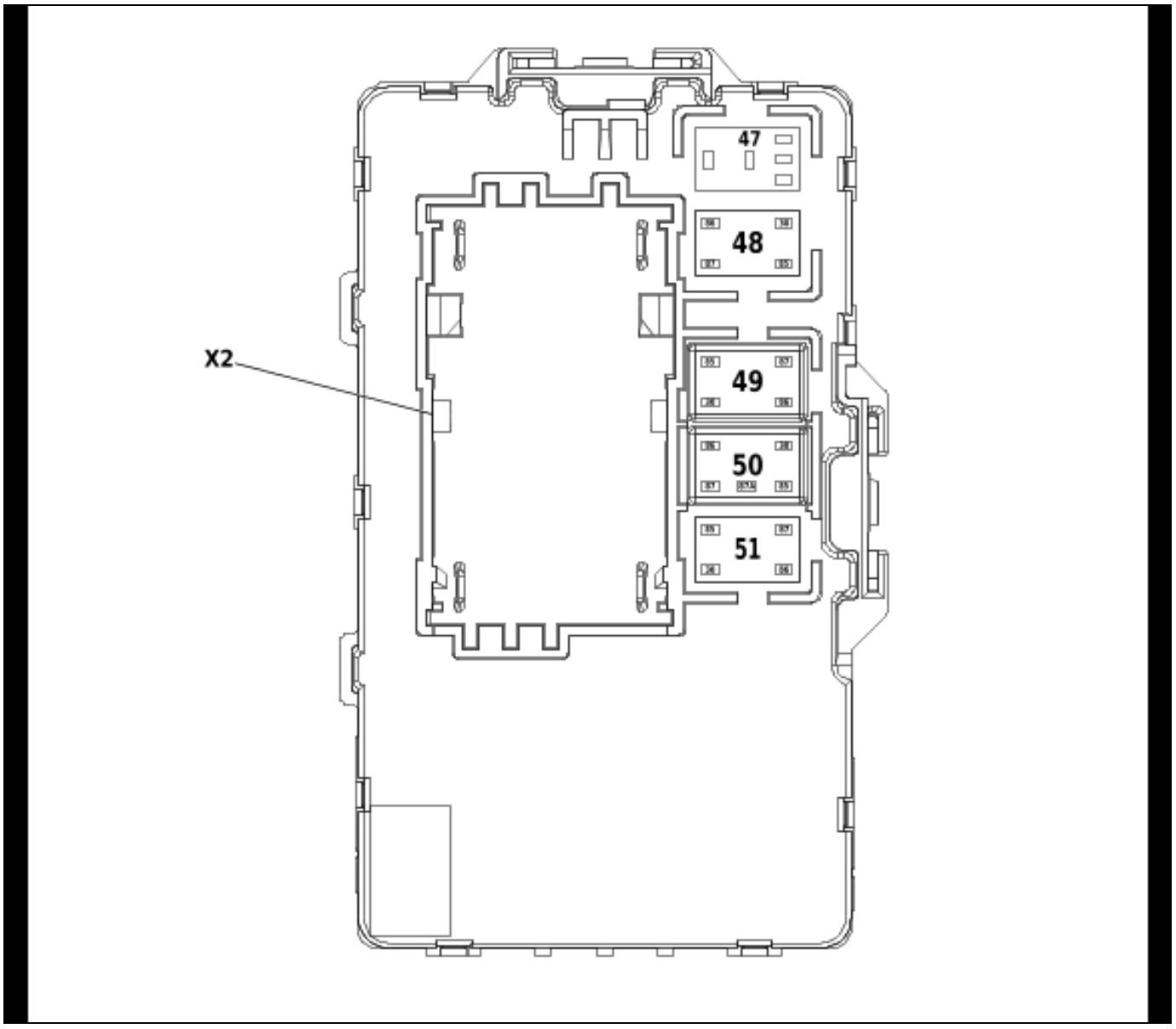
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
17	BCM 1	F17DL	10A	• K9 Body Control Module • E1L Accent Lamp - Overhead Console • E63D Flood Lamp - Driver Door Handle (A31) • E63P Flood Lamp - Passenger Door Handle (A31) • K17 Electronic Brake Control Module • K20 Engine Control Module • K34 Glow Plug Control Module • K36 Inflatable Restraint Sensing and Diagnostic Module • K38A Chassis Control Module - Auxiliary (JL1) • K44 Power Take-Off Control Module (PTO) • K56 Serial Data Gateway Module • K69 Transfer Case Control Module (NQF) • K71 Transmission Control Module • K73 Telematics Communication Interface Control Module (UE1) • K74 Human Machine Interface Control Module (IO5) • K77 Remote Control Door Lock Receiver • K89 Immobilizer Control Module • KR11 Windshield Washer Pump Relay • KR12B Windshield Wiper Relay • KR59 Stop Lamp Relay • KR73 Ignition Main Relay (X50A Fuse Block Underhood) • KR73 Ignition Main Relay (X51L Fuse Block Instrument Panel - Left) • KR112 Cargo Lamp Relay • S48A Multifunction Switch - Instrument Panel • S70L Steering Wheel Controls Switch - Left • R50 Brake Booster Diode
18	UPFTR SW 1 and 2 (B+)	F18DL	5A	• KR161A Configurable Provision Relay 1 (9L7) • KR161B Configurable Provision Relay 2 (9L7)
19	UPFTR 2	F19DL	30A	• X61A Junction Block-Instrument Panel
20	EMPTY	F20DL	—	• Not Used
21	EMPTY	F21DL	—	• Not Used
22	HVAC/AUX HVAC IGN	F22DL	15A/15A	• K33 HVAC Control Module • E40 Electrical Auxiliary Heater (C32)
23	IPC IGN/SDM IGN	F23DL	10A/10A	• B99 Steering Wheel Angle Sensor • P14 Passenger Air Bag Disable Indicator (C99) • P16 Instrument Cluster
24	SPARE	F24DL	15A/15A	• Not Used
25	DLC/DSM	F25DL	10A/10A	• X84 Data Link Connector
26	PEPS/HVAC	F26DL	10A/10A	• K33 HVAC Control Module • K56 Serial Data Gateway Module
27	SPARE	F27DL	10A	• Not Used
28	SPARE	F28DL	10A	• Not Used
29	SPARE	F29DL	15A	• Not Used
30	SEO ALC	F30DL	15A	• X61A Junction Block-Instrument Panel

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
31	ACCY/RUN CRNK	F31DL	10A	• A10 Inside Rearview Mirror (DD8) • B87 Rearview Camera (UVC) • K69 Transfer Case Control Module (NQF) • S48A Multifunction Switch - Instrument Panel
32	AIR DUMP	F32DL	7.5A	• KR193 Rear Air Suspension Control Relay • S48A Multifunction Switch - Instrument Panel
33	SPARE	F33DL	10A	• Not Used
34	IPC	F34DL	10A	• A26 HVAC Controls • P16 Instrument Cluster • P17 Info Display Module (IO3/IO5) • S32D Seat Heating Switch - Driver (KA1) • S32P Seat Heating Switch - Passenger (KA1)
35	EMPTY	F35DL	—	• Not Used
36	SPARE	F36DL	15A	• Not Used
37	UPFTR 1	F37DL	30A	• X61A Junction Block-Instrument Panel
38	SPARE	F38DL	30A	• Not Used
39	EMPTY	F39DL	—	• Not Used
40	LT DRS	F40DL	30A	• M74D Window Motor - Driver (A31) • S79LR Window Switch - Left Rear (Crew Cab)
41	DRVR PWR SEAT	F41DL	30A	• S64D Seat Adjuster Switch-Driver (A95/AG1)
42	EMPTY	F42DL	—	• Not Used
43	LT HTD CLD SEAT	F43DL	15A	• K29 Seat Heating Control Module (KA1)
44	RH HTD CLD SEAT	F44DL	15A	• K29 Seat Heating Control Module (KA1)
45	SPARE	F45DL	15A	• Not Used
46	EMPTY	F46DL	—	• Not Used

X51L Fuse Block - Instrument Panel Left Bottom View



4894109

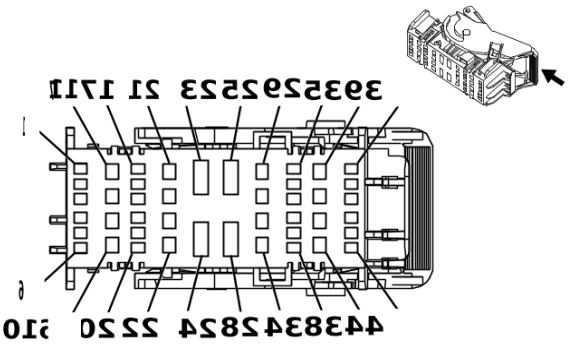
Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Relays				
47	EMPTY	—	—	• Not Used
48	UPFTR 2	KR161B Configurable Provision Relay 2	—	• F19DL
49	RAP/ACCY	KR76A Retained Accessory Power Relay 1	—	• F2DL • F10DL
50	RUN/CRNK	KR73 Ignition Main Relay	—	• F22DL • F23DL • F30DL • F31DL • F32DL • F33DL

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
51	UPFTR 1	KR161A Configurable Provision Relay 1	—	• F37DL

X51L Fuse Block - Instrument Panel Left X1



3240123

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13967687
Service Connector: 19329455
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19367554	J-35616-44 (YE)	J-38125-558
III	19370817	J-35616-2A (GY)	J-38125-215A
IV	84757974	J-35616-2A (GY)	J-38125-215A
V	85524896	J-35616-4A (PU)	J-38125-215A

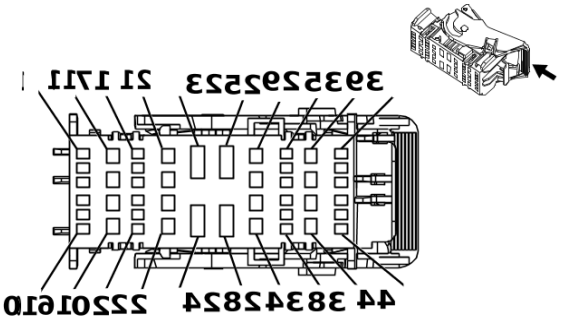
X51L Fuse Block - Instrument Panel Left X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 11	—	—	—	Not Occupied	—	—
12	0.5	YE / WH	962	Configurable Provision Relay 2 Control	IV	—
13 - 15	—	—	—	Not Occupied	—	—
16	0.5	RD / VT	1940	Battery Positive Voltage	IV	—
17	0.75	RD / GN	6140	Battery Positive Voltage	I	—
18	0.75	RD / GN	5140	Battery Positive Voltage	I	—
19 - 20	—	—	—	Not Occupied	—	—
21	6	RD / VT	842	Battery Positive Voltage	II	—
22	—	—	—	Not Occupied	—	—
23	6	RD / BU	42	Battery Positive Voltage	II	—
24 - 26	—	—	—	Not Occupied	—	—
27	2.5	RD / YE	5040	Battery Positive Voltage	V	—
28 - 29	—	—	—	Not Occupied	—	—
30	0.5	VT / WH	1939	Run/Crank Ignition 1 Voltage	IV	—
31	—	—	—	Not Occupied	—	—
32	0.35	VT / GN	1739	Run/Crank Ignition 1 Voltage	IV	—
33 - 34	—	—	—	Not Occupied	—	—
35	2.5	BU	965	Configurable Provision 1 Control	V	—

X51L Fuse Block - Instrument Panel Left X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
36	2.5	RD / BU	1842	Battery Positive Voltage	V	—
37	2.5	RD / BU	1842	Battery Positive Voltage	V	—
38	—	—	—	Not Occupied	—	—
39	0.5	RD / WH	961	Configurable Provision Relay 1 Control	IV	—
40 - 41	—	—	—	Not Occupied	—	—
42	0.35	GN / VT	5199	Run/Crank Relay Coil Control	IV	—
43	0.35	GY / VT	755	Retained Accessory Power Relay Coil Control	III	—
44	0.35 0.35	VT / YE VT / YE	43 43	Accessory Ignition Voltage Accessory Ignition Voltage	III IV	K4C - K4C

X51L Fuse Block - Instrument Panel Left X2



3240119

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13967688
Service Connector: 19329456
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19368264	J-35616-4A (PU)	J-38125-11A
III	19370817	J-35616-2A (GY)	J-38125-215A
IV	84757974	J-35616-2A (GY)	J-38125-215A
V	85524896	J-35616-4A (PU)	J-38125-215A

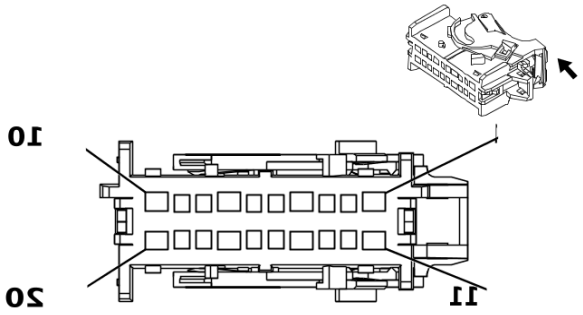
X51L Fuse Block - Instrument Panel Left X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	YE	6817	LED Backlight Dimming Control 1	IV	—
4	0.35	BN	6136	Control	IV	—
5	0.35	RD / BU	540	Battery Positive Voltage	IV	—
6	0.35 0.5	VT / WH VT / WH	1139 1139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	III	— —
7	0.75	RD / BN	2940	Battery Positive Voltage	I	—
8	1	RD / GY	2140	Battery Positive Voltage	I	—
9	—	—	—	Not Occupied	—	—
10	1.5	RD / BN	4240	Battery Positive Voltage	V	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	VT / GN	39	Run/Crank Ignition 1 Voltage	IV	—
14	—	—	—	Not Occupied	—	—
15	0.5	VT / GY	539	Run/Crank Ignition 1 Voltage	IV	—
16	—	—	—	Not Occupied	—	—
17	2.5	GY / BK	966	Configurable Provision 2 Control	V	—
18	0.75	RD / WH	2740	Battery Positive Voltage	I	—
19	—	—	—	Not Occupied	—	—

X51L Fuse Block - Instrument Panel Left X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	1.5	RD / WH	1040	Battery Positive Voltage	V	—
21 - 24	—	—	—	Not Occupied	—	—
25	0.35 0.5	RD / VT RD / VT	3340 3340	Battery Positive Voltage Battery Positive Voltage	I	— —
26	0.35	RD / BU	3240	Battery Positive Voltage	II	—
27	—	—	—	Not Occupied	—	—
28	0.5	VT / BK	1639	Run/Crank Ignition 1 Voltage	II	—
29 - 34	—	—	—	Not Occupied	—	—
35	0.5	RD / GY	2840	Battery Positive Voltage	II	—
36 - 37	—	—	—	Not Occupied	—	—
38	0.35	VT / GN	1739	Run/Crank Ignition 1 Voltage	I	—
39 - 43	—	—	—	Not Occupied	—	—
44	0.75	BK	1850	Ground	III	—

X51L Fuse Block - Instrument Panel Left X3



3240104

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 15547106
Service Connector: 13597270
Description: 20-Way F 1.5, 2.8 OCS Series(BK)

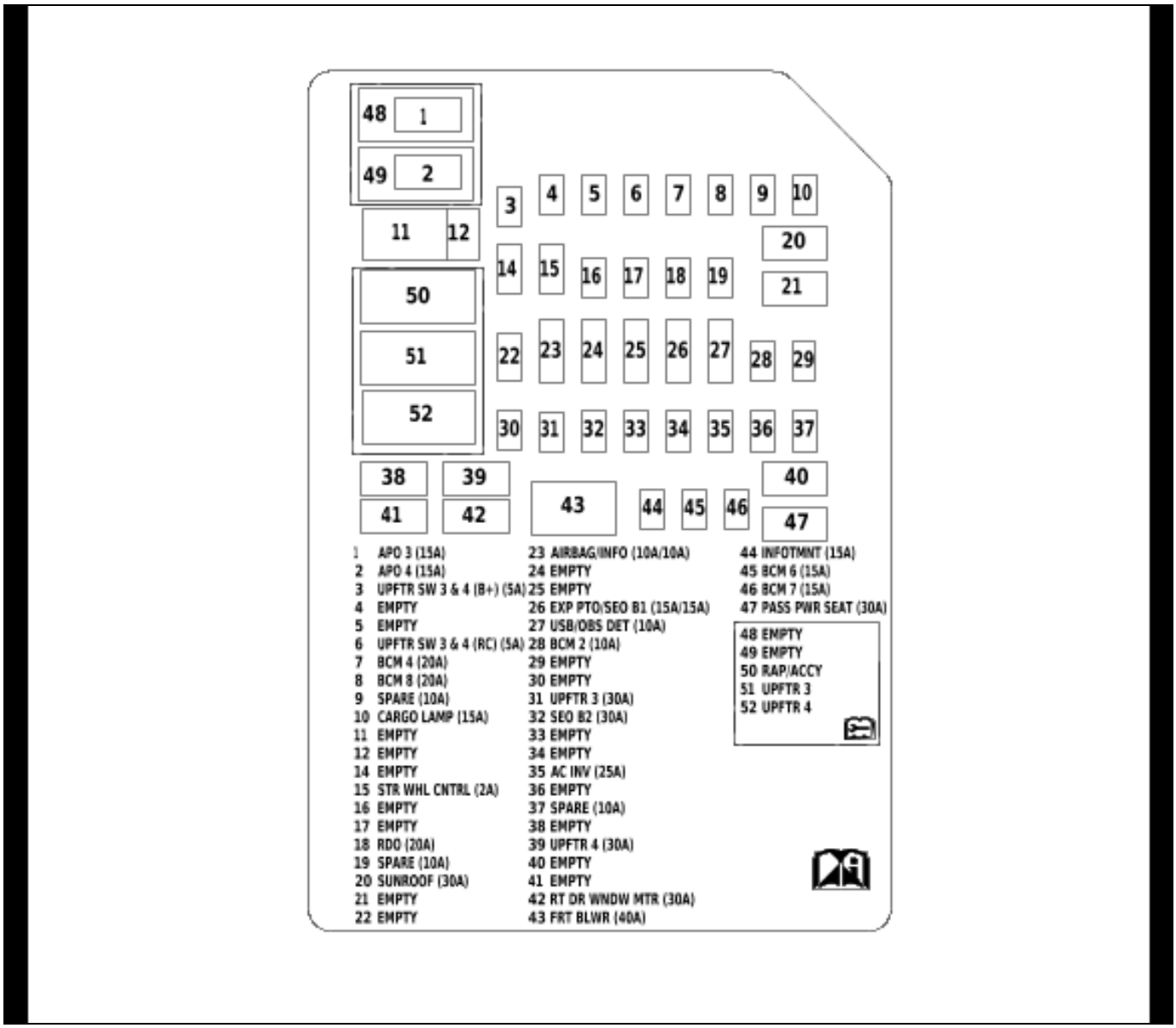
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368264	J-35616-4A (PU)	J-38125-11A
II	84757974	J-35616-2A (GY)	J-38125-215A

X51L Fuse Block - Instrument Panel Left X3

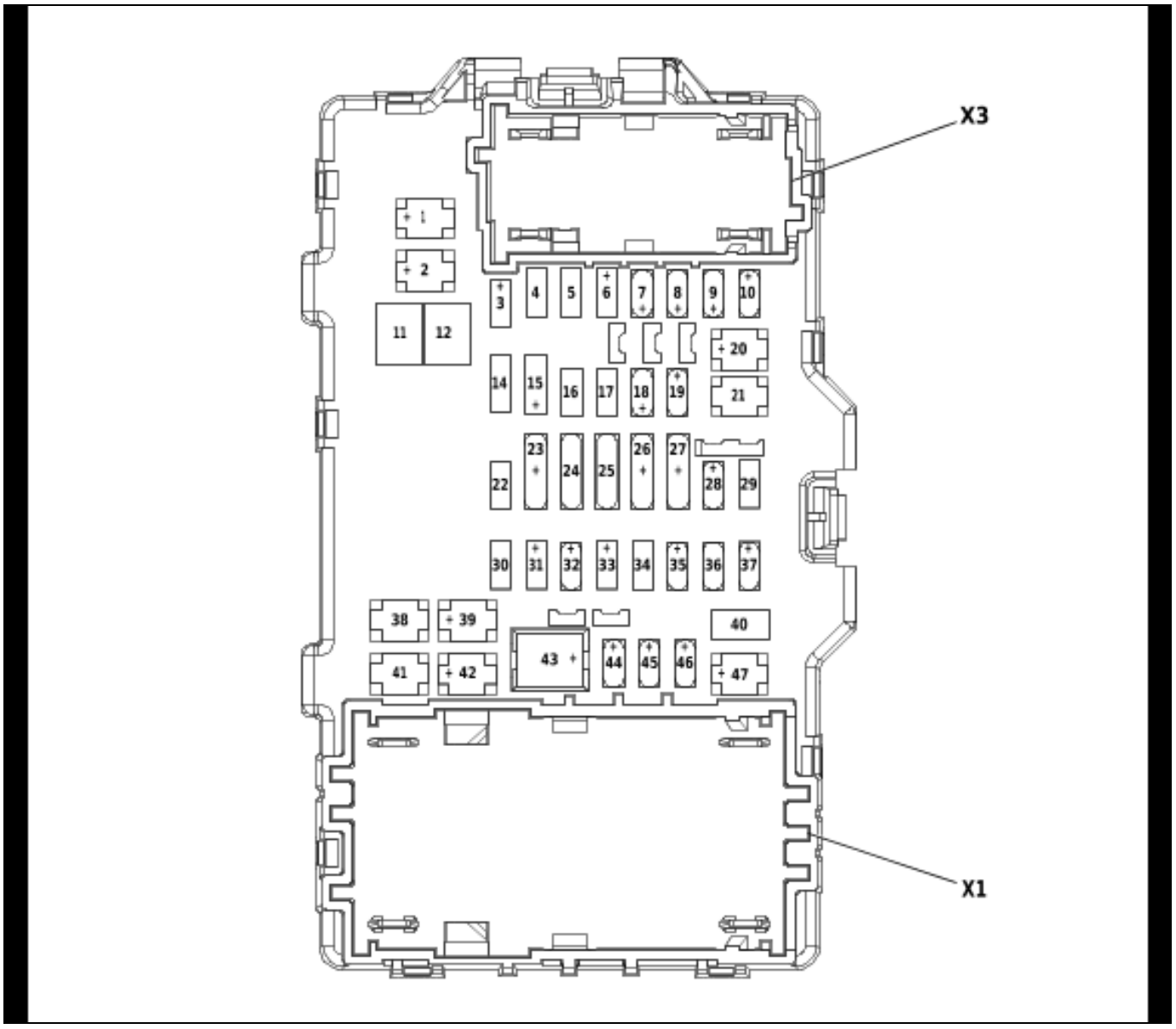
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 11	—	—	—	Not Occupied	—	—
12	0.5	RD / YE	240	Battery Positive Voltage	II	—
13	0.35	VT / GN	1739	Run/Crank Ignition 1 Voltage	II	—
14	0.35	VT / BK	1139	Run/Crank Ignition 1 Voltage	I	—
15 - 20	—	—	—	Not Occupied	—	—

X51R Fuse Block - Instrument Panel Right Label



4894111

X51R Fuse Block - Instrument Panel Right Top View



4894113

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	APO 3	F1DR	15A	• X80D Accessory Power Receptacle - Center Console Compartment (D07) • X80E Accessory Power Receptacle - Center Seat (A52-APL)
2	APO 4	F2DR	15A	• X80D Accessory Power Receptacle - Center Console Compartment (AE7/A52-APL) • X80L Accessory Power Receptacle - Center Console Rear (D07)
3	UPFTR SW 3 and 4 (B+)	F3DR	5A	• KR161C Configurable Provision Relay 3 (9L7) • KR161D Configurable Provision Relay 4 (9L7)
4	EMPTY	F4DR	—	• Not Used
5	EMPTY	F5DR	—	• Not Used

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
6	UPFTR SW 3 and 4 (RC)	F6DR	5A	• KR161C Configurable Provision Relay 3 (9L7) • KR161D Configurable Provision Relay 4 (9L7)
7	BCM 4	F7DR	20A	• K9 Body Control Module • E4G Headlamp - Left Low Beam • E4R Park/Turn Signal Lamp - Right Lower • E4T Park/Turn Signal Lamp - Right Upper • E4Z Turn Signal Repeater Lamp - Right (DPN) • KR68R Turn Signal Lamps Relay - Right (5DX/5DY) • X107 Accessory Wiring Harness Package - Snow Plow Tee Left to Snow Plow Headlight - Left (UNL)
8	BCM 8	F8DR	20A	• K9 Body Control Module • A23D Door Latch Assembly - Driver • A23LR Door Latch Assembly - Left Rear (Crew Cab) • A23P Door Latch Assembly - Passenger • A23RR Door Latch Assembly - Right Rear (Crew Cab) • X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness • X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness • X700 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness (Crew Cab) • X800 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness (Crew Cab)
9	SPARE	F9DR	10A	• Not Used
10	CARGO LAMP	F10DR	15A	• E6 Center High Mounted Stop Lamp • E33 Cargo Lamp (WRD) • E70D Outside Rearview Mirror Cargo Lamp - Driver (DPN) • E70P Outside Rearview Mirror Cargo Lamp - Passenger (DPN)
11	EMPTY	F11DR	—	• Not Used
12	EMPTY	F12DR	—	• Not Used
14	EMPTY	F14DR	—	• Not Used
15	STR WHL CNTRL	F15DR	2A	• S70L Steering Wheel Controls - Left • S70R Steering Wheel Controls Switch - Right (UK3)
16	EMPTY	F16DR	—	• Not Used
17	EMPTY	F17DR	—	• Not Used
18	RDO	F18DR	20A	• A11 Radio (IO3/IO5) • A33 Media Disc Player (TG5) • K74 Human Machine Interface Control (IO5) • X83 Auxiliary Audio Input (D07) • X92 USB Receptacle (D07)
19	SPARE	F19DR	10A	• Not Used
20	SUNROOF	F20DR	30A	• KR58 Roof Beacon Relay (TRW)
21	EMPTY	F21DR	—	• Not Used
22	EMPTY	F22DR	—	• Not Used
23	AIRBAG/INFO	F23DR	10A/10A	• K36 Inflatable Restraint Sensing and Diagnostic Module • K73 Telematics Communication Interface Control Module (UE1)
24	EMPTY	F24DR	—	• Not Used

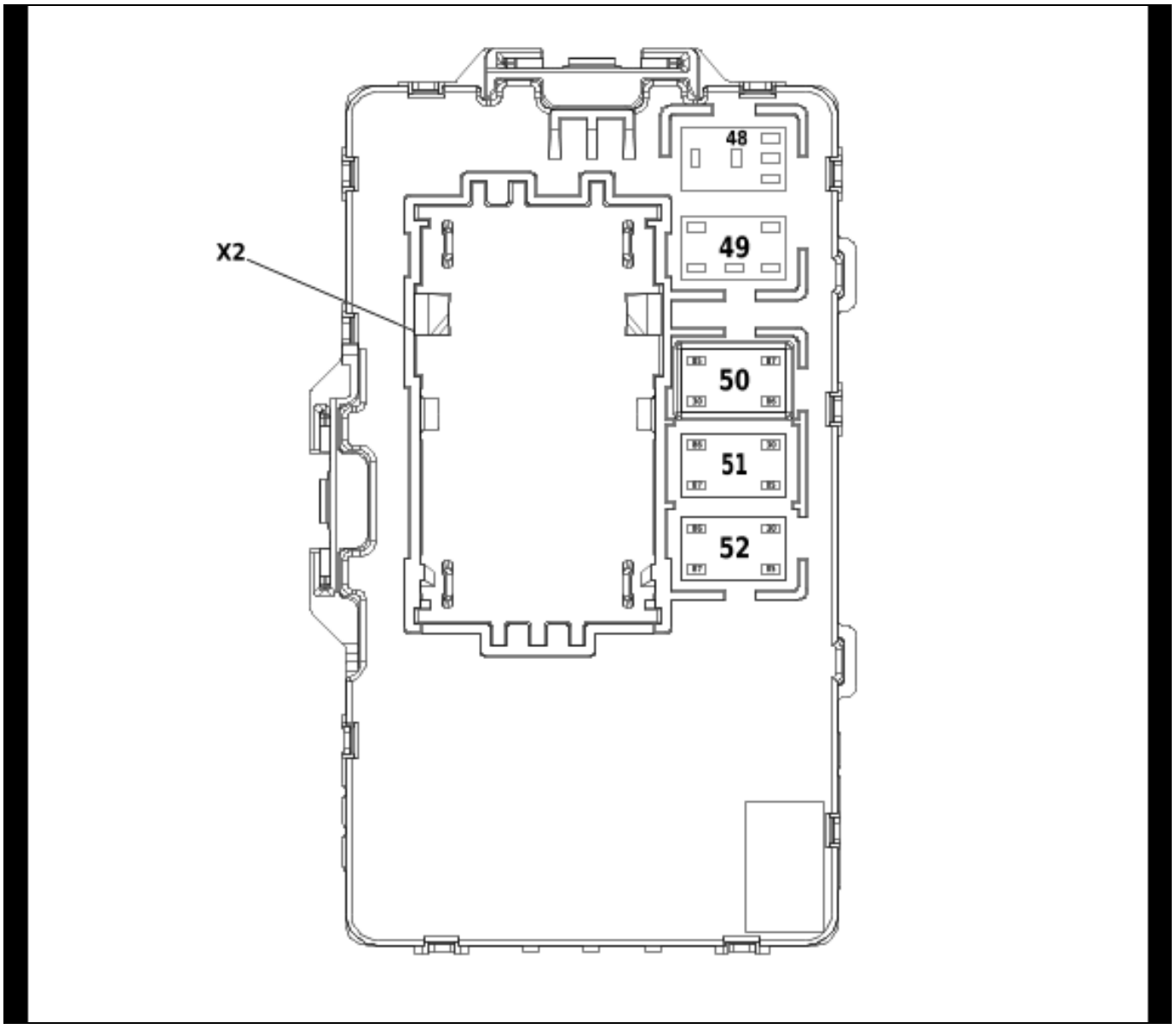
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
25	EMPTY	F25DR	—	• Not Used
26	EXP PTO/SEO B1	F26DR	15A/15A	• K44 Power Take - Off Control Module (PTO) • X191 Engine Wiring Harness - Chassis to Engine Wiring Harness - Chassis (PTO)
27	USB/OBS DET	F27DR	10A	• X83 Auxiliary Audio Input (-APL/D07)
28	BCM 2	F28DR	10A	• K9 Body Control Module • B10B Ambient Light/Sunload Sensor • K17 Electronic Brake Control Module • K36 Inflatable Restraint Sensing and Diagnostic Module • K44 Power Take-Off Control Module (PTO) • K56 Serial Data Gateway Module • K71 Transmission Control Module • K73 Telematics Communication Interface Control Module (UE1) • K74 Human Machine Interface Control Module (IO5) • K77 Remote Control Door Lock Receiver • K89 Immobilizer Control Module • KR12B Windshield Wiper Relay • S70L Steering Wheel Controls Switch - Left • S77 Transfer Case Shift Control Switch (NQF) • X61A Junction Block - Instrument Panel • X81 Accessory Power Receptacle - 110V AC (KI4)
29	EMPTY	F29DR	—	• Not Used
30	EMPTY	F30DR	—	• Not Used
31	UPFTR 3	F31DR	30A	• X61A Junction Block - Instrument Panel
32	SEO B2	F32DR	30A	• X61A Junction Block - Instrument Panel
33	EMPTY	F33DR	—	• Not Used
34	EMPTY	F34DR	—	• Not Used
35	AC INV	F35DR	25A	• T1 Accessory DC/AC Power Inverter Module (KI4)
36	EMPTY	F36DR	—	• Not Used
37	SPARE	F37DR	10A	• Not Used
38	EMPTY	F38DR	—	• Not Used
39	UPFTR 4	F39DR	30A	• X61A Junction Block-Instrument Panel • KR150 Relay - Spare
40	EMPTY	F40DR	—	• Not Used
41	EMPTY	F41DR	—	• Not Used
42	RT DR WNDW MTR	F42DR	30A	• S79P Window Switch - Passenger (A31) • S79RR window Switch - Right Rear (Crew Cab)
43	FRT BLWR	F43DR	40A	• M8 Blower Motor
44	INFOTMNT	F44DR	15A	• A11 Radio (IOB)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
45	BCM 6	F45DR	15A	• K9 Body Control Module • E31L Sunshade Mirror Lamp - Left (DH6) • E31R Sunshade Mirror Lamp - Right (DH6) • E37B Dome/Reading Lamps - 2nd Row (Crew Cab) • E37EL Dome/Reading Lamps - Front Overhead Console Left • E37ER Dome/Reading Lamps - Front Overhead Console Right • F14DL • KR76A Retained Accessory Power Relay 1 • KR76B Retained Accessory Power Relay 2 • S5 Center Console Compartment Lamp Switch (D07) • S12 Dome Lamp Switch • S13D Door Lock Switch - Driver • S13P Door Lock Switch - Passenger • S30 Headlamp Switch • S48A Multifunction Switch - Instrument Panel • S52 Outside Rearview Mirror Switch (DPN) • S63 Roof Beacon Switch (TRW) • S76 Trailer Brake Control Switch (JL1) • S77 Transfer Case Shift Control Switch (NQF)
46	BCM 7	F46DR	15A	• K9 Body Control Module • E37B Dome/Reading Lamps - 2nd Row (Crew Cab) • E37EL Dome/Reading Lamps - Front Overhead Console Left • E37ER Dome/Reading Lamps - Front Overhead Console Right • M7 Transmission Shift Lock Control Solenoid Actuator
47	PASS PWR SEAT	F47DR	30A	• S64P Seat Adjuster Switch - Passenger (A95)

X51R Fuse Block - Instrument Panel Right Bottom View



4894114

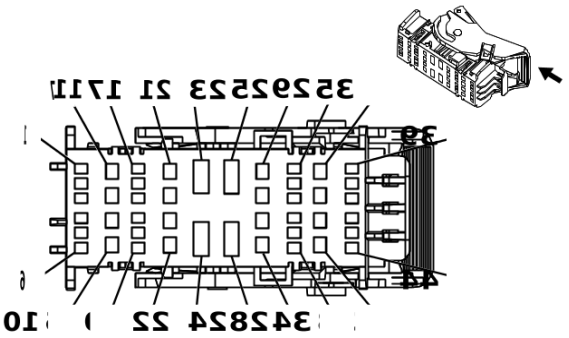
Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Relays				
48	EMPTY	—	—	• Not Used
49	EMPTY	—	—	• Not Used
50	RAP/ACCY	KR76B Retained Accessory Power Relay 2	—	• F1DR • F2DR
51	UPFTR 3	KR161C Configurable Provision Relay 3	—	• F31DR
52	UPFTR 4	KR161D Configurable Provision Relay 4	—	• F39DR

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR112 Cargo Lamp Relay	—	• F10DR
—	—	KR113 Child Security Lock Disable Relay	—	• A23D Door Latch Assembly - Driver • A23LR Door Latch Assembly - Left Rear (Crew Cab) • A23P Door Latch Assembly - Passenger • A23RR Door Latch Assembly - Right Rear (Crew Cab)
—	—	KR114 Door Dead Lock Relay	—	• A23D Door Latch Assembly - Driver • A23LR Door Latch Assembly - Left Rear (Crew Cab) • A23P Door Latch Assembly - Passenger • A23RR Door Latch Assembly - Right Rear (Crew Cab)

X51R Fuse Block - Instrument Panel Right X1



3240121

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13967689
Service Connector: 19329457
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series(NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19367554	J-35616-44 (YE)	J-38125-558
III	19370817	J-35616-2A (GY)	J-38125-215A
IV	84757974	J-35616-2A (GY)	J-38125-215A
V	85524896	J-35616-4A (PU)	J-38125-215A

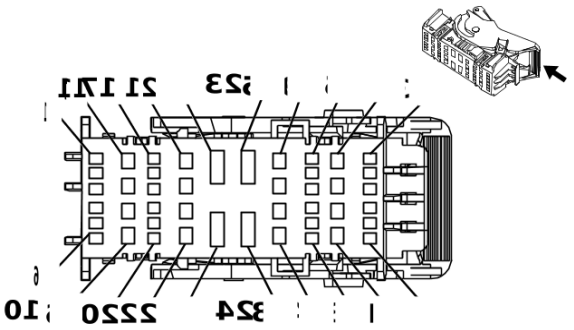
X51R Fuse Block - Instrument Panel Right X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 1.5	GY GY	295 295	Door Lock Actuator Lock Control Door Lock Actuator Lock Control	III IV	CREW CAB STANDARD CAB
2	1.5	WH / BU	3266	Child Security Lock Motor Lock Control	IV	—
3	0.35	VT / YE	3267	Child Security Lock Relay Control	IV	—
4	1.5	GY / GN	3271	Door Lock Control 2	IV	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY / VT	755	Retained Accessory Power Relay Coil Control	IV	—
7 - 11	—	—	—	Not Occupied	—	—
12	0.75	RD / BU	4540	Battery Positive Voltage	III	—
13	0.75	RD / VT	2640	Battery Positive Voltage	III	—
14	—	—	—	Not Occupied	—	—
15	0.5	VT / GY	709	Left Park Lamp Control	IV	—
16	0.5	RD / GN	4440	Battery Positive Voltage	IV	—
17	—	—	—	Not Occupied	—	—
18	1.5	VT / YE	143	Accessory Ignition Voltage	V	—
19	2.5	RD / WH	1340	Battery Positive Voltage	V	—
20	2.5	RD / WH	1340	Battery Positive Voltage	V	—

X51R Fuse Block - Instrument Panel Right X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	6	RD / GN	242	Battery Positive Voltage	II	—
22	4	RD / VT	542	Battery Positive Voltage	II	—
23	—	—	—	Not Occupied	—	—
24	6	RD / GY	142	Battery Positive Voltage	II	—
25	2	GN / BU	5989	Emergency Vehicle Lamp Relay Control	V	—
26	—	—	—	Not Occupied	—	—
27	0.75	RD / VT	340	Battery Positive Voltage	I	—
28	—	—	—	Not Occupied	—	—
29	1.5	BU / WH	195	Door Lock Control	IV	—
30	1.5	BN	5910	Door Dead Lock Actuator Lock Control	IV	—
31 - 32	—	—	—	Not Occupied	—	—
33	0.75	RD / WH	3440	Battery Positive Voltage	III	—
34	0.75	RD / GN	5140	Battery Positive Voltage	III	—
35 - 37	—	—	—	Not Occupied	—	—
38	2.5	RD / BN	1440	Battery Positive Voltage	V	—
39	—	—	—	Not Occupied	—	—
40	0.75	GY	5911	Door Lock Actuator Lock Control 2	III	—
41	0.35	BU / BN	7547	Security Lock Relay Control	IV	—
42 - 44	—	—	—	Not Occupied	—	—

X51R Fuse Block - Instrument Panel Right X2



3240120

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13967690
Service Connector: 19329458
Description: 44-Way F 1.5, 2.8, 800 Metri-Pack Series(GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575355	J-35616-44 (YE)	J-38125-558
II	19301761	J-35616-4A (PU)	J-38125-215A
III	19368264	J-35616-4A (PU)	J-38125-11A
IV	19370817	J-35616-2A (GY)	J-38125-215A
V	84757974	J-35616-2A (GY)	J-38125-215A
VI	85524896	J-35616-4A (PU)	J-38125-215A

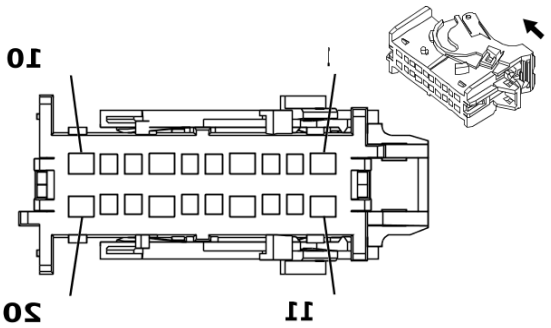
X51R Fuse Block - Instrument Panel Right X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.5	BN / WH	1429	Standing Lamp Relay Control	V	—
5	0.5	BK	1050	Ground	V	—
6	—	—	—	Not Occupied	—	—
7	0.75	RD / VT	4040	Battery Positive Voltage	II	—
8	0.75	RD / BU	2540	Battery Positive Voltage	II	—
9	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	III	—
10	1.5	VT / YE	243	Accessory Ignition Voltage	VI	—
11	0.75	WH / VT	1430	Exterior Courtesy Lamp Control	IV	—
12	0.5	WH / BK	5990	Emergency Vehicle Roof Lamp Switch Signal	V	—
13	—	—	—	Not Occupied	—	—
14	0.5	GN / GY	963	Configurable Provision Relay 3 Control	V	—
15	0.5	WH / BU	964	Configurable Provision Relay 4 Control	V	—
16	0.35	RD / YE	3040	Battery Positive Voltage	V	—
17	0.75 1	RD / VT RD / VT	340 340	Battery Positive Voltage Battery Positive Voltage	II II	IO3- TG5 IO5/ (IO3+ TG5)

X51R Fuse Block - Instrument Panel Right X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18 - 21	—	—	—	Not Occupied	—	—
22	2.5	BK	1050	Ground	I	—
23 - 27	—	—	—	Not Occupied	—	—
28	2.5	RD / GN	968	Configurable Provision 4 Control	VI	—
29	0.75	RD / BN	2240	Battery Positive Voltage	IV	—
30 - 33	—	—	—	Not Occupied	—	—
34	0.35	RD / BU	3240	Battery Positive Voltage	V	—
35	2.5	RD / GY	4140	Battery Positive Voltage	VI	—
36	—	—	—	Not Occupied	—	—
37	1.5	RD / YE	2340	Battery Positive Voltage	VI	—
38	2.5	YE / BN	967	Configurable Provision 3 Control	VI	—
39 - 41	—	—	—	Not Occupied	—	—
42	0.75	RD / VT	340	Battery Positive Voltage	IV	—
43 - 44	—	—	—	Not Occupied	—	—

X51R Fuse Block - Instrument Panel Right X3



3243003

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 15547107
Service Connector: 13597269
Description: 20-Way F 1.5, 2.8 OCS Series(GY)

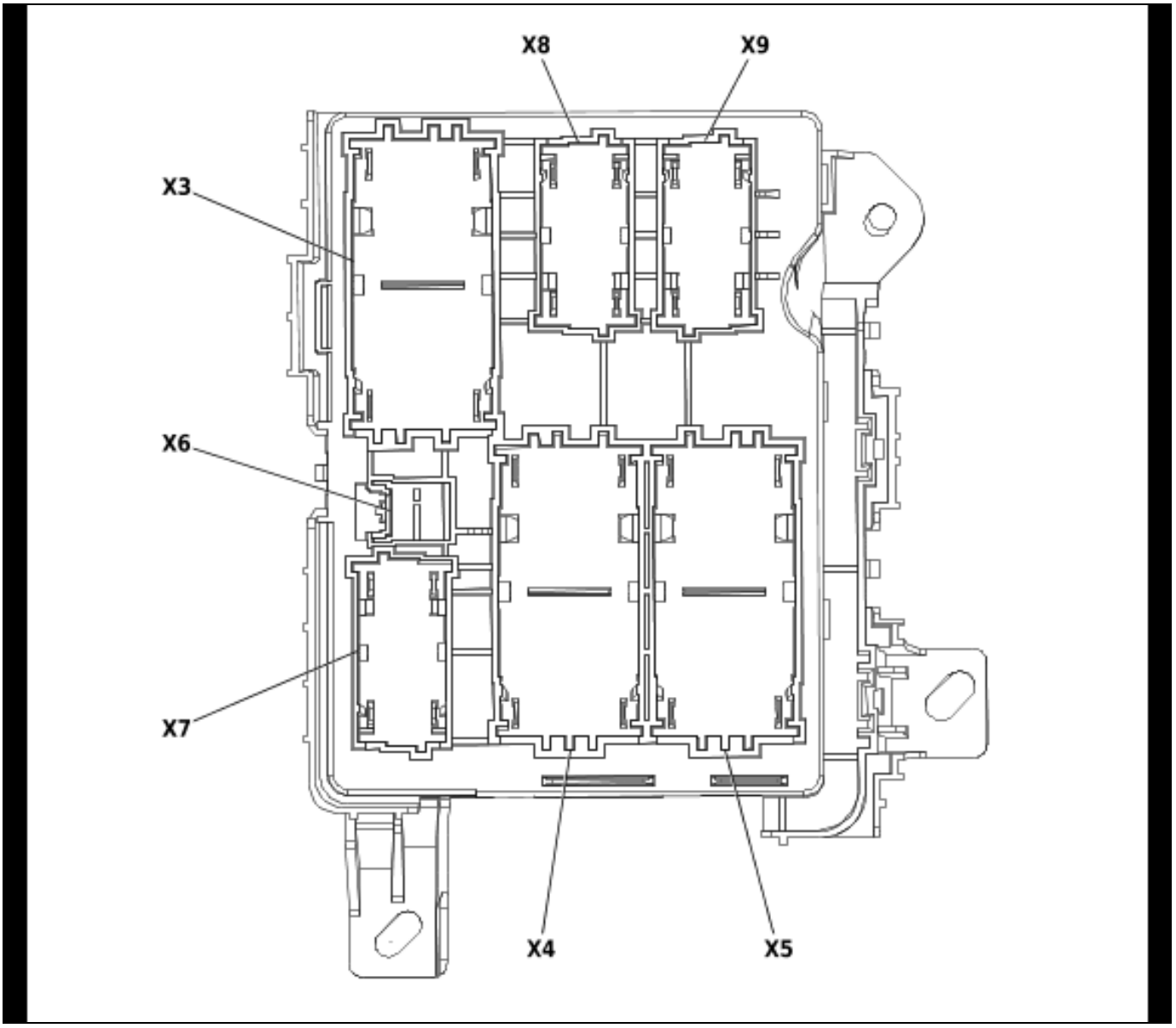
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	84757974	J-35616-2A (GY)	J-38125-215A

X51R Fuse Block - Instrument Panel Right X3

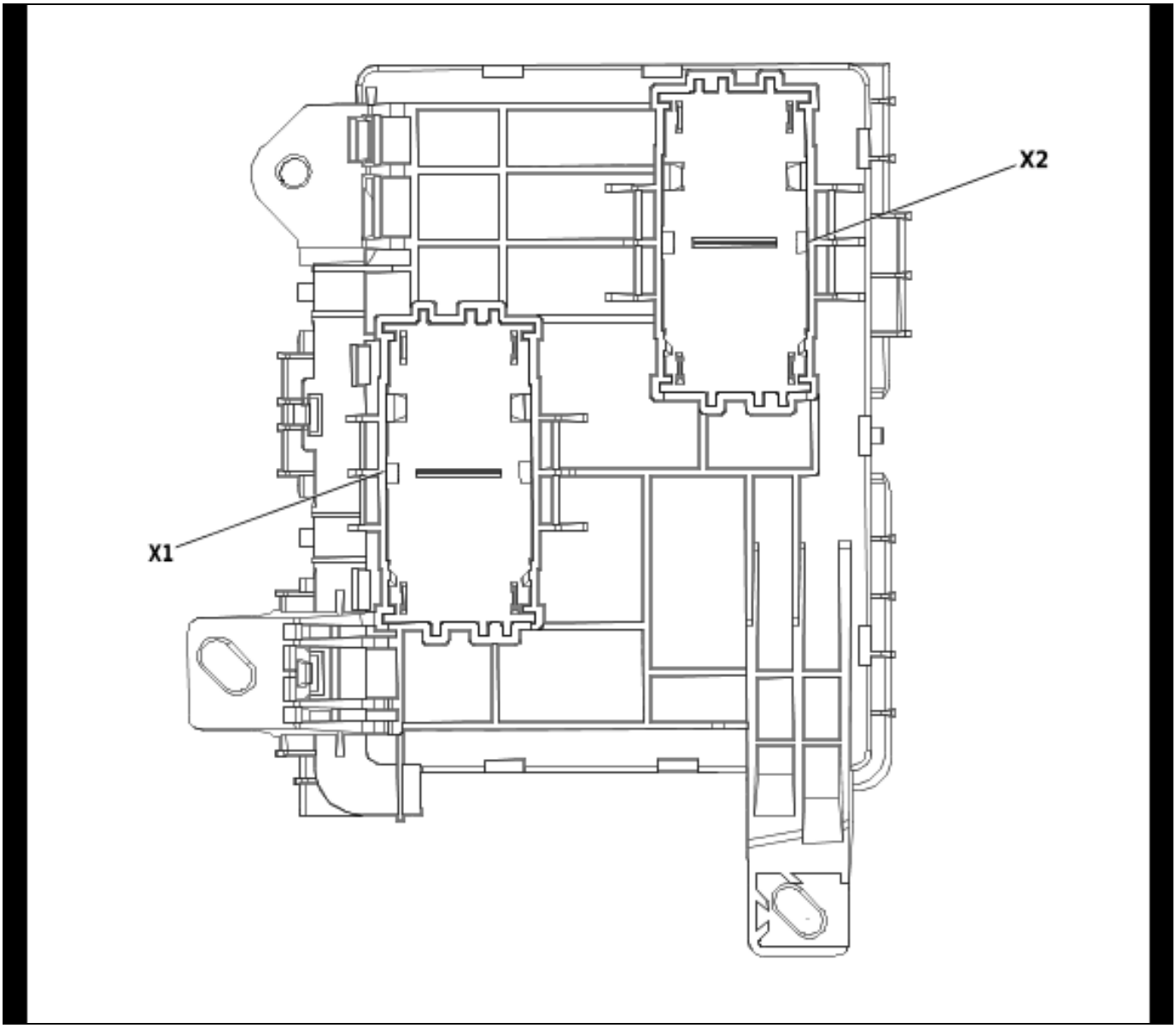
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / GN	3140	Battery Positive Voltage	I	—
2 - 7	—	—	—	Not Occupied	—	—
8	0.5	VT / GY	709	Left Park Lamp Control	II	—
9	—	—	—	Not Occupied	—	—
10	0.5 2.5	BK BK	1050 1050	Ground Ground	I	— —
11 - 20	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel Top View



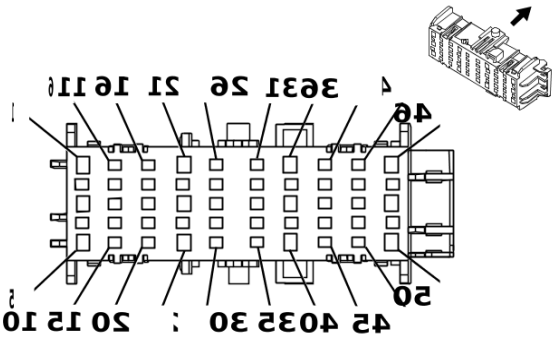
4894115

X61A Junction Block - Instrument Panel Bottom View



4894116

X61A Junction Block - Instrument Panel X1



3240131

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33114819
Service Connector: 19301798
Description: 50-Way F 1.5, 2.8 OCS Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368264	J-35616-4A (PU)	J-38125-11A
II	19370817	J-35616-2A (GY)	J-38125-215A
III	84757974	J-35616-2A (GY)	J-38125-215A
IV	85524896	J-35616-4A (PU)	J-38125-215A

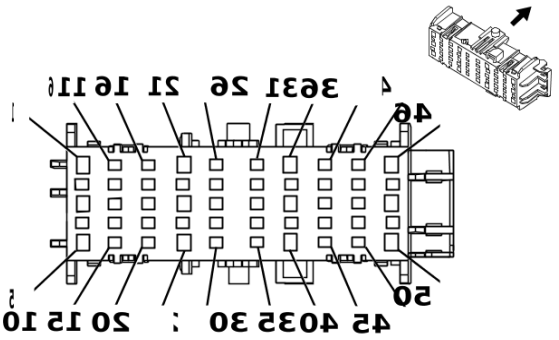
X61A Junction Block - Instrument Panel X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 12	—	—	—	Not Occupied	—	—
13	2	RD / GN	968	Configurable Provision 4 Control	III	—
14 - 15	—	—	—	Not Occupied	—	—
16	2.5	BU	965	Configurable Provision 1 Control	IV	—
17	0.75	WH / VT	1430	Exterior Courtesy Lamp Control	II	—
18	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
19	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	III	—
20	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
21	0.5	RD / WH	961	Configurable Provision Relay 1 Control	III	—
22	0.5	VT	185	Low Washer Fluid Indicator Control	III	—
23	0.35	BN / YE	780	Driver Door Lock Switch Lock Signal	III	—
24	0.5	BN	7634	Trailer Brake Control Redundant Manual Apply Signal	III	—
25	0.35	GY	5697	Child Security Lock Indicator Control	III	—
26	0.5	BU / RD	7632	Trailer Brake Control Switch 5V Reference	III	—
27	0.5	BK / BN	7631	Trailer Brake Control Switch Low Reference	III	—
28	0.35	BN / WH	781	Driver Door Lock Switch Unlock Signal	III	—
29	0.5	YE	7635	Trailer Brake Control Manual Apply Signal	III	—
30	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	III	—

X61A Junction Block - Instrument Panel X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
31	—	—	—	Not Occupied	—	—
32	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	III	—
33	0.35	VT / BN	300	Run Ignition 3 Voltage	I	—
34	0.5	YE / WH	962	Configurable Provision Relay 2 Control	III	—
35	0.5	VT / GN	39	Run/Crank Ignition 1 Voltage	I	—
36	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	III	—
37 - 38	—	—	—	Not Occupied	—	—
39	1	BU / VT	1134	Park Brake Switch Signal	II	—
40	—	—	—	Not Occupied	—	—
41	0.5	GN / BK	7633	Trailer Brake Control User Gain Signal	III	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	WH / BU	3691	Trailer Brake Apply Signal	III	—
45	—	—	—	Not Occupied	—	—
46	0.5	VT / WH	1939	Run/Crank Ignition 1 Voltage	I	—
47	0.5	WH	6816	Indicator Dimming Control	III	—
48	—	—	—	Not Occupied	—	—
49	0.35	YE / WH	816	Brake Transmission Shift Interlock Solenoid Actuator Control	III	—
50	2.5	BK	2550	Ground	IV	—

X61A Junction Block - Instrument Panel X2



3240130

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33115109
Service Connector: 19329464
Description: 50-Way F 1.5, 2.8 OCS Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19368307	J-35616-35 (VT)	J-38125-12A
III	19370817	J-35616-2A (GY)	J-38125-215A
IV	84757974	J-35616-2A (GY)	J-38125-215A
V	85524896	J-35616-4A (PU)	J-38125-215A

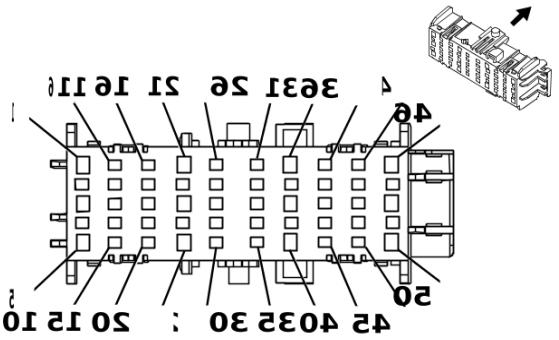
X61A Junction Block - Instrument Panel X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	2	RD / GY	1342	Battery Positive Voltage	V	—
4	0.35	BU	2307	Passenger Air Bag On Indicator Control	IV	—
5	2	GN / BU	5989	Emergency Vehicle Lamp Relay Control	V	—
6	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	IV	—
7	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	IV	—
8 - 14	—	—	—	Not Occupied	—	—
15	0.5	GN / WH	24	Backup Lamp Control	IV	—
16 - 17	—	—	—	Not Occupied	—	—
18	4	BK	550	Ground	II	—
19	0.35	VT / WH	5234	Passenger Seat Belt Indicator Control	IV	—
20 - 22	—	—	—	Not Occupied	—	—
23	0.5 0.75	WH / BN WH / BN	6815 6815	Inadvertent Load Control Inadvertent Load Control	III	— —
24	0.35	GN	2308	Passenger Air Bag Off Indicator Control	IV	—
25	—	—	—	Not Occupied	—	—
26	0.35	BU / GY	7473	Incremental Encoder Impulse Signal	IV	—
27	0.35	VT	7476	Incremental Encoder Sensor Low Reference	IV	—

X61A Junction Block - Instrument Panel X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28	—	—	—	Not Occupied	—	—
29	0.75	GY	157	Interior Lamp Control	III	—
30	0.35	GY	156	Courtesy Lamp Switch Signal	IV	—
31	1	YE / VT	1553	Transfer Case Motor Counter Clockwise Control	I	—
32	0.35	YE	7474	Incremental Encoder Direction Signal	IV	—
33	0.75	VT / GY	1054	Stop Lamp Control	I	—
34	—	—	—	Not Occupied	—	—
35	2.5	RD / GN	242	Battery Positive Voltage	V	—
36	0.35	WH / GN	7475	Incremental Encoder Sensor 8V Reference	IV	—
37	—	—	—	Not Occupied	—	—
38	0.35	VT / YE	5985	Accessory Wake-Up Serial Data	IV	—
39 - 43	—	—	—	Not Occupied	—	—
44	0.5	WH / BU	3691	Trailer Brake Apply Signal	IV	—
45	—	—	—	Not Occupied	—	—
46	1	YE / GY	1552	Transfer Case Motor Clockwise Control	I	—
47	0.5	GN / GY	817	Vehicle Speed Signal	IV	—
48	2.5	BU	47	Trailer Auxiliary Control	V	—
49	—	—	—	Not Occupied	—	—
50	0.35	VT / YE	43	Accessory Ignition Voltage	I	—

X61A Junction Block - Instrument Panel X3



3240132

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 33115112
Service Connector: 19329467
Description: 50-Way F 1.5, 2.8 OCS Series(BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19370817	J-35616-2A (GY)	J-38125-215A
III	84757974	J-35616-2A (GY)	J-38125-215A
IV	85524896	J-35616-4A (PU)	J-38125-215A

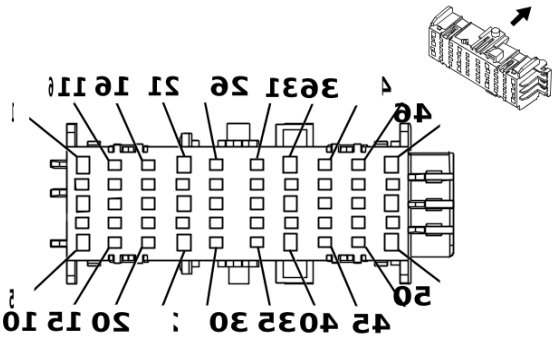
X61A Junction Block - Instrument Panel X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	2	GN / BU	5989	Emergency Vehicle Lamp Relay Control	IV	—
4	0.35	BU	2307	Passenger Air Bag On Indicator Control	III	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.75	WH / VT	1430	Exterior Courtesy Lamp Control	II	—
8 - 12	—	—	—	Not Occupied	—	—
13	0.35	GN / RD	24	Backup Lamp Control	III	—
14 - 16	—	—	—	Not Occupied	—	—
17	0.35	GN / BK	2515	Telematics Switch Supply Voltage	II	—
18	—	—	—	Not Occupied	—	—
19	0.35	VT / WH	5234	Passenger Seat Belt Indicator Control	III	—
20	—	—	—	Not Occupied	—	—
21	0.35	GN / BU	2514	Telematics Switch Signal	II	—
22	0.35	YE / BN	2516	Telematics Switch Green LED Indicator Control	II	—
23	—	—	—	Not Occupied	—	—
24	0.35	GN / RD	2308	Passenger Air Bag Off Indicator Control	III	—
25	0.5	WH / BN	6815	Inadvertent Load Control	III	—
26	0.5	WH / BK	5990	Emergency Vehicle Roof Lamp Switch Signal	III	—
27	0.5	YE	6817	LED Backlight Dimming Control 1	III	—

X61A Junction Block - Instrument Panel X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28	0.35	GY / BU	156	Courtesy Lamp Switch Signal	III	—
29	0.5	GY	157	Interior Lamp Control	III	—
30 - 34	—	—	—	Not Occupied	—	—
35	0.75	VT / GY	1054	Stop Lamp Control	I	—
36	0.35	BN / WH	2517	Telematics Switch Red LED Indicator Control	II	—
37 - 40	—	—	—	Not Occupied	—	—
41	0.35	GY / GN	328	Interior Lamp Defeat Switch Signal	III	—
42	0.35	VT / GN	7558	Front Footwell Accent Lighting Control	III	—
43 - 45	—	—	—	Not Occupied	—	—
46	2.5	BK	1050	Ground	IV	—
47 - 50	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel X4



3240129

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33115111
Service Connector: 19329466
Description: 50-Way F 1.5, 2.8 OCS Series(GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19368264	J-35616-4A (PU)	J-38125-11A
III	19370817	J-35616-2A (GY)	J-38125-215A
IV	84757974	J-35616-2A (GY)	J-38125-215A
V	85524896	J-35616-4A (PU)	J-38125-215A

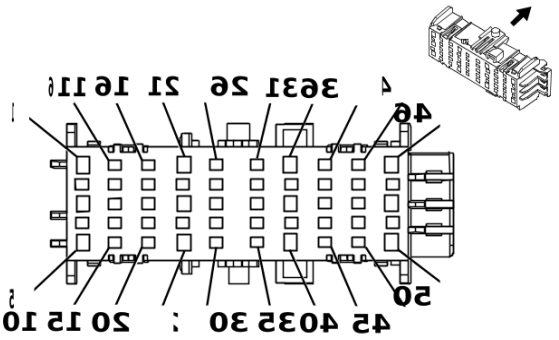
X61A Junction Block - Instrument Panel X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE / BN	967	Configurable Provision 3 Control	V	—
2	0.35	YE / VT	2516	Telematics Switch Green LED Indicator Control	IV	—
3	0.35	BK / GN	552	Sensor Low Reference	II	—
4	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	IV	—
5	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
6	0.5	YE	6817	LED Backlight Dimming Control 1	IV	—
7	0.35	GN / WH	2514	Telematics Switch Signal	IV	—
8	0.35	GY / RD	598	5V Reference	IV	—
9	0.35	WH / GN	526	Stop Lamp Switch Signal 2	IV	—
10	0.35	BU / YE	1693	Four Wheel Drive Switch Signal	IV	—
11	—	—	—	Not Occupied	—	—
12	2	RD / GN	968	Configurable Provision 4 Control	IV	—
13	0.5	WH / BK	5990	Emergency Vehicle Roof Lamp Switch Signal	IV	—
14	0.35	BN	1560	Neutral Indicator Control	IV	—
15	0.35	GY / RD	6029	Four Wheel Drive Mode Switch 5V Reference	IV	—
16	2.5	BK	1050	Ground	V	—
17	—	—	—	Not Occupied	—	—
18	2.5	GY / BK	966	Configurable Provision 2 Control	V	—

X61A Junction Block - Instrument Panel X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19	0.35	GN / BK	2515	Telematics Switch Supply Voltage	IV	—
20	2.5	RD / GN	968	Configurable Provision 4 Control	V	—
21	0.5	VT / GN	7558	Front Footwell Accent Lighting Control	IV	—
22	0.35	BN / WH	2517	Telematics Switch Red LED Indicator Control	IV	—
23	0.35	BN / BK	1566	4WD HI Indicator Control	IV	—
24	0.35	VT / WH	1565	4WD LO Indicator Control	IV	—
25	0.35	VT / GN	1739	Run/Crank Ignition 1 Voltage	IV	—
26	—	—	—	Not Occupied	—	—
27	0.35	GY / GN	328	Interior Lamp Defeat Switch Signal	IV	—
28 - 30	—	—	—	Not Occupied	—	—
31	1.5	RD / YE	2340	Battery Positive Voltage	V	—
32	0.5	BK / WH	1851	Signal Ground	IV	—
33	0.35 0.5	BK / WH BK / WH	1851 1851	Signal Ground Signal Ground	I	— —
34	—	—	—	Not Occupied	—	—
35	2.5	BK / WH	1851	Signal Ground	V	—
36 - 37	—	—	—	Not Occupied	—	—
38	0.5	BK / WH	1851	Signal Ground	IV	—
39	0.35	BK / WH	1851	Signal Ground	IV	—
40	0.35	GN / BK	1563	2WD HI Indicator Control	IV	—
41 - 43	—	—	—	Not Occupied	—	—
44	0.75	BK	2550	Ground	III	—
45	0.35	BK	2550	Ground	IV	—
46	0.75	BK	2550	Ground	I	—
47	0.35 0.35	BK BK	2550 2550	Ground Ground	III IV	IO3/ IO5 IOB
48	0.75	BK	2550	Ground	I	—
49	—	—	—	Not Occupied	—	—
50	0.75	BK	2550	Ground	I	—

X61A Junction Block - Instrument Panel X5



3240128

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33115110
Service Connector: 19329465
Description: 50-Way F 1.5, 2.8 OCS Series(NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19368264	J-35616-4A (PU)	J-38125-11A
III	19370817	J-35616-2A (GY)	J-38125-215A
IV	84757974	J-35616-2A (GY)	J-38125-215A

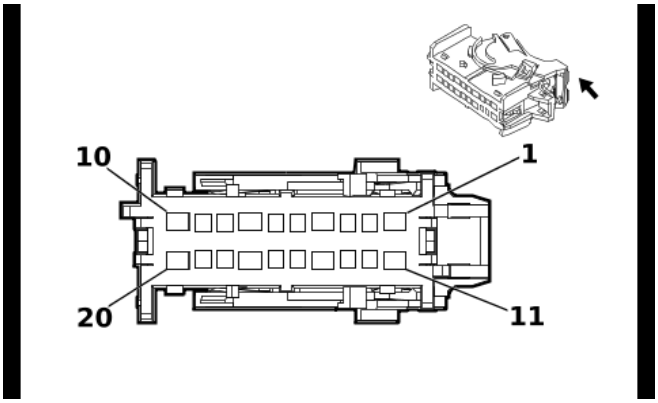
X61A Junction Block - Instrument Panel X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	II	—
2	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	IV	—
3	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	II	—
4	0.75	WH / VT	1430	Exterior Courtesy Lamp Control	III	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY	5697	Child Security Lock Indicator Control	IV	—
7	0.5	BN	7634	Trailer Brake Control Redundant Manual Apply Signal	IV	—
8	0.35	BN / YE	780	Driver Door Lock Switch Lock Signal	IV	—
9	0.35	VT	185	Low Washer Fluid Indicator Control	IV	—
10	0.5	RD / WH	961	Configurable Provision Relay 1 Control	IV	—
11	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	IV	—
12	0.5	YE	7635	Trailer Brake Control Manual Apply Signal	IV	—
13	0.35	BN / WH	781	Driver Door Lock Switch Unlock Signal	IV	—
14	0.5	BK / BN	7631	Trailer Brake Control Switch Low Reference	IV	—
15	0.5	BU / RD	7632	Trailer Brake Control Switch 5V Reference	IV	—
16	0.5	VT / GN	39	Run/Crank Ignition 1 Voltage	II	—
17	0.5	YE / WH	962	Configurable Provision Relay 2 Control	IV	—

X61A Junction Block - Instrument Panel X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	0.35 0.35	VT / BN VT / BN	300 300	Run Ignition 3 Voltage Run Ignition 3 Voltage	I II	KI4 - KI4
19	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	IV	—
20 - 21	—	—	—	Not Occupied	—	—
22	0.5	BU / VT	1134	Park Brake Switch Signal	IV	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	IV	—
26	—	—	—	Not Occupied	—	—
27	0.5	WH / BU	3691	Trailer Brake Apply Signal	IV	—
28 - 29	—	—	—	Not Occupied	—	—
30	0.5	GN / BK	7633	Trailer Brake Control User Gain Signal	IV	—
31	0.35	BK	2550	Ground	II	—
32	0.35	YE / WH	816	Brake Transmission Shift Interlock Solenoid Actuator Control	IV	—
33	—	—	—	Not Occupied	—	—
34	0.5	WH	6816	Indicator Dimming Control	IV	—
35 - 36	—	—	—	Not Occupied	—	—
37	0.35	WH	6816	Indicator Dimming Control	IV	—
38	0.35	WH	6816	Indicator Dimming Control	IV	—
39 - 50	—	—	—	Not Occupied	—	—

X61A Junction Block - Instrument Panel X7 (Upfitter)



6013307

Connector Part Information

Harness Type: Upfitter Wiring Harness
OEM Connector: 13924036
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5, 2.8 OCS Series(NA)

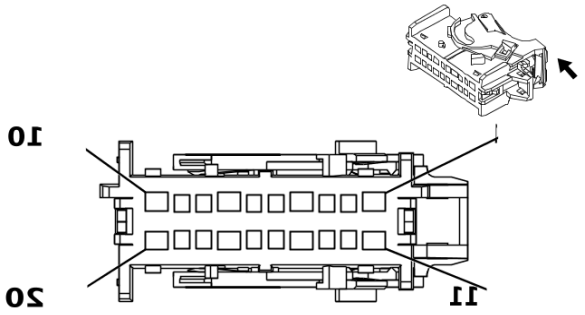
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required

X61A Junction Block - Instrument Panel X7 (Upfitter)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0	RD / GN	968	Configurable Provision 4 Control	II	9L7
2 - 3	—	—	—	Not Occupied	—	—
4	0	YE / BN	967	Configurable Provision 3 Control	II	9L7
5 - 6	—	—	—	Not Occupied	—	—
7	0	RD / YE	2340	Battery Positive Voltage	II	—
8	0	VT / YE	43	Accessory Ignition Voltage	I	—
9	—	—	—	Not Occupied	—	—
10	0	BK	1050	Ground	II	—
11	0	VT / WH	1939	Run/Crank Ignition 1 Voltage	II	—
12 - 13	—	—	—	Not Occupied	—	—
14	0	GY / BK	966	Configurable Provision 2 Control	II	9L7
15 - 16	—	—	—	Not Occupied	—	—
17	0	RD / YE	2340	Battery Positive Voltage	II	—
18	—	—	—	Not Occupied	—	—
19	0	GN / GY	817	Vehicle Speed Signal	I	—
20	0	BU	965	Configurable Provision 1 Control	II	9L7

X61A Junction Block - Instrument Panel X8



3240104

Connector Part Information

Harness Type: Auxiliary Fuse Block Wiring Harness
OEM Connector: 15547106
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5, 2.8 OCS Series(BK)

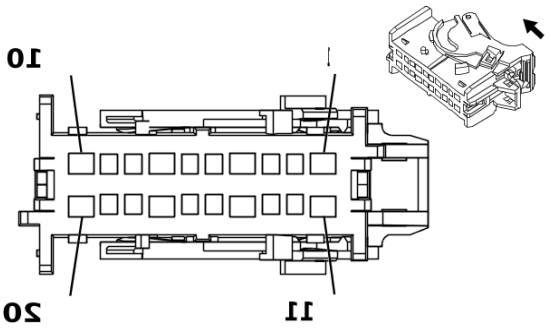
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required

X61A Junction Block - Instrument Panel X8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 7	—	—	—	Not Occupied	—	—
8	0.5	WH / GN	526	Stop Lamp Switch Signal 2	II	—
9	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
10	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	III	—
11	—	—	—	Not Occupied	—	—
12	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
13	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
14 - 15	—	—	—	Not Occupied	—	—
16	1.5	YE	5129	Adjustable Pedal Actuator Rearward Control	I	- NQF
17	—	—	—	Not Occupied	—	—
18	1.5	GN / VT	5130	Adjustable Pedal Actuator Forward Control	I	- NQF
19	0.5	BK / GN	552	Sensor Low Reference	II	—
20	0.5	GY / RD	598	5V Reference	III	—

X61A Junction Block - Instrument Panel X9 (NQF)



3243003

Connector Part Information

Harness Type: Auxiliary Fuse Block Wiring Harness
OEM Connector: 15547107
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5, 2.8 OCS Series(GY)

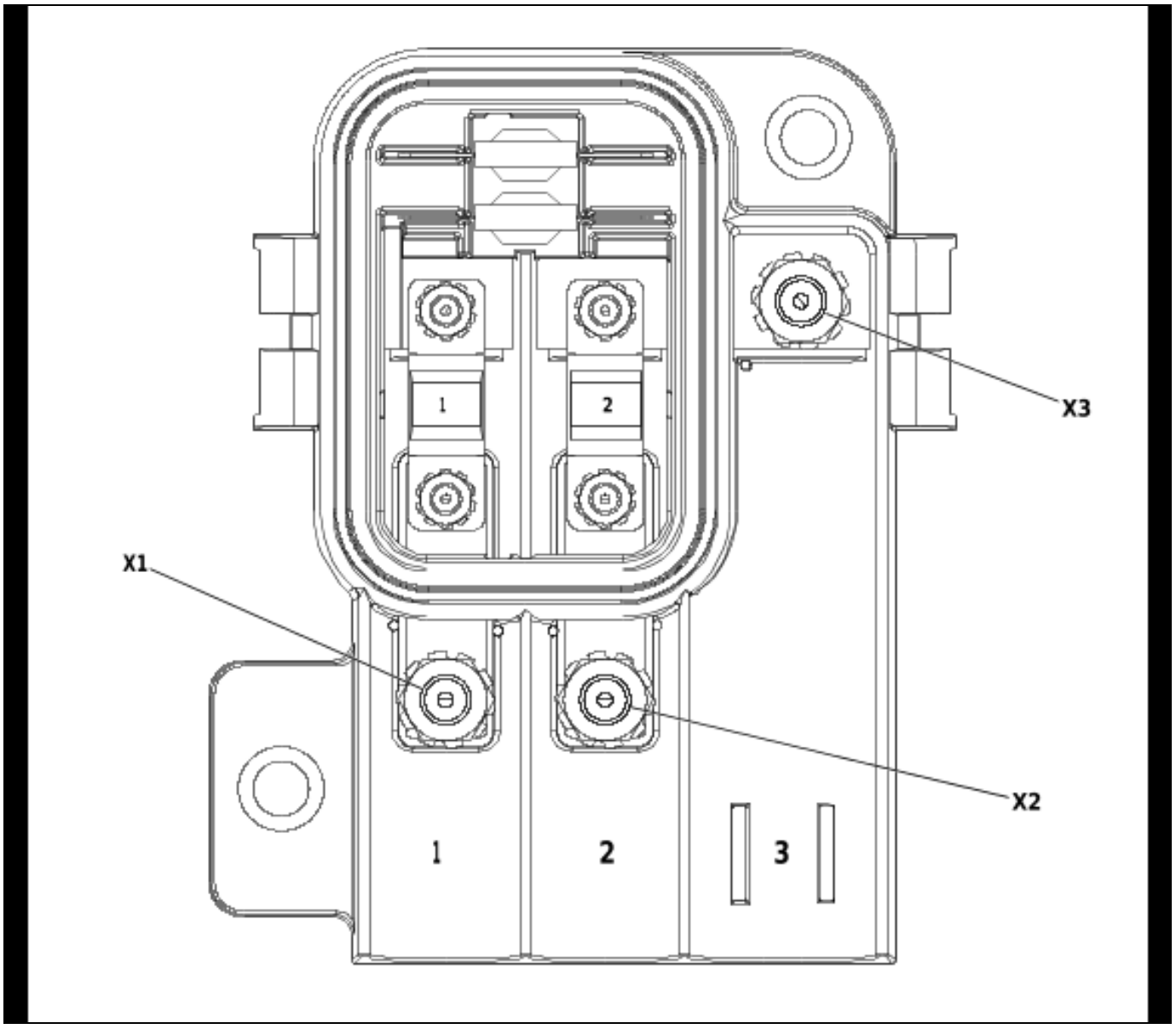
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required

X61A Junction Block - Instrument Panel X9 (NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	BU / YE	1693	Four Wheel Drive Switch Signal	I	—
3	0.35	GY / RD	6029	Four Wheel Drive Mode Switch 5V Reference	I	—
4	0.35	BN / BK	1566	4WD HI Indicator Control	III	—
5	0.35	VT / WH	1565	4WD LO Indicator Control	I	—
6	0.35	VT / GN	1739	Run/Crank Ignition 1 Voltage	I	—
7	0.35	VT / YE	5985	Accessory Wake-Up Serial Data	III	—
8	0.35	GN / BK	1563	2WD HI Indicator Control	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	3	RD / GY	1342	Battery Positive Voltage	II	—
12	0.35	BN	1560	Neutral Indicator Control	I	—
13	0.35	VT	7476	Incremental Encoder Sensor Low Reference	I	—
14	3	BK	550	Ground	II	—
15	0.35	BU / GY	7473	Incremental Encoder Impulse Signal	I	—
16	0.35	YE	7474	Incremental Encoder Direction Signal	I	—
17	1	YE / VT	1553	Transfer Case Motor Counter Clockwise Control	III	—
18	0.35	WH / GN	7475	Incremental Encoder Sensor 8V Reference	I	—
19	—	—	—	Not Occupied	—	—
20	1	YE / GY	1552	Transfer Case Motor Clockwise Control	III	—

X50E Fuse Block - Battery Auxiliary Top View (UEH)

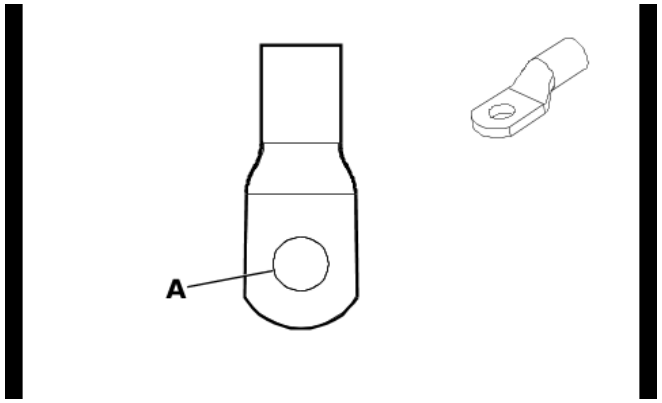


5335626

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	—	F1BB	100A	• F4PA • F5PA • F6PA • F7PA
2	—	F2BB	100A	• F1PA • F2PA • F3PA • F8PA

X50E Fuse Block - Battery Auxiliary X1 (UEH)



5480255

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Wiring Harness
OEM Connector: 2241627C1
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

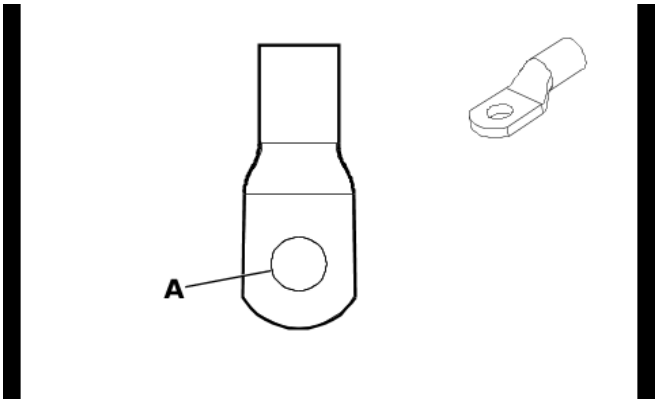
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50E Fuse Block - Battery Auxiliary X1 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD	1A	Battery Positive Voltage	I	—

X50E Fuse Block - Battery Auxiliary X2 (UEH)



5480255

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Wiring Harness
OEM Connector: 2241627C1
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

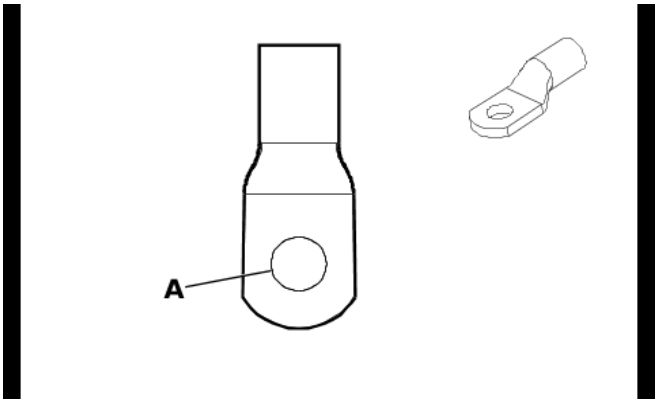
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50E Fuse Block - Battery Auxiliary X2 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD	1B	Battery Positive Voltage	I	—

X50E Fuse Block - Battery Auxiliary X3 (UEH)



5480255

Connector Part Information

Harness Type: Auxiliary Battery Positive Cable - Cab
OEM Connector: 2241353C1
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

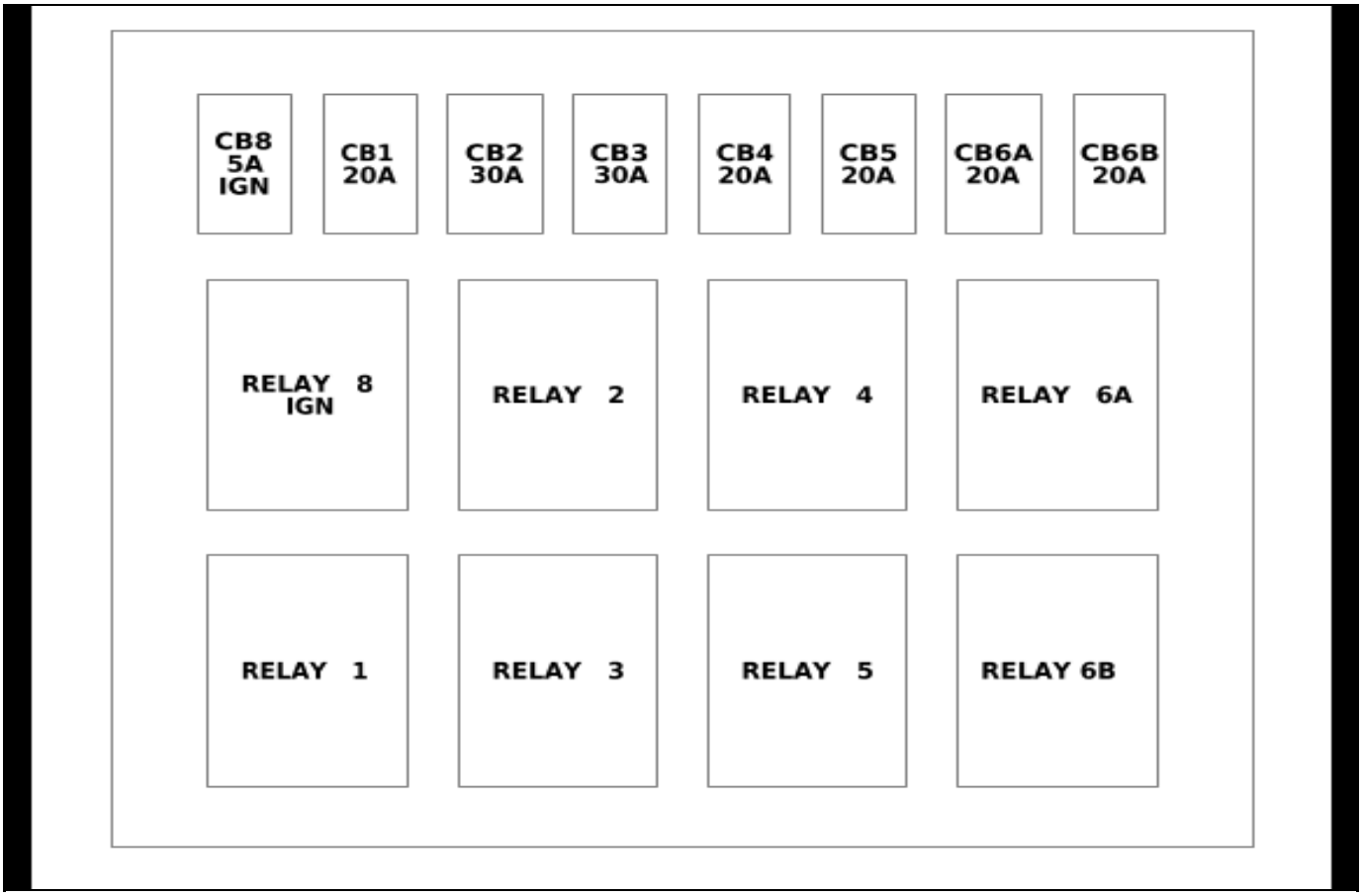
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50E Fuse Block - Battery Auxiliary X3 (UEH)

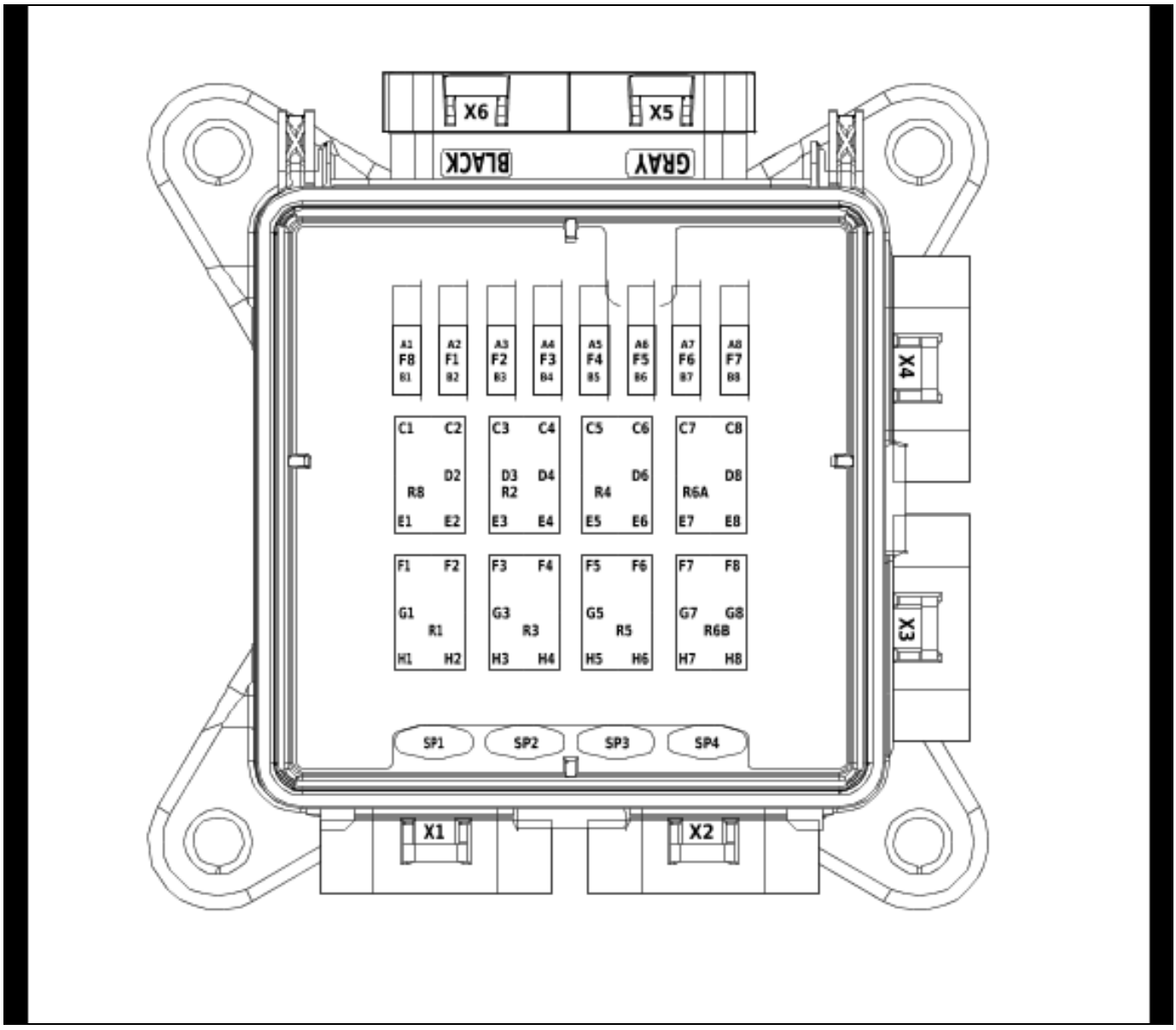
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	35	RD	A	Unfused Battery Positive Voltage	I	—

X54G Fuse Block - Body Provision Label (UEH)



5335627

X54G Fuse Block - Body Provision Top View (UEH)



5335628

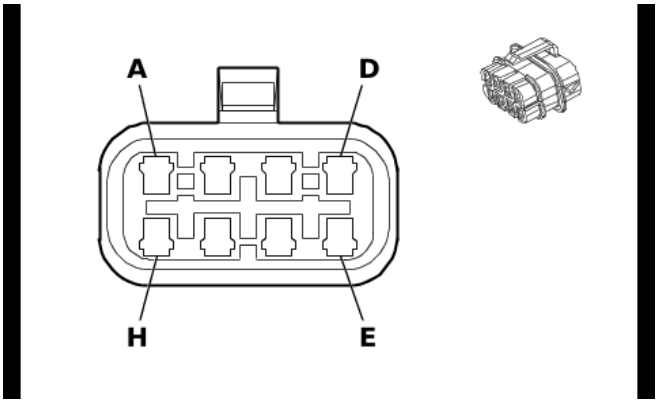
Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	CB1	F1PA	20A	• KR161E Configurable Provision Relay 5
2	CB2	F2PA	30A	• KR161F Configurable Provision Relay 6
3	CB3	F3PA	30A	• KR161G Configurable Provision Relay 7
4	CB4	F4PA	20A	• KR161H Configurable Provision Relay 8
5	CB5	F5PA	20A	• KR161J Configurable Provision Relay 9
6	CB6A	F6PA	20A	• KR161K Configurable Provision Relay 10
7	CB6B	F7PA	20A	• KR161L Configurable Provision Relay 11
8	CB8	F8PA	5A	• KR73 Ignition Main Relay

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
Relays				
1	RELAY 1	KR161E Configurable Provision Relay 5	—	• W25 Blunt Cut Configurable Provision (BU)
2	RELAY 2	KR161F Configurable Provision Relay 6	—	• W25 Blunt Cut Configurable Provision (RD)
3	RELAY 3	KR161G Configurable Provision Relay 7	—	• W25 Blunt Cut Configurable Provision (OG)
4	RELAY 4	KR161H Configurable Provision Relay 8	—	• W25 Blunt Cut Configurable Provision (YE)
5	RELAY 5	KR161J Configurable Provision Relay 9	—	• W25 Blunt Cut Configurable Provision (GN)
6	RELAY 6A	KR161K Configurable Provision Relay 10	—	• W25 Blunt Cut Configurable Provision (BN)
7	RELAY 6B	KR161L Configurable Provision Relay 11	—	• W25 Blunt Cut Configurable Provision (BK)
8	RELAY 8 IGN	KR73 Ignition Main Relay	—	• S181E Configurable Provision Switch 5 • S181F Configurable Provision Switch 6 • S181G Configurable Provision Switch 7 • S181H Configurable Provision Switch 8 • S181J Configurable Provision Switch 9 • S181K Configurable Provision Switch 10

X54G Fuse Block - Body Provision X1 (UEH)



5479940

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3590906C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series, Sealed(BK)

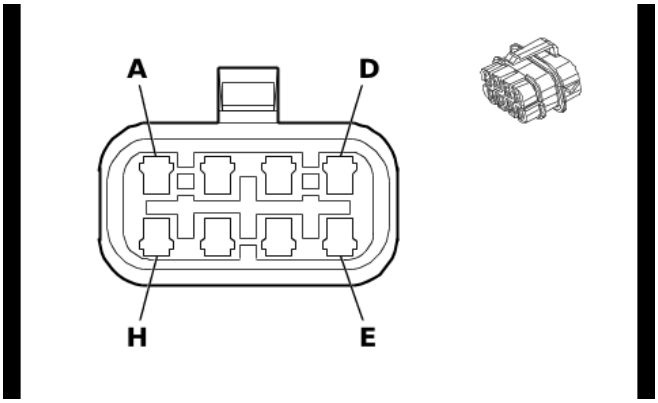
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X54G Fuse Block - Body Provision X1 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	4	RD	1B	Configurable Provision 6 Control	I	—
B	4	OG	1C	Configurable Provision 7 Control	I	—
C	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
D	1.5	BU	1A	Configurable Provision 5 Control	I	—
E - H	—	—	—	Not Occupied	—	—

X54G Fuse Block - Body Provision X2 (UEH)



5479940

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3590905C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series, Sealed(GY)

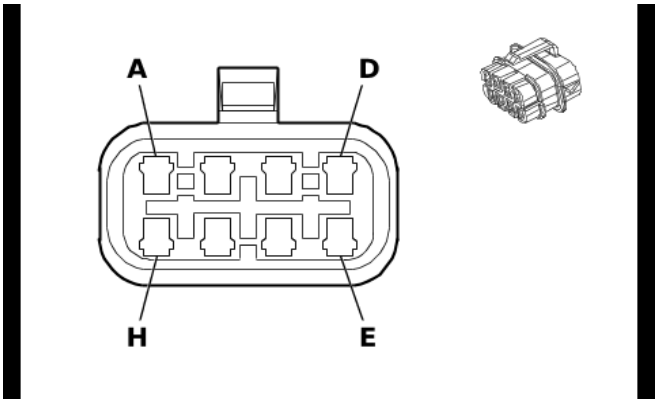
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X54G Fuse Block - Body Provision X2 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	BN	1F	Configurable Provision 10 Control 1	I	—
B	1.5	BK	1G	Configurable Provision 10 Control 2	I	—
C	1.5	YE	1D	Configurable Provision 8 Control	I	—
D	1.5	GN	1E	Configurable Provision 9 Control	I	—
E - H	—	—	—	Not Occupied	—	—

X54G Fuse Block - Body Provision X3 (UEH)



5479940

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3814193C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series, Sealed

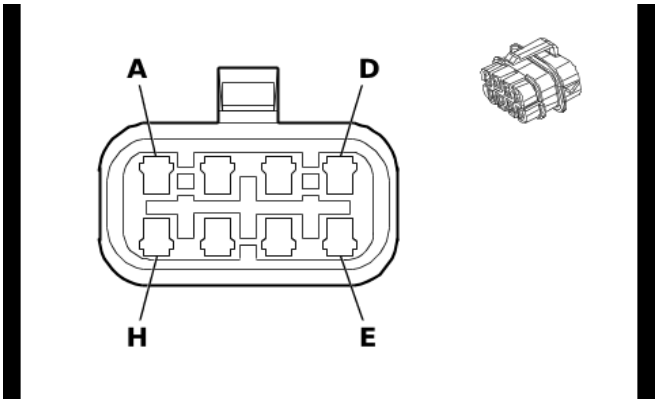
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X54G Fuse Block - Body Provision X3 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	PK	12F	Configurable Provision Relay 10 Control	I	—
B	0.75	PK	12F	Configurable Provision Relay 10 Control	I	—
C - E	—	—	—	Not Occupied	—	—
F	0.75	PK	12C	Configurable Provision Relay 7 Control	I	—
G	0.75	PK	12E	Configurable Provision Relay 9 Control	I	—
H	0.75	PK	12D	Configurable Provision Relay 8 Control	I	—

X54G Fuse Block - Body Provision X4 (UEH)



5479940

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3814194C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series, Sealed

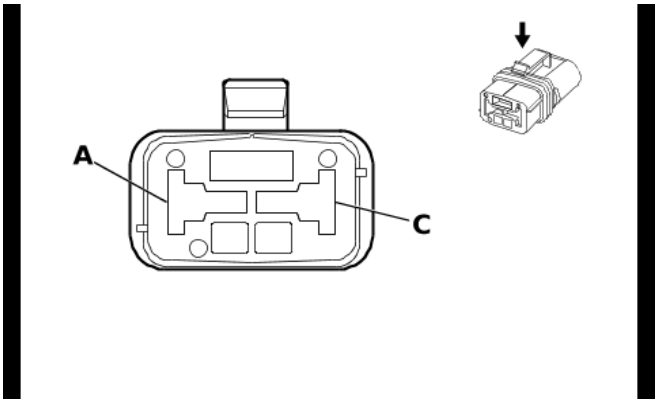
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X54G Fuse Block - Body Provision X4 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	0.75	PK	13A	Run/Crank Ignition Voltage	I	—
D	0.75	PK	12B	Configurable Provision Relay 6 Control	I	—
E	0.75	PK	12A	Configurable Provision Relay 5 Control	I	—
F	0.75	WH	11A	Ground	I	—
G - H	—	—	—	Not Occupied	—	—

X54G Fuse Block - Body Provision X5 (UEH)



5482244

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Wiring Harness
OEM Connector: 3590903C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 800 Metri-Pack Series, Sealed(GY)

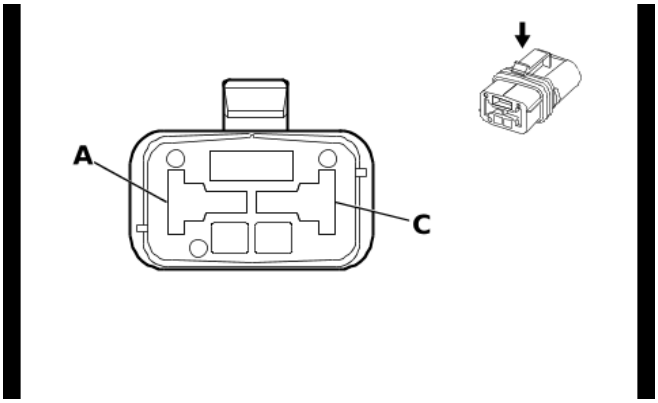
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-44 (YE)	No Tool Required

X54G Fuse Block - Body Provision X5 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD	1A	Battery Positive Voltage	I	—
C	10	RD	1A	Battery Positive Voltage	I	—

X54G Fuse Block - Body Provision X6 (UEH)



5482244

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Wiring Harness
OEM Connector: 3590904C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 800 Metri-Pack Series, Sealed(BK)

Terminal Part Information

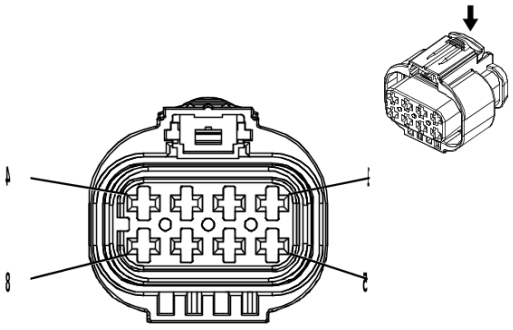
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-44 (YE)	No Tool Required

X54G Fuse Block - Body Provision X6 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD	1B	Battery Positive Voltage	I	—
C	10	RD	1B	Battery Positive Voltage	I	—

Component Connector End Views

A7 Fuel Pump and Level Sensor Assembly (N2L)



3749582

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: 2-2109441-5
Service Connector: 19354078
Description: 8-Way F 2.8 Series, Sealed(L-GY)

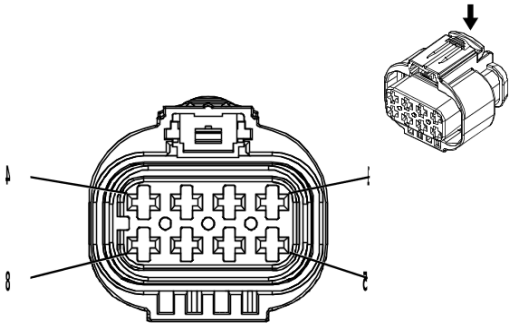
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

A7 Fuel Pump and Level Sensor Assembly (N2L)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY	120	Fuel Pump Control	I	—
2	1.5	YE / GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
3	1.5	WH / BN	4138	Fuel Pump Supply Voltage Phase 3	I	—
4	0.5	BK	7444	Fuel Pump Assembly Shield Ground	II	—
5	0.5	BU / VT	1589	Primary Fuel Level Sensor Signal	II	—
6	0.5	BK / GN	6281	Fuel Level Sensor Low Reference	II	—
7 - 8	—	—	—	Not Occupied	—	—

A7 Fuel Pump and Level Sensor Assembly (NSQ/NVK)



3749582

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 2-2109441-5
Service Connector: 19354078
Description: 8-Way F 2.8 Series, Sealed(L-GY)

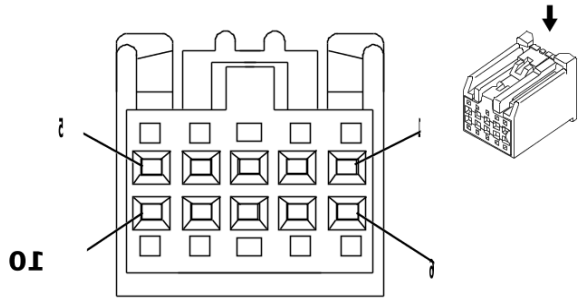
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

A7 Fuel Pump and Level Sensor Assembly (NSQ/NVK)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY	120	Fuel Pump Control	I	—
2	1.5	YE / GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
3	1.5	WH / BN	4138	Fuel Pump Supply Voltage Phase 3	I	—
4	0.5	BK	7444	Fuel Pump Assembly Shield Ground	II	—
5	0.5	GY / BN	1589	Primary Fuel Level Sensor Signal	II	—
6	0.5	BK / GN	6281	Fuel Level Sensor Low Reference	II	—
7 - 8	—	—	—	Not Occupied	—	—

A10 Inside Rearview Mirror (DD8/UE1)



2180211

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series(BK)

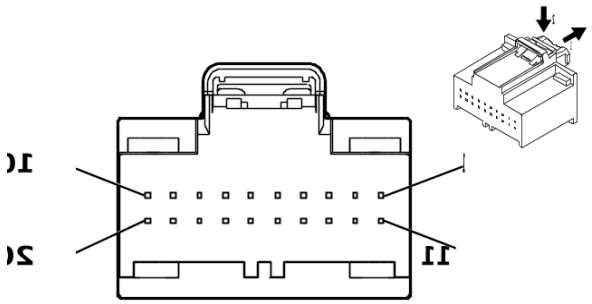
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (L-BU)	J-38125-215A

A10 Inside Rearview Mirror (DD8/UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / RD	24	Backup Lamp Control	I	—
2	0.35	VT / GN	1739	Run/Crank Ignition 1 Voltage	I	—
3	0.35	GN / BU	2514	Telematics Switch Signal	I	—
4	0.35	GN / BK	2515	Telematics Switch Supply Voltage	I	—
5	0.5	BK	1050	Ground	I	—
6	0.35	YE / BN	2516	Telematics Switch Green LED Indicator Control	I	—
7	0.35	BN / WH	2517	Telematics Switch Red LED Indicator Control	I	—
8 - 10	—	—	—	Not Occupied	—	—

A11 Radio X1 (IO3)



5109537

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35165309
Service Connector: 13525991
Description: 20-Way F 0.64 Series(GY)

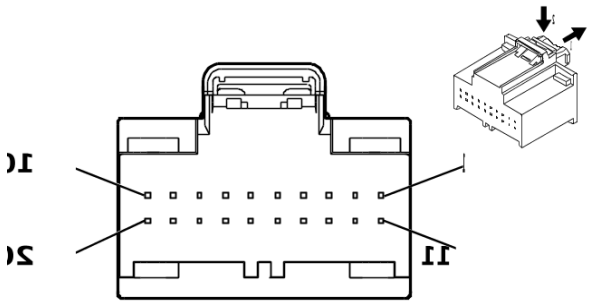
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584547	J-35616-64B (L-BU)	J-38125-215A

A11 Radio X1 (IO3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.35	WH / BU	6973	Rearview Camera Signal [-]	I	—
5	0.35	GY / YE	6972	Rearview Camera Signal [+]	I	—
6	0.5	Bare	5842	Auxiliary Audio Shield	I	—
7	0.35	BU	2060	Auxiliary Audio Plug Detection Signal	I	—
8	0.35	VT	5843	Auxiliary Audio Common Signal	I	—
9	0.35	GY	5839	Left Auxiliary Audio Signal 2	I	—
10	0.35	GN	5841	Right Auxiliary Audio Signal 2	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	GN / BU	7532	Radio LIN Bus 1	I	—
14	0.5	GY / GN	1102	Low Speed GMLAN Serial Data 2	I	—
15 - 20	—	—	—	Not Occupied	—	—

A11 Radio X1 (IO5)



5109537

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35165309
Service Connector: 13525991
Description: 20-Way F 0.64 Series(GY)

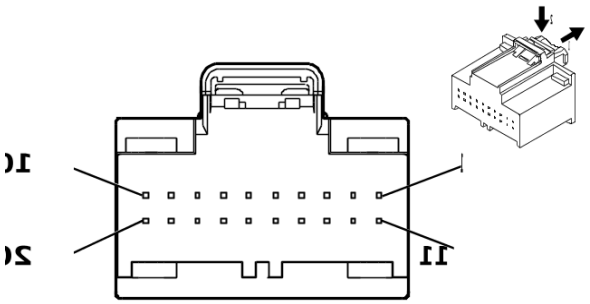
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584547	J-35616-64B (L-BU)	J-38125-215A

A11 Radio X1 (IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	—	—	—	Not Occupied	—	—
6	0.5	Bare	5842	Auxiliary Audio Shield	I	—
7	0.35	BU	2060	Auxiliary Audio Plug Detection Signal	I	—
8	0.35	VT	5843	Auxiliary Audio Common Signal	I	—
9	0.35	GY	5839	Left Auxiliary Audio Signal 2	I	—
10	0.35	GN	5841	Right Auxiliary Audio Signal 2	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	GN / BU	7532	Radio LIN Bus 1	I	—
14	0.5	GY / GN	1102	Low Speed GMLAN Serial Data 2	I	—
15 - 18	—	—	—	Not Occupied	—	—
19	0.35	BK / YE	659	Cellular Telephone Voice Low Reference	I	—
20	0.35	YE	658	Cellular Telephone Voice Signal	I	—

A11 Radio X1 (IOB)



5109537

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35165309
Service Connector: 13525991
Description: 20-Way F 0.64 Series(GY)

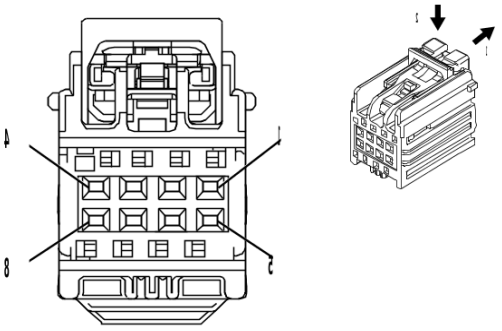
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584547	J-35616-64B (L-BU)	J-38125-215A

A11 Radio X1 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	2550	Ground	I	—
2	0.35	GY / BN	9003	Low Reference	I	—
3	0.35	BN	9004	5Volt Reference	I	—
4	0.5	GY / GN	1102	Low Speed GMLAN Serial Data 2	I	—
5	—	—	—	Not Occupied	—	—
6	0.35 0.35	BK / GY BK / BN	5152 654	Voice Recognition Audio [-] Control Cellular Telephone Microphone Low Reference	I I	UE1 - UE1
7	0.35 0.35	GY / YE BU	5149 655	Voice Recognition Audio Signal Cellular Telephone Microphone Signal	I I	UE1 - UE1
8	0.35	BN / GN	3983	Radio Controls Switch Signal 2	I	—
9	0.35	BK / YE	659	Cellular Telephone Voice Low Reference	I	—
10	0.35	YE	658	Cellular Telephone Voice Signal	I	—
11	0.75	RD / VT	340	Battery Positive Voltage	I	—
12 - 13	—	—	—	Not Occupied	—	—
14	0.35	WH / BU	6973	Rearview Camera Signal [-]	I	—
15	0.35	GY / YE	6972	Rearview Camera Signal [+]	I	—
16	0.5	Bare	5842	Auxiliary Audio Shield	I	—
17	0.35	BU	2060	Auxiliary Audio Plug Detection Signal	I	—
18	0.35	VT	5843	Auxiliary Audio Common Signal	I	—
19	0.35	GY	5839	Left Auxiliary Audio Signal 2	I	—
20	0.35	GN	5841	Right Auxiliary Audio Signal 2	I	—

A11 Radio X2 (IO3/IO5)



4280711

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33183559
Service Connector: 19355209
Description: 8-Way F 0.64 Kaizen Series(GY)

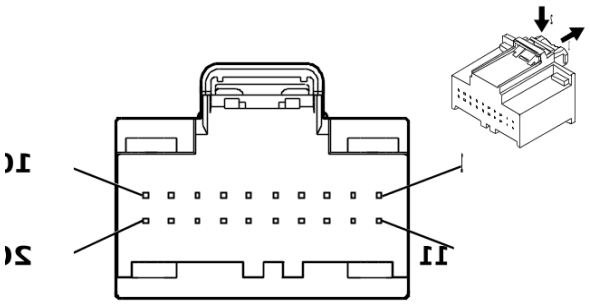
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A11 Radio X2 (IO3/IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / GN	3997	MOST Bus Serial Data [-]	I	—
2	0.5	GY / VT	3998	MOST Bus Serial Data [+]	I	—
3	0.5	WH / GN	3997	MOST Bus Serial Data [-]	I	—
4	0.5	GY / VT	3998	MOST Bus Serial Data [+]	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	WH / VT	3999	MOST Bus Control	I	—
8	—	—	—	Not Occupied	—	—

A11 Radio X2 (IOB)



5109514

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35162720
Service Connector: 13525992
Description: 20-Way F 0.64 Series(BN)

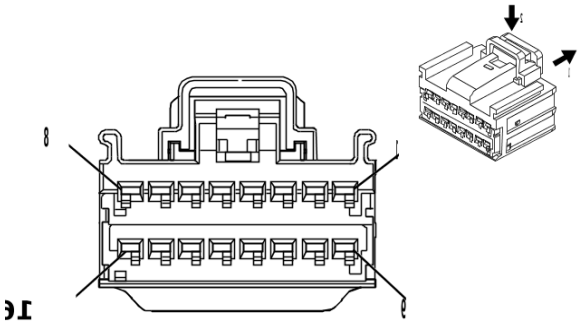
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584547	J-35616-64B (L-BU)	J-38125-215A

A11 Radio X2 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	GY	314	Radio On Signal	I	—
4	0.35	VT / GY	1381	LCD Dimming Signal	I	—
5	0.35	GY / BU	3989	Display Radio Bank Switch Dim Signal	I	—
6	0.35	BN / GN	4502	Video Display Request Signal	I	—
7	0.35	BN / GN	3364	Navigation Display Reset Signal	I	—
8	0.35	BU	4315	Radio Volume Up Switch Signal	I	—
9	0.35	GY / BN	4314	Radio Volume Down Switch Signal	I	—
10	0.75	BK	2550	Ground	I	—
11	0.5	WH	46	Right Rear Speaker [+] Control	I	—
12	0.5	BU / BK	115	Right Rear Speaker [-] Control	I	—
13	0.5	GN	199	Left Rear Speaker [+] Control	I	—
14	0.5	GN / BK	116	Left Rear Speaker [-] Control	I	—
15	0.75	YE / BK	117	Right Front Speaker [-] Control 1	I	—
16	0.75	YE	200	Right Front Speaker 1 [+] Control	I	—
17	0.75	BN / BU	118	Left Front Speaker [-] Control 1	I	—
18	0.75	BU	201	Left Front Speaker 1 [+] Control	I	—
19	—	—	—	Not Occupied	—	—
20	0.75	RD / VT	340	Battery Positive Voltage	I	—

A11 Radio X3 (IO3/IO5)



4332214

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15512506
Service Connector: 13591061
Description: 16-Way F 1.5 OCS Series(BK)

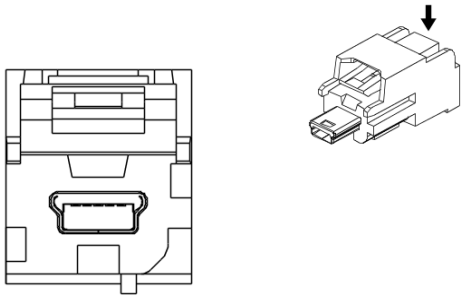
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84757974	J-35616-2A (GY)	J-38125-215A

A11 Radio X3 (IO3/IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	201	Left Front Speaker 1 [+] Control	I	—
2	0.75	YE	200	Right Front Speaker 1 [+] Control	I	—
3	0.5	GN	199	Left Rear Speaker [+] Control	I	—
4	0.5	WH	46	Right Rear Speaker [+] Control	I	—
5 - 7	—	—	—	Not Occupied	—	—
8	0.75	RD / VT	340	Battery Positive Voltage	I	—
9	0.75	BN / BU	118	Left Front Speaker [-] Control 1	I	—
10	0.75	YE / BK	117	Right Front Speaker [-] Control 1	I	—
11	0.5	GN / BK	116	Left Rear Speaker [-] Control	I	—
12	0.5	BU / BK	115	Right Rear Speaker [-] Control	I	—
13 - 15	—	—	—	Not Occupied	—	—
16	0.75	BK	2550	Ground	I	—

A11 Radio X3 (IOB)



3028810

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13893415
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(BU)

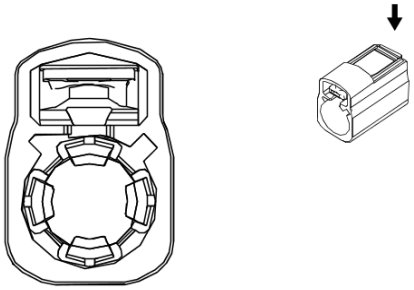
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X3 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

A11 Radio X4



2908476

Connector Part Information

Harness Type: Radio Antenna Jumper Coax
OEM Connector: 12784257
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BK)

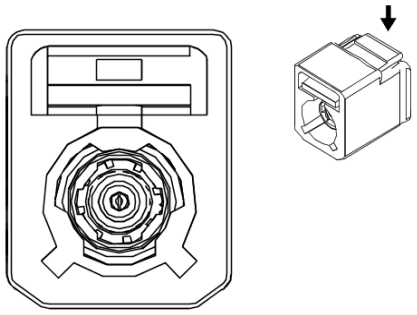
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(AM/FM) Antenna RF Signal	I	—

A11 Radio X5 (IOB+U2K)



3405621

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 15535378
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(CU)

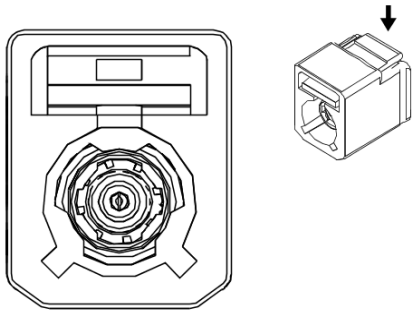
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X5 (IOB+U2K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(XM +/-HD) Coaxial Antenna XM Signal	I	—

A11 Radio X6 (IO5+U2K)



3405621

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13591282
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(CU)

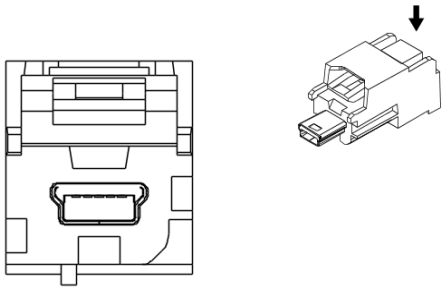
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X6 (IO5+U2K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(XM +/-HD) Coaxial Antenna XM Signal	I	—

A11 Radio X7 (IO3)



3028807

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13890887
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(GY)

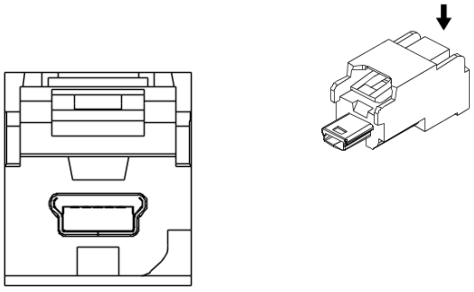
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X7 (IO3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

A11 Radio X7 (IOB)



3028808

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13862276
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(BK)

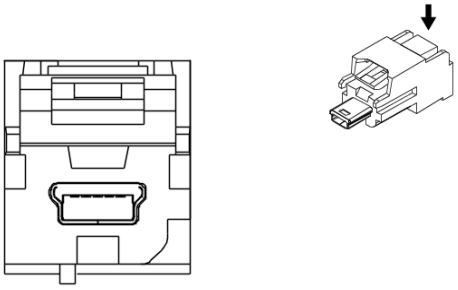
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X7 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

A11 Radio X8 (IO3)



3028814

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13890913
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(BN)

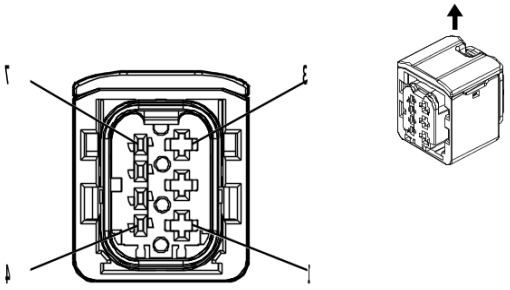
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X8 (IO3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

A16 Transfer Case Motor (NQF)



4975548

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13831149
Service Connector: 19370827
Description: 7-Way F 1.5, 2.8 MCP Series, Sealed(BK)

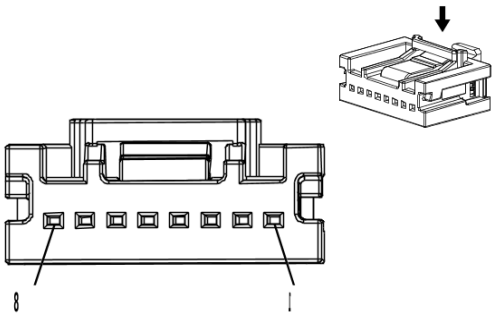
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

A16 Transfer Case Motor (NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE / VT	1553	Transfer Case Motor Counter Clockwise Control	II	—
2	—	—	—	Not Occupied	—	—
3	1	OG	1552	Transfer Case Motor Clockwise Control	II	—
4	0.5	VT	7476	Incremental Encoder Sensor Low Reference	I	—
5	—	—	—	Not Occupied	—	—
6	0.5	BU / GY	7473	Incremental Encoder Impulse Signal	I	—
7	0.5	WH / GN	7475	Incremental Encoder Sensor 8V Reference	I	—

A22 Radio Controls (IOB)



4017639

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15532151
Service Connector: 19354223
Description: 8-Way F 0.64 Series(BK)

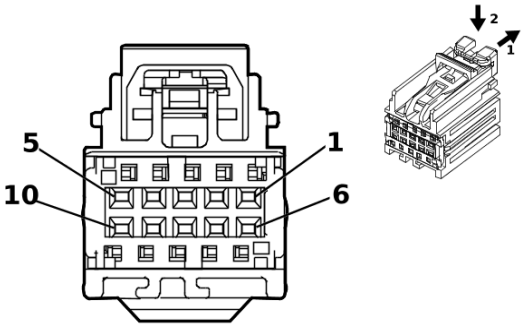
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	EL-35616-58 (BK)	No Tool Required

A22 Radio Controls (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY / BN	3761	Infotainment Regulated Control	I	—
2	0.35	GN / BK	2515	Telematics Switch Supply Voltage	I	—
3	0.35	BN / GN	3983	Radio Controls Switch Signal 2	I	—
4	0.35	GY	314	Radio On Signal	I	—
5	0.35	GY / BU	3989	Display Radio Bank Switch Dim Signal	I	—
6	0.35	BU	4315	Radio Volume Up Switch Signal	I	—
7	0.35	GY / BN	4314	Radio Volume Down Switch Signal	I	—
8	0.35	BK / BN	2518	Keypad Low Reference	I	—

A23D Door Latch Assembly - Driver



4622549

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(GN)

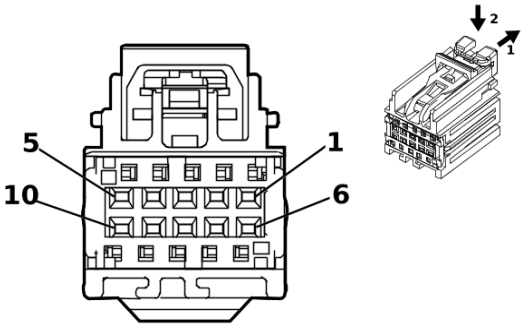
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A23D Door Latch Assembly - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	745	Left Front Door Ajar Switch Signal	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK	1150	Ground	I	—
4	0.35	WH / VT	3270	Driver Door Lock Motor Status Signal	I	—
5	0.35	BU / VT	1124	Door Lock Key Switch Unlock Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	GY	5911	Door Lock Actuator Lock Control 2	I	—
8	0.75	BN / BK	294	Door Lock Actuator Unlock Control	I	—
9 - 10	—	—	—	Not Occupied	—	—

A23LR Door Latch Assembly - Left Rear (Crew Cab)



4622549

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(GN)

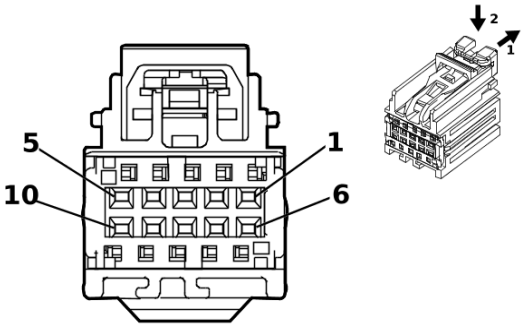
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A23LR Door Latch Assembly - Left Rear (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY / WH	747	Left Rear Door Ajar Switch Signal	I	—
2	0.35	BN / WH	3269	Child Security Lock Actuator Status Signal Left Rear	I	—
3	0.5	BK	1150	Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	GY	295	Door Lock Actuator Lock Control	I	—
8	0.75	BN / YE	294	Door Lock Actuator Unlock Control	I	—
9	0.75	WH / BU	3266	Child Security Lock Motor Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A23P Door Latch Assembly - Passenger



4622549

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(GN)

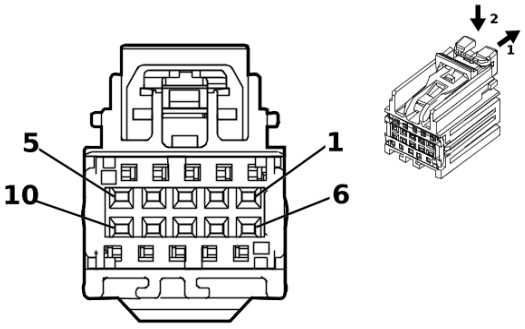
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A23P Door Latch Assembly - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GY	746	Right Front Door Ajar Switch Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.75	BN / YE	294	Door Lock Actuator Unlock Control	I	—
9	0.75	GY	295	Door Lock Actuator Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A23RR Door Latch Assembly - Right Rear (Crew Cab)



4622549

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(GN)

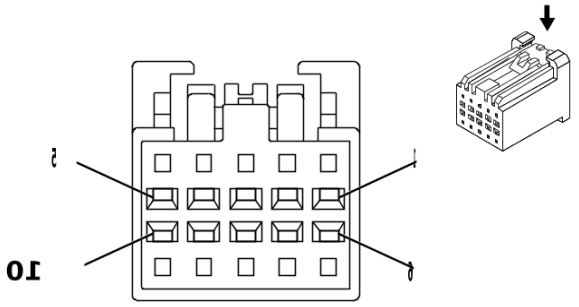
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A23RR Door Latch Assembly - Right Rear (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK	1250	Ground	I	—
4	0.35	GY / BK	3268	Child Security Lock Actuator Status Signal Right Rear	I	—
5	0.35	GY / WH	748	Right Rear Door Ajar Switch Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	WH / BU	3266	Child Security Lock Motor Lock Control	I	—
8	0.75	BN / YE	294	Door Lock Actuator Unlock Control	I	—
9	0.75	GY	295	Door Lock Actuator Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A26 HVAC Controls



2840038

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13876499
Service Connector: 13581139
Description: 10-Way F 0.64 Kaizen Series(GY)

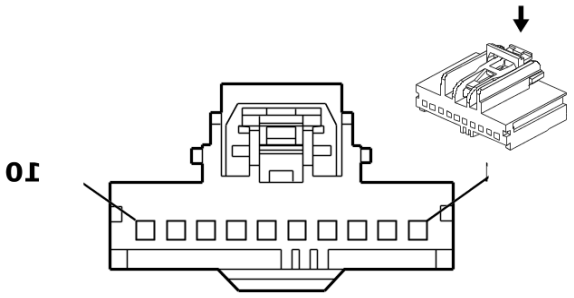
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (L-BU)	J-38125-215A

A26 HVAC Controls

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / GY	2840	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
4 - 8	—	—	—	Not Occupied	—	—
9	0.35	GN / YE	7531	HVAC Control Module LIN Bus 1	I	—
10	0.35	BK	2550	Ground	I	—

A33 Media Disc Player (TG5)



1711011

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15490628
Service Connector: 89047355
Description: 10-Way F 0.64 Kaizen Series(BK)

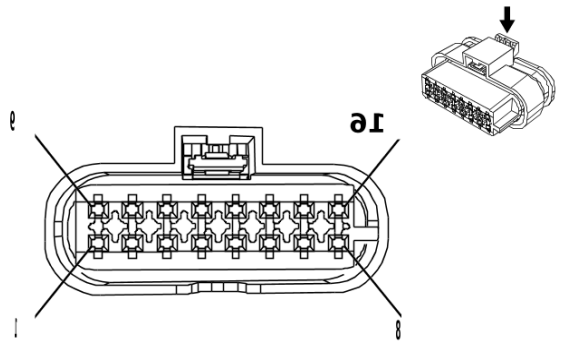
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19303553	J-35616-64B (L-BU)	J-38125-215A

A33 Media Disc Player (TG5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / VT	3999	MOST Bus Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH / GN	3997	MOST Bus Serial Data [-]	I	—
4	0.5	GY / VT	3998	MOST Bus Serial Data [+]	I	—
5	0.5	WH / GN	3997	MOST Bus Serial Data [-]	I	—
6	0.5	GY / VT	3998	MOST Bus Serial Data [+]	I	—
7	—	—	—	Not Occupied	—	—
8	0.75	BK	2550	Ground	I	—
9	—	—	—	Not Occupied	—	—
10	0.75	RD / VT	340	Battery Positive Voltage	I	—

A38 Reductant Pump and Sensor Assembly



4259227

Connector Part Information

Harness Type: Emission Reduction Fluid Tank Reservoir Wire Harness - Tank
OEM Connector: 33210848
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.2 MLK Series, Sealed(BK)

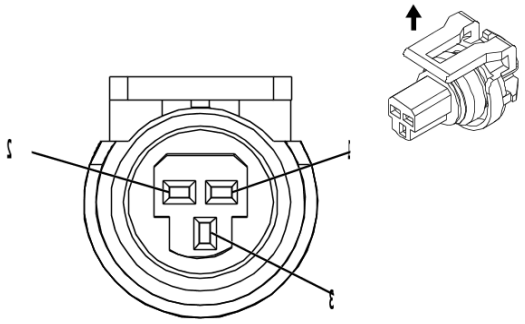
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

A38 Reductant Pump and Sensor Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3244	Diesel Exhaust Fluid Tank Temperature Sensor Signal	I	—
2	0.5	BK	3245	Diesel Exhaust Fluid Tank Temperature Sensor Low Reference	I	—
3	0.5	BN	3107	Diesel Exhaust Fluid Pressure Sensor Low Reference	I	—
4	0.5	BU	3108	Diesel Exhaust Fluid Pressure Sensor Signal	I	—
5	0.5	BN	3106	Diesel Exhaust Fluid Pressure Sensor 5 Volt Reference	I	—
6	—	—	—	Not Occupied	—	—
7	1	WH	3103	Diesel Exhaust Fluid Smart Pump Control	I	—
8	1	BU	3875	Diesel Exhaust Fluid Smart Pump Supply Voltage Phase 2	I	—
9	1	WH	3677	Diesel Exhaust Fluid Reservoir Heater Control	I	—
10	—	—	—	Not Occupied	—	—
11	1	BK	4318	Diesel Exhaust Fluid Tank Heater Low Control	I	—
12 - 14	—	—	—	Not Occupied	—	—
15	1	BN	3104	Diesel Exhaust Fluid Smart Pump Low Reference	I	—
16	1	BN	3876	Diesel Exhaust Fluid Smart Pump Supply Voltage Phase 3	I	—

B1 A/C Refrigerant Pressure Sensor



2909191

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13846842
Service Connector: 19368669
Description: 3-Way F 150 GT Series, Sealed(BK)

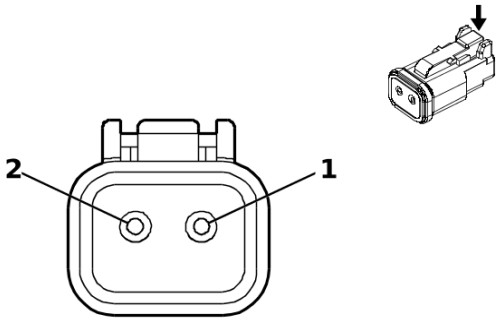
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B1 A/C Refrigerant Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / BN	5514	Air Conditioning Refrigerant Pressure Sensor Low Reference	I	—
2	0.5	BN / RD	2700	Air Conditioning Pressure Sensor 5V Reference	I	—
3	0.5	GN	380	Air Conditioning Refrigerant Pressure Sensor Signal	I	—

B5LF Wheel Speed Sensor - Left Front



4976379

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: DT06-2S-E005
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F DT Series, Sealed(BK)

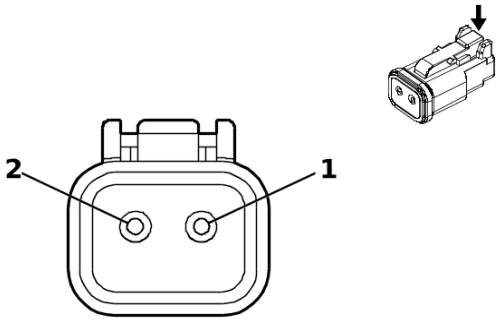
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-66 (YE)	No Tool Required

B5LF Wheel Speed Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY / WH	7064	Left Front Wheel Speed Sensor Control	I	—
2	0.75	GY	830	Left Front Wheel Speed Sensor Signal	I	—

B5LR Wheel Speed Sensor - Left Rear



4976379

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: DT06-2S-E005
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F DT Series, Sealed(BK)

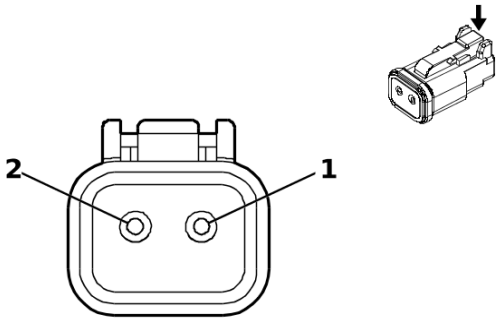
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-66 (YE)	No Tool Required

B5LR Wheel Speed Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY / BK	7127	Left Rear Wheel Speed Sensor Control	I	—
2	1	BU	884	Left Rear Wheel Speed Sensor Signal	I	—

B5RF Wheel Speed Sensor - Right Front



4976379

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: DT06-2S-E005
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F DT Series, Sealed(BK)

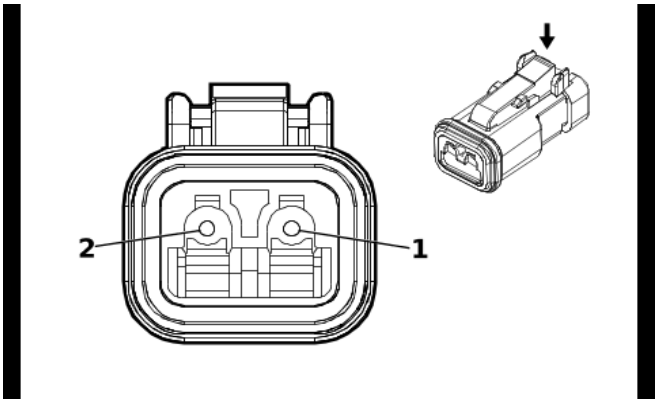
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-66 (YE)	No Tool Required

B5RF Wheel Speed Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY / BN	7065	Right Front Wheel Speed Sensor Control	I	—
2	0.75	YE	872	Right Front Wheel Speed Sensor Signal	I	—

B5RR Wheel Speed Sensor - Right Rear



5571591

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: DT06-2S-CE05
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 DT Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-66 (YE)	No Tool Required

B5RR Wheel Speed Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY / BU	7128	Right Rear Wheel Speed Sensor Control	I	—
2	1	VT	882	Right Rear Wheel Speed Sensor Signal	I	—

B9D Ambient Air Temperature Sensor - Mirror

—

Connector Part Information

Harness Type: Outside Rearview Mirror Wiring Harness - Passenger
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

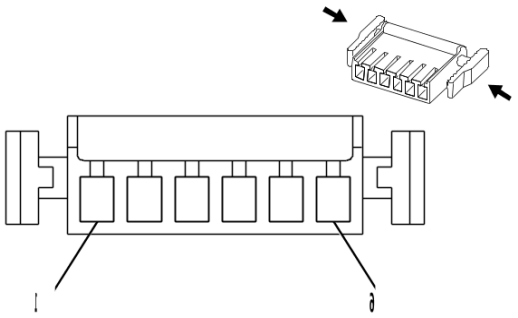
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B9D Ambient Air Temperature Sensor - Mirror

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	636	Ambient Air Temperature Sensor Signal	I	DF2
	0.5	WH / RD	636	Ambient Air Temperature Sensor Signal	I	DPN
2	0.5	GY	61	Ambient Air Temperature Sensor Low Reference	I	DF2
	0.5	RD	61	Ambient Air Temperature Sensor Low Reference	I	DPN

B10B Ambient Light/Sunload Sensor



2173602

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13726957
Service Connector: 13576539
Description: 6-Way F 0.64 Micro-Quadlock Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B10B Ambient Light/Sunload Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	728	Security Indicator Control	I	—
2 - 4	—	—	—	Not Occupied	—	—
5	0.35	WH / BU	278	Ambient Light Sensor Signal	I	—
6	0.35	BK / YE	1791	Air Temperature Door Low Reference	I	—

B12A Transmission Fluid Pressure Switch

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way

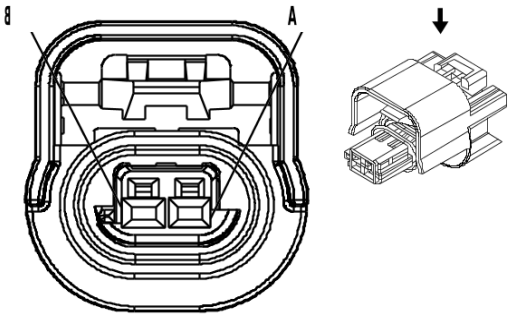
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B12A Transmission Fluid Pressure Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL117	Transmission Fluid Pressure Switch Signal Bit 1	I	—
B	—	—	AL179	Transmission Fluid Pressure Switch Signal Bit 2	I	—
C	—	—	AL157	Transmission Fluid Pressure Switch Signal Bit 3	I	—
D	—	—	AL177	Transmission Fluid Pressure Switch Signal Bit 4	I	—
E	—	—	AL154	Transmission Temperature Sensor Signal	I	—
F	—	—	AL158	Transmission Fluid Temperature Sensor Low Reference	I	—

B14A Transmission Output Shaft Speed Sensor



2171193

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13520104
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed(BK)

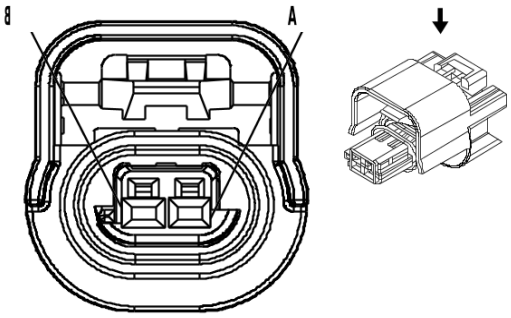
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B14A Transmission Output Shaft Speed Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	YE	AL160	9Volt Reference	I	—
B	0.75	GN	AL140	Transmission Output Shaft Speed Signal	I	—

B14B Transmission Turbine Speed Sensor



2171193

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13520101
Service Connector: 84788838
Description: 2-Way F 150 GT Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B14B Transmission Turbine Speed Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	OG	AL180	9Volt Reference	I	—
B	0.75	BU	AL120	Transmission Turbine Speed Signal	I	—

B15 Transmission Internal Mode Switch

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way

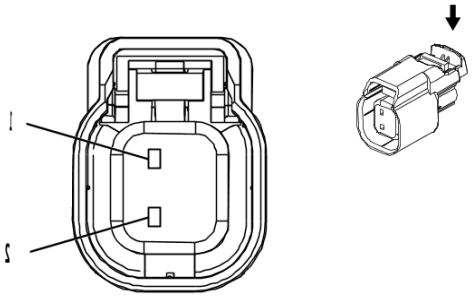
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B15 Transmission Internal Mode Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL138	Transmission Park/Neutral Signal 1	I	—
B	—	—	AL134	Transmission Position Switch Parity Bit Signal	I	—
C	—	—	AL173	Transmission Position Switch Bit 1 Signal	I	—
D	—	—	AL153	Transmission Position Switch Bit 2 Signal	I	—
E	—	—	AL114	Transmission Position Switch Bit 3 Signal	I	—
F	—	—	AL158	Transmission Fluid Temperature Sensor Low Reference	I	—

B20 Brake Fluid Level Switch



2792100

Connector Part Information

Harness Type: Brake Pedal Position Sensor Harness
OEM Connector: 4078415C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

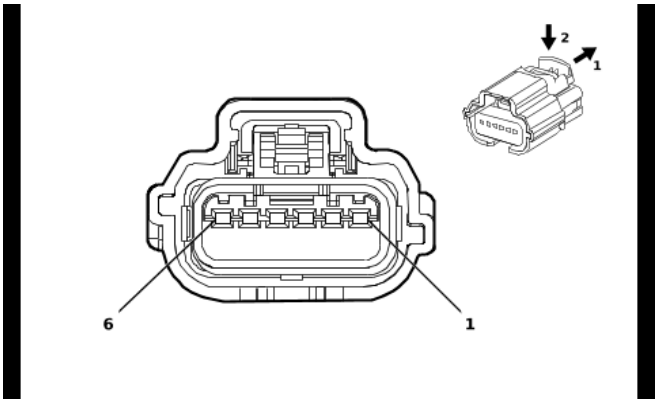
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B20 Brake Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY	9AB	Brake Fluid Level Switch Signal	I	—
2	0.75	GY	90P	Ground	I	—

B22 Brake Pedal Position Sensor



4773396

Connector Part Information

Harness Type: Auxiliary Fuse Block Wiring Harness
OEM Connector: 35199160
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 64 Series, Sealed(NA)

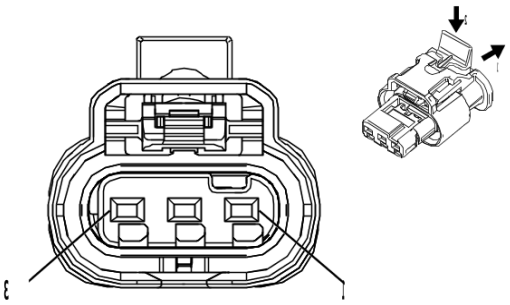
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B22 Brake Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / GN	552	Sensor Low Reference	I	—
2	0.5	GY / RD	598	5V Reference	I	—
3	0.5	WH / GN	526	Stop Lamp Switch Signal 2	I	—
4	0.5	BU / YE	5361	Brake Apply Sensor Signal	I	—
5	0.5	BK / BN	5360	Brake Apply Sensor Low Reference	I	—
6	0.5	WH	5359	Brake Apply Sensor Control	I	—

B23 Camshaft Position Sensor



4249125

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13594670
Service Connector: 86792094
Description: 3-Way F 1.2 MCP Series, Sealed(BN)

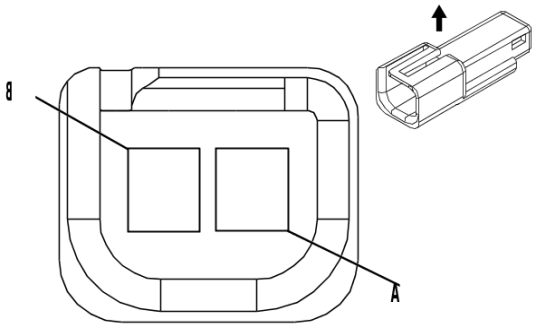
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B23 Camshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / YE	5297	Exhaust Camshaft Position Sensor 1 Voltage Reference	I	
2	0.5	BK / GY	5296	Exhaust Camshaft Position Sensor Low Reference 1	I	
3	0.5	VT / BK	5273	Exhaust Camshaft Position Sensor 1	I	

B24 Mobile Telephone Microphone



35441

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series(BK)

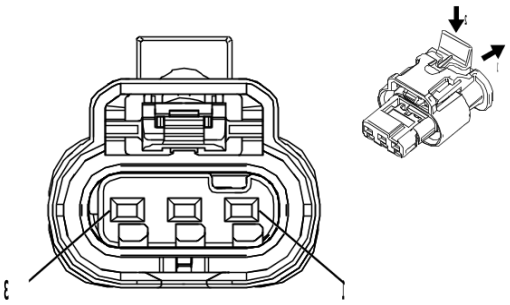
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

B24 Mobile Telephone Microphone

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK / BN	654	Cellular Telephone Microphone Low Reference	I	—
B	0.35	BU	655	Cellular Telephone Microphone Signal	I	—

B26 Crankshaft Position Sensor



4249125

Connector Part Information

Harness Type: Engine Wiring Harness - Jumper
OEM Connector: 13594670
Service Connector: 86792094
Description: 3-Way F 1.2 MCP Series, Sealed(BN)

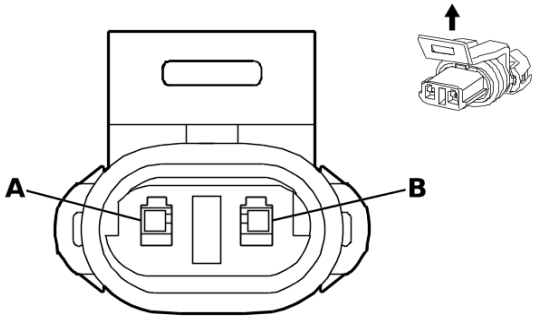
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B26 Crankshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	6270	Crankshaft Position Sensor Voltage	I	
2	0.5	BK / VT	6272	Crankshaft Position Sensor Low Reference	I	
3	0.5	GN	6271	Crankshaft Position Sensor Signal	I	

B33 Engine Coolant Level Switch



655783

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15324243
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

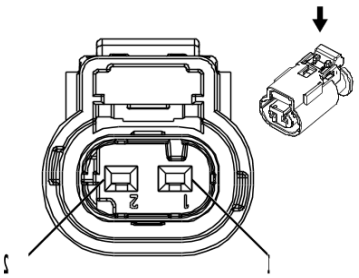
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B33 Engine Coolant Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BU / YE	68	Low Coolant Level Indicator Control	I	—
B	0.75	BK / WH	1851	Signal Ground	I	—

B34 Engine Coolant Temperature Sensor



2717066

Connector Part Information

Harness Type: Engine Wiring Harness - Jumper
OEM Connector: 13503566
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

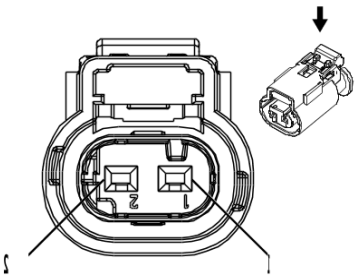
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B34 Engine Coolant Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	
2	0.5	BK / BN	2761	Coolant Temperature Sensor Low Reference	I	

B35 Engine Oil Level Switch



2717066

Connector Part Information

Harness Type: Engine Wiring Harness - Jumper
OEM Connector: 13503566
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

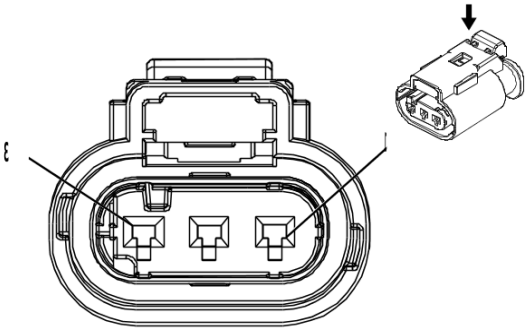
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B35 Engine Oil Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / WH	151	Signal Ground	I	
2	0.5	BN / GN	1174	Oil Level Switch Signal	I	

B37B Engine Oil Pressure Sensor



3240107

Connector Part Information

Harness Type: Engine Wiring Harness - Jumper
OEM Connector: 13503573
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

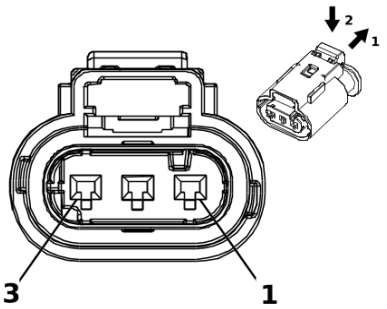
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B37B Engine Oil Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BN	331	Oil Pressure Sensor Signal	I	
2	0.5	BK / VT	2755	Oil Pressure Sensor Low Reference	I	
3	0.5	WH / RD	2705	Oil Pressure Sensor 5V Reference	I	

B47 Fuel Pressure Sensor



2717069

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 10010341
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

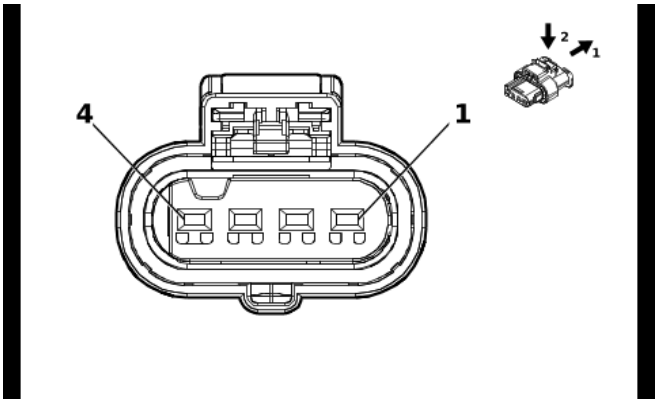
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B47 Fuel Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
2	0.5	BK / YE	7447	Fuel Pressure Sensor Low Reference	I	—
3	0.5	WH / BU	7446	Fuel Pressure Sensor Signal	I	—

B47B Fuel Rail Pressure Sensor



5985721

Connector Part Information

Harness Type: Engine Wiring Harness - Jumper
OEM Connector: 13534801
Service Connector: 87840363
Description: 4-Way F 1.2 HPF Series, Sealed(BK)

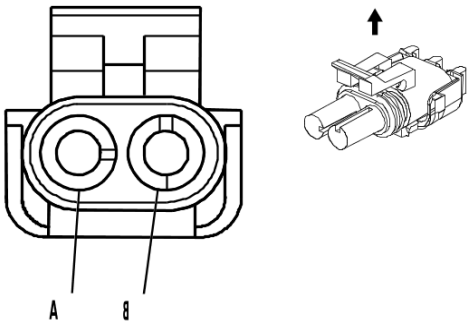
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B47B Fuel Rail Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	
2	0.5	BN / YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	
3	0.5	BK / GN	2919	Fuel Rail Pressure Sensor Low Reference	I	
4	0.5	BU / WH	2918	Fuel Rail Pressure Sensor Signal	I	

B55 Engine Hood Switch (BTV/PTO/UTJ)



781760

Connector Part Information

Harness Type: Headlamp Wiring Harness - Left
OEM Connector: 587568C91
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Weather Pack Series, Sealed(BK)

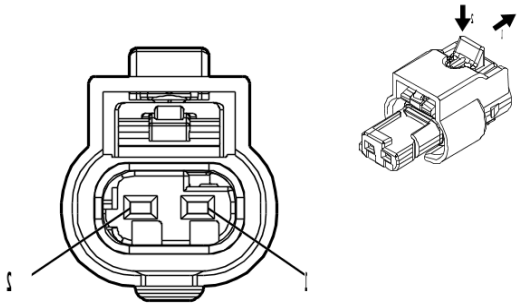
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-8 (OG)	No Tool Required

B55 Engine Hood Switch (BTV/PTO/UTJ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	YE	5530	Hood Open Switch Signal	I	—
B	1.5	BN / GN	109	Hood Ajar Switch Signal	I	—

B59 Front Impact Sensor



4975834

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 4087999C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON-CB Series, Sealed(BK)

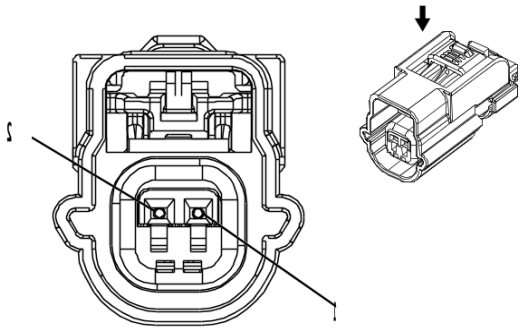
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B59 Front Impact Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	OG / GY	6618	Front Middle Impact Discriminating Sensor Signal	I	—
2	1.5	BK / OG	6619	Front Middle Impact Discriminating Sensor Low Reference	I	—

B63LF Side Impact Sensor - Left Front



3556418

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 13593078
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

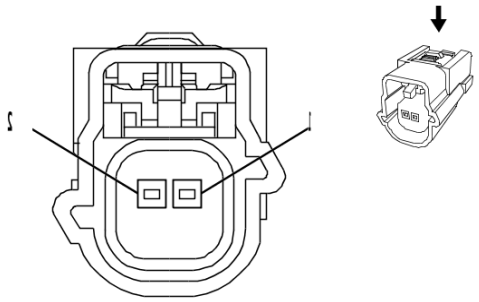
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63LF Side Impact Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GN	2132	Left Front Side Impact Sensor Signal	I	—
2	0.5	BK / OG	6628	Left Front Side Impact Sensor Low Reference	I	—

B63LR Side Impact Sensor - Left Rear (Crew Cab)



2179777

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

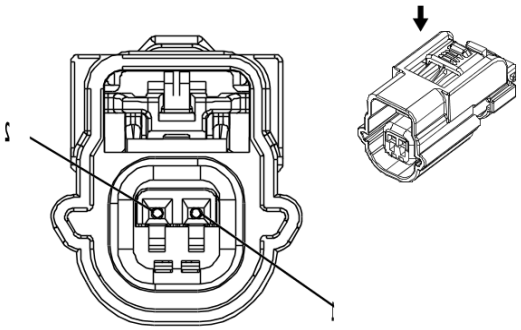
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63LR Side Impact Sensor - Left Rear (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / BU	6620	Left Middle Side Impact Sensor Signal	I	—
2	0.5	BK / OG	6621	Left Middle Side Impact Sensor Low Reference	I	—

B63RF Side Impact Sensor - Right Front (AY0)



3556418

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 13593078
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

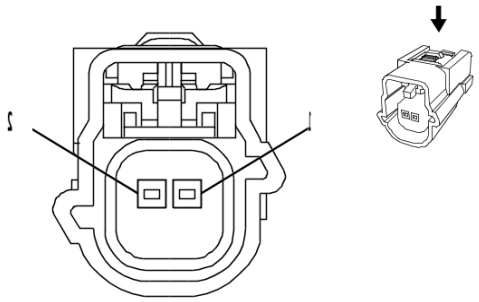
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63RF Side Impact Sensor - Right Front (AY0)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GN	2134	Right Front Side Impact Sensor Signal	I	—
2	0.5	BK / OG	6629	Right Front Side Impact Sensor Low Reference	I	—

B63RR Side Impact Sensor - Right Rear (Crew Cab)



2179777

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

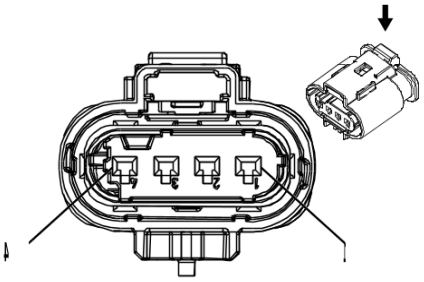
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63RR Side Impact Sensor - Right Rear (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / VT	6624	Right Middle Side Impact Sensor Signal	I	—
2	0.5	BK / OG	6625	Right Middle Side Impact Sensor Low Reference	I	—

B65 Intake Manifold Pressure and Air Temperature Sensor



2717079

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13503575
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

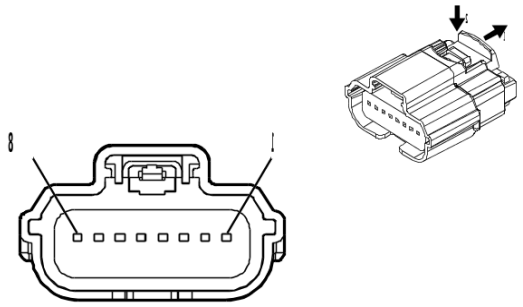
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B65 Intake Manifold Pressure and Air Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BU	7329	Pre-Throttle Air Temperature Signal	I	
2	0.5	GY / RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	
3	0.5	BK / GN	469	Manifold Absolute Pressure Sensor Low Reference	I	
4	0.5	GN / WH	432	Manifold Absolute Pressure Sensor Signal	I	

B75C Multifunction Intake Air Sensor



4708234

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 35192853
Service Connector: 84677313
Description: 8-Way F 64 Series, Sealed(BK)

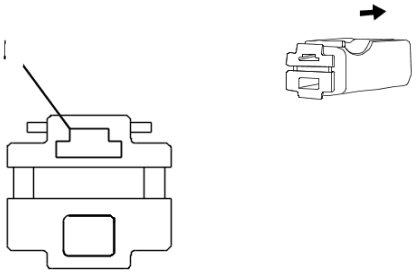
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B75C Multifunction Intake Air Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BU	6289	Intake Air Temperature Sensor Signal	I	—
2	0.5	WH / RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
3	0.5	BK / VT	2760	Intake Air Temperature Sensor Low Reference	I	—
4	0.5	BN / GN	5266	Barometric Pressure Sensor Signal	I	—
5	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	—
6	0.5	GN / WH	492	Mass Air Flow Sensor Signal	I	—
7	0.75	BK / WH	451	Signal Ground	I	—
8	0.5	BN / GY	4008	Humidity Sensor Signal	I	—

B80 Park Brake Switch



1413086

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13511619
Service Connector: 19367647
Description: 1-Way F 250 Series(BK)

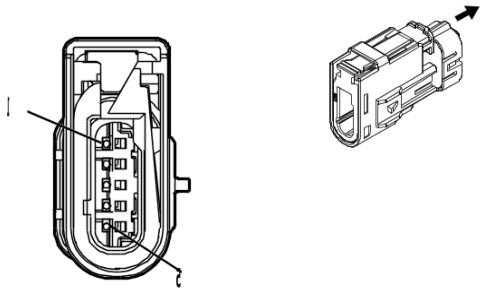
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

B80 Park Brake Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BU / VT	1134	Park Brake Switch Signal	I	—

B87 Rearview Camera (RWR/UVC)



4808321

Connector Part Information

Harness Type: Rearview Camera Wiring Harness
OEM Connector: 35028910
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed(GY)

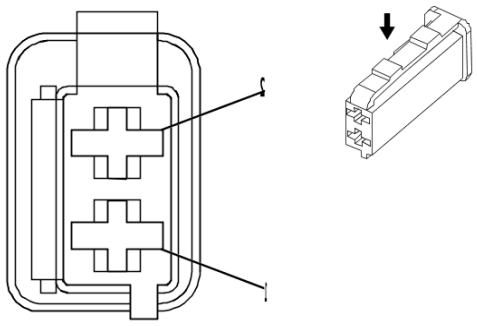
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-17 (L-GN)	No Tool Required

B87 Rearview Camera (RWR/UVC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD	6972	Rearview Camera Signal [+]	I	—
2	0.5	BU	6973	Rearview Camera Signal [-]	I	—
3	0.5	WH	6974	Rearview Camera Low Reference	I	—
4	0.5	BK	2550	Ground	I	—
5	0.5	PK	1739	Run/Crank Ignition 1 Voltage	I	—

B88D Seat Belt Switch - Driver



2339593

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 1563189-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series(BK)

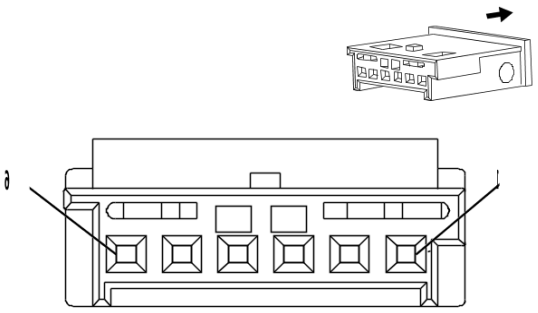
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B88D Seat Belt Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / OG	1363	Driver Seat Belt Switch Low Reference	I	—
2	0.35	OG / BN	238	Driver Seat Belt Switch Signal	I	—

B99 Steering Wheel Angle Sensor



1862024

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: 1-1241370-3
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Micro-Quadlock Series(BK)

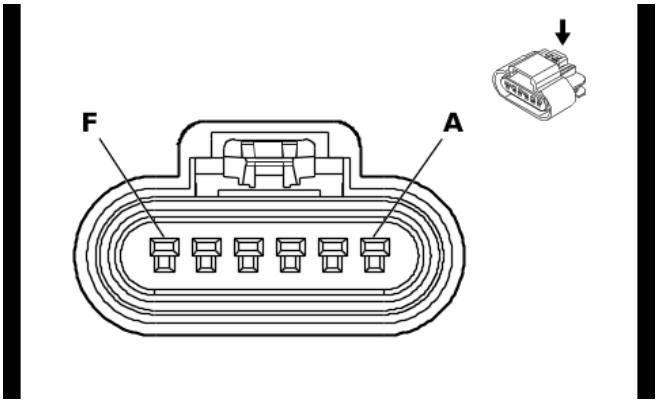
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B99 Steering Wheel Angle Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
2	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
3	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
4	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
5	0.35	GN / BN	2087	Multi-axis Acceleration Sensor Supply Voltage	I	—
6	0.35	BK / WH	1851	Signal Ground	I	—

B107 Accelerator Pedal Position Sensor (NQF)



632357

Connector Part Information

Harness Type: Auxiliary Fuse Block Wiring Harness
OEM Connector: 15397578
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT Series, Sealed(BK)

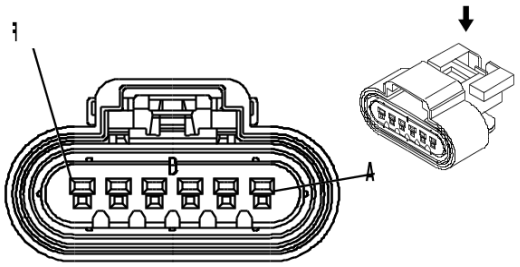
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B107 Accelerator Pedal Position Sensor (NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK / VT	1272	Accelerator Pedal Position Low Reference 2	I	—
B	0.35	GN / WH	1162	Accelerator Pedal Position Signal 2	I	—
C	0.35	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
D	0.35	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
E	0.35	YE / WH	1161	Accelerator Pedal Position Signal 1	I	—
F	0.35	BK / BU	1271	Accelerator Pedal Position Low Reference 1	I	—

B107 Accelerator Pedal Position Sensor (-NQF)



886053

Connector Part Information

Harness Type: Auxiliary Fuse Block Wiring Harness
OEM Connector: 15326830
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT Series, Sealed(BK)

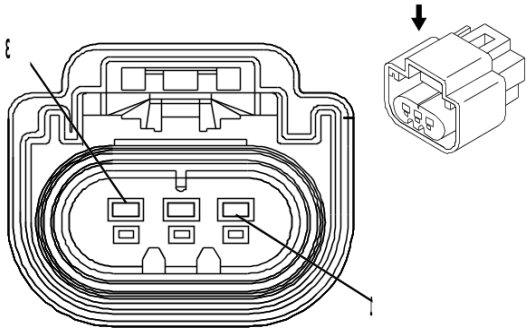
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B107 Accelerator Pedal Position Sensor (-NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK / VT	1272	Accelerator Pedal Position Low Reference 2	I	—
B	0.35	GN / WH	1162	Accelerator Pedal Position Signal 2	I	—
C	0.35	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
D	0.35	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
E	0.35	YE / WH	1161	Accelerator Pedal Position Signal 1	I	—
F	0.35	BK / BU	1271	Accelerator Pedal Position Low Reference 1	I	—

B115 Vehicle Speed Sensor (NQF)



1962078

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13511996
Service Connector: 13580873
Description: 3-Way F 150 GT Series, Sealed(GY)

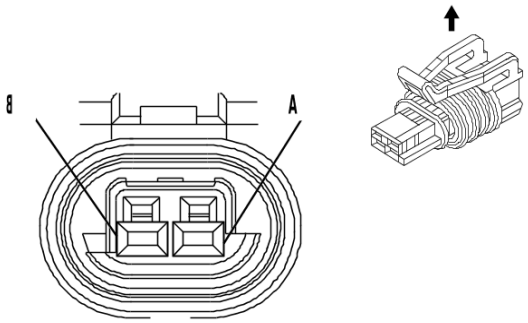
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B115 Vehicle Speed Sensor (NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BK	3096	Digital Output Speed Sensor 5V Reference	I	—
2	0.5	GN	3098	Output Speed Signal	I	—
3	0.5	WH / BK	3097	Digital Output Speed Sensor 5V Reference	I	—

B118B Windshield Washer Fluid Level Switch



1538760

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15449028
Service Connector: 19303728
Description: 2-Way F 150 GT Series, Sealed(BK)

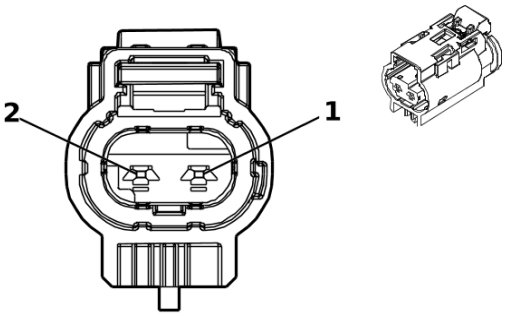
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B118B Windshield Washer Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	VT	185	Low Washer Fluid Indicator Control	I	—
B	0.75	BK	1050	Ground	I	—

B130A Exhaust Gas Recirculation Temperature Sensor 1



4451423

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13583201
Service Connector: 85518866
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

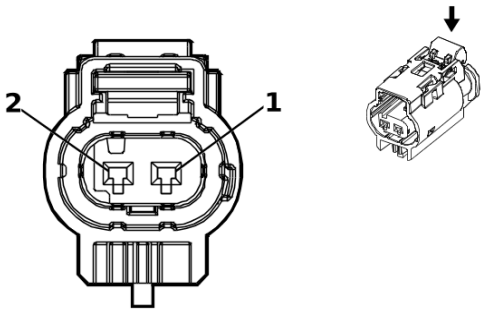
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B130A Exhaust Gas Recirculation Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / GY	3234	Exhaust Gas Recirculation Temperature Sensor 3 Signal	I	
2	0.5	BK / GN	3235	Exhaust Gas Recirculation Temperature Sensor 3 Low Reference	I	

B130B Exhaust Gas Recirculation Temperature Sensor 2



5207726

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13583199
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed(GY)

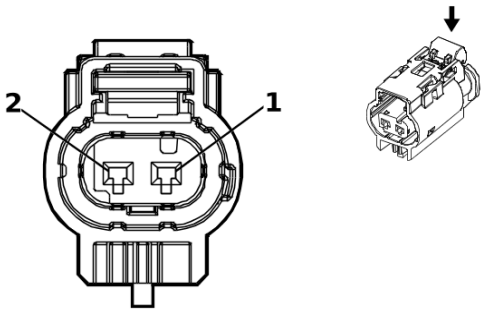
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B130B Exhaust Gas Recirculation Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	
2	0.5	BK / BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	

B131A Exhaust Temperature Sensor 1



3747581

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13583195
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

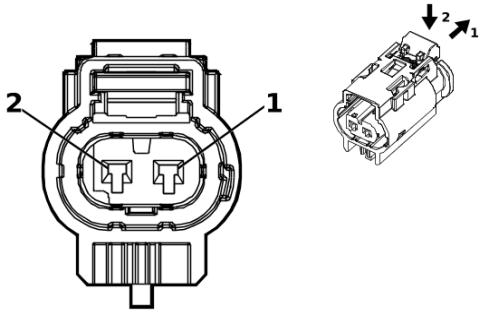
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B131A Exhaust Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / WH	5277	Exhaust Gas Temperature Sensor 1 Signal	I	
2	0.5	BK / BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	

B131B Exhaust Temperature Sensor 2



3747580

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13583197
Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed(GY)

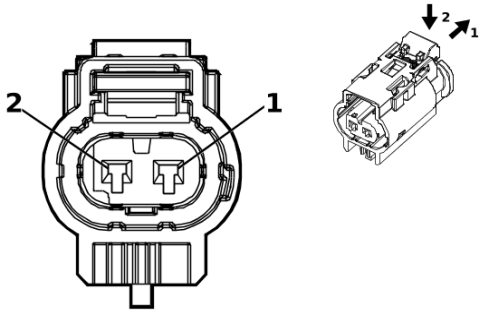
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B131B Exhaust Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / GN	5377	Exhaust Gas Temperature Sensor 2 Signal	I	
2	0.5	BK / BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	

B131C Exhaust Temperature Sensor 3



3747580

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 10094236
Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed(GY)

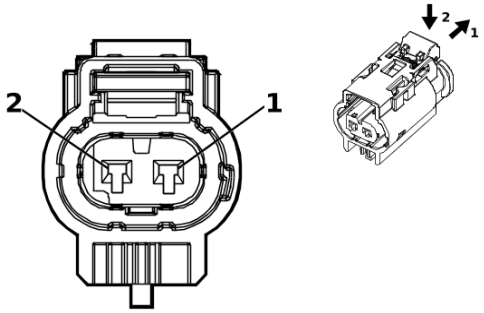
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B131C Exhaust Temperature Sensor 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / GN	5378	Exhaust Gas Temperature Sensor 3 Signal	I	—
2	0.5	BK / GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—

B131D Exhaust Temperature Sensor 4



3747580

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 10094236
Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed(GY)

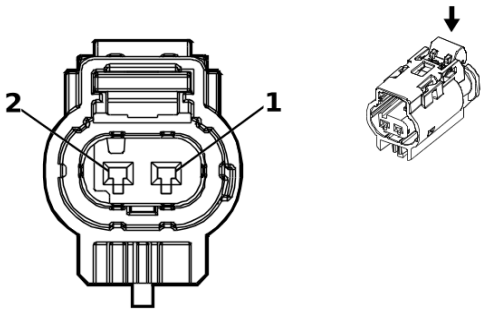
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B131D Exhaust Temperature Sensor 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—
2	0.5	BK / GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—

B131E Exhaust Temperature Sensor 5



5207726

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 10094237
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed(GY)

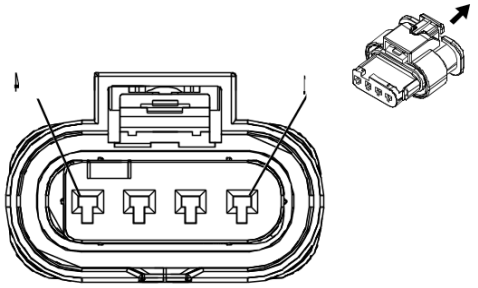
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B131E Exhaust Temperature Sensor 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—
2	0.5	BK / VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—

B136 Exhaust Particulate Matter Sensor



3553755

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 1-1718645-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCON Series(BK)

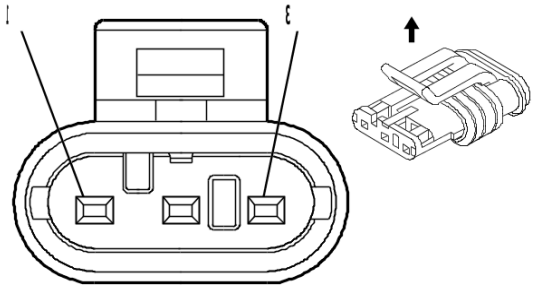
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-16 (L-GN)	No Tool Required

B136 Exhaust Particulate Matter Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	2150	Ground	II	—
2	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	I	—
3	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	I	—
4	1	VT / BU	3674	NOx Sensor 1 Control	II	—

B152LR Suspension Position Sensor - Left Rear (91B/91C/91D/91E)



2013666

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 282087-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.5 Series, Sealed(BK)

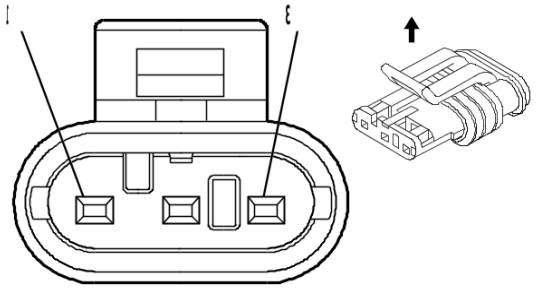
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-33 (YE)	No Tool Required

B152LR Suspension Position Sensor - Left Rear (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	61HLC	Suspension Sensor Voltage Reference - Rear Left	I	—
2	1	BU	61HLA	Suspension Sensor Low Reference - Rear Left	I	—
3	1	TN	61HLB	Suspension Sensor Signal - Rear Left	I	—

B152RR Suspension Position Sensor - Right Rear (91B/91C/91D/91E)



2013666

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 282087-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.5 Series, Sealed(BK)

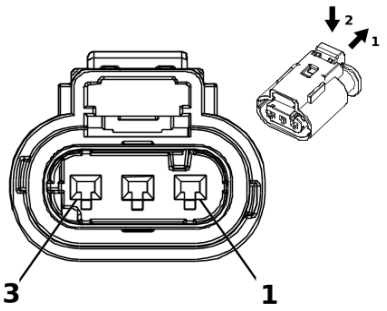
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-33 (YE)	No Tool Required

B152RR Suspension Position Sensor - Right Rear (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	61HRC	Suspension Sensor Voltage Reference - Rear Right	I	—
2	1	BU	61HRA	Suspension Sensor Low Reference - Rear Right	I	—
3	1	YE	61HRB	Suspension Sensor Signal - Rear Right	I	—

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor



2717069

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 10010341
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

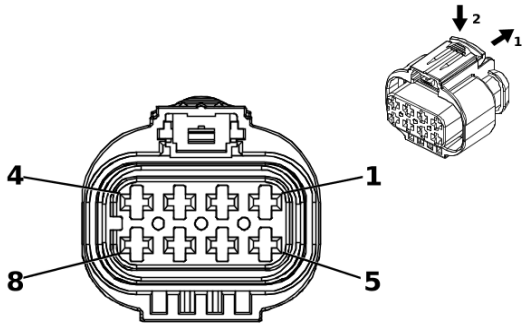
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	6053	Exhaust Pressure Sensor 1 Signal	I	—
2	0.5	BK / YE	6055	Exhaust Pressure Sensor 1 Low Reference	I	—
3	0.5	WH / RD	6054	Exhaust Pressure Sensor 1 5V Reference	I	—

B187 Fuel Level Sensor Assembly (NSQ)



3749581

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: 0-2109441-4
Service Connector: 19355165
Description: 8-Way F 2.8 Series, Sealed(BK)

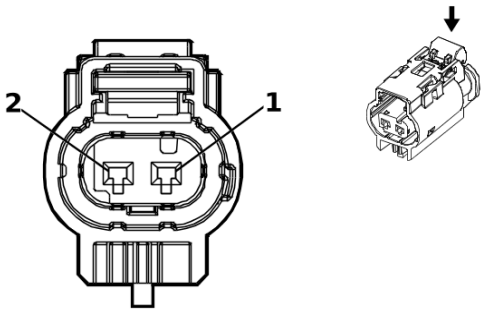
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

B187 Fuel Level Sensor Assembly (NSQ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.5	BU / WH	1937	Secondary Fuel Level Sensor Signal	I	—
6	0.5	BK / GN	6282	Fuel Level Sensor 2 Low Reference	I	—
7 - 8	—	—	—	Not Occupied	—	—

B193A Charge Air Cooler Inlet Temperature Sensor



3747581

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13583195
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

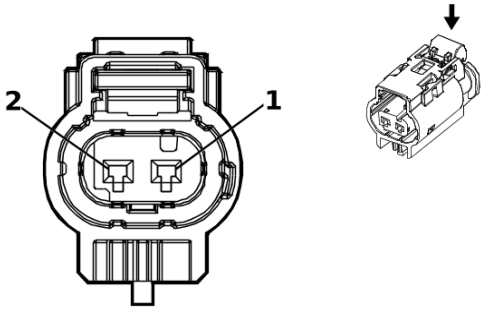
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B193A Charge Air Cooler Inlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	
2	0.5	YE / BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	

B193B Charge Air Cooler Outlet Temperature Sensor



3747581

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 33226772
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

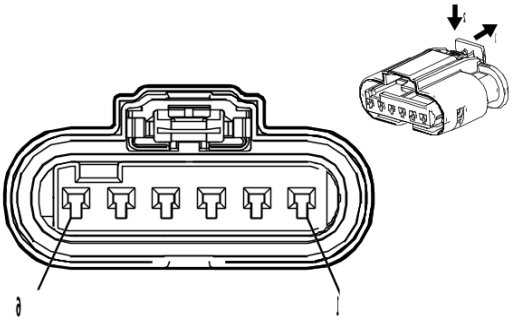
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B193B Charge Air Cooler Outlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
2	0.5	YE / BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—

B195A Nitrogen Oxides Sensor 1



3960142

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33230495
Service Connector: 85005020
Description: 6-Way F 1.2 MCON-LL Series, Sealed(BK)

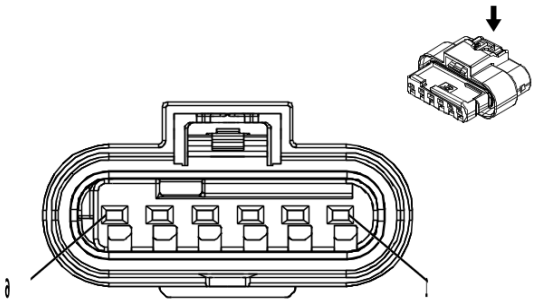
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B195A Nitrogen Oxides Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	3674	NOx Sensor 1 Control	I	—
2	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	I	—
3	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	I	—
4	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	I	—
5	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	I	—
6	0.5	BK / WH	451	Signal Ground	I	—

B195B Nitrogen Oxides Sensor 2



4045008

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 2098559-6
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.2 MCON-CB Series, Sealed(BK)

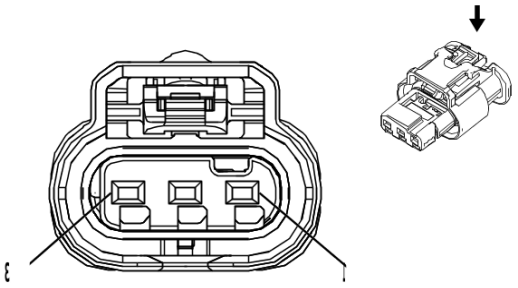
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B195B Nitrogen Oxides Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	VT / BU	3674	NOx Sensor 1 Control	I	—
2	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	I	—
3	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	I	—
4	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	I	—
5	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	I	—
6	1.5	BK	2150	Ground	I	—

B295 Reductant Quality Sensor



2889711

Connector Part Information

Harness Type: Emission Reduction Fluid Tank Reservoir Wire Harness - Tank
OEM Connector: 13884759
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCP Series, Sealed(BK)

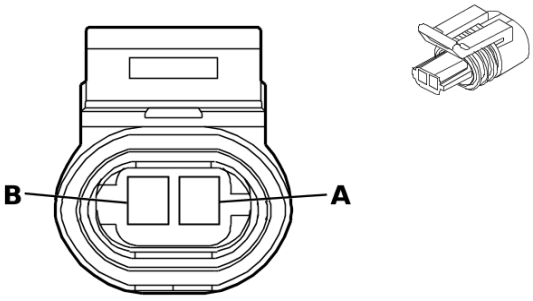
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B295 Reductant Quality Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	7286	Diesel Exhaust Fluid Sensor Voltage Reference 2	I	—
2	0.5	BN	53	Diesel Exhaust Fluid Quality Signal	I	—
3	0.5	BK	7285	Diesel Exhaust Fluid Liquid Quality Temperature Sensor Low Reference	I	—

B343 Power Brake Booster Fluid Flow Switch



646180

Connector Part Information

Harness Type: Brake Pedal Position Sensor Harness
OEM Connector: 2036584C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150.2 Metri-Pack Series, Sealed(GY)

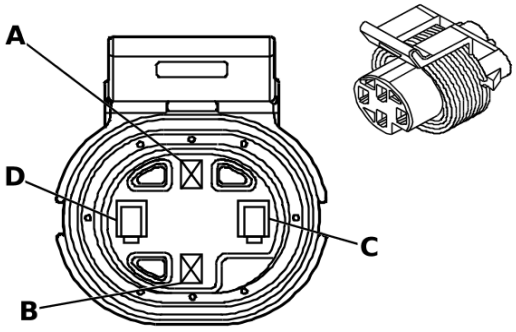
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B343 Power Brake Booster Fluid Flow Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	GY	90CA	Power Brake Booster Fluid Flow Switch Signal	I	—
B	1	GY	90-G	Ground	I	—

B353 Air Suspension Low Pressure Warning Switch (G40/GP1/GP8)



876326

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 1661777C1
Service Connector: 12125695
Description: 4-Way F 150 Metri-Pack Series, Sealed(BN)

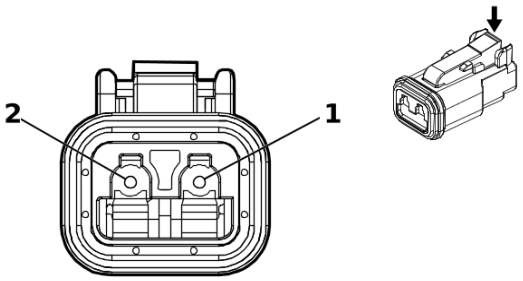
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B353 Air Suspension Low Pressure Warning Switch (G40/GP1/GP8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C	1	GY	603	Air Suspension Low Pressure Warning Switch Signal	I	—
D	1	BK	603-G	Ground	I	—

B356 Brake Pipe Pressure Switch



5168743

Connector Part Information

Harness Type: Brake Pedal Position Sensor Harness
OEM Connector: 3539777C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 DT Series, Sealed(BK)

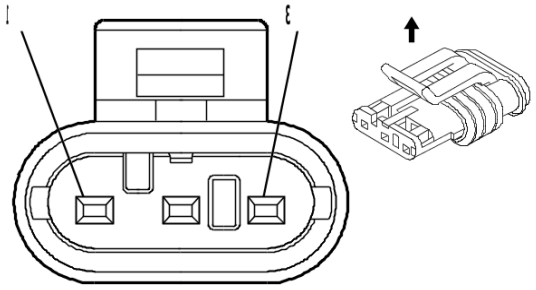
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-66 (YE)	No Tool Required

B356 Brake Pipe Pressure Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	90DB	Brake Pipe Pressure Switch Signal	I	—
2	2	YE / GY	90DC	Battery Positive Voltage	I	—

B378 Steering Gear Angle Sensor (91B/91C/91D/91E)



2013666

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 282087-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.5 Series, Sealed(BK)

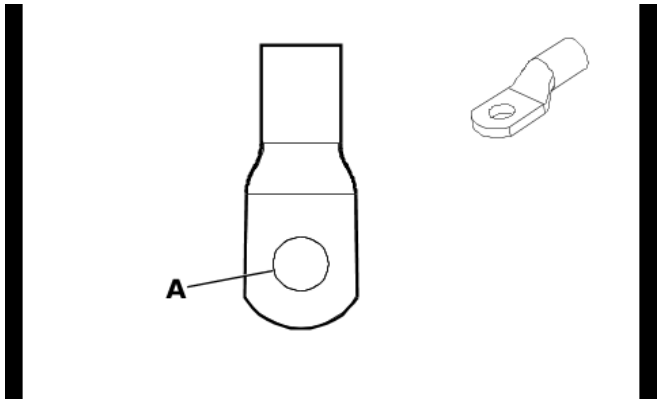
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-33 (YE)	No Tool Required

B378 Steering Gear Angle Sensor (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	61LSC	Steering Gear Angle Sensor Voltage Reference	I	—
2	1	GY	61LSA	Steering Gear Angle Sensor Low Reference	I	—
3	1	GY	61LSB	Steering Gear Angle Sensor Signal	I	—

C1BA Battery - Auxiliary 1 ((+) UEH+(7Y7/7Y8))



5480255

Connector Part Information

Harness Type: Auxiliary Battery Positive Cable - Battery
OEM Connector: 2241342C1
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

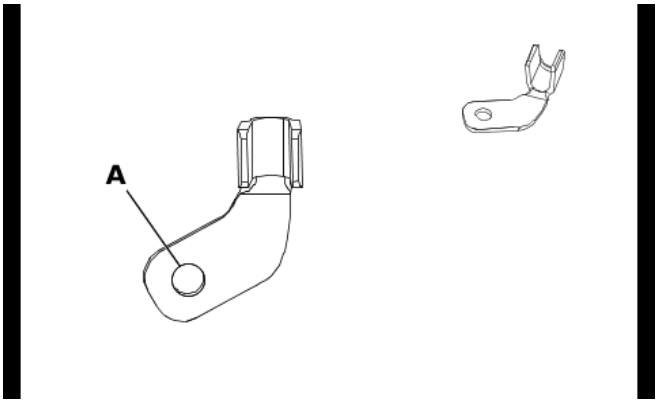
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1BA Battery - Auxiliary 1 ((+) UEH+(7Y7/7Y8))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	35	RD	A	Unfused Battery Positive Voltage	I	—

C1BA Battery - Auxiliary 1 ((+) UEH+7Y9)



5480282

Connector Part Information

Harness Type: Auxiliary Battery Positive Cable - Battery
OEM Connector: 4137476C1
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

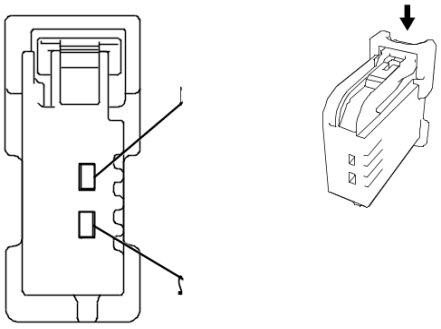
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1BA Battery - Auxiliary 1 ((+) UEH+7Y9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	35	RD	A	Unfused Battery Positive Voltage	I	—

E1L Accent Lamp - Overhead Console



2173586

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 13595207
Service Connector: 13584097
Description: 2-Way F 1.5 Series(BK)

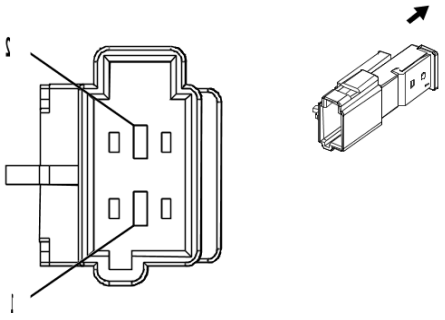
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E1L Accent Lamp - Overhead Console

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT / GN	7558	Front Footwell Accent Lighting Control	I	—
2	0.35	BK	1050	Ground	I	—

E3A Roof Clearance Lamp - Left Front Outer



2339581

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 13662506
Service Connector: 19367515
Description: 2-Way M 1.6 Timer Series(BK)

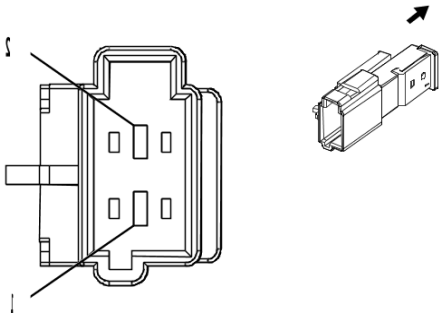
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-34 (YE)	No Tool Required

E3A Roof Clearance Lamp - Left Front Outer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GY	709	Left Park Lamp Control	I	—
2	0.5	BK	1050	Ground	I	—

E3C Roof Clearance Lamp - Front Middle



2339581

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 13662506
Service Connector: 19367515
Description: 2-Way M 1.6 Timer Series(BK)

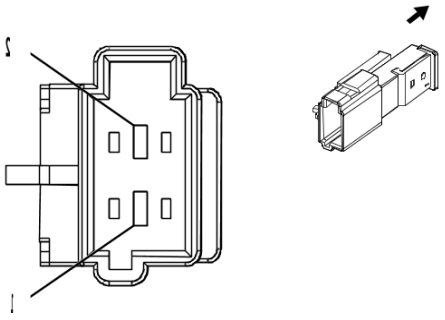
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-34 (YE)	No Tool Required

E3C Roof Clearance Lamp - Front Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GY	709	Left Park Lamp Control	I	—
2	0.5	BK	1050	Ground	I	—

E3E Roof Clearance Lamp - Right Front Outer



2339581

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 13662506
Service Connector: 19367515
Description: 2-Way M 1.6 Timer Series(BK)

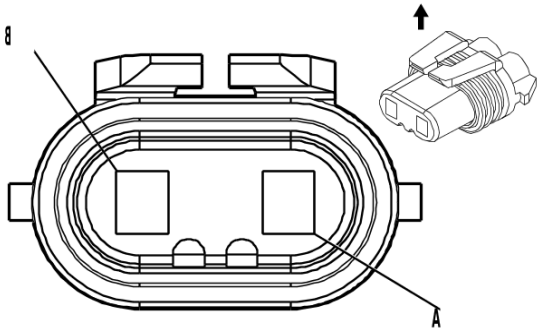
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-34 (YE)	No Tool Required

E3E Roof Clearance Lamp - Right Front Outer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GY	709	Left Park Lamp Control	I	—
2	0.5	BK	1050	Ground	I	—

E4E Headlamp - Left High Beam



684797

Connector Part Information

Harness Type: Left Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

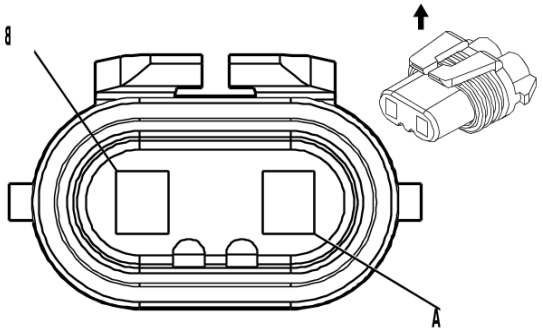
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E4E Headlamp - Left High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	711	Left Headlamp High Beam Control	I	—
B	—	BK	250	Ground	I	—

E4F Headlamp - Right High Beam



684797

Connector Part Information

Harness Type: Right Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

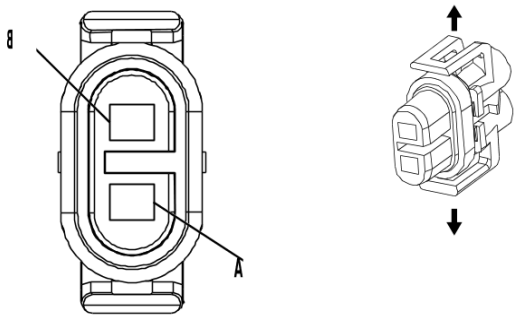
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E4F Headlamp - Right High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	311	Right Headlamp High Beam Control	I	—
B	—	BK	250	Ground	I	—

E4G Headlamp - Left Low Beam



1413064

Connector Part Information

Harness Type: Left Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

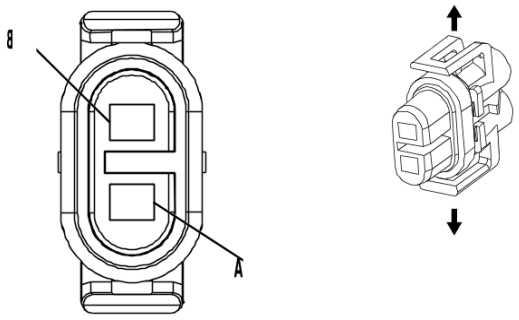
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E4G Headlamp - Left Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	712	Left Headlamp Low Beam Control	I	—
B	—	BK	250	Ground	I	—

E4H Headlamp - Right Low Beam



1413064

Connector Part Information

Harness Type: Right Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

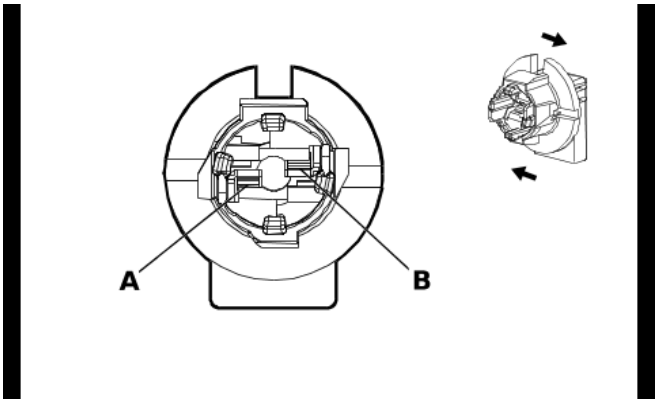
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E4H Headlamp - Right Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	312	Right Headlamp Low Beam Control	I	—
B	—	BK	250	Ground	I	—

E6 Center High Mounted Stop Lamp X1



5913172

Connector Part Information

Harness Type: High Mount Stop Lamp Wiring Harness
OEM Connector: ZCF-02075-01
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Socket(GY)

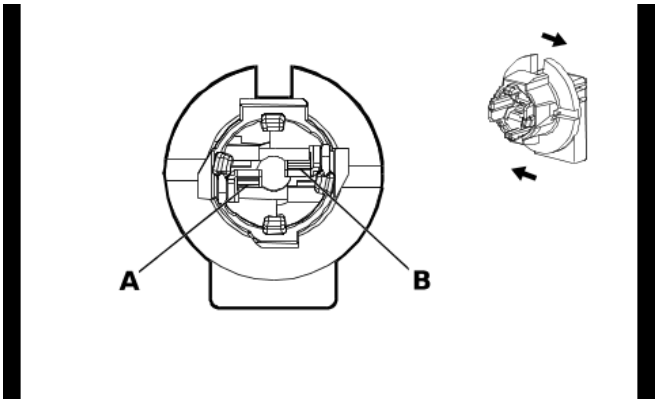
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E6 Center High Mounted Stop Lamp X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.82	BK	1050	Ground	I	—
	0.82	BK	1050	Ground		—
B	0.82	BN	1430	Exterior Courtesy Lamp Control	I	—
	0.82	BN	1430	Exterior Courtesy Lamp Control		—

E6 Center High Mounted Stop Lamp X2



5913172

Connector Part Information

Harness Type: High Mount Stop Lamp Wiring Harness
OEM Connector: ZCF-02075-01
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Socket(GY)

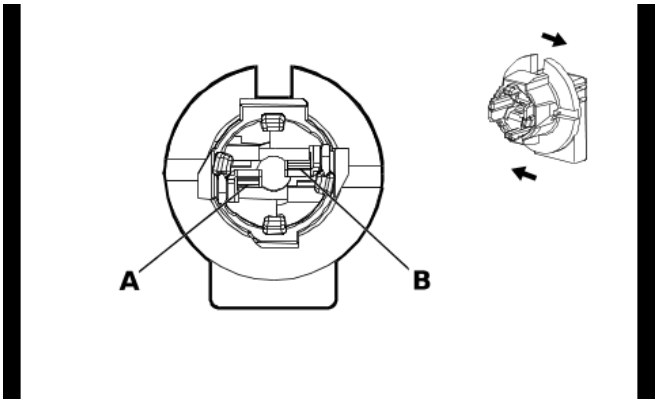
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E6 Center High Mounted Stop Lamp X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.82	RD	1054	Stop Lamp Control	I	—
B	0.82 0.82	BK BK	1050 1050	Ground Ground	I	— —

E6 Center High Mounted Stop Lamp X3



5913172

Connector Part Information

Harness Type: High Mount Stop Lamp Wiring Harness
OEM Connector: ZCF-02075-01
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Socket(GY)

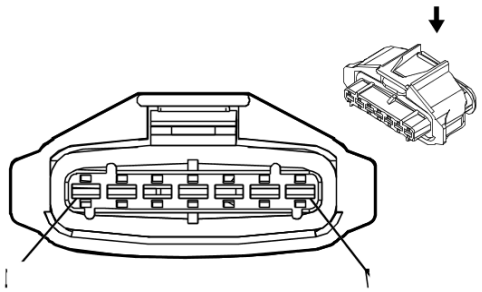
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E6 Center High Mounted Stop Lamp X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.83	BN	1430	Exterior Courtesy Lamp Control	I	—
B	0.82	BK	1050	Ground	I	—

E11A Fuel Heater/Water in Fuel Sensor



2537256

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 1928403222
Service Connector: 19354080
Description: 7-Way F 2.8 Junior Power Timer Series, Sealed(BK)

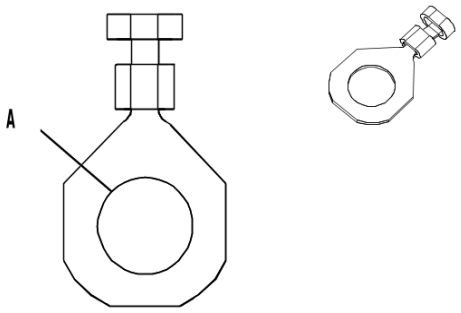
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

E11A Fuel Heater/Water in Fuel Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	2150	Ground	I	—
2	2	VT / GN	355	Fuel Filter Heater Control Circuit	I	—
3	0.5	WH / RD	6862	Water In Fuel Sensor Voltage Reference	I	—
4	0.5	WH	6863	Water In Fuel Sensor Low Reference	I	—
5	0.5	BK / YE	6861	Water In Fuel Sensor Signal	I	—
6	0.5	GY / BN	455	Fuel Filter Temperature Signal	I	—
7	0.5	BK	412	Fuel Filter Temperature Sensor Low Reference	I	—

E12A Glow Plug 1



3240148

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 7009253102
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

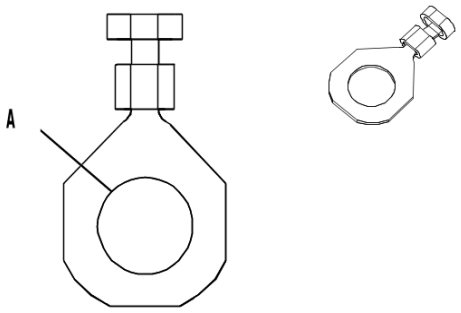
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E12A Glow Plug 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY / BU	1581	Glow Plug 1 Control	I	—

E12B Glow Plug 2



3240148

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 7009253102
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

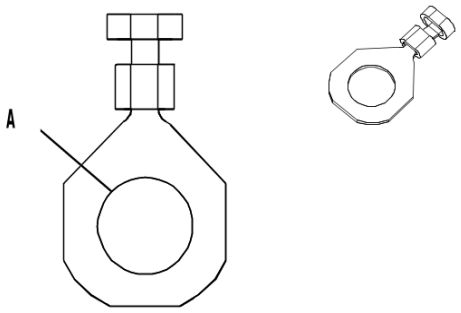
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E12B Glow Plug 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY / BN	1582	Glow Plug 2 Control	I	—

E12C Glow Plug 3



3240148

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 7009253102
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

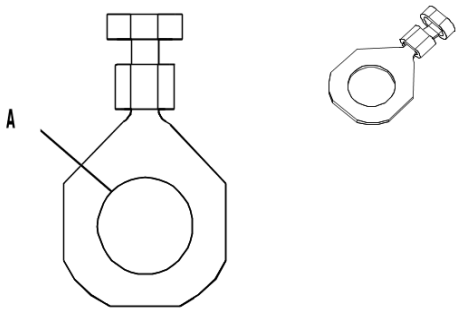
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E12C Glow Plug 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY / GN	1583	Glow Plug 3 Control	I	—

E12D Glow Plug 4



3240148

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 7009253102
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

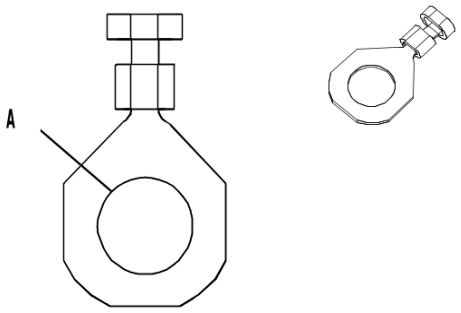
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E12D Glow Plug 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY / YE	1584	Glow Plug 4 Control	I	—

E12E Glow Plug 5



3240148

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 7009253102
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

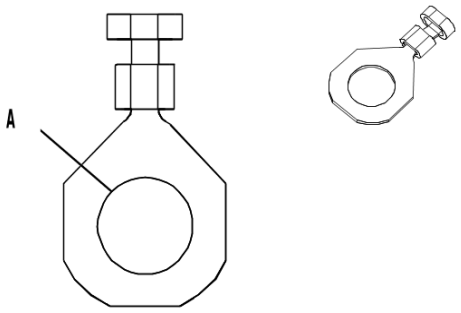
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E12E Glow Plug 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY / WH	1585	Glow Plug 5 Control	I	—

E12F Glow Plug 6



3240148

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 7009253102
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

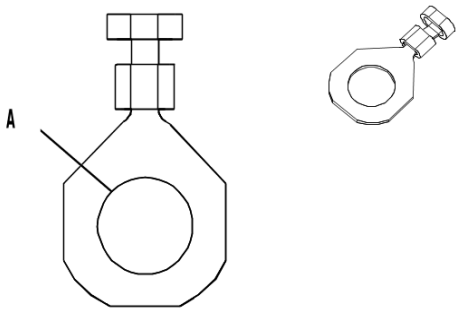
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E12F Glow Plug 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GY / VT	1586	Glow Plug 6 Control	I	—

E12G Glow Plug 7



3240148

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 7009253102
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

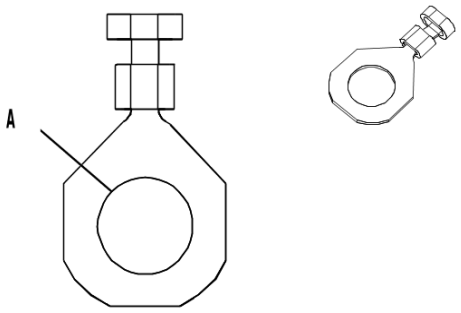
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E12G Glow Plug 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	WH / BK	1587	Glow Plug 7 Control	I	—

E12H Glow Plug 8



3240148

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 7009253102
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

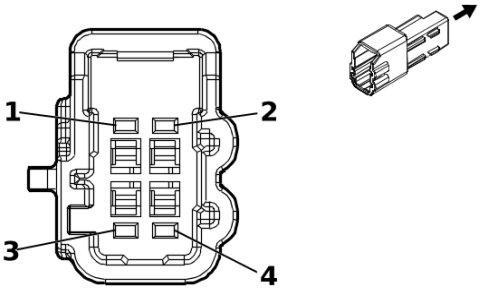
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E12H Glow Plug 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	WH / BU	1588	Glow Plug 8 Control	I	—

E14A Seat Heating Element - Driver Back (KA1)



5396241

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Driver
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series(GY)

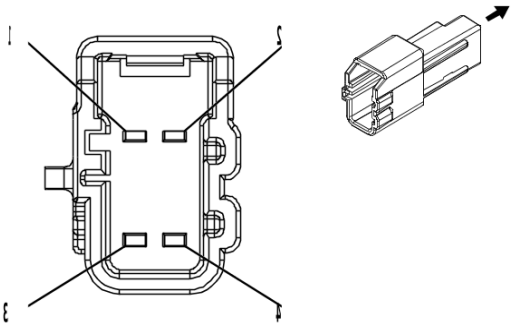
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required

E14A Seat Heating Element - Driver Back (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	2432	Driver Seat Back Heating Element Control	I	—
2	0.5	BU	2425	Driver Seat Back Heating Temperature Sensor Signal	I	—
3	0.5	BK / YE	2080	Driver Heated Seat Thermistor Low Reference	I	—
4	0.75	BN / BK	2078	Driver Seat Heating Element Low Reference	I	—

E14B Seat Heating Element - Driver Cushion (KA1)



4210503

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series(BK)

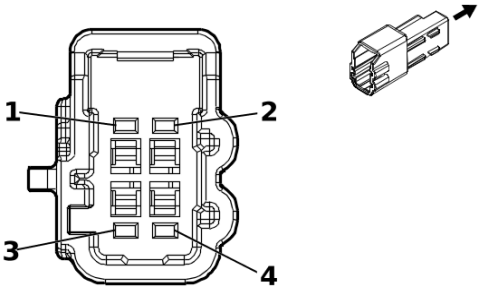
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required

E14B Seat Heating Element - Driver Cushion (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / VT	2077	Driver Seat Heating Element Control	I	—
2	0.5	YE / GY	2079	Driver Seat Heating Temperature Sensor Signal	I	—
3	0.5	BN / YE	2080	Driver Heated Seat Thermistor Low Reference	I	—
4	0.75	BN / BK	2078	Driver Seat Heating Element Low Reference	I	—

E14C Seat Heating Element - Passenger Back (KA1)



5396241

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Passenger
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series(GY)

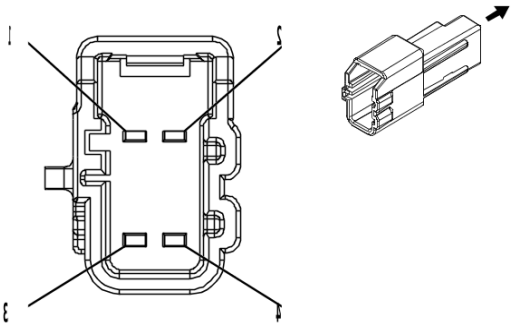
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required

E14C Seat Heating Element - Passenger Back (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH / BN	2481	Passenger Seat Back Heating Element Control	I	—
2	0.5	WH / BU	2436	Passenger Seat Back Heating Temperature Sensor Signal	I	—
3	0.5	BK / GN	2482	Passenger Heated Back Thermistor Low Reference	I	—
4	0.75	GY / BK	2480	Passenger Seat Heating Element Low Reference	I	—

E14D Seat Heating Element - Passenger Cushion (KA1)



4210503

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series(BK)

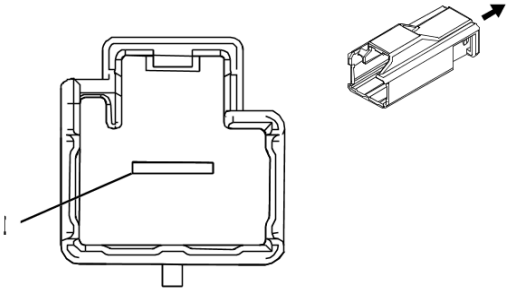
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required

E14D Seat Heating Element - Passenger Cushion (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / BU	2479	Passenger Seat Heating Element Control	I	—
2	0.5	WH / GY	2434	Passenger Seat Heating Temperature Sensor Signal	I	—
3	0.5	BK / GY	2435	Passenger Heated Seat Thermistor Low Reference	I	—
4	0.75	GY / BK	2480	Passenger Seat Heating Element Low Reference	I	—

E18 Rear Defogger Grid (C49)



3240098

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13953570
Service Connector: 19333227
Description: 1-Way M 6.3 Series(BK)

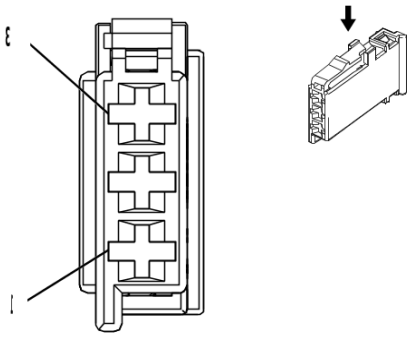
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-43 (RD)	No Tool Required

E18 Rear Defogger Grid (C49)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BN / VT	293	Rear Defogger Grid Control	I	—

E28 Center Console Compartment Lamp (D07)



2039656

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 10865339
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.6 Micro-Timer Series(BK)

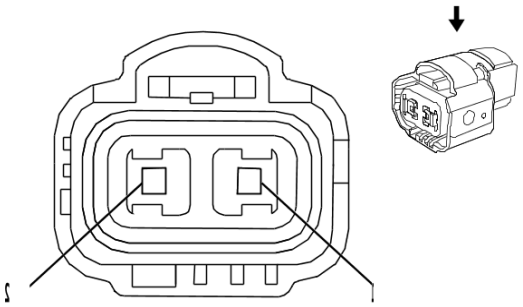
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E28 Center Console Compartment Lamp (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BN	6815	Inadvertent Load Control	I	—
2	0.75	BK	1050	Ground	I	—
3	—	—	—	Not Occupied	—	—

E29LF Fog Lamp - Left Front (T3U)



2891749

Connector Part Information

Harness Type: Front Fog Lamp Wiring Harness - Left
OEM Connector: 6131286C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

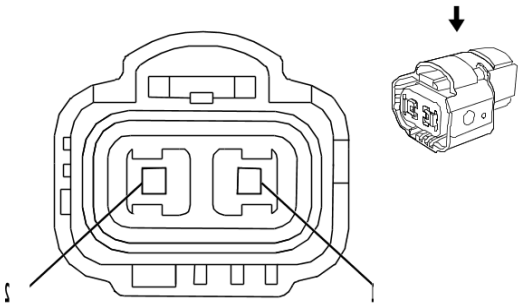
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

E29LF Fog Lamp - Left Front (T3U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN / VT	2234	Front Fog Lamp Control	I	—
2	1.5	BK	150	Ground	I	—

E29RF Fog Lamp - Right Front (T3U)



2891749

Connector Part Information

Harness Type: Front Fog Lamp Wiring Harness - Right
OEM Connector: 6131286C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(BK)

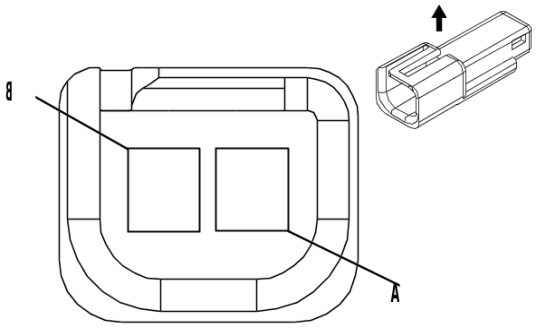
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

E29RF Fog Lamp - Right Front (T3U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN / VT	2234	Front Fog Lamp Control	I	—
2	1.5	BK	150	Ground	I	—

E31L Sunshade Mirror Lamp - Left (DH6)



35441

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series(BK)

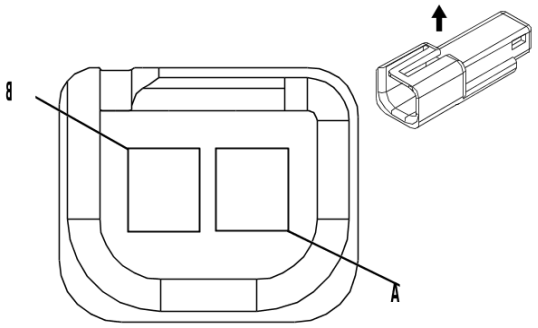
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

E31L Sunshade Mirror Lamp - Left (DH6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH / BN	6815	Inadvertent Load Control	I	—
B	0.5	BK	1050	Ground	I	—

E31R Sunshade Mirror Lamp - Right (DH6)



35441

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series(BK)

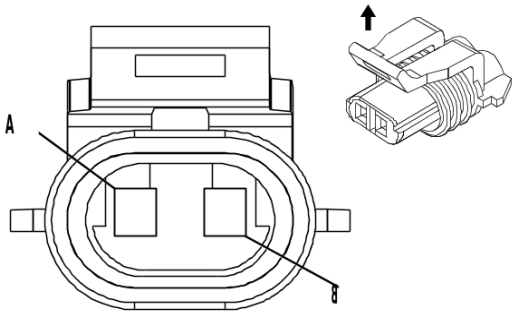
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

E31R Sunshade Mirror Lamp - Right (DH6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH / BN	6815	Inadvertent Load Control	I	—
B	0.5	BK	1050	Ground	I	—

E33 Cargo Lamp



537107

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

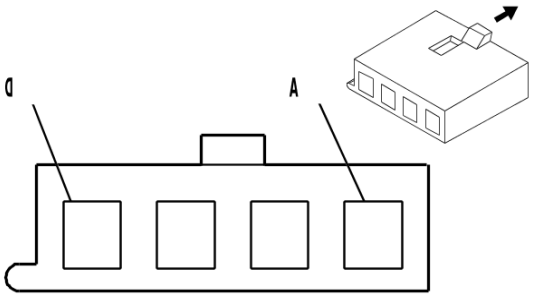
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E33 Cargo Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH / VT	1430	Exterior Courtesy Lamp Control	I	—
B	1	BK	1430-G	Ground	I	—

E37B Dome/Reading Lamps - 2nd Row (Crew Cab)



287981

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 12092162
Service Connector: 15306021
Description: 4-Way F 150 Metri-Pack Series(BK)

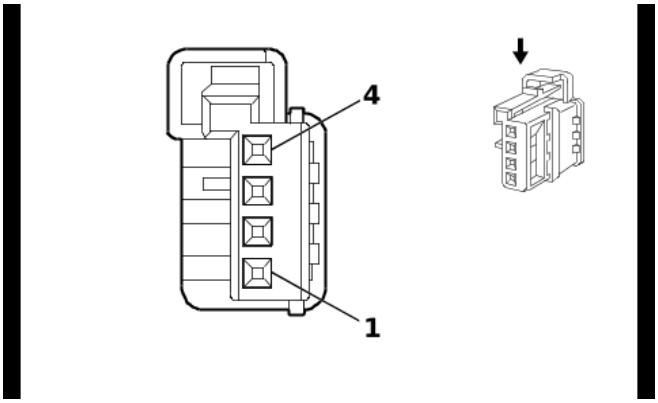
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E37B Dome/Reading Lamps - 2nd Row (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH / BN	6815	Inadvertent Load Control	I	—
B	0.5	BK	1050	Ground	I	—
C	0.5	GY	157	Interior Lamp Control	I	—
D	0.5	YE	6817	LED Backlight Dimming Control 1	I	—

E37EL Dome/Reading Lamps - Front Overhead Console Left



2904464

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 10812166
Service Connector: 84766302
Description: 4-Way F 0.64 Micro-Quadlock Series(GY)

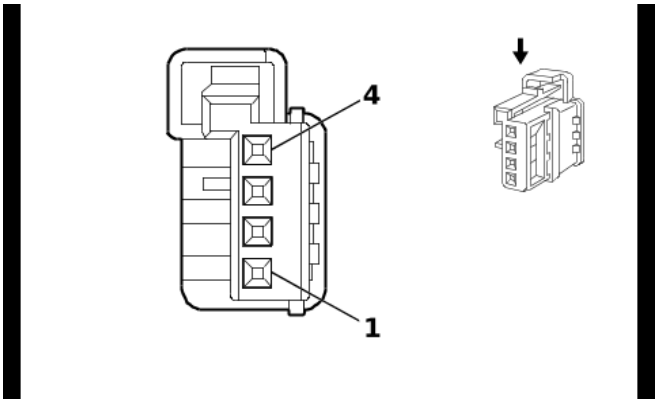
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

E37EL Dome/Reading Lamps - Front Overhead Console Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
2	0.5	WH / BN	6815	Inadvertent Load Control	I	—
3	0.5	GY	157	Interior Lamp Control	I	—
4	0.5	BK	1050	Ground	I	—

E37ER Dome/Reading Lamps - Front Overhead Console Right



2904464

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 10812166
Service Connector: 84766302
Description: 4-Way F 0.64 Micro-Quadlock Series(GY)

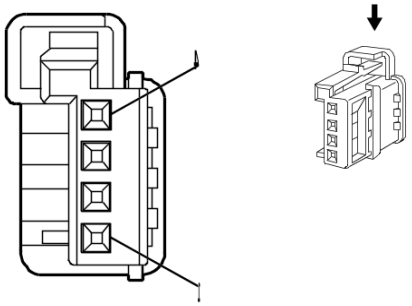
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

E37ER Dome/Reading Lamps - Front Overhead Console Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
2	0.5	WH / BN	6815	Inadvertent Load Control	I	—
3	0.5	GY	157	Interior Lamp Control	I	—
4	0.5	BK	1050	Ground	I	—

E40 Electrical Auxiliary Heater X1



2179793

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 10768790
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

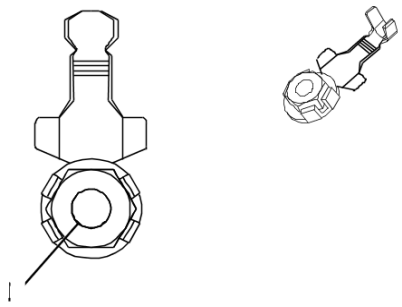
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

E40 Electrical Auxiliary Heater X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	3195	Auxiliary Heater Control	I	—
2	0.5	VT / GY	539	Run/Crank Ignition 1 Voltage	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	YE / GN	3196	Auxiliary Heater Status Signal	I	—

E40 Electrical Auxiliary Heater X2



4356423

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 15337277
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

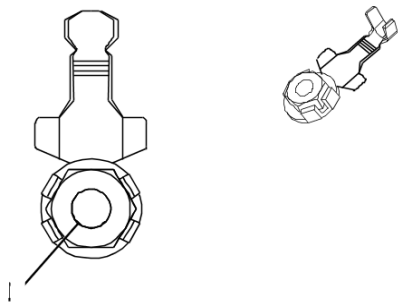
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E40 Electrical Auxiliary Heater X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	RD / GY	642	Battery Positive Voltage	I	—

E40 Electrical Auxiliary Heater X3



4356423

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 15337277
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

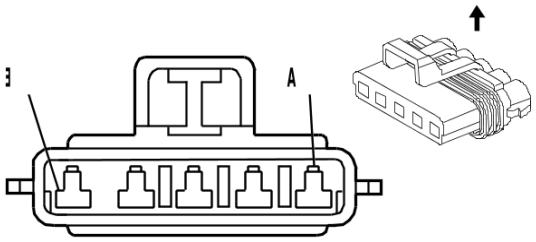
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E40 Electrical Auxiliary Heater X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	BK	1050	Ground	I	—

E42L Tail Lamp Assembly - Left (JTR)



243503

Connector Part Information

Harness Type: Rear Lamp Wiring Harness Extension Harness - Left
OEM Connector: 12084891
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way F 280 Metri-Pack Series, Sealed(GY)

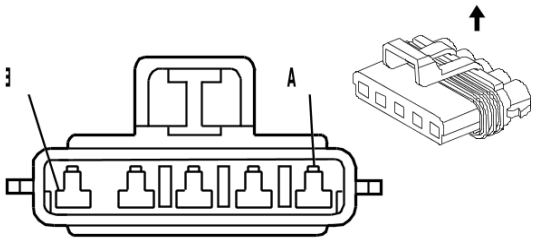
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E42L Tail Lamp Assembly - Left (JTR)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GN / WH	24	Backup Lamp Control	I	—
B	2	YE / BU	18	Left Rear Stop/Turn Signal Lamp Control	I	—
C	—	—	—	Not Occupied	—	—
D	2	VT / GY	709	Left Park Lamp Control	I	—
E	3	BK	10-G	Ground	I	—

E42L Tail Lamp Assembly - Left (-JTR)



243503

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 12084891
Service Connector: 19369027
Description: 5-Way F 280 Metri-Pack Series, Sealed(GY)

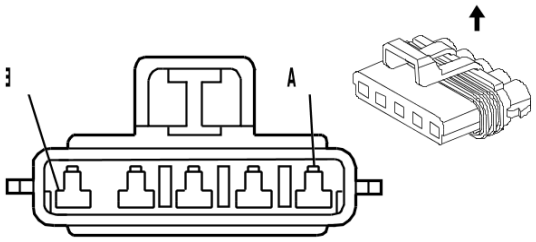
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E42L Tail Lamp Assembly - Left (-JTR)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GN / WH	24	Backup Lamp Control	I	—
B	2	YE / BU	18	Left Rear Stop/Turn Signal Lamp Control	I	—
C	—	—	—	Not Occupied	—	—
D	2	VT / GY	709	Left Park Lamp Control	I	—
E	3	BK	10-G	Ground	I	—

E42R Tail Lamp Assembly - Right (JTR)



243503

Connector Part Information

Harness Type: Rear Lamp Wiring Harness Extension Harness - Right
OEM Connector: 12084891
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way F 280 Metri-Pack Series, Sealed(GY)

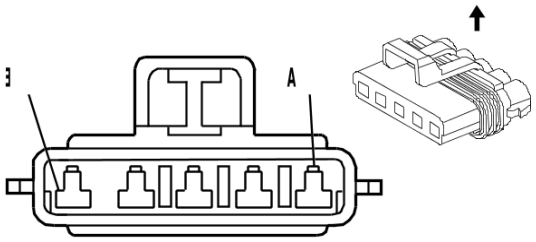
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E42R Tail Lamp Assembly - Right (JTR)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GN / WH	24	Backup Lamp Control	I	—
B	2	GY / BN	309	Right Park Lamp Control	I	TR1/ UEA
C	2	BN / GN	19	Right Rear Stop/Turn Signal Lamp Control	I	—
D	2	GY / BN	309	Right Park Lamp Control	I	UGE
E	3	BK	10-G	Ground	I	—

E42R Tail Lamp Assembly - Right (-JTR)



243503

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: 12084891
Service Connector: 19369027
Description: 5-Way F 280 Metri-Pack Series, Sealed(GY)

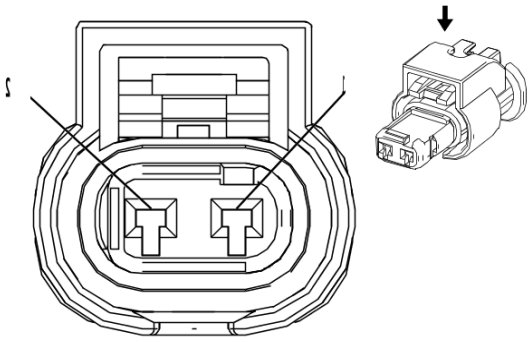
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E42R Tail Lamp Assembly - Right (-JTR)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	GN / WH	24	Backup Lamp Control	I	—
B	2	GY / BN	309	Right Park Lamp Control	I	TR1/ UEA
C	2	BN / GN	19	Right Rear Stop/Turn Signal Lamp Control	I	—
D	2	GY / BN	309	Right Park Lamp Control	I	UGE
E	3	BK	10-G	Ground	I	—

E52 Reductant Line Heater



2474752

Connector Part Information

Harness Type: Emission Reduction Fluid Tank Reservoir Wire Harness - Tank
OEM Connector: 13927761
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK with BK Inner Connector)

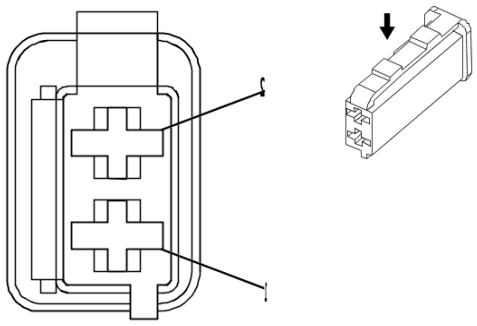
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

E52 Reductant Line Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE	4319	Diesel Exhaust Fluid Line Heater Low Control	I	—
2	1	BN	3199	Diesel Exhaust Fluid Pressure Line Heater Control	I	—

E63D Flood Lamp - Driver Door Handle (A31)



2339593

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver
OEM Connector: 13670097
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series(BK)

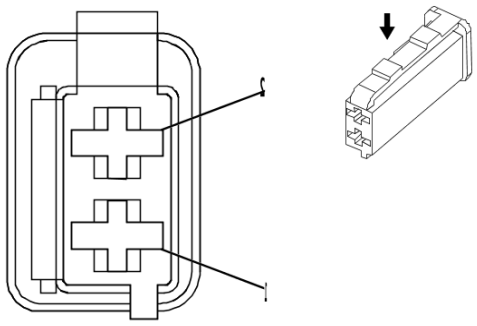
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E63D Flood Lamp - Driver Door Handle (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / YE	7557	Interior Door Handle Accent Lighting Control	I	—
2	0.35	BK	1150	Ground	I	—

E63P Flood Lamp - Passenger Door Handle (A31)



2339593

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger
OEM Connector: 13670097
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series(BK)

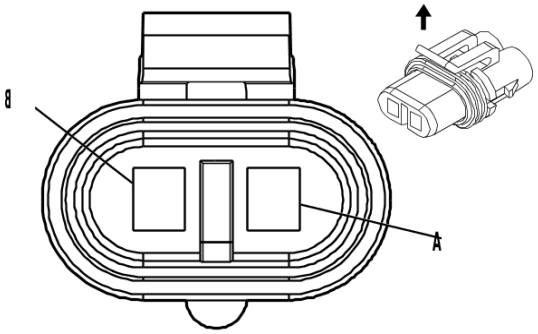
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E63P Flood Lamp - Passenger Door Handle (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / YE	7557	Interior Door Handle Accent Lighting Control	I	—
2	0.35	BK	1250	Ground	I	—

E91 Air Dryer Valve Heater (JPY)



646148

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 1673790C1
Service Connector: 19368709
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

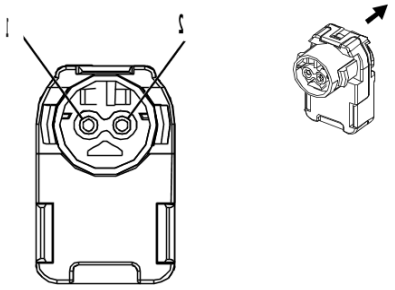
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E91 Air Dryer Valve Heater (JPY)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	VT / GY	139	Run/Crank Ignition 1 Voltage	I	—
B	1	BK	139-G	Ground	I	—

F101 Passenger Instrument Panel Air Bag (AJ7/AY0)



2893366

Connector Part Information

Harness Type: Passenger Instrument Panel Air Bag Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

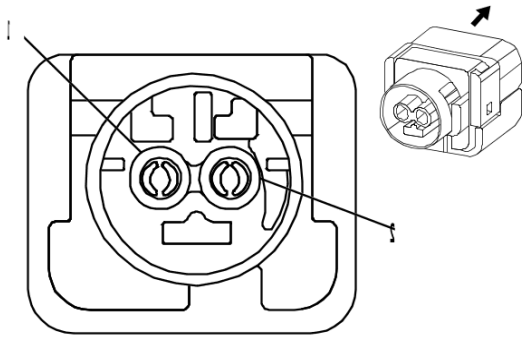
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F101 Passenger Instrument Panel Air Bag (AJ7/AY0)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	YE	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	I	—
2	—	OG	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	I	—

F105L Roof Rail Air Bag - Left (AY0/AY1)



2231620

Connector Part Information

Harness Type: Roof Rail Air Bag Jumper Wiring Harness - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

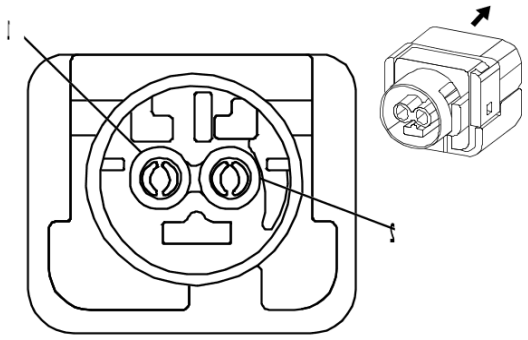
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F105L Roof Rail Air Bag - Left (AY0/AY1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	5019	Left Front Roof Rail Air Bag High Control	I	—
2	—	WH	5020	Left Front Roof Rail Air Bag Low Control	I	—

F105R Roof Rail Air Bag - Right (AY0)



2231620

Connector Part Information

Harness Type: Roof Rail Air Bag Jumper Wiring Harness - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

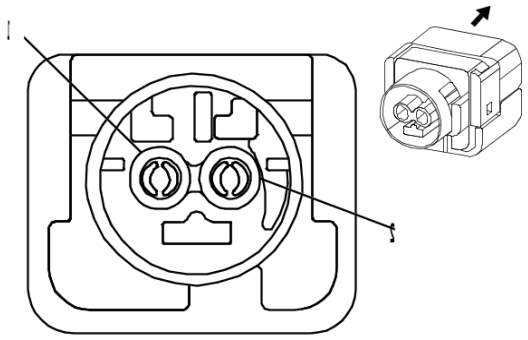
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F105R Roof Rail Air Bag - Right (AY0)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	5021	Right Front Roof Rail Air Bag High Control	I	—
2	—	WH	5022	Right Front Roof Rail Air Bag Low Control	I	—

F106D Seat Side Air Bag - Driver (A95/AG1)



2231620

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Driver
OEM Connector: PPI0001142
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series(BK with YE Cover)

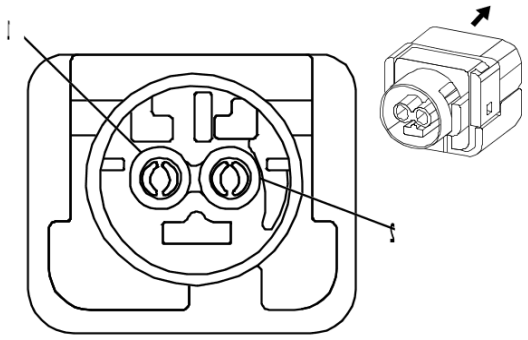
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F106D Seat Side Air Bag - Driver (A95/AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / BU	3068	Driver Seat Side Air Bag High Control	I	—
2	0.5	GN / OG	3069	Driver Seat Side Air Bag Low Control	I	—

F106D Seat Side Air Bag - Driver (AE7)



2231620

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Driver
OEM Connector: 15544222
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series(BK with YE Cover)

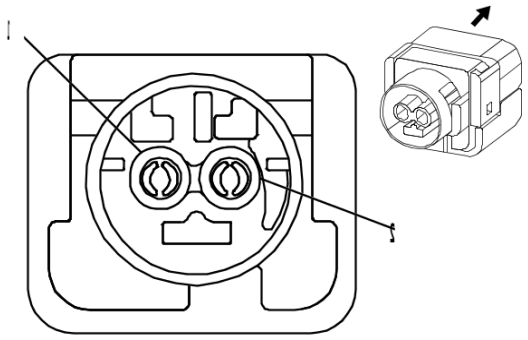
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F106D Seat Side Air Bag - Driver (AE7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / BU	3068	Driver Seat Side Air Bag High Control	I	—
2	0.5	GN / OG	3069	Driver Seat Side Air Bag Low Control	I	—

F106P Seat Side Air Bag - Passenger ((AJ7/AY0)+A95)



2231620

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Passenger
OEM Connector: PPI0001142
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series(BK with YE Cover)

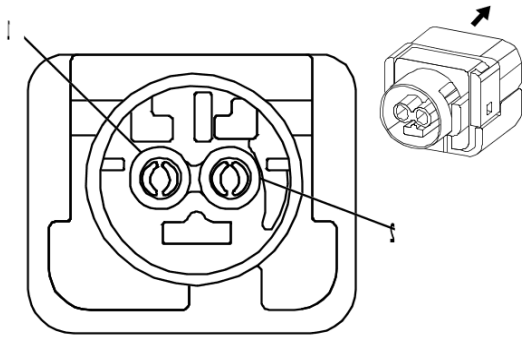
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F106P Seat Side Air Bag - Passenger ((AJ7/AY0)+A95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GY	3066	Passenger Seat Side Air Bag High Control	I	—
2	0.5	BN / OG	3067	Passenger Seat Side Air Bag Low Control	I	—

F106P Seat Side Air Bag - Passenger ((AJ7/AY0)-A95)



2231620

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Passenger
OEM Connector: 15544222
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series(BK with YE Cover)

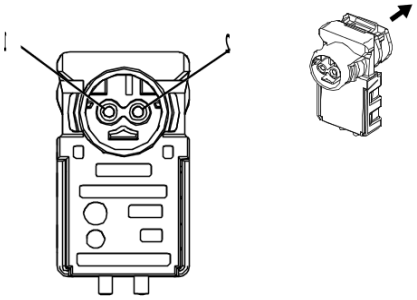
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F106P Seat Side Air Bag - Passenger ((AJ7/AY0)-A95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GY	3066	Passenger Seat Side Air Bag High Control	I	—
2	0.5	BN / OG	3067	Passenger Seat Side Air Bag Low Control	I	—

F107 Steering Wheel Air Bag



3282464

Connector Part Information

Harness Type: Steering Wheel Air Bag Coil
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

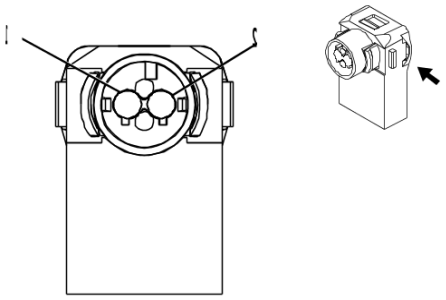
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F107 Steering Wheel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	TN	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
2	—	BN	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—

F112D Seat Belt Retractor Pretensioner - Driver (Crew Cab)



4241364

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33345778
Service Connector: 13545487
Description: 2-Way F ABX-5 Series(PU with YE Cover)

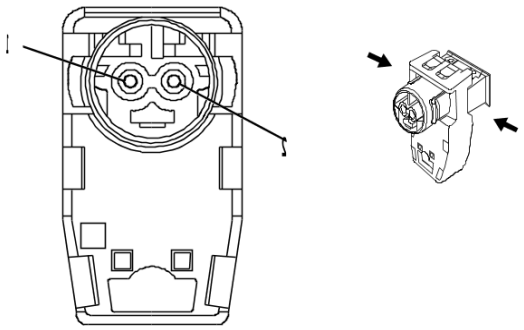
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

F112D Seat Belt Retractor Pretensioner - Driver (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	GY	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—

F112D Seat Belt Retractor Pretensioner - Driver (Standard Cab)



2368877

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33512202
Service Connector: 19355492
Description: 2-Way F AK-2 Series(BK with YE Cover)

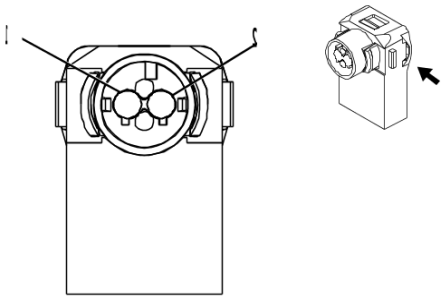
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

F112D Seat Belt Retractor Pretensioner - Driver (Standard Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	GY	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—

F112P Seat Belt Retractor Pretensioner - Passenger (Crew Cab)



4241364

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33345778
Service Connector: 13545487
Description: 2-Way F ABX-5 Series(PU with YE Cover)

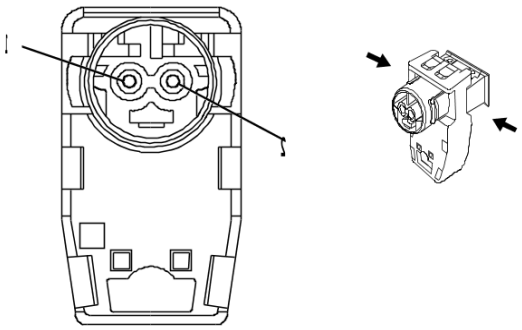
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

F112P Seat Belt Retractor Pretensioner - Passenger (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	WH	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—

F112P Seat Belt Retractor Pretensioner - Passenger (Standard Cab)



2368877

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33512202
Service Connector: 19355492
Description: 2-Way F AK-2 Series(BK with YE Cover)

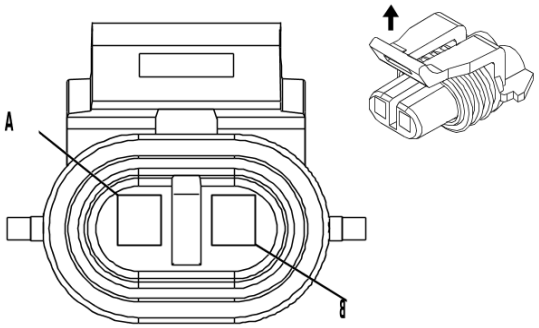
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

F112P Seat Belt Retractor Pretensioner - Passenger (Standard Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	WH	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—

G12B Fuel Pump - Secondary (NSQ)



635009

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

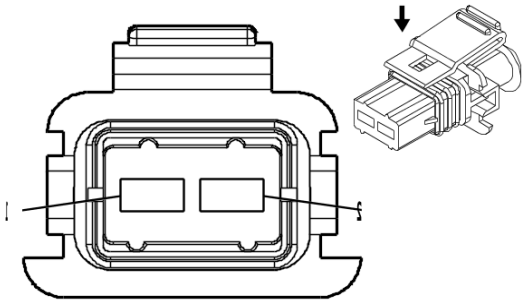
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

G12B Fuel Pump - Secondary (NSQ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	BK / YE	2737	Fuel Balance Pump Ground	I	—
B	1.5	GN	1058	Fuel Transfer Pump Control	I	—

G13 Generator X1



1522871

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 12186308
Service Connector: 84941154
Description: 2-Way F Junior Power Timer Series, Sealed(BK)

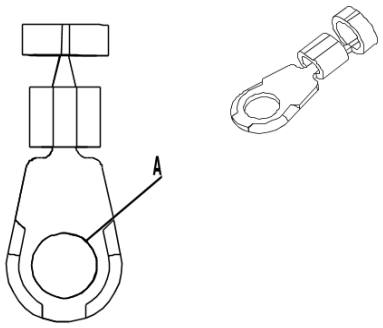
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

G13 Generator X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	25	Charge Indicator Control	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	II	—

G13 Generator X2



3385519

Connector Part Information

Harness Type: Generator Battery Jumper Cable
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: Ring Terminal

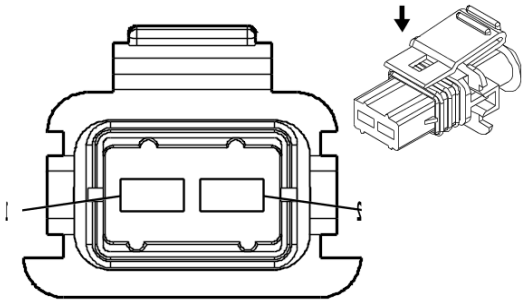
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G13 Generator X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD	2	Battery Positive Voltage	I	—

G13E Generator - Auxiliary X1 (KHB)



1522871

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 12186308
Service Connector: 84941154
Description: 2-Way F Junior Power Timer Series, Sealed(BK)

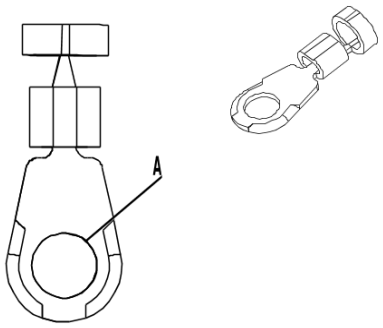
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

G13E Generator - Auxiliary X1 (KHB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	25	Charge Indicator Control	I	—
2	—	—	—	Not Occupied	—	—

G13E Generator - Auxiliary X2 (KHB)



3385519

Connector Part Information

Harness Type: Auxiliary Generator
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: Ring Terminal

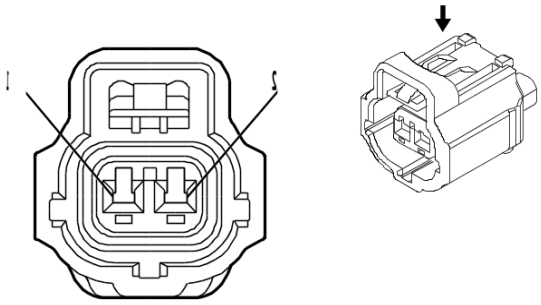
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G13E Generator - Auxiliary X2 (KHB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD	2	Battery Positive Voltage	I	—

G24 Windshield Washer Pump



4975439

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15368658
Service Connector: 19370826
Description: 2-Way F SSC Series, Sealed(BK)

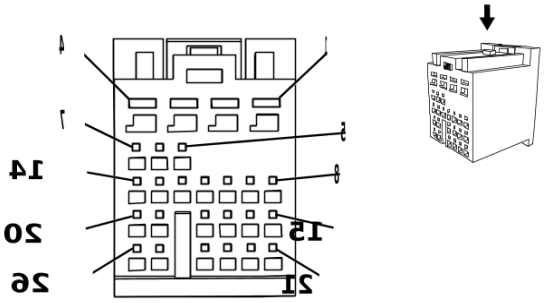
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

G24 Windshield Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY / VT	228	Windshield Washer Pump Control	I	—
2	0.75	BK	1050	Ground	I	—

K9 Body Control Module X1



2282907

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13943345
Service Connector: 13582966
Description: 26-Way F 0.64, 2.8 Series(NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575871	J-35616-35 (VT)	J-38125-12A
II	13582298	J-35616-64B (L-BU)	J-38125-215A

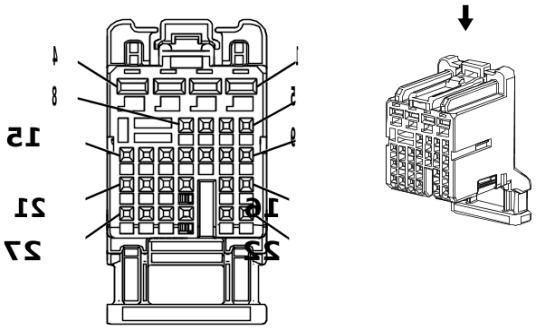
K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1850	Ground	I	—
2	0.75	RD / BU	2540	Battery Positive Voltage	I	—
3	1	RD / GY	2140	Battery Positive Voltage	I	—
4	0.75	RD / BN	2240	Battery Positive Voltage	I	—
5	0.5	WH	6816	Indicator Dimming Control	II	—
6	—	—	—	Not Occupied	—	—
7	0.35	BK / YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	II	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	BU / VT	1134	Park Brake Switch Signal	II	—
11	0.35	GN / BN	306	Headlamp Switch Off Signal	II	—
12	—	—	—	Not Occupied	—	—
13	0.35	BU / RD	1688	12V Reference	II	—
14	0.35	GY / GN	328	Interior Lamp Defeat Switch Signal	II	—
15	0.35	BU / GY	192	Front Fog Lamp Switch Signal	II	—
16	0.35	WH / VT	103	Headlamp Switch On Signal	II	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.35	BK / GN	552	Sensor Low Reference	II	—
20	—	—	—	Not Occupied	—	—
21	0.35	GY	728	Security Indicator Control	II	—
22	0.35	GN / GY	13	Headlamp Switch Park Lamp Signal	II	—

K9 Body Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
23	0.5	VT / GN	7558	Front Footwell Accent Lighting Control	II	—
24	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
25	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
26	0.35	BU / WH	3275	Remote Control Door Lock Receiver Receive Signal	II	—

K9 Body Control Module X2



2180237

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13943361
Service Connector: 13576637
Description: 27-Way F 0.64, 2.8 Series(L-BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575871	J-35616-35 (VT)	J-38125-12A
II	13582298	J-35616-64B (L-BU)	J-38125-215A

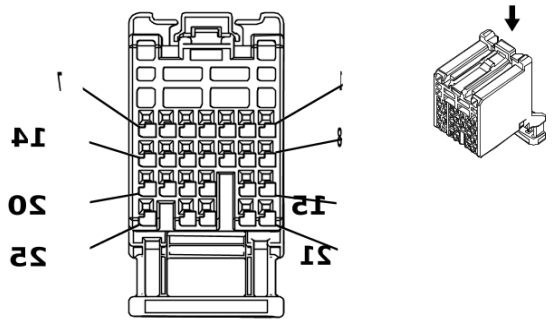
K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD / WH	2740	Battery Positive Voltage	I	—
2	0.75	BK	1850	Ground	I	—
3	0.75	RD / BN	2940	Battery Positive Voltage	I	—
4	0.75	RD / VT	4040	Battery Positive Voltage	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY	5697	Child Security Lock Indicator Control	II	—
7	0.35	WH / GN	526	Stop Lamp Switch Signal 2	II	—
8	0.5	YE	6817	LED Backlight Dimming Control 1	II	—
9	0.35	YE / GY	44	Instrument Panel Lamp Dimmer Switch Signal	II	—
10	0.35	WH / BU	278	Ambient Light Sensor Signal	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	GY / RD	598	5V Reference	II	—
14	0.35	BU / VT	1788	Traction Control Switch Signal 1	II	—
15	0.35	BN / WH	781	Driver Door Lock Switch Unlock Signal	II	—
16	0.35	GY	3273	Remote Control Door Lock Receiver Low Reference	II	—
17	—	—	—	Not Occupied	—	—
18	0.5	GY	158	Cargo Lamp Switch Signal	II	—
19	0.35	BN / YE	780	Driver Door Lock Switch Lock Signal	II	—
20	0.5	WH / BU	3691	Trailer Brake Apply Signal	II	—
21	0.5	GN / GY	6135	Body Control Module LIN Bus 4	II	—

K9 Body Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22 - 24	—	—	—	Not Occupied	—	—
25	0.35	GY / WH	3272	Remote Control Door Lock Receiver Control	II	—
26	0.35	GN / WH	111	Hazard Warning Switch Signal	II	—
27	0.35	YE / GN	3274	Remote Control Door Lock Receiver Transmit Signal	II	—

K9 Body Control Module X3



3468989

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: 13582968
Service Connector: Service by Harness - See Part Catalog
Description: 25-Way F 0.64 Series(GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

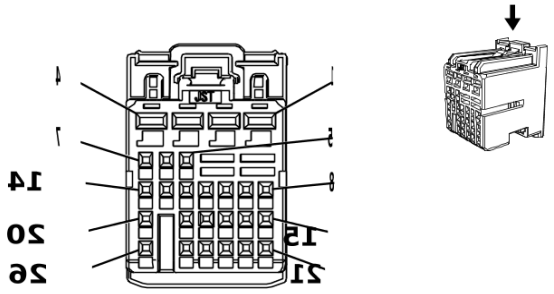
K9 Body Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / GY	3277	Vehicle Anti-Theft System Immobilizer Low Reference	I	—
2	0.5	GN / VT	7533	Immobilizer LIN Bus 1	I	—
3	0.35	GY / BK	3276	Immobilizer Control Module Control	I	—
4	0.35	WH / RD	1444	12V Reference	I	—
5	0.5	VT / YE	4	Accessory Ignition Voltage	I	—
6	0.5	VT / BK	3	Run/Crank Ignition 1 Voltage	I	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.35	BN / GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
10	0.35	BK / GY	6009	Windshield Wiper Switch Low Reference	I	—
11	0.35	WH	524	High Beam Select Switch High Beam Signal	I	—
12	0.35	WH / GN	663	Hazard Switch Left Turn Signal	I	—
13	0.35	YE / BU	1714	Windshield Wiper Switch Low Signal	I	—
14	0.35	BU / GY	553	Shift Select Switch Performance Signal	I	—
15	0.5	WH / VT	1020	Off/Run/Crank Ignition Voltage	I	—
16	0.35	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	—
17	0.35	YE / BN	307	Headlamp Switch Flash Signal	I	—
18	0.35	GN / WH	3287	Horn Switch Signal	I	—
19	0.5	OG	7527	Human Machine Interface Control Module LIN Bus 1	I	—
20	0.35	GY	1715	Windshield Wiper Switch High Signal	I	—

K9 Body Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	0.35	VT / YE	5526	Tap Up/Tap Down Switch Signal	I	—
22	0.5	WH / BK	1073	Ignition Key Resistor Signal	I	—
23	—	—	—	Not Occupied	—	—
24	0.35	VT / BU	664	Hazard Switch Right Turn Signal	I	—
25	0.35	WH / BK	94	Windshield Washer Switch Signal	I	—

K9 Body Control Module X4



3240145

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13962485
Service Connector: 13587579
Description: 26-Way F 0.64, 2.8 Series(BK)

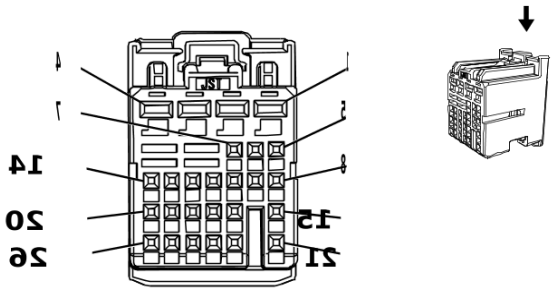
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575871	J-35616-35 (VT)	J-38125-12A
II	13582298	J-35616-64B (L-BU)	J-38125-215A

K9 Body Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE	712	Left Headlamp Low Beam Control	I	—
2	0.75	YE	312	Right Headlamp Low Beam Control	I	—
3	0.75	GN / VT	1315	Right Front Turn Signal Lamp Control	I	—
4 - 10	—	—	—	Not Occupied	—	—
11	0.5	VT / WH	5065	Stop Lamp Relay Coil Control	II	—
12	0.35	GY / VT	755	Retained Accessory Power Relay Coil Control	II	—
13	—	—	—	Not Occupied	—	—
14	0.35	BN / GY	2268	Windshield Washer Relay Control	II	—
15	0.35	GN / VT	5199	Run/Crank Relay Coil Control	II	—
16	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	II	—
17	0.5	BN / GN	196	Windshield Wiper Motor Park Switch Signal	II	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.5	RD / YE	2340	Battery Positive Voltage	II	—
21	—	—	—	Not Occupied	—	—
22	0.35	VT / YE	5985	Accessory Wake-Up Serial Data	II	—
23	0.5	WH / BU	5986	Serial Data Communication Enable	II	—
24	0.5	BN / GN	109	Hood Ajar Switch Signal	II	—
25	0.5	GN / YE	2081	Exhaust Brake Switch Signal	II	—
26	0.75	BK / WH	451	Signal Ground	II	—

K9 Body Control Module X5



3240146

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13962299
Service Connector: 13587577
Description: 26-Way F 0.64, 2.8 Series(BN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575871	J-35616-35 (VT)	J-38125-12A
II	13582298	J-35616-64B (L-BU)	J-38125-215A

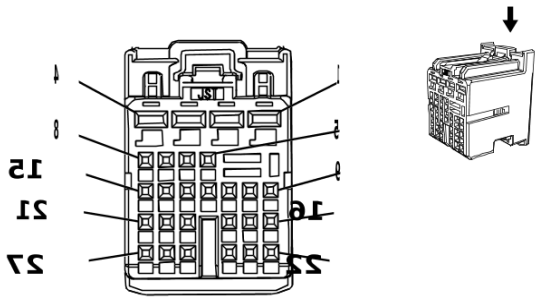
K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	BU / WH	1314	Left Front Turn Signal Lamp Control	I	—
3	0.75	RD / GN	5140	Battery Positive Voltage	I	—
4	0.75	RD / WH	3440	Battery Positive Voltage	I	—
5 - 7	—	—	—	Not Occupied	—	—
8	0.35	BU / WH	5186	Left Trailer Turn Signal Lamp Control	II	—
9	—	—	—	Not Occupied	—	—
10	0.5	BN	1317	Fog Lamp Relay Control	II	—
11	—	—	—	Not Occupied	—	—
12	0.35	WH / BU	6311	Cruise/ETC/TCC Brake Signal	II	—
13	—	—	—	Not Occupied	—	—
14	0.35	VT / BN	300	Run Ignition 3 Voltage	II	—
15	0.35	GN / WH	3438	Exhaust Brake Switch Indicator Control	II	—
16	0.35	VT / YE	3267	Child Security Lock Relay Control	II	—
17	0.35	YE / GY	5187	Right Trailer Turn Signal Lamp Control	II	—
18	0.35	BN / VT	1969	Headlamp High Beam Relay Control	II	—
19	0.35	BN / WH	28	Horn Relay Control	II	—
20	0.75	BN / GN	9950	Stop/Turn Signal Lamp Relay - Right Low Control	II	—
21	0.75	YE / BU	9960	Stop/Turn Signal Lamp Relay - Left Low Control	II	—
22	0.35	BU	45	Park Lamp Relay Control	II	—

K9 Body Control Module X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
23	0.35	YE	321	Vehicle Level Control Relay Coil Control	II	—
24	0.35	WH / VT	860	Windshield Wiper Switch High Signal	II	—
25	—	—	—	Not Occupied	—	—
26	0.35	BU / BN	38	Backup Lamp Relay Control	II	—

K9 Body Control Module X6



3240147

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13962300
Service Connector: 13587576
Description: 27-Way F 0.64, 2.8 Series(L-PU)

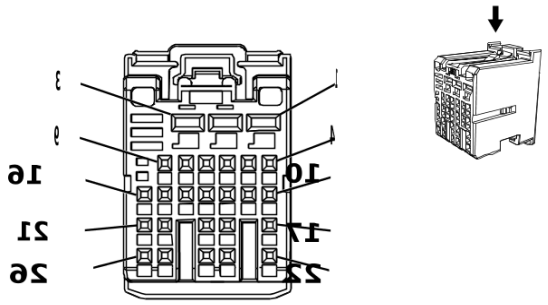
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575560	J-35616-35 (VT)	J-38125-12A
II	13582298	J-35616-64B (L-BU)	J-38125-215A

K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU / WH	195	Door Lock Control	I	—
2	1.5	GY / GN	3271	Door Lock Control 2	I	—
3	1.5	BK	1850	Ground	I	—
4	1.5 0.75	BN / YE BN / YE	294 294	Door Lock Actuator Unlock Control Door Lock Actuator Unlock Control	I I	CREW CAB STANDARD CAB
5	—	—	—	Not Occupied	—	—
6	0.35	BU / VT	1124	Door Lock Key Switch Unlock Signal	II	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.5	GN / BU	6133	Body Control Module LIN Bus 2	II	—
10	0.5	GN / YE	6134	Body Control Module LIN Bus 3	II	—
11 - 20	—	—	—	Not Occupied	—	—
21	0.35	WH / VT	3270	Driver Door Lock Motor Status Signal	II	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
25	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
26	0.5	BN / WH	1429	Standing Lamp Relay Control	II	—
27	0.35	GY	747	Left Rear Door Ajar Switch Signal	II	—

K9 Body Control Module X7



3240144

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13962301
Service Connector: 13587578
Description: 26-Way F 0.64, 2.8 Series(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575871	J-35616-35 (VT)	J-38125-12A
II	13582298	J-35616-64B (L-BU)	J-38125-215A

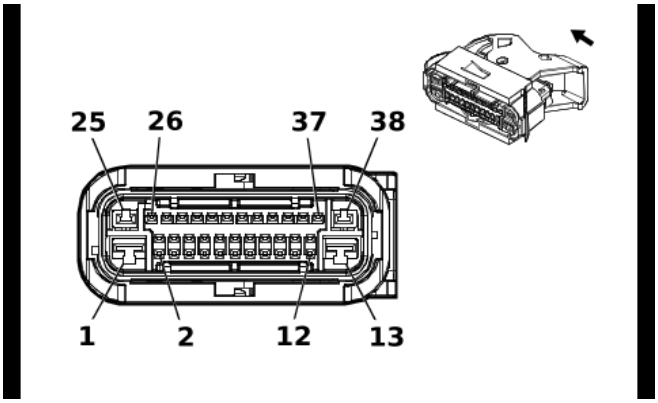
K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY	157	Interior Lamp Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.75	WH / BN	6815	Inadvertent Load Control	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.35	YE / WH	816	Brake Transmission Shift Interlock Solenoid Actuator Control	II	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.5	YE	6817	LED Backlight Dimming Control 1	II	—
10	0.35	BU / BN	7547	Security Lock Relay Control	II	—
11	0.35	GY	748	Right Rear Door Ajar Switch Signal	II	—
12	0.35	BN / WH	3269	Child Security Lock Actuator Status Signal Left Rear	II	—
13	—	—	—	Not Occupied	—	—
14	0.35	GY	746	Right Front Door Ajar Switch Signal	II	—
15	0.35	YE / BN	3265	Child Security Lock Switch Signal	II	—
16	0.5	WH / BU	3691	Trailer Brake Apply Signal	II	—
17	—	—	—	Not Occupied	—	—
18	0.35	GY / BK	3268	Child Security Lock Actuator Status Signal Right Rear	II	—
19	0.35	GY	156	Courtesy Lamp Switch Signal	II	—
20	—	—	—	Not Occupied	—	—
21	0.35	YE / VT	244	Passenger Door Lock Switch Lock Control	II	—

K9 Body Control Module X7 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	0.35	WH / YE	7557	Interior Door Handle Accent Lighting Control	II	—
23	0.5	GN	5060	Low Speed GMLAN Serial Data	II	—
24	0.35	BN / VT	245	Passenger Door Lock Switch Unlock Control	II	—
25	0.35 0.35	GN GY	4512 745	Wireless Charging System Charge Indicator Control Left Front Door Ajar Switch Signal	II II	K4C STANDARD CAB
26	—	—	—	Not Occupied	—	—

K17 Electronic Brake Control Module



5571481

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 2-2138659-0
Service Connector: Service by Harness - See Part Catalog
Description: 38-Way F 0.64, 2.8, 6.3 Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575383	J-35616-42 (RD)	J-38125-11A
II	13579767	J-35616-42 (RD)	J-38125-11A
III	13579988	J-35616-35 (VT)	J-38125-12A
IV	19355422	J-35616-64B (L-BU)	J-38125-12A

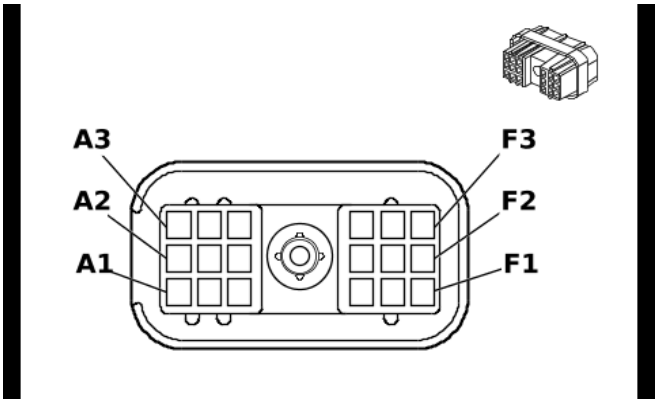
K17 Electronic Brake Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD / YE	1042	Battery Positive Voltage	I	—
2	0.75	RD	3090	Steering Column Energy Absorber High Control	IV	—
3	—	—	—	Not Occupied	—	—
4	0.75	GY	90M	Brake Hydraulic Fault	IV	—
5 - 9	—	—	—	Not Occupied	—	—
10	0.75	GY	90HB	Brake Booster Pump Motor Active Signal	IV	—
11	0.75	GY	90D	Brake Booster Pump Motor Relay High Control/ Signal	IV	—
12	—	—	—	Not Occupied	—	—
13	3	BK	2150	Ground	II	—
14	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	IV	—
15	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	IV	—
16	0.75	GY / BN	7065	Right Front Wheel Speed Sensor Control	IV	—
17	0.75	YE	872	Right Front Wheel Speed Sensor Signal	IV	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	IV	—
21	—	—	—	Not Occupied	—	—
22	0.75	GY / BK	7127	Left Rear Wheel Speed Sensor Control	IV	—
23	0.75	BU	884	Left Rear Wheel Speed Sensor Signal	IV	—

K17 Electronic Brake Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	—	—	—	Not Occupied	—	—
25	2	RD / VT	1940	Battery Positive Voltage	III	—
26	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	IV	—
27	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	IV	—
28	0.75	WH / BU	5986	Serial Data Communication Enable	IV	—
29	0.75	VT	882	Right Rear Wheel Speed Sensor Signal	IV	—
30	0.75	WH / BU	7128	Right Rear Wheel Speed Sensor Control	IV	—
31	—	—	—	Not Occupied	—	—
32	0.75	WH	90GB	Ground	IV	—
33	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	IV	—
34	—	—	—	Not Occupied	—	—
35	0.75	GY	830	Left Front Wheel Speed Sensor Signal	IV	—
36	0.75	GY / WH	7064	Left Front Wheel Speed Sensor Control	IV	—
37	0.75	GY	9AB	Brake Fluid Level Switch Signal	IV	—
38	1.5	BK	2150	Ground	III	—

K19 Suspension Control Module X1 (91B/91C/91D/91E)



230155

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 15492546
Service Connector: 19115333
Description: 18-Way F 150 Metri-Pack Series, Sealed(BK)

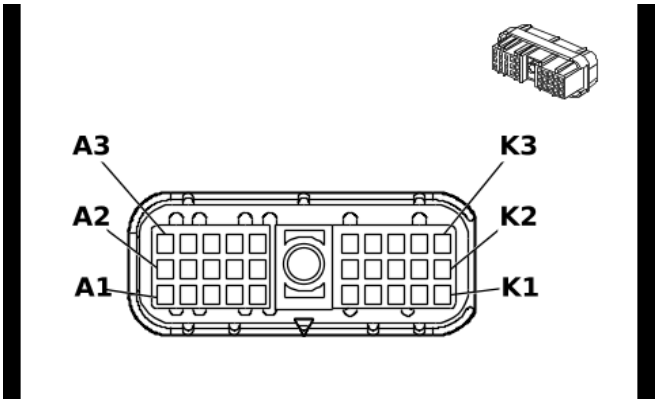
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19119774	J-35616-14 (GN)	J-38125-559

K19 Suspension Control Module X1 (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	1	PK	13LS	Ignition Voltage	I	—
A2	—	—	—	Not Occupied	—	—
A3	1	RD	14LS	Battery Positive Voltage - Fused	I	—
B1	1	GN	5LSA	Suspension CAN High	I	—
B2	—	—	—	Not Occupied	—	—
B3	1	BU	61HLA	Suspension Sensor Low Reference - Rear Left	I	—
C1	1	YE	5LSB	Suspension CAN Low	I	—
C2	—	—	—	Not Occupied	—	—
C3	1	BU	61HRA	Suspension Sensor Low Reference - Rear Right	I	—
D1 - D2	—	—	—	Not Occupied	—	—
D3	1	GY	61H	Suspension Sensor Voltage Reference	I	—
E1 - F1	—	—	—	Not Occupied	—	—
F2	1	YE	61HRB	Suspension Sensor Signal - Rear Right	I	—
F3	1	TN	61HLB	Suspension Sensor Signal - Rear Left	I	—

K19 Suspension Control Module X2 (91B/91C/91D/91E)



309412

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 15492542
Service Connector: 19115338
Description: 30-Way F 150 Metri-Pack Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19119774	J-35616-14 (GN)	J-38125-559

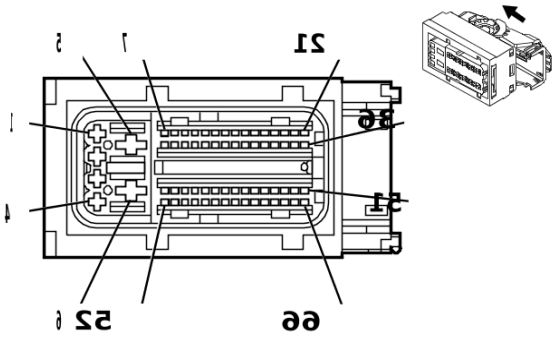
K19 Suspension Control Module X2 (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	1	GY	61DA	Rear Door Open Signal	I	—
A2	1	GY	61LSB	Steering Gear Angle Sensor Signal	I	—
A3	1	VT / GY	1054	Stop Lamp Control	I	—
B1	—	—	—	Not Occupied	—	—
B2	1	GY	61LSC	Steering Gear Angle Sensor Voltage Reference	I	—
B3	1	GY	61DB	Passenger Door Open Signal	I	—
C1	—	—	—	Not Occupied	—	—
C2	1	GY	47LS	Vehicle Speed Signal	I	—
C3	—	—	—	Not Occupied	—	—
D1	1	BU	61D	Suspension Pressure Release Solenoid Signal	I	—
D2	1	GY	61LSA	Steering Gear Angle Sensor Low Reference	I	—
D3	1.5	RD	14B	Battery Positive Voltage - Fused	I	—
E1	1	WH	10LS	Ground	I	—
E2	1.5	RD	14B	Battery Positive Voltage - Fused	I	—
E3	1.5	RD	14B	Battery Positive Voltage - Fused	I	—
F1	1.5	RD	14B	Battery Positive Voltage - Fused	I	—
F2	1.5	RD	14L	Suspension Pump Motor Control	I	—
F3	1.5	RD	14B	Battery Positive Voltage - Fused	I	—
G1	1.5	RD	14L	Suspension Pump Motor Control	I	—
G2	1.5	RD	14L	Suspension Pump Motor Control	I	—
G3	1	GY	61LI	Suspension Isolator Control Solenoid Signal - Rear Left	I	—

K19 Suspension Control Module X2 (91B/91C/91D/91E) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
H1	1.5	RD	14L	Suspension Pump Motor Control	I	—
H2	1.5	RD	14L	Suspension Pump Motor Control	I	—
H3	1	BN	61LR	Suspension Rate Control Solenoid Signal - Rear Left	I	—
J1	—	—	—	Not Occupied	—	—
J2	1	TN	61RI	Suspension Isolator Control Solenoid Signal - Rear Right	I	—
J3	1	GN	61RR	Suspension Rate Control Solenoid Signal - Rear Right	I	—
K1 - K3	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1



2498868

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 35059716
Service Connector: 19370822
Description: 66-Way F 0.64 MTS-B, 2.8 ATS, 6.3 Ducon Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584448	J-35616-64B (L-BU)	J-38125-215A
II	19354085	J-35616-4A (PU)	J-38125-215A
III	19369848	J-35616-42 (RD)	J-38125-215A

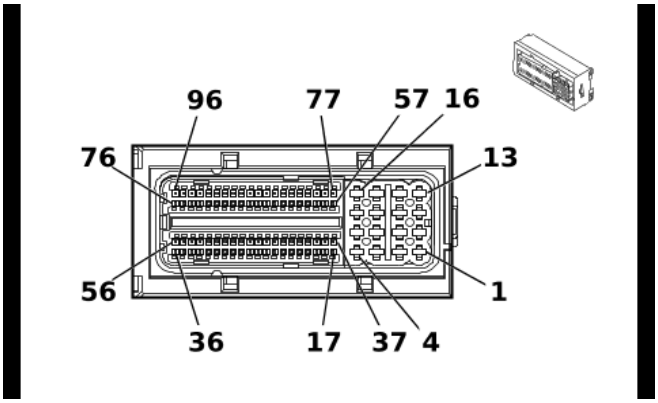
K20 Engine Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	II	—
2	0.5	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	II	—
3	—	—	—	Not Occupied	—	—
4	0.5	RD / BN	440	Battery Positive Voltage	II	—
5	2.5	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	III	—
6	4	BK / WH	451	Signal Ground	III	—
7	0.5	VT / YE	5985	Accessory Wake-Up Serial Data	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	GN / WH	492	Mass Air Flow Sensor Signal	I	—
11	0.5	BU / GY	636	Ambient Air Temperature Sensor Signal	I	—
12	—	—	—	Not Occupied	—	—
13	0.5	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
14	0.5	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
15	0.5	GN / WH	1162	Accelerator Pedal Position Signal 2	I	—
16	0.5	BK / VT	1272	Accelerator Pedal Position Low Reference 2	I	—
17 - 20	—	—	—	Not Occupied	—	—
21	0.5	YE	2928	Fuel Metering Solenoid Valve High Control	I	—
22	0.5	VT / GN	439	Run/Crank Ignition 1 Voltage	I	—
23	—	—	—	Not Occupied	—	—
24	0.5	WH / BU	6311	Cruise/ETC/TCC Brake Signal	I	—

K20 Engine Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.5	BN / GY	4008	Humidity Sensor Signal	I	—
26	0.5	BK / BU	61	Ambient Air Temperature Sensor Low Reference	I	—
27	0.5	BK / BU	1271	Accelerator Pedal Position Low Reference 1	I	—
28	0.5	YE / WH	1161	Accelerator Pedal Position Signal 1	I	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	BN / WH	419	Check Engine Indicator Control	I	—
34	0.5	GN / BN	507	Wait To Start Indicator Control	I	—
35	0.5	WH / GY	459	Air Conditioning Compressor Clutch Relay Control	I	—
36	0.5	BN / BK	2929	Fuel Metering Solenoid Valve Low Control	I	—
37 - 38	—	—	—	Not Occupied	—	—
39	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	I	—
40	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK / BN	5360	Brake Apply Sensor Low Reference	I	—
44	0.5	WH	5359	Brake Apply Sensor Control	I	—
45	0.5	WH / BU	6289	Intake Air Temperature Sensor Signal	I	—
46	0.5	BN / RD	2700	Air Conditioning Pressure Sensor 5V Reference	I	—
47	0.5	GN	380	Air Conditioning Refrigerant Pressure Sensor Signal	I	—
48	0.5	BK / BN	5514	Air Conditioning Refrigerant Pressure Sensor Low Reference	I	—
49	—	—	—	Not Occupied	—	—
50	0.5	WH / BK	2366	Cooling Fan Speed Control Signal	I	—
51	0.5	YE	5991	Powertrain Relay Coil Control	I	—
52 - 53	—	—	—	Not Occupied	—	—
54	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	I	—
55	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
56 - 58	—	—	—	Not Occupied	—	—
59	0.5	BU / YE	5361	Brake Apply Sensor Signal	I	—
60	0.5	BK / VT	2760	Intake Air Temperature Sensor Low Reference	I	—
61 - 64	—	—	—	Not Occupied	—	—
65	0.5	YE / BK	625	Starter Enable Relay Control	I	—
66	0.5	GN / GY	465	Fuel Pump Primary Relay Control	I	—

K20 Engine Control Module X2



4115094

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 12685985
Service Connector: 19370825
Description: 96-Way F 0.64 MTS-B, 2.8 ATS Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580829	J-35616-4A (PU)	J-38125-36
II	13584448	J-35616-64B (L-BU)	J-38125-215A

K20 Engine Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / GN	4806	Direct Fuel Injector High Voltage Control Cylinder 6	I	—
2	0.75	YE / GY	4807	Direct Fuel Injector High Voltage Control Cylinder 7	I	—
3	0.75	GY / BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	I	—
4	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	I	—
5	0.75	VT / GY	4906	Direct Fuel Injector High Voltage Supply Cylinder 6	I	—
6	0.75	WH / YE	4907	Direct Fuel Injector High Voltage Supply Cylinder 7	I	—
7	0.75	BU / WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	I	—
8	0.75	BN / WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	—
9	0.75	GN / GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	I	—
10	0.75	GY / WH	4908	Direct Fuel Injector High Voltage Supply Cylinder 8	I	—
11	0.75	GN / WH	4905	Direct Fuel Injector High Voltage Supply Cylinder 5	I	—
12	0.75	BU / GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	I	—
13	0.75	GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	I	—

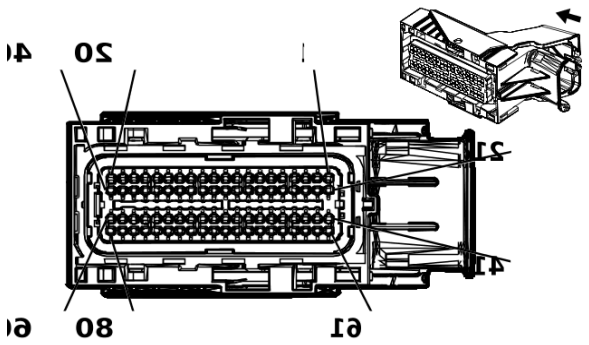
K20 Engine Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	0.75	GY	4808	Direct Fuel Injector High Voltage Control Cylinder 8	I	—
15	0.75	WH / GN	4805	Direct Fuel Injector High Voltage Control Cylinder 5	I	—
16	0.75	BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	I	—
17	0.5	BK / VT	2755	Oil Pressure Sensor Low Reference	II	—
18	0.5	YE / BN	331	Oil Pressure Sensor Signal	II	—
19	0.5	WH / RD	2705	Oil Pressure Sensor 5V Reference	II	—
20	0.5	BU / RD	5047	Exhaust Gas Recirculation Valve Position Sensor 5V Reference 1	II	—
21	0.5	BN / WH	5763	Exhaust Gas Recirculation Position Signal	II	—
22	0.5	BK / BN	2753	Exhaust Gas Recirculation Sensor Low Reference	II	—
23	—	—	—	Not Occupied	—	—
24	0.5	BN / YE	2161	Fuel Rail Pressure Sensor 2 Signal	II	—
25	—	—	—	Not Occupied	—	—
26	0.5	WH / BU	7329	Pre-Throttle Air Temperature Signal	II	—
27 - 29	—	—	—	Not Occupied	—	—
30	0.5	BU	410	Engine Coolant Temperature Sensor Signal	II	—
31	0.5	BN	25	Charge Indicator Control	II	—
32 - 36	—	—	—	Not Occupied	—	—
37	0.5	BK / GY	5296	Exhaust Camshaft Position Sensor Low Reference 1	II	—
38	0.5	VT / BK	5273	Exhaust Camshaft Position Sensor 1	II	—
39	0.5	GY / YE	5297	Exhaust Camshaft Position Sensor 1 Voltage Reference	II	—
40	0.5	VT / RD	3652	EGR Cooler Bypass Valve Position Sensor 5V Reference	II	—
41	0.5	GN / GY	3654	EGR Cooler Bypass Valve Position Sensor Signal	II	—
42	0.5	BK / BU	3653	EGR Cooler Bypass Valve Position Sensor Low Reference	II	—
43	0.5	BK / BN	2752	Throttle Position Sensor Low Reference	II	—
44	0.5	BU / WH	3630	Throttle Position Sensor SENT 1 Signal	II	—
45	0.5	BN / RD	2701	Throttle Position Sensor 5V Reference	II	—
46 - 49	—	—	—	Not Occupied	—	—
50	0.5	BK / BN	2761	Coolant Temperature Sensor Low Reference	II	—
51	0.5	GY	23	Generator Field Duty Cycle Signal	II	—
52 - 56	—	—	—	Not Occupied	—	—
57	0.5	BK / GN	2919	Fuel Rail Pressure Sensor Low Reference	II	—
58	0.5	BU / WH	2918	Fuel Rail Pressure Sensor Signal	II	—
59	0.5	BN / RD	2917	Fuel Rail Pressure Sensor 5V Reference	II	—
60	0.5	GY / RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	—
61	0.5	GN / WH	432	Manifold Absolute Pressure Sensor Signal	II	—
62	0.5	BK / GN	469	Manifold Absolute Pressure Sensor Low Reference	II	—
63 - 68	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
69	0.5	BN / BU	2926	Exhaust Aftertreatment Fuel Injector High Control	II	—
70	—	—	—	Not Occupied	—	—
71	0.5	VT / BU	6091	Crankshaft Position Sensor Replicated Signal	II	—
72	0.5	VT / BN	2927	Exhaust Aftertreatment Fuel Injector Low Control	II	—
73	—	—	—	Not Occupied	—	—
74	0.5	YE	581	Throttle Actuator Open Control	II	—
75	0.5	BN / WH	582	Throttle Actuator Close Control	II	—
76	0.75	BK / YE	2834	Fuel Rail Pressure Solenoid Valve Low Control	II	—
77 - 79	—	—	—	Not Occupied	—	—
80	0.5	BK	D40	Cavity Seal	II	—
81	0.5	BK	D41	Cavity Seal	II	—
82	0.5	BK	D42	Cavity Seal	II	—
83	—	—	—	Not Occupied	—	—
84	0.5	BK / VT	6272	Crankshaft Position Sensor Low Reference	II	—
85	0.5	GN	6271	Crankshaft Position Sensor Signal	II	—
86	0.5	VT / BU	6270	Crankshaft Position Sensor Voltage	II	—
87	0.5	BN / GN	1174	Oil Level Switch Signal	II	—
88 - 90	—	—	—	Not Occupied	—	—
91	0.5	BU / GN	7071	Fuel Heater Control	II	—
92	0.5	BN / VT	3656	EGR Cooler Bypass Valve Close Control	II	—
93	0.5	YE / GN	3655	EGR Cooler Bypass Valve Open Control	II	—
94	0.5	VT / BK	5746	Exhaust Gas Recirculation Valve Low Control	II	—
95	0.5	WH / VT	5764	Exhaust Gas Recirculation Valve High Control	II	—
96	0.75	BU / WH	2530	Fuel Rail Pressure Solenoid Valve Control	II	—

K20 Engine Control Module X3



2474736

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13782479
Service Connector: 13577545
Description: 80-Way F MX123 Series, Sealed(BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-215A

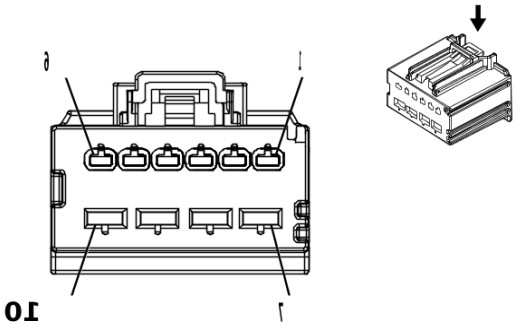
K20 Engine Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	3099	Diesel Exhaust Fluid Dosing Valve High Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GN / BU	3889	Powertrain Sensor Bus Relay Control	I	—
4 - 11	—	—	—	Not Occupied	—	—
12	0.5	YE / BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—
13	0.5	YE / BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—
14	0.5	BK / YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—
15	0.5	BK / BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	—
16	0.5	BK / VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—
17	0.5	BK / GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—
18	0.5	BK / GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—
19	0.5	BK / BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—
20	0.5	BK / BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—
21	0.75	BN / WH	3100	Diesel Exhaust Fluid Dosing Valve Low Control	I	—
22	0.5	YE / BU	1465	Secondary Fuel Pump Relay Control	I	—
23 - 24	—	—	—	Not Occupied	—	—

K20 Engine Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	0.5	WH / GN	6142	Power Take-Off Engine Shutdown Signal	I	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH / RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
29	0.5	BN / GN	5266	Barometric Pressure Sensor Signal	I	—
30 - 31	—	—	—	Not Occupied	—	—
32	0.5	GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
33	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
34	0.5	YE / GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—
35	0.5	WH / BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	—
36	0.5	BU / GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—
37	0.5	VT / BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—
38	0.5	GY / GN	5378	Exhaust Gas Temperature Sensor 3 Signal	I	—
39	0.5	BU / GN	5377	Exhaust Gas Temperature Sensor 2 Signal	I	—
40	0.5	BU / WH	5277	Exhaust Gas Temperature Sensor 1 Signal	I	—
41 - 64	—	—	—	Not Occupied	—	—
65	0.5	BK / BN	6141	Cooling Fan Speed Sensor Low Reference	I	—
66	0.5	BU / VT	2364	Cooling Fan Speed Signal	I	—
67	0.5	GY / RD	2365	Cooling Fan Speed Sensor 5V Reference	I	—
68	0.5	GY / BK	3096	Digital Output Speed Sensor 5V Reference	I	—
69	0.5	GN	3098	Output Speed Signal	I	—
70	0.5	WH / BK	3097	Digital Output Speed Sensor 5V Reference	I	—
71 - 75	—	—	—	Not Occupied	—	—
76	0.5	BK / YE	6055	Exhaust Pressure Sensor 1 Low Reference	I	—
77	0.5	BU	6053	Exhaust Pressure Sensor 1 Signal	I	—
78	0.5	WH / RD	6054	Exhaust Pressure Sensor 1 5V Reference	I	—
79 - 80	—	—	—	Not Occupied	—	—

K29 Seat Heating Control Module X1 (KA1)



3791446

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger
OEM Connector: 31372-1000
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 MX Series(BK)

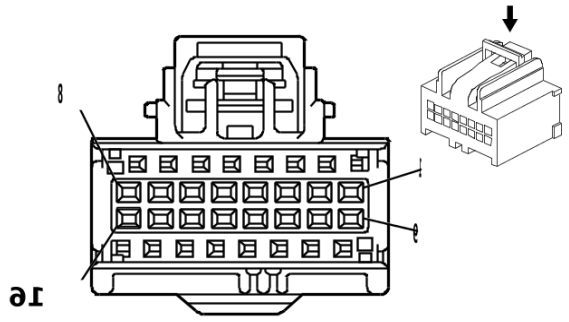
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

K29 Seat Heating Control Module X1 (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH / BN	2481	Passenger Seat Back Heating Element Control	I	—
2	0.75	BN / BU	2479	Passenger Seat Heating Element Control	I	—
3	0.75	GY / BK	2480	Passenger Seat Heating Element Low Reference	I	—
4	0.75	BN / BK	2078	Driver Seat Heating Element Low Reference	I	—
5	0.75	BN	2432	Driver Seat Back Heating Element Control	I	—
6	0.75	BN / VT	2077	Driver Seat Heating Element Control	I	—
7	0.75	RD / GN	6140	Battery Positive Voltage	II	—
8	0.75	BK	1250	Ground	II	—
9	—	—	—	Not Occupied	—	—
10	0.75	RD / GN	5140	Battery Positive Voltage	II	—

K29 Seat Heating Control Module X2 (KA1)



1653409

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger
OEM Connector: 7283-9076-30
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 0.64 Kaizen Series(BK)

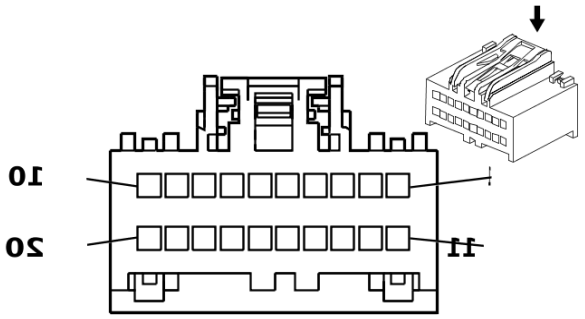
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K29 Seat Heating Control Module X2 (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / YE	2080	Driver Heated Seat Thermistor Low Reference	I	—
2	0.5	BK / GY	2435	Passenger Heated Seat Thermistor Low Reference	I	—
3	0.5	BU	2425	Driver Seat Back Heating Temperature Sensor Signal	I	—
4	0.5	WH / BU	2436	Passenger Seat Back Heating Temperature Sensor Signal	I	—
5	0.5	WH / GY	2434	Passenger Seat Heating Temperature Sensor Signal	I	—
6	0.5	YE / GY	2079	Driver Seat Heating Temperature Sensor Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	GN / BU	6133	Body Control Module LIN Bus 2	I	—
9 - 11	—	—	—	Not Occupied	—	—
12	0.5	BK / GN	2482	Passenger Heated Back Thermistor Low Reference	I	—
13 - 16	—	—	—	Not Occupied	—	—

K33 HVAC Control Module X2



1715226

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 15491305
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F USCAR 64 Series(BN)

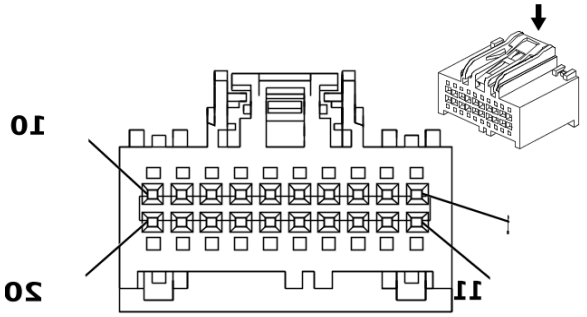
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K33 HVAC Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / VT	3340	Battery Positive Voltage	I	—
2	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	GN / YE	7531	HVAC Control Module LIN Bus 1	I	—
5	0.5	YE / GN	3196	Auxiliary Heater Status Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	VT	3195	Auxiliary Heater Control	I	—
8	0.35	BK / WH	1851	Signal Ground	I	—
9	0.5	VT / GY	539	Run/Crank Ignition 1 Voltage	I	—
10	0.5	BU / YE	7574	Air Conditioning Compressor Solenoid Valve Control	I	—
11	0.5	BU / BN	7573	Air Conditioning Compressor Solenoid Valve Control	I	—
12 - 14	—	—	—	Not Occupied	—	—
15	0.35	BU / GY	754	Blower Motor Speed Control	I	—
16	—	—	—	Not Occupied	—	—
17	0.35	GY / RD	598	5V Reference	I	—
18	0.35	BK / YE	1791	Air Temperature Door Low Reference	I	—
19	0.35	BN / VT	193	Rear Defogger Relay Control	I	—
20	—	—	—	Not Occupied	—	—

K33 HVAC Control Module X3



1715223

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 15489824
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 0.64 Series(BK)

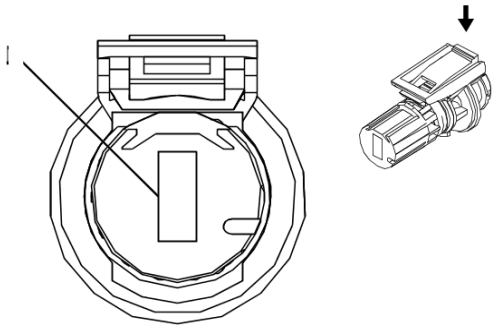
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K33 HVAC Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	YE / BN	2273	Mode Door Control	I	—
3	0.35	WH	119	Mode Door Control	I	—
4	0.35	WH / GN	2275	Mode Door 1 Position Sensor Signal	I	—
5 - 8	—	—	—	Not Occupied	—	—
9	0.35	BK / YE	407	Sensor Low Reference	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	GY / GN	2210	Air Temperature Door Control	I	—
12	0.35	BU / BN	1199	Air Temperature Door Control	I	—
13	0.35	BU / YE	733	Air Temperature Door Position Signal	I	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.35	YE / BK	2274	Air Recirculation Door Control	I	—
17	0.35	GN	1614	Air Recirculation Door Control	I	—
18	0.35	VT / GN	1838	Air Recirculation Door Position Signal	I	—
19	—	—	—	Not Occupied	—	—
20	0.35	GY	6137	Air Conditioning Evaporator Temperature Sensor Signal	I	—

K34 Glow Plug Control Module X1



3553747

Connector Part Information

Harness Type: Diesel Glowplug Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F

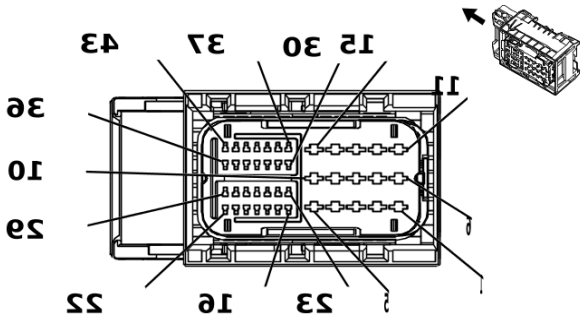
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K34 Glow Plug Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	RD	842	Battery Positive Voltage	I	—

K34 Glow Plug Control Module X2



3553744

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 12639358
Service Connector: 13576417
Description: 43-Way F 1.2, 2.8 Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576372	J-35616-4A (PU)	J-38125-556
II	19331734	J-35616-12 (BU)	J-38125-11A

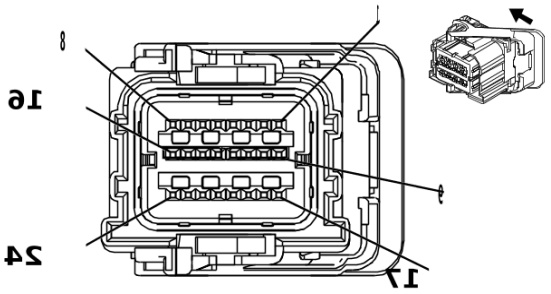
K34 Glow Plug Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	2	GY / YE	1584	Glow Plug 4 Control	I	—
3	2	GY / GN	1583	Glow Plug 3 Control	I	—
4	2	GY / BN	1582	Glow Plug 2 Control	I	—
5	2	GY / BU	1581	Glow Plug 1 Control	I	—
6 - 9	—	—	—	Not Occupied	—	—
10	2	BK	250	Ground	I	—
11	—	—	—	Not Occupied	—	—
12	2	GY / WH	1585	Glow Plug 5 Control	I	—
13	2	GY / VT	1586	Glow Plug 6 Control	I	—
14	2	WH / BK	1587	Glow Plug 7 Control	I	—
15	2	WH / BU	1588	Glow Plug 8 Control	I	—
16	0.5	BK	C92	Cavity Seal	II	—
17	0.5	BK	C93	Cavity Seal	II	—
18	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
19	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
20 - 22	—	—	—	Not Occupied	—	—
23	0.5	BK	D23	Cavity Seal	II	—
24	0.5	BK	D24	Cavity Seal	II	—
25	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
26	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—

K34 Glow Plug Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
27 - 29	—	—	—	Not Occupied	—	—
30	0.5	BK	D30	Cavity Seal	II	—
31	0.5	BK	D31	Cavity Seal	II	—
32	—	—	—	Not Occupied	—	—
33	0.5	VT / BK	2139	Run/Crank Ignition 1 Voltage	II	—
34 - 36	—	—	—	Not Occupied	—	—
37	0.5	BK	D37	Cavity Seal	II	—
38	0.5	BK	D38	Cavity Seal	II	—
39	—	—	—	Not Occupied	—	—
40	0.5	VT / YE	5985	Accessory Wake-Up Serial Data	II	—
41 - 43	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1



3240106

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35649355
Service Connector: Service by Harness - See Part Catalog
Description: 24-Way F 0.64 Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19328872	J-35616-64B (L-BU)	J-38125-11A
II	19367373	J-35616-64B (L-BU)	J-38125-215A

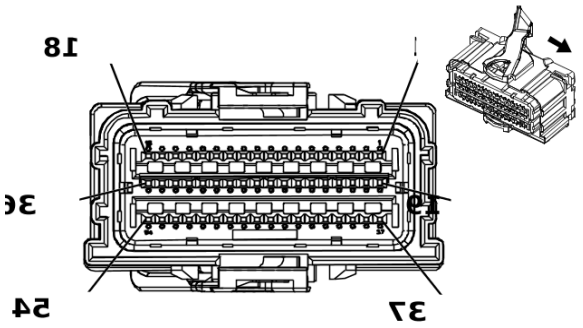
K36 Inflatable Restraint Sensing and Diagnostic Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	II	—
4	0.35	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	II	—
5	0.35	YE / OG	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	II	—
6	0.35	OG / WH	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	II	—
7	0.35	OG / VT	3026	Passenger Instrument Panel Air Bag Stage 2 Low Control	II	—
8	0.35	GY / OG	3027	Passenger Instrument Panel Air Bag Stage 2 High Control	II	—
9	0.5	RD / GN	4440	Battery Positive Voltage	I	—
10	0.35	VT / WH	5234	Passenger Seat Belt Indicator Control	II	—
11	0.35	BU	2307	Passenger Air Bag On Indicator Control	II	—
12	0.35	GN	2308	Passenger Air Bag Off Indicator Control	II	—
13	0.35	VT / OG	371	Passenger Supplemental Inflatable Restraint Disable Switch Signal	II	—
14	0.35	BU / OG	7328	Passenger Supplemental Inflatable Restraint Disable Switch Low Reference	II	—
15	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—
17	0.5	WH / BU	5986	Serial Data Communication Enable	I	—
18	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19	0.75	BK / WH	2751	Signal Ground	II	—
20	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
21 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2



2817420

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13944372
Service Connector: 19303770
Description: 54-Way F 0.64 Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19328872	J-35616-64B (L-BU)	J-38125-11A

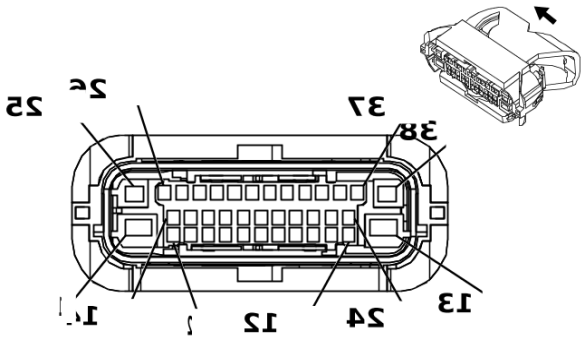
K36 Inflatable Restraint Sensing and Diagnostic Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 12	—	—	—	Not Occupied	—	—
13	0.35	OG / BU	3068	Driver Seat Side Air Bag High Control	I	—
14	0.35	GN / OG	3069	Driver Seat Side Air Bag Low Control	I	—
15	0.35	BN / OG	3067	Passenger Seat Side Air Bag Low Control	I	—
16	0.35	OG / GY	3066	Passenger Seat Side Air Bag High Control	I	—
17	0.35	OG / GN	5019	Left Front Roof Rail Air Bag High Control	I	—
18	0.35	VT / OG	5020	Left Front Roof Rail Air Bag Low Control	I	—
19	0.35	OG / GN	2132	Left Front Side Impact Sensor Signal	I	—
20	0.35	BK / OG	6628	Left Front Side Impact Sensor Low Reference	I	—
21	0.35	BK / OG	6629	Right Front Side Impact Sensor Low Reference	I	—
22	0.35	BN / OG	2134	Right Front Side Impact Sensor Signal	I	—
23	0.5	OG / GY	6618	Front Middle Impact Discriminating Sensor Signal	I	—
24	0.5	BK / OG	6619	Front Middle Impact Discriminating Sensor Low Reference	I	—
25 - 26	—	—	—	Not Occupied	—	—
27	0.35	OG / BU	6620	Left Middle Side Impact Sensor Signal	I	—
28	0.35	BK / OG	6621	Left Middle Side Impact Sensor Low Reference	I	—
29	0.35	BK / OG	6625	Right Middle Side Impact Sensor Low Reference	I	—
30	0.35	OG / VT	6624	Right Middle Side Impact Sensor Signal	I	—
31 - 36	—	—	—	Not Occupied	—	—
37	0.5	RD	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
38	0.5	GY	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—
39	0.5	WH	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—
40	0.5	GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—
41	0.35	OG / BN	238	Driver Seat Belt Switch Signal	I	—
42	—	—	—	Not Occupied	—	—
43	0.35	BK / OG	1363	Driver Seat Belt Switch Low Reference	I	—
44 - 52	—	—	—	Not Occupied	—	—
53	0.35	OG / GY	5021	Right Front Roof Rail Air Bag High Control	I	—
54	0.35	WH / OG	5022	Right Front Roof Rail Air Bag Low Control	I	—

K38A Chassis Control Module - Auxiliary (JL1)



3240111

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 33102981
Service Connector: 19329471
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13582180	J-35616-14 (GN)	EL-38125-560A
II	19301775	J-35616-42 (RD)	J-38125-556
III	85533337	J-35616-35 (VT)	J-38125-11A

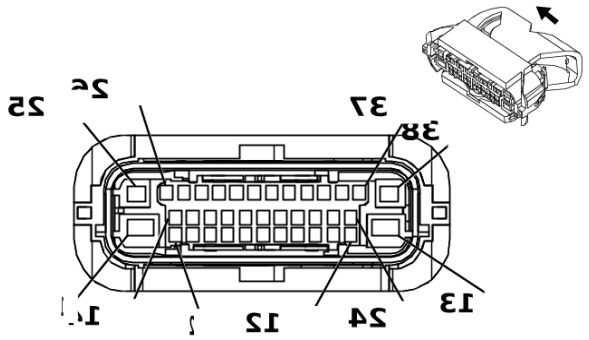
K38A Chassis Control Module - Auxiliary (JL1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	RD	2040	Battery Positive Voltage	II	—
2 - 12	—	—	—	Not Occupied	—	—
13	1	BK	1750	Ground	II	—
14	0.5	VT / YE	5985	Accessory Wake-Up Serial Data	I	—
15	—	—	—	Not Occupied	—	—
16	0.5	BU / RD	7632	Trailer Brake Control Switch 5V Reference	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	BN	7634	Trailer Brake Control Redundant Manual Apply Signal	I	—
19	0.5	BK / BN	7631	Trailer Brake Control Switch Low Reference	I	—
20	0.5	YE	7635	Trailer Brake Control Manual Apply Signal	I	—
21	0.5	GN / BK	7633	Trailer Brake Control User Gain Signal	I	—
22	0.5	YE / BK	2224	Trailer Brake Enable Signal	I	—
23	0.5	WH / BK	2223	Trailer Brake Apply Signal	I	—
24	—	—	—	Not Occupied	—	—
25	1.5	VT / GN	439	Run/Crank Ignition 1 Voltage	III	—
26	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
27	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
28	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
29	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

K38A Chassis Control Module - Auxiliary (JL1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
30	0.5	GN / VT	4114	Chassis Control Module LIN Bus 1	I	—
31 - 38	—	—	—	Not Occupied	—	—

K44 Power Take-Off Control Module X1 (PTO)



3240111

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13924619
Service Connector: 19119894
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed(BK with BK Inner Connector)

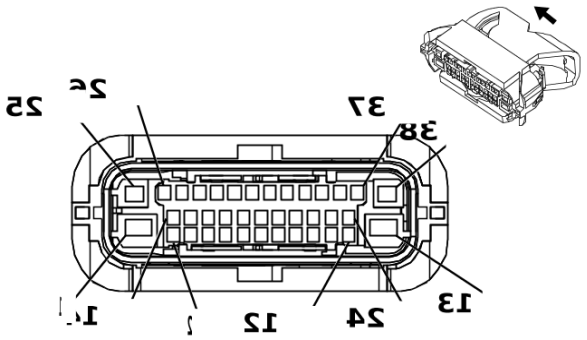
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368624	J-35616-35 (VT)	J-38125-212
II	19369235	J-35616-14 (GN)	EL-38125-560A
III	85158596	J-35616-40 (BU)	EL-38125-560A

K44 Power Take-Off Control Module X1 (PTO)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD / BU	4540	Battery Positive Voltage	III	—
2 - 12	—	—	—	Not Occupied	—	—
13	1.5	BK / WH	451	Signal Ground	III	—
14	0.5	WH / BU	5986	Serial Data Communication Enable	II	—
15	0.5	GN / WH	488	Power Take-Off Control Switch Signal	II	—
16 - 17	—	—	—	Not Occupied	—	—
18	0.5	BN / GN	4311	Power Take-Off Enable Cabin Switch Normally Closed Signal	II	—
19 - 24	—	—	—	Not Occupied	—	—
25	0.75	BN / WH	6085	Power Take-Off Remote Engine Start Switch Signal	I	—
26	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
27	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	II	—
28	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
29	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	II	—
30 - 38	—	—	—	Not Occupied	—	—

K44 Power Take-Off Control Module X2 (PTO)



3638282

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13655518
Service Connector: 19303771
Description: 38-Way F 1.5, 2.8, 4.8 MCP Series, Sealed(BK with BN Inner Connector)

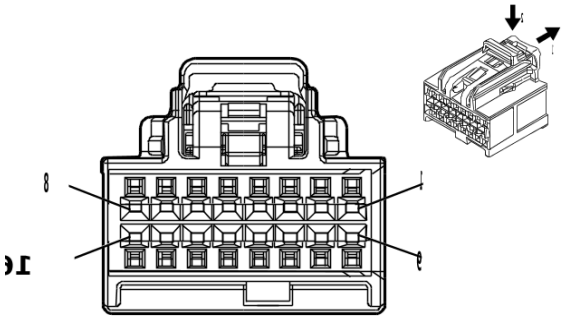
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19369235	J-35616-14 (GN)	EL-38125-560A

K44 Power Take-Off Control Module X2 (PTO)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 7	—	—	—	Not Occupied	—	—
8	0.75	YE	2522	Power Take-Off Status Signal	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.5	VT / BU	2562	Power Take-Off Relay Coil Control	I	—
12 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH / GN	6142	Power Take-Off Engine Shutdown Signal	I	—
29 - 34	—	—	—	Not Occupied	—	—
35	0.5	BU / GY	6089	Power Take-Off Remote Switch Set Signal 1	I	—
36	0.75	BU / BN	4408	Power Take-Off Enable Signal	I	—
37	0.75	BN	6381	Power Take-Off Relay Engage Signal	I	—
38	—	—	—	Not Occupied	—	—

K56 Serial Data Gateway Module X1



4873243

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35016343
Service Connector: 13519738
Description: 16-Way F 0.64 OCS Series(BK)

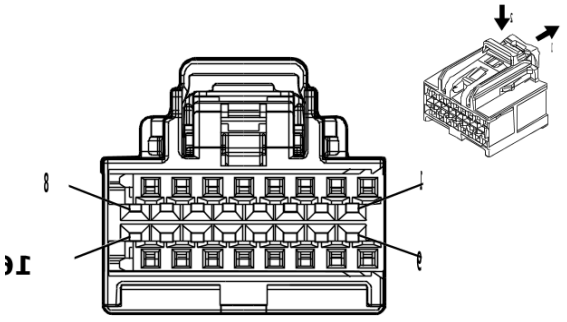
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354230	J-35616-64B (L-BU)	J-38125-215A

K56 Serial Data Gateway Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / VT	3340	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	BU / GN	1304	High Speed GMLAN Serial Data [+] 9	I	—
4	0.35	WH / GN	1305	High Speed GMLAN Serial Data [-] 9	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	BK / WH	1851	Signal Ground	I	—
7	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
8	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	WH / BU	5986	Serial Data Communication Enable	I	—
11	0.35	BU / GN	1304	High Speed GMLAN Serial Data [+] 9	I	—
12	0.35	WH / GN	1305	High Speed GMLAN Serial Data [-] 9	I	—
13	0.35	BU / GN	1304	High Speed GMLAN Serial Data [+] 9	I	—
14	0.35	WH / GN	1305	High Speed GMLAN Serial Data [-] 9	I	—
15	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—

K56 Serial Data Gateway Module X2



4873254

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35016344
Service Connector: 13519739
Description: 16-Way F 0.64 OCS Series(GY)

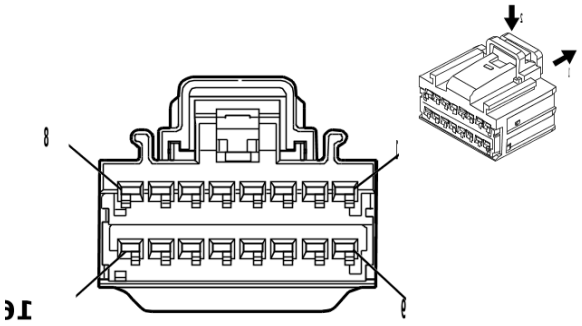
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300660	J-35616-64B (L-BU)	J-38125-215A

K56 Serial Data Gateway Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
2	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
3 - 6	—	—	—	Not Occupied	—	—
7	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
8	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	GY / GN	1102	Low Speed GMLAN Serial Data 2	I	—
11 - 14	—	—	—	Not Occupied	—	—
15	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
16	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—

K69 Transfer Case Control Module X1 (NQF)



4847548

Connector Part Information

Harness Type: Auxiliary Fuse Block Wiring Harness
OEM Connector: 15512507
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 OCS Series(GY)

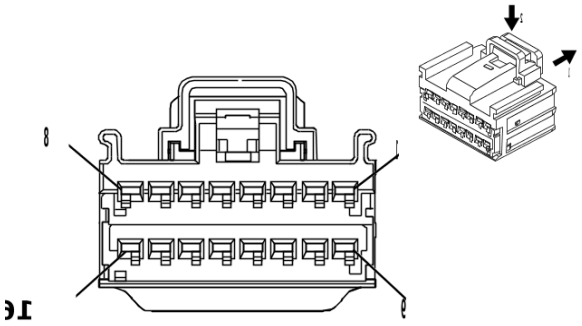
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

K69 Transfer Case Control Module X1 (NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT	7476	Incremental Encoder Sensor Low Reference	I	—
2	0.35	BU / GY	7473	Incremental Encoder Impulse Signal	I	—
3	0.35	YE	7474	Incremental Encoder Direction Signal	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.35	GY / RD	6029	Four Wheel Drive Mode Switch 5V Reference	I	—
7	0.35	BU / YE	1693	Four Wheel Drive Switch Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	WH / GN	7475	Incremental Encoder Sensor 8V Reference	I	—
10 - 16	—	—	—	Not Occupied	—	—

K69 Transfer Case Control Module X2 (NQF)



4332214

Connector Part Information

Harness Type: Auxiliary Fuse Block Wiring Harness
OEM Connector: 15512506
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 OCS Series(BK)

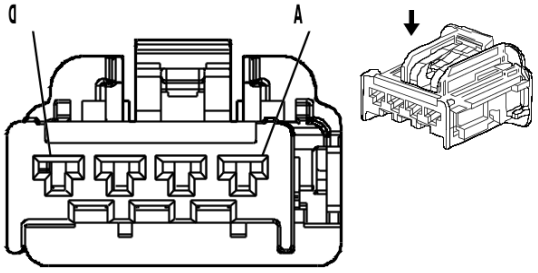
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

K69 Transfer Case Control Module X2 (NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	VT / WH	1565	4WD LO Indicator Control	I	—
4	0.35	VT / GN	1739	Run/Crank Ignition 1 Voltage	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	VT / YE	5985	Accessory Wake-Up Serial Data	I	—
7	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
8	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
9 - 11	—	—	—	Not Occupied	—	—
12	0.35	BN	1560	Neutral Indicator Control	I	—
13	0.35	GN / BK	1563	2WD HI Indicator Control	I	—
14	0.35	BN / BK	1566	4WD HI Indicator Control	I	—
15	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
16	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

K69 Transfer Case Control Module X3 (NQF)



1866237

Connector Part Information

Harness Type: Auxiliary Fuse Block Wiring Harness
OEM Connector: 15466671
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 GT Series(L-GY)

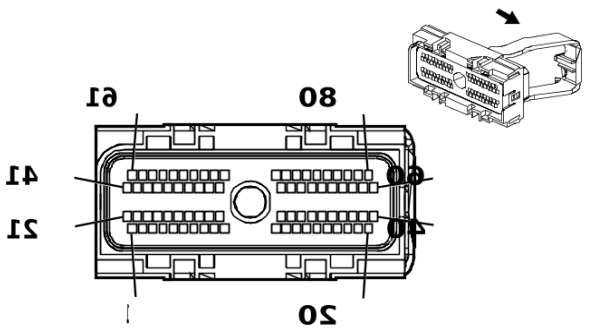
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

K69 Transfer Case Control Module X3 (NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	YE / VT	1553	Transfer Case Motor Counter Clockwise Control	I	—
B	1	YE / GY	1552	Transfer Case Motor Clockwise Control	I	—
C	3	RD / GY	1342	Battery Positive Voltage	I	—
D	3	BK	550	Ground	I	—

K71 Transmission Control Module



1864287

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 15499493
Service Connector: 88988938
Description: 80-Way F 1.5 Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19331093	J-35616-14 (GN)	J-38125-217

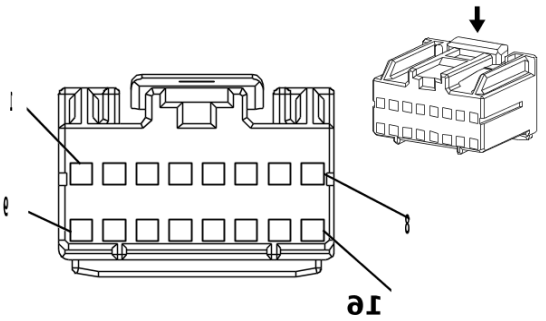
K71 Transmission Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	—	—	—	Not Occupied	—	—
6	0.75	YE	2500	High Speed GMLAN Serial Data [+] 1	I	—
7 - 8	—	—	—	Not Occupied	—	—
9	1	BK	AL109	Ground	I	—
10	1	RD	AL110	Battery Positive Voltage	I	—
11	0.75	OG	AL111	Transmission Solenoid Supply	I	—
12 - 13	—	—	—	Not Occupied	—	—
14	0.75	GY	AL114	Transmission Position Switch Bit 3 Signal	I	—
15 - 16	—	—	—	Not Occupied	—	—
17	0.75	BU	AL117	Transmission Fluid Pressure Switch Signal Bit 1	I	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.75	BU	AL120	Transmission Turbine Speed Signal	I	—
21 - 22	—	—	—	Not Occupied	—	—
23	0.75	GN	AL123	Run/Crank Ignition 1 Voltage	I	—
24	—	—	—	Not Occupied	—	—
25	0.75	VT / BN	AL125	Vehicle Speed Signal	I	—
26	—	—	—	Not Occupied	—	—
27	0.75	GN	2501	High Speed GMLAN Serial Data [-] 1	I	—
28 - 30	—	—	—	Not Occupied	—	—
31	0.75	YE	AL131	Transmission Solenoid Supply	I	—
32	—	—	—	Not Occupied	—	—
33	0.75	YE	AL133	2 Shift Solenoid Valve Control	I	—

K71 Transmission Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
34	0.75	WH	AL134	Transmission Position Switch Parity Bit Signal	I	—
35	—	—	—	Not Occupied	—	—
36	0.75	OG	AL136	Pressure Control Solenoid Valve 2 Low Control	I	—
37	0.75	WH	AL137	Low Reference	I	—
38	0.75	OG	AL138	Transmission Park/Neutral Signal 1	I	—
39	—	—	—	Not Occupied	—	—
40	0.75	GN	AL140	Transmission Output Shaft Speed Signal	I	—
41 - 50	—	—	—	Not Occupied	—	—
51	0.75	WH	AL151	3 Shift Solenoid Valve Control	I	—
52	0.75	GN	AL152	1 Shift Solenoid Valve Control	I	—
53	0.75	YE	AL153	Transmission Position Switch Bit 2 Signal	I	—
54	0.75	TN	AL154	Transmission Temperature Sensor Signal	I	—
55	0.75	WH	AL155	Pressure Control Solenoid Valve 1 Low Control	I	—
56	—	—	—	Not Occupied	—	—
57	0.75	WH	AL157	Transmission Fluid Pressure Switch Signal Bit 3	I	—
58	0.75	GN	AL158	Transmission Fluid Temperature Sensor Low Reference	I	—
59	—	—	—	Not Occupied	—	—
60	0.75	YE	AL160	9Volt Reference	I	—
61 - 62	—	—	—	Not Occupied	—	—
63	0.75	YE	AL163	Serial Data Communication Enable	I	—
64 - 68	—	—	—	Not Occupied	—	—
69	1	BK	AL169	Ground	I	—
70	1	RD	AL170	Battery Positive Voltage	I	—
71	0.75	YE	AL171	Transmission Solenoid Supply	I	—
72	—	—	—	Not Occupied	—	—
73	0.75	BU	AL173	Transmission Position Switch Bit 1 Signal	I	—
74	0.75	BU	AL174	Transmission Mainline Pressure Solenoid Control	I	—
75 - 76	—	—	—	Not Occupied	—	—
77	0.75	GN	AL177	Transmission Fluid Pressure Switch Signal Bit 4	I	—
78	0.75	WH	AL178	Torque Converter Clutch PWM Solenoid Control	I	—
79	0.75	RD	AL179	Transmission Fluid Pressure Switch Signal Bit 2	I	—
80	0.75	OG	AL180	9Volt Reference	I	—

K73 Telematics Communication Interface Control Module X1 (UE1)



1471689

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15431362
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series(NA)

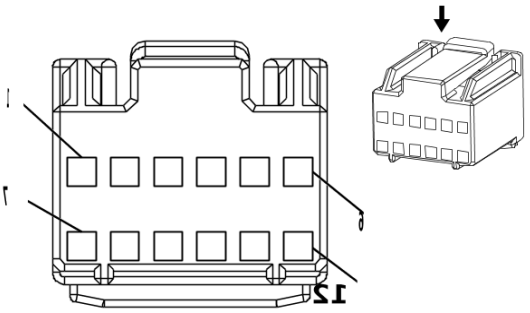
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575546	J-35616-16 (L-GN)	J-38125-559

K73 Telematics Communication Interface Control Module X1 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / GN	1102	Low Speed GMLAN Serial Data 2	I	—
2	0.35	BN / WH	2517	Telematics Switch Red LED Indicator Control	I	—
3	0.35	YE / VT	2516	Telematics Switch Green LED Indicator Control	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.35	GN / BK	2515	Telematics Switch Supply Voltage	I	—
7	0.35	BK	2550	Ground	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.35	BU / GN	1304	High Speed GMLAN Serial Data [+] 9	I	—
11	0.35	GN / WH	2514	Telematics Switch Signal	I	—
12	0.35	WH / GN	1305	High Speed GMLAN Serial Data [-] 9	I	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.35	RD / BU	3240	Battery Positive Voltage	I	—
16	—	—	—	Not Occupied	—	—

K73 Telematics Communication Interface Control Module X2 (UE1)



1471691

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15431365
Service Connector: 88952886
Description: 12-Way F 100A Micro-Pack Series(NA)

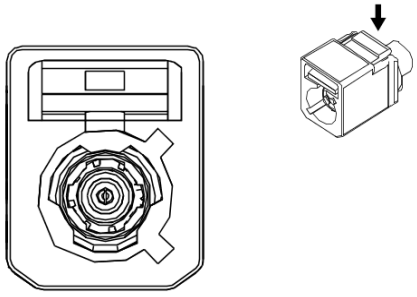
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578873	J-35616-64B (L-BU)	J-38125-559

K73 Telematics Communication Interface Control Module X2 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	658	Cellular Telephone Voice Signal	I	—
2	0.35	BK / YE	659	Cellular Telephone Voice Low Reference	I	—
3	0.5	BU / GN	1304	High Speed GMLAN Serial Data [+] 9	I	—
4	0.5	WH / GN	1305	High Speed GMLAN Serial Data [-] 9	I	—
5	0.5	Bare	1792	Low Reference	I	—
6	0.35	GY / YE	5149	Voice Recognition Audio Signal	I	—
7	0.35	WH / BU	5986	Serial Data Communication Enable	I	—
8	0.35	Bare	1782	Low Reference	I	—
9	0.35	BU	655	Cellular Telephone Microphone Signal	I	—
10	0.35	BK / BN	654	Cellular Telephone Microphone Low Reference	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	BK / GY	5152	Voice Recognition Audio [-] Control	I	—

K73 Telematics Communication Interface Control Module X5 (UE1)



3963611

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13591273
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(VT)

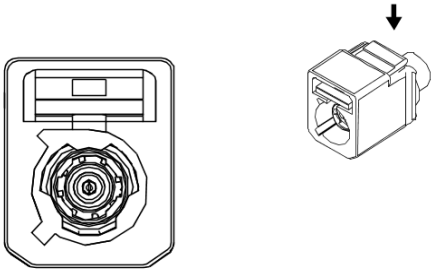
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K73 Telematics Communication Interface Control Module X5 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(Cell only) Coaxial Antenna Cell Phone Signal	I	—

K73 Telematics Communication Interface Control Module X7 (UE1)



4002773

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13591276
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BN)

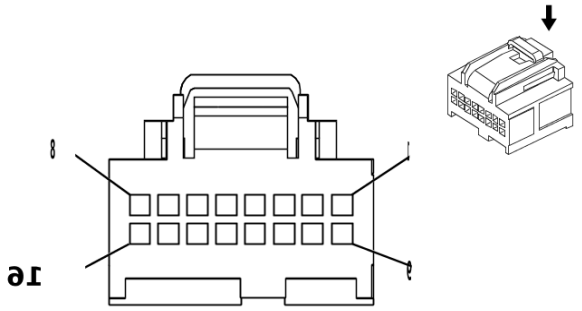
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K73 Telematics Communication Interface Control Module X7 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(GPS only) Coaxial Antenna GPS Signal	I	—

K74 Human Machine Interface Control Module X1 (IO5)



3240102

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35013094
Service Connector: 13519737
Description: 16-Way F 0.64 OCS Series(BK)

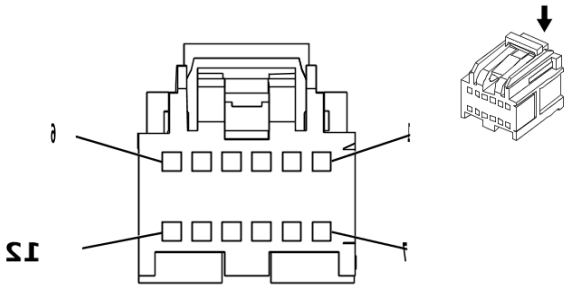
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84619127	J-35616-64B (L-BU)	J-38125-215A

K74 Human Machine Interface Control Module X1 (IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35 0.35	GY / YE BU	5149 655	Voice Recognition Audio Signal Cellular Telephone Microphone Signal	I I	UE1 - UE1
2	0.35 0.35	BK / GY BK / BN	5152 654	Voice Recognition Audio [-] Control Cellular Telephone Microphone Low Reference	I I	UE1 - UE1
3 - 4	—	—	—	Not Occupied	—	—
5	0.35	WH / BU	5986	Serial Data Communication Enable	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	RD / VT	340	Battery Positive Voltage	I	—
8	0.75	BK	2550	Ground	I	—
9	0.5	GN / WH	7527	Human Machine Interface Control Module LIN Bus 1	I	—
10	—	—	—	Not Occupied	—	—
11	0.5 0.35	BU / GN BU / GN	1304 1304	High Speed GMLAN Serial Data [+] 9 High Speed GMLAN Serial Data [+] 9	I I	UE1 - UE1
12	0.5 0.35	WH / GN WH / GN	1305 1305	High Speed GMLAN Serial Data [-] 9 High Speed GMLAN Serial Data [-] 9	I I	UE1 - UE1
13	0.5	BU / GN	1304	High Speed GMLAN Serial Data [+] 9	I	—
14	0.5	WH / GN	1305	High Speed GMLAN Serial Data [-] 9	I	—
15 - 16	—	—	—	Not Occupied	—	—

K74 Human Machine Interface Control Module X2 (IO5)



3240099

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35013145
Service Connector: 19370823
Description: 12-Way F 0.64 OCS Series(GY)

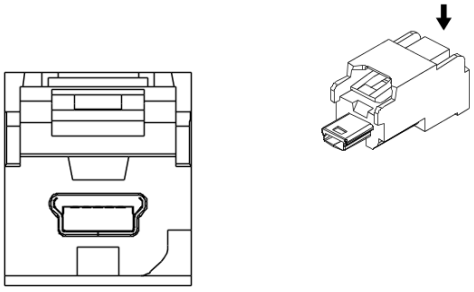
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300660	J-35616-64B (L-BU)	J-38125-215A

K74 Human Machine Interface Control Module X2 (IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / VT	3999	MOST Bus Control	I	—
2	0.5	WH / GN	3997	MOST Bus Serial Data [-]	I	—
3	0.5	GY / VT	3998	MOST Bus Serial Data [+]	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GY / YE	6972	Rearview Camera Signal [+]	I	—
6	0.35	WH / BU	6973	Rearview Camera Signal [-]	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	GY / VT	3998	MOST Bus Serial Data [+]	I	—
9	0.5	WH / GN	3997	MOST Bus Serial Data [-]	I	—
10 - 12	—	—	—	Not Occupied	—	—

K74 Human Machine Interface Control Module X3 (IO5)



3028808

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13585557
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(BK)

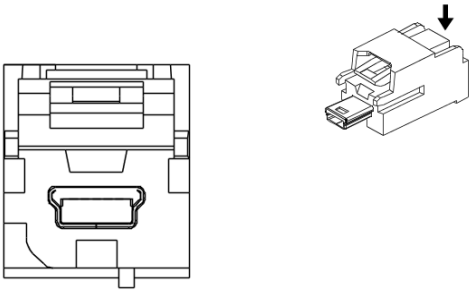
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K74 Human Machine Interface Control Module X3 (IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

K74 Human Machine Interface Control Module X4 (IO5)



3028811

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13585554
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(GN)

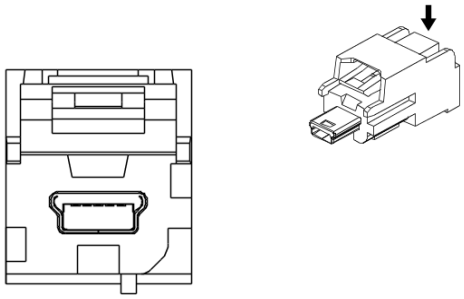
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K74 Human Machine Interface Control Module X4 (IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

K74 Human Machine Interface Control Module X5 (IO5)



3028810

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13585542
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(BU)

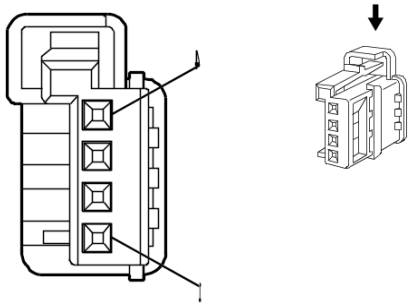
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K74 Human Machine Interface Control Module X5 (IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

K77 Remote Control Door Lock Receiver



2179793

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 10768790
Service Connector: 84724190
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

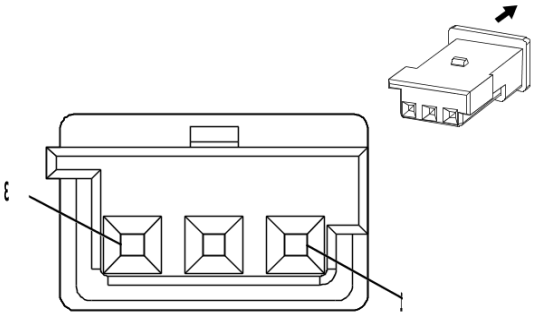
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K77 Remote Control Door Lock Receiver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	3273	Remote Control Door Lock Receiver Low Reference	I	—
2	0.35	YE / GN	3274	Remote Control Door Lock Receiver Transmit Signal	I	—
3	0.35	BU / WH	3275	Remote Control Door Lock Receiver Receive Signal	I	—
4	0.35	GY / WH	3272	Remote Control Door Lock Receiver Control	I	—

K89 Immobilizer Control Module



2179789

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: 19153569
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F Micro-Quadlock Series(PU)

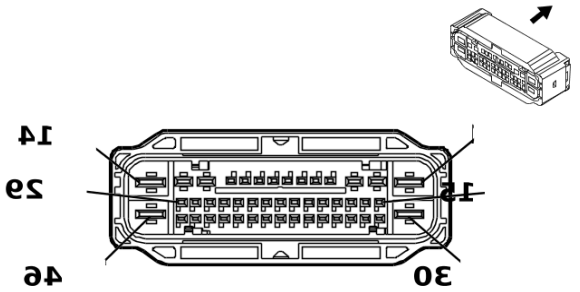
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K89 Immobilizer Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / GY	3277	Vehicle Anti-Theft System Immobilizer Low Reference	I	—
2	0.5	GN / VT	7533	Immobilizer LIN Bus 1	I	—
3	0.35	GY / BK	3276	Immobilizer Control Module Control	I	—

K111 Fuel Pump Driver Control Module



4162046

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 33222138
Service Connector: 19333026
Description: 46-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575368	J-35616-35 (VT)	J-38125-36
II	19370818	J-35616-12 (BU)	J-38125-215A
III	84634921	J-35616-42 (RD)	J-38125-212

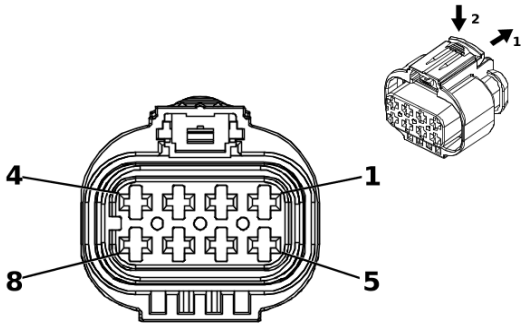
K111 Fuel Pump Driver Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	WH / BN	4138	Fuel Pump Supply Voltage Phase 3	III	—
2	1.5	GY	120	Fuel Pump Control	I	—
3	2	GY / BN	439	Run/Crank Ignition 1 Voltage	I	—
4	0.5	WH / RD	6862	Water In Fuel Sensor Voltage Reference	II	—
5	—	—	—	Not Occupied	—	—
6	0.75	BU	10131	Fuel Balance Pump Disable Control	II	—
7	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	II	—
8	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
9	—	—	—	Not Occupied	—	—
10	0.75	VT / GN	4320	Powertrain Sensor Bus Enable	II	—
11	0.5	GN / GY	465	Fuel Pump Primary Relay Control	II	—
12	—	—	—	Not Occupied	—	—
13	2.5	GY	1058	Fuel Transfer Pump Control	I	—
14	2.5	BK	A50	Ground	III	—
15	0.75	BK	7444	Fuel Pump Assembly Shield Ground	II	—
16	0.5	BK / YE	6861	Water In Fuel Sensor Signal	II	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.5	BN / RD	7445	Fuel Line Pressure Sensor 5V Reference	II	—
20	0.5	WH / BU	7446	Fuel Pressure Sensor Signal	II	—
21	0.5	BK / GN	6281	Fuel Level Sensor Low Reference	II	—

K111 Fuel Pump Driver Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	0.5	BK	6282	Fuel Level Sensor 2 Low Reference	II	—
23	0.5	WH	6863	Water In Fuel Sensor Low Reference	II	—
24	0.5	BK	412	Fuel Filter Temperature Sensor Low Reference	II	—
25 - 29	—	—	—	Not Occupied	—	—
30	1.5	YE / GY	4137	Fuel Pump Supply Voltage Phase 2	III	—
31 - 34	—	—	—	Not Occupied	—	—
35	0.5	BK / YE	7447	Fuel Pressure Sensor Low Reference	II	—
36	0.5	GY / BN	455	Fuel Filter Temperature Signal	II	—
37	0.5	GY / BN	1589	Primary Fuel Level Sensor Signal	II	—
38	0.5	BU	1937	Secondary Fuel Level Sensor Signal	II	—
39 - 43	—	—	—	Not Occupied	—	—
44	0.75	BK / YE	2737	Fuel Balance Pump Ground	II	—
45	—	—	—	Not Occupied	—	—
46	2.5	RD / VT	A40	Battery Positive Voltage	III	—

K115 Reductant Control Module X1



3749581

Connector Part Information

Harness Type: Emission Reduction Fluid Tank Reservoir Wire Harness - Module
OEM Connector: 15530717
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series, Sealed(BK)

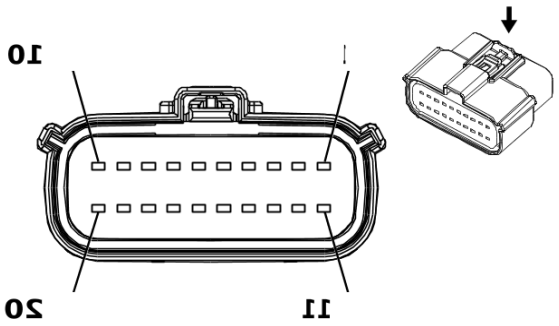
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

K115 Reductant Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / WH	3440	Battery Positive Voltage	I	—
2	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
3	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	II	—
4	2.5	BK	550	Ground	I	—
5	2.5	PU / GN	4320	Powertrain Sensor Bus Enable	I	—
6	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	II	—
7	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	II	—
8	2.5	BU	3921	Diesel Exhaust Fluid Heater Control 1	I	—

K115 Reductant Control Module X2



2871898

Connector Part Information

Harness Type: Emission Reduction Fluid Tank Reservoir Wire Harness - Tank
OEM Connector: 13650143
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required

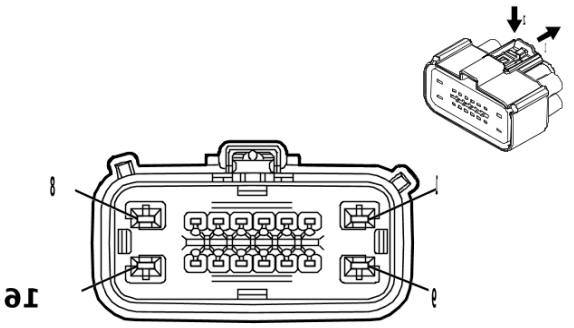
K115 Reductant Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BN	3876	Diesel Exhaust Fluid Smart Pump Supply Voltage Phase 3	II	—
2	1	BU	3875	Diesel Exhaust Fluid Smart Pump Supply Voltage Phase 2	II	—
3	1	WH	3103	Diesel Exhaust Fluid Smart Pump Control	II	—
4	1	BK	4318	Diesel Exhaust Fluid Tank Heater Low Control	II	—
5	1	BN	3104	Diesel Exhaust Fluid Smart Pump Low Reference	II	—
6	0.5	BK	7285	Diesel Exhaust Fluid Liquid Quality Temperature Sensor Low Reference	I	—
7	1	BN	3199	Diesel Exhaust Fluid Pressure Line Heater Control	II	—
8	—	—	—	Not Occupied	—	—
9	0.5	BN	3244	Diesel Exhaust Fluid Tank Temperature Sensor Signal	I	—
10	0.5	BK	3245	Diesel Exhaust Fluid Tank Temperature Sensor Low Reference	I	—
11	1	WH	3677	Diesel Exhaust Fluid Reservoir Heater Control	II	—
12	0.5	BN	3106	Diesel Exhaust Fluid Pressure Sensor 5 Volt Reference	I	—
13	0.5	BU	3108	Diesel Exhaust Fluid Pressure Sensor Signal	I	—
14	0.5	BN	3107	Diesel Exhaust Fluid Pressure Sensor Low Reference	I	—
15 - 17	—	—	—	Not Occupied	—	—

K115 Reductant Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	0.5	BN	53	Diesel Exhaust Fluid Quality Signal	I	—
19	0.5	BU	7286	Diesel Exhaust Fluid Sensor Voltage Reference 2	I	—
20	1	YE	4319	Diesel Exhaust Fluid Line Heater Low Control	II	—

K133 Trailer Brake Power Control Module (JL1)



4624589

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 34985-4016
Service Connector: 13599889
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(GY)

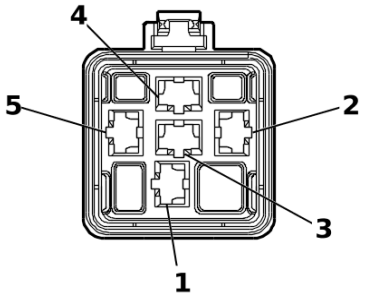
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217

K133 Trailer Brake Power Control Module (JL1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	RD / GN	1142	Battery Positive Voltage	I	—
2	0.5	WH / BK	2223	Trailer Brake Apply Signal	II	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	YE / BK	2224	Trailer Brake Enable Signal	II	—
6 - 7	—	—	—	Not Occupied	—	—
8	3	BU	47	Trailer Auxiliary Control	I	—
9	3	BK	1750	Ground	I	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	GN / VT	4114	Chassis Control Module LIN Bus 1	II	—
13 - 16	—	—	—	Not Occupied	—	—

KR14 Brake Booster Pump Motor Relay



5168820

Connector Part Information

Harness Type: Brake Pedal Position Sensor Harness
OEM Connector: 1661747C91
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way F 630 Metri-Pack Series, Sealed(BK)

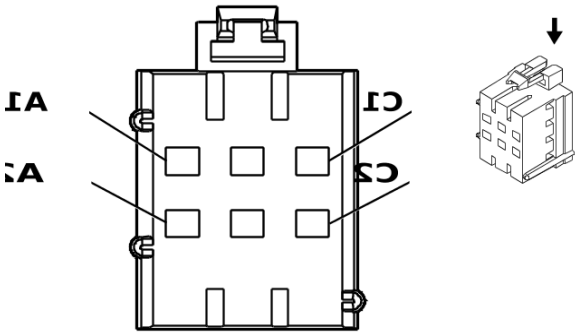
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

KR14 Brake Booster Pump Motor Relay

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD	90F	Brake Booster Pump Supply	I	—
2	1	GY	90DA	Brake Booster Pump Motor Relay High Control	I	—
3	—	—	—	Not Occupied	—	—
4	5	GY	90E	Battery Positive Voltage	I	—
5	1	GY	90A	Brake Booster Pump Motor Relay Low Control	I	—

KR193 Rear Air Suspension Control Valve Relay



309518

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12129715
Service Connector: 12129715
Description: 6-Way F 280 Metri-Pack Flexlock Series(GY)

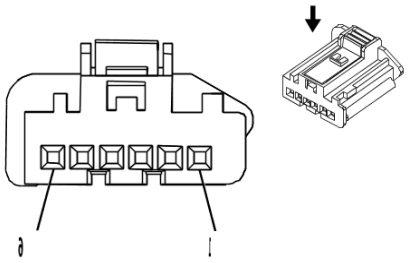
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

KR193 Rear Air Suspension Control Valve Relay

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	YE	321	Vehicle Level Control Relay Coil Control	I	—
A2	0.35 0.5	WH / GN WH / GN	320 320	Vehicle Level Control Exhaust Solenoid Valve Control Vehicle Level Control Exhaust Solenoid Valve Control	I	— —
B1	—	—	—	Not Occupied	—	—
B2	0.5	GN	10138	Automatic Level Control Inflator Solenoid Control	I	—
C1	0.5	VT / WH	1139	Run/Crank Ignition 1 Voltage	I	—
C2	0.35	VT / BU	5956	Vehicle Leveling Compressor Relay Coil Control	I	—

M4 Air Inlet Door Actuator



2754489

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 13576054
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Micro-Quadlock Series(BK)

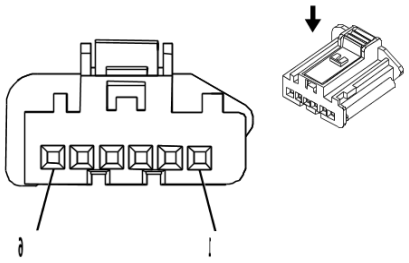
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

M4 Air Inlet Door Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / YE	1791	Air Temperature Door Low Reference	I	—
2	0.35	VT / GN	1838	Air Recirculation Door Position Signal	I	—
3	0.35	GY / RD	598	5V Reference	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GN	1614	Air Recirculation Door Control	I	—
6	0.35	YE / BK	2274	Air Recirculation Door Control	I	—

M6 Air Temperature Door Actuator



2754489

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 13576054
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Micro-Quadlock Series(BK)

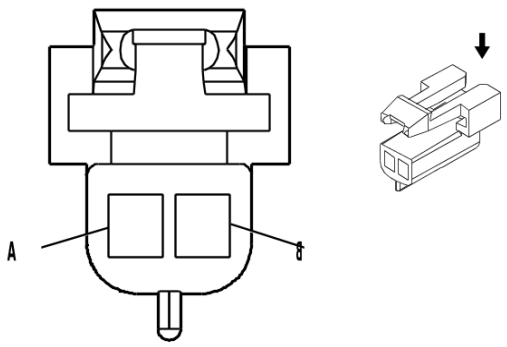
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

M6 Air Temperature Door Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / YE	1791	Air Temperature Door Low Reference	I	—
2	0.35	BU / YE	733	Air Temperature Door Position Signal	I	—
3	0.35	GY / RD	598	5V Reference	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	BU / BN	1199	Air Temperature Door Control	I	—
6	0.35	GY / GN	2210	Air Temperature Door Control	I	—

M7 Transmission Shift Lock Control Solenoid Actuator



280768

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series(BK)

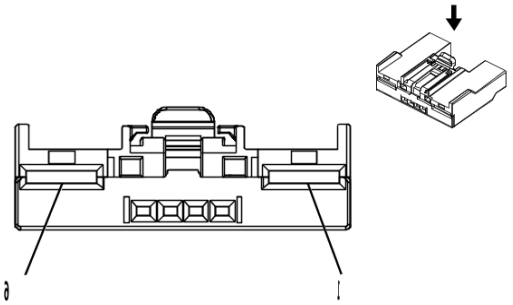
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

M7 Transmission Shift Lock Control Solenoid Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	YE / WH	816	Brake Transmission Shift Interlock Solenoid Actuator Control	I	—
B	0.5	BK / WH	1851	Signal Ground	I	—

M8 Blower Motor



2904463

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 10864043
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 GET, 6.3 Series(BK)

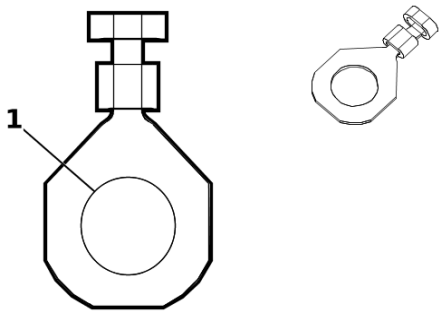
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required

M8 Blower Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	RD / VT	542	Battery Positive Voltage	I	—
2	0.35	BU / GY	754	Blower Motor Speed Control	II	—
3 - 5	—	—	—	Not Occupied	—	—
6	5	BK	1050	Ground	I	—

M9 Brake Booster Pump Motor



5168828

Connector Part Information

Harness Type: Brake Pedal Position Sensor Harness
OEM Connector: 365682C2
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

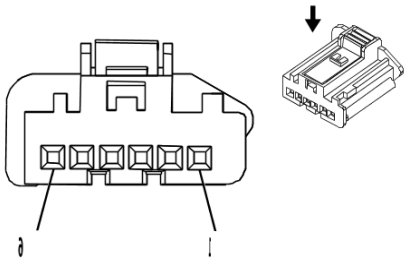
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M9 Brake Booster Pump Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	GY	90FA	Brake Booster Pump Supply	I	—

M37 Mode Door Actuator



2754489

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 13576054
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Micro-Quadlock Series(BK)

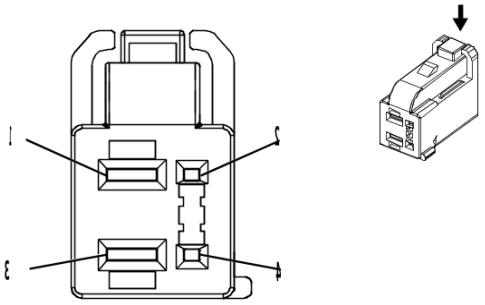
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

M37 Mode Door Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / YE	1791	Air Temperature Door Low Reference	I	—
2	0.35	WH / GN	2275	Mode Door 1 Position Sensor Signal	I	—
3	0.35	GY / RD	598	5V Reference	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	WH	119	Mode Door Control	I	—
6	0.35	YE / BN	2273	Mode Door Control	I	—

M50D Seat Front Vertical Motor - Driver (A95/AG1)



3683652

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BN)

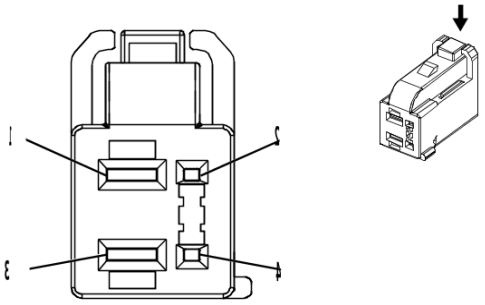
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M50D Seat Front Vertical Motor - Driver (A95/AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN / BN	286	Driver Seat Front Vertical Motor Up Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BU / VT	287	Driver Seat Front Vertical Motor Down Control	I	—
4	—	—	—	Not Occupied	—	—

M51D Seat Horizontal Motor - Driver (A95/AG1)



3683652

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BN)

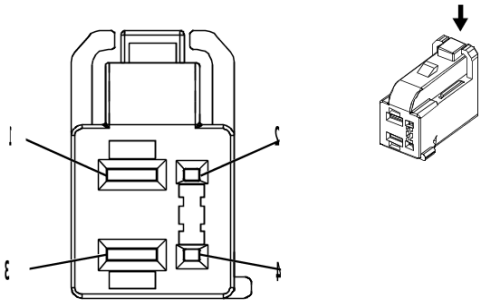
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M51D Seat Horizontal Motor - Driver (A95/AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE / BU	285	Driver Seat Horizontal Motor Forward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	GY / GN	284	Driver Seat Horizontal Motor Rearward Control	I	—
4	—	—	—	Not Occupied	—	—

M51P Seat Horizontal Motor - Passenger (A95)



3683652

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BN)

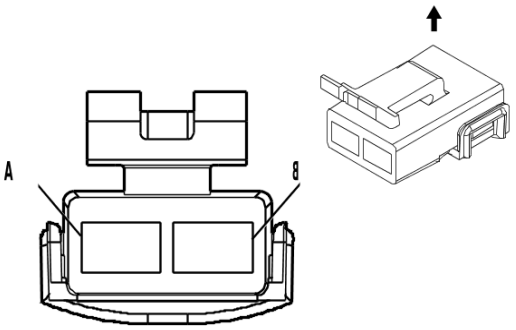
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M51P Seat Horizontal Motor - Passenger (A95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE / BU	290	Passenger Seat Horizontal Motor Rearward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	YE / WH	296	Passenger Seat Horizontal Motor Forward Control	I	—
4	—	—	—	Not Occupied	—	—

M52D Seat Lumbar Support Horizontal Motor - Driver (A95)



130707

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Driver
OEM Connector: 12020556
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series(BK)

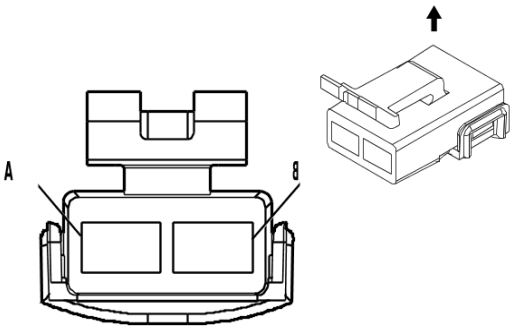
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-40 (BU)	No Tool Required

M52D Seat Lumbar Support Horizontal Motor - Driver (A95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	BU	611	Driver Seat Lumbar Support Motor Forward Control	I	—
B	1.5	VT	610	Driver Seat Lumbar Support Motor Backward Control	I	—

M52P Seat Lumbar Support Horizontal Motor - Passenger (A95)



130707

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Passenger
OEM Connector: 12020556
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series(BK)

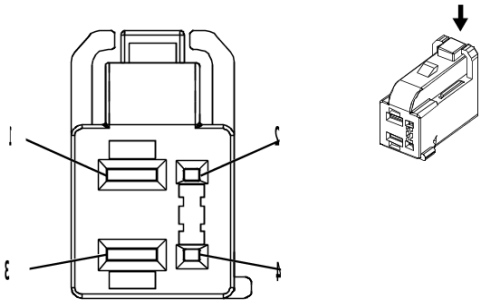
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-40 (BU)	No Tool Required

M52P Seat Lumbar Support Horizontal Motor - Passenger (A95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	BU	211	Passenger Seat Lumbar Support Motor Forward Control	I	—
B	1.5	VT	210	Passenger Seat Lumbar Support Motor Backward Control	I	—

M55D Seat Rear Vertical Motor - Driver (A95/AG1)



3683652

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BN)

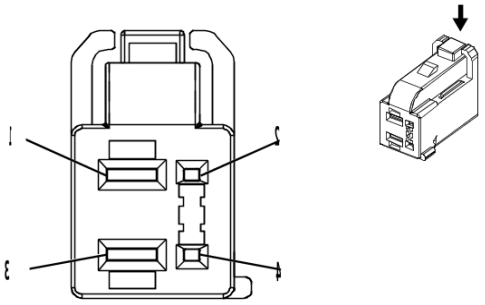
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M55D Seat Rear Vertical Motor - Driver (A95/AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY / BU	283	Driver Seat Rear Vertical Motor Down Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	YE	282	Driver Seat Rear Vertical Motor Up Control	I	—
4	—	—	—	Not Occupied	—	—

M56D Seat Recline Motor - Driver (A95/AG1)



3683652

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Driver
OEM Connector: 13597381
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BN)

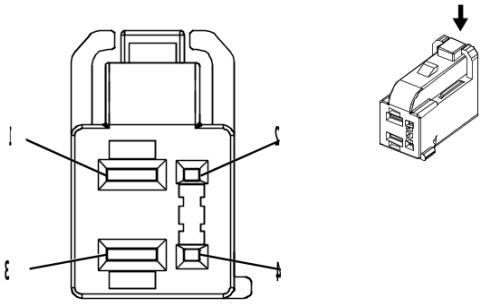
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M56D Seat Recline Motor - Driver (A95/AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN / YE	276	Driver Seat Recline Motor Forward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BU / YE	277	Driver Seat Recline Motor Rearward Control	I	—
4	—	—	—	Not Occupied	—	—

M56P Seat Recline Motor - Passenger (A95)



3683652

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Passenger
OEM Connector: 3-023-66-52
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BN)

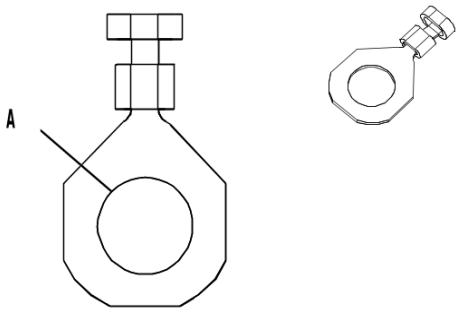
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M56P Seat Recline Motor - Passenger (A95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN	76	Passenger Seat Recline Motor Forward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BU / BN	77	Passenger Seat Recline Motor Rearward Control	I	—
4	—	—	—	Not Occupied	—	—

M64 Starter Motor X1



3240148

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 12103519
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M64 Starter Motor X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	YE / VT	6	Starter Solenoid Crank Ignition Voltage	I	—

M64 Starter Motor X2

—

Connector Part Information

Harness Type: Starter Motor Power
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

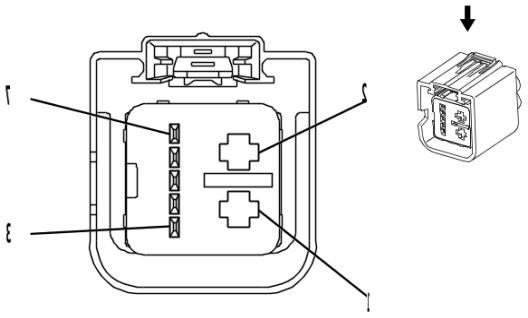
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M64 Starter Motor X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD	1	Unfused Battery Positive Voltage	I	—

M74D Window Motor - Driver (A31)



2282932

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 15504732
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed(GY)

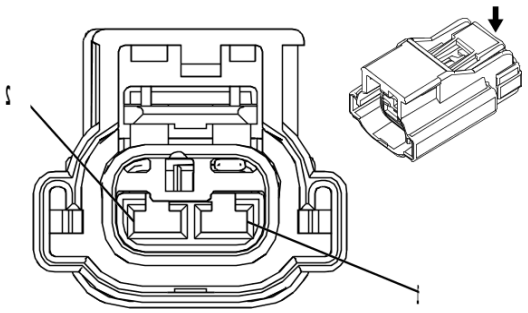
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required

M74D Window Motor - Driver (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1150	Ground	I	—
2	2.5	RD / BU	1842	Battery Positive Voltage	I	—
3	0.35	GN / WH	1300	Left Front Window Up Switch Main Control Signal	II	—
4	0.5	GN / YE	6134	Body Control Module LIN Bus 3	II	—
5	0.35	GN / VT	7628	Left Front Window Motor Express Control	II	—
6	0.35	GY	745	Left Front Door Ajar Switch Signal	II	—
7	0.35	GY	1136	Left Front Window Down Switch Main Control Signal	II	—

M74LR Window Motor - Left Rear (Crew Cab)



3372003

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed(BK)

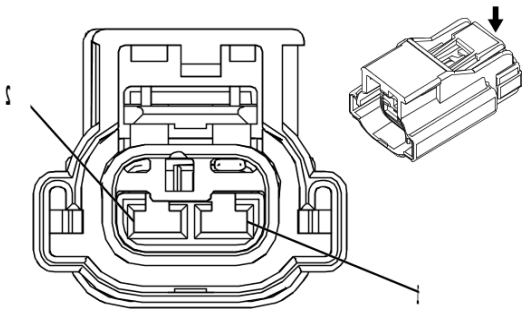
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M74LR Window Motor - Left Rear (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BU / VT	668	Left Rear Window Motor Up Control	I	—
2	2.5	YE / BU	669	Left Rear Window Motor Down Control	I	—

M74P Window Motor - Passenger (A31)



3372003

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed(BK)

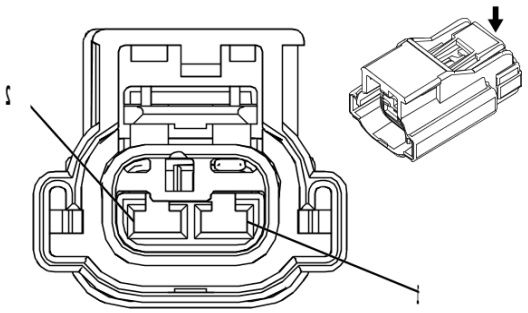
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M74P Window Motor - Passenger (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE / BU	3388	Passenger Window Motor Down Control	I	—
2	2.5	GN / GY	3387	Passenger Window Motor Up Control	I	—

M74RR Window Motor - Right Rear (Crew Cab)



3372003

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed(BK)

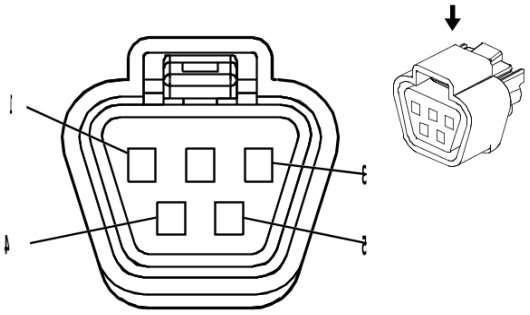
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M74RR Window Motor - Right Rear (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BU / GY	670	Right Rear Window Motor Up Control	I	—
2	2.5	GN / BK	671	Right Rear Window Motor Down Control	I	—

M75 Windshield Wiper Motor



1715213

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15316488
Service Connector: 13587179
Description: 5-Way F 090 Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-18 (BK)	No Tool Required

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	YE / BN	95	Windshield Wiper Motor Low Speed Control	I	—
2	0.5	BK	1850	Ground	I	—
3	0.5	BN / GN	196	Windshield Wiper Motor Park Switch Signal	I	—
4	2	WH	92	Windshield Wiper Motor High Speed Control	I	—
5	2	BK	550	Ground	I	—

M77D Outside Rearview Mirror Motor - Driver (DPN)

—

Connector Part Information

Harness Type: Outside Rearview Mirror Wiring Harness - Driver
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M77D Outside Rearview Mirror Motor - Driver (DPN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	—	GN / WH	3389	Driver Outside Rearview Mirror Motor Right [+] Left [-] Control	I	—
4	—	WH	3391	Driver Mirror Motor Common Control	I	—
8	—	BU / WH	3390	Driver Outside Rearview Mirror Motor Up [+] Down [-] Control	I	—

M77P Outside Rearview Mirror Motor - Passenger (DPN)

—

Connector Part Information

Harness Type: Outside Rearview Mirror Wiring Harness - Passenger
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way

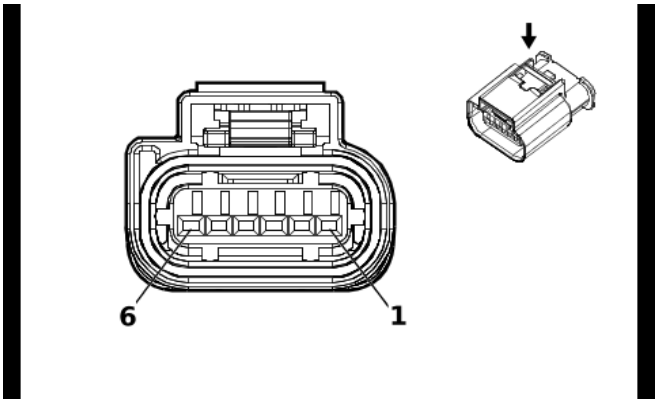
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M77P Outside Rearview Mirror Motor - Passenger (DPN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	—	OG	3397	Passenger Outside Rearview Mirror Motor Up [+] Down [-] Control	I	—
4	—	WH	3398	Passenger Outside Rearview Mirror Motor Common Control	I	—
8	—	WH	3396	Passenger Outside Rearview Mirror Motor Right [+] Left [-] Control	I	—

M103 Turbocharger Vane Position Actuator



5483505

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13507084
Service Connector: 84981395
Description: 6-Way F 1.2 MCON Series, Sealed(BK)

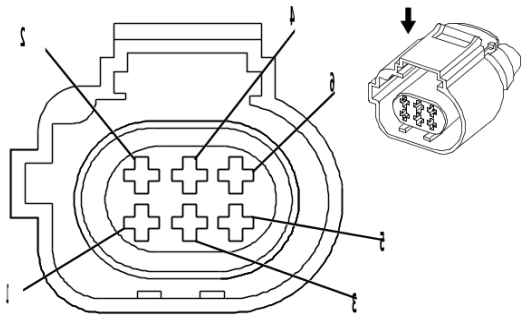
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M103 Turbocharger Vane Position Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	3674	NOx Sensor 1 Control	I	
2	0.5	BK / WH	251	Signal Ground	I	
3	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	I	
4	0.5	BU / BN	4498	High Speed GMLAN Serial Data [+] 7	I	
5	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	I	
6	0.5	WH	4499	High Speed GMLAN Serial Data [-] 7	I	**

M114 Exhaust Gas Recirculation Cooler Bypass Valve Actuator



2216905

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 284716-5
Service Connector: 19354082
Description: 6-Way F 1.6 Micro-Timer Series, Sealed(GY)

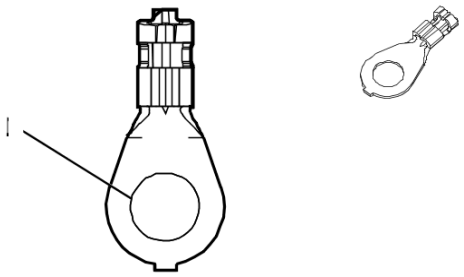
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

M114 Exhaust Gas Recirculation Cooler Bypass Valve Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / VT	3656	EGR Cooler Bypass Valve Close Control	I	
2	0.5	GN / GY	3654	EGR Cooler Bypass Valve Position Sensor Signal	I	
3	—	—	—	Not Occupied	—	—
4	0.5	BK / BU	3653	EGR Cooler Bypass Valve Position Sensor Low Reference	I	
5	0.5	YE / GN	3655	EGR Cooler Bypass Valve Open Control	I	
6	0.5	VT / RD	3652	EGR Cooler Bypass Valve Position Sensor 5V Reference	I	

M144 Hydraulic Suspension Pump Motor X1 (91B/91C/91D/91E)



4777266

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 373759C2
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

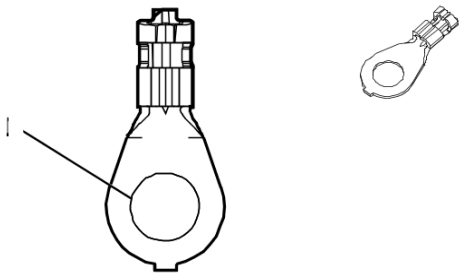
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M144 Hydraulic Suspension Pump Motor X1 (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	RD	14L	Suspension Pump Motor Control	I	—

M144 Hydraulic Suspension Pump Motor X2 (Motor Ground) (91B/91C/91D/91E)



4777266

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 373759C2
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

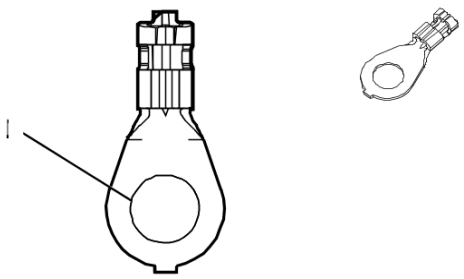
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M144 Hydraulic Suspension Pump Motor X2 (Motor Ground) (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	WH	10G	Ground	I	—

M144 Hydraulic Suspension Pump Motor X2 (Solenoid Ground) (91B/91C/91D/91E)



4777266

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 373759C2
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

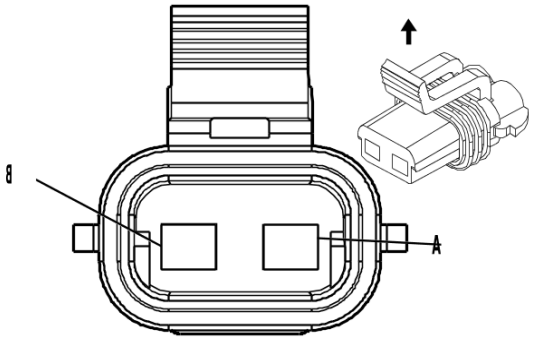
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M144 Hydraulic Suspension Pump Motor X2 (Solenoid Ground) (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	WH	10G	Ground	I	—

P3 Backup Alarm (UZF)



68721

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

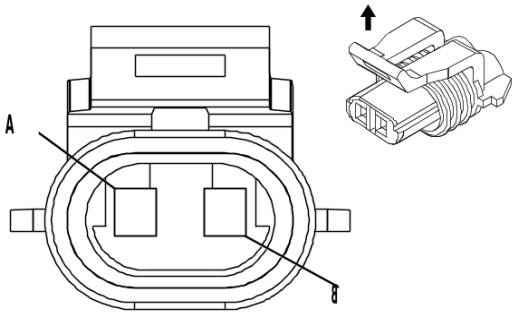
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

P3 Backup Alarm (UZF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH / GN	1624	Trailer Backup Lamp Control	I	—
B	1	BK	1624-G	Ground	I	—

P12 Horn



537107

Connector Part Information

Harness Type: Horn Wiring Harness
OEM Connector: 1661778C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

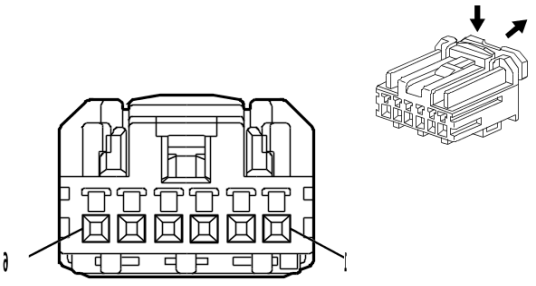
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P12 Horn

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	BN / GY	29	Horn Control	I	—
B	1	BK	85-G	Ground	I	—

P14 Passenger Air Bag Disabled Indicator



4650256

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 33358802
Service Connector: 19368127
Description: 6-Way F 0.64 HCM Series(NA)

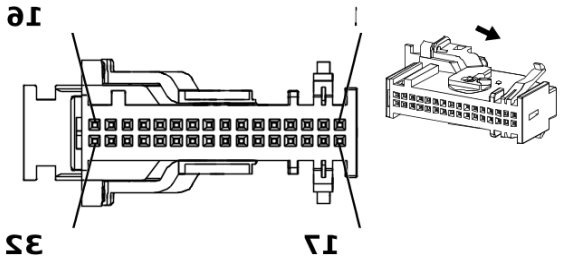
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required

P14 Passenger Air Bag Disabled Indicator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
2	0.5	BK	1050	Ground	II	—
3	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
4	0.35	VT / WH	1139	Run/Crank Ignition 1 Voltage	I	—
5	0.35	VT / WH	5234	Passenger Seat Belt Indicator Control	I	—
6	—	—	—	Not Occupied	—	—

P16 Instrument Cluster



627214

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12198036
Service Connector: 13511333
Description: 32-Way F 0.64 Micro-Quadlock Series(BK with GY Cover)

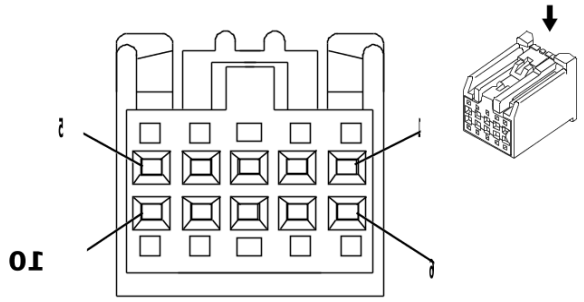
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300632	J-35616-64B (L-BU)	J-38125-215A

P16 Instrument Cluster

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / GN	3997	MOST Bus Serial Data [-]	I	—
2	0.5	GY / VT	3998	MOST Bus Serial Data [+]	I	—
3	0.5	GY / GN	1102	Low Speed GMLAN Serial Data 2	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	WH / VT	3999	MOST Bus Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	RD / GY	2840	Battery Positive Voltage	I	—
8	0.5	VT / BK	1639	Run/Crank Ignition 1 Voltage	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	BU / YE	68	Low Coolant Level Indicator Control	I	—
11 - 15	—	—	—	Not Occupied	—	—
16	0.35	BN / WH	419	Check Engine Indicator Control	I	—
17	0.5	GY / VT	3998	MOST Bus Serial Data [+]	I	—
18	0.5	WH / GN	3997	MOST Bus Serial Data [-]	I	—
19	0.5	BK / WH	1851	Signal Ground	I	—
20	0.5	GN / BK	3894	Instrument Panel Cluster Control Module LIN Bus 1	I	—
21 - 23	—	—	—	Not Occupied	—	—
24	0.35	VT	185	Low Washer Fluid Indicator Control	I	—
25 - 31	—	—	—	Not Occupied	—	—
32	0.35	GN / BN	507	Wait To Start Indicator Control	I	—

P17 Info Display Module X1 (IO3/IO5)



2180211

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series(BK)

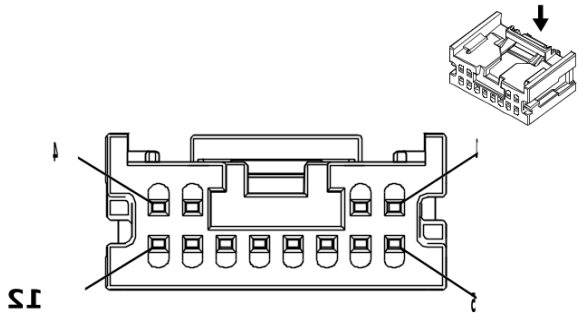
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (L-BU)	J-38125-215A

P17 Info Display Module X1 (IO3/IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / GY	2840	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GY / GN	1102	Low Speed GMLAN Serial Data 2	I	—
4	—	—	—	Not Occupied	—	—
5	0.5	GN / BU	7532	Radio LIN Bus 1	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	GN / WH	7527	Human Machine Interface Control Module LIN Bus 1	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BK	2550	Ground	I	—

P17 Info Display Module X1 (IOB)



3824362

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33253016
Service Connector: 13588265
Description: 12-Way F Mini 50 Series(BK)

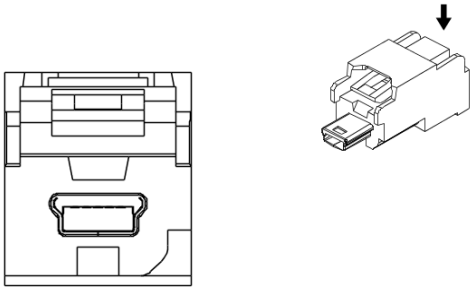
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333221	EL-35616-58 (BK)	EL-38125-58

P17 Info Display Module X1 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN	9004	5Volt Reference	I	—
2	0.35	BN / GN	3364	Navigation Display Reset Signal	I	—
3	0.35	GY / BN	3761	Infotainment Regulated Control	I	—
4	0.35	GN / BK	2515	Telematics Switch Supply Voltage	I	—
5	0.35	VT / GY	1381	LCD Dimming Signal	I	—
6	0.35	GY / BU	3989	Display Radio Bank Switch Dim Signal	I	—
7	0.35	BN / GN	4502	Video Display Request Signal	I	—
8	0.35	GY / BN	9003	Low Reference	I	—
9	0.35	BK	2550	Ground	I	—
10	0.35	BK	2550	Ground	I	—
11	0.35	BK / BN	2518	Keypad Low Reference	I	—
12	0.35	GY / BU	3989	Display Radio Bank Switch Dim Signal	I	—

P17 Info Display Module X2 (IOB)



3028808

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13862276
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(BK)

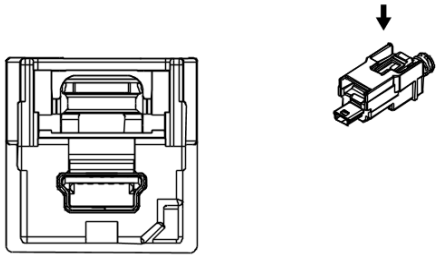
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

P17 Info Display Module X2 (IOB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

P17 Info Display Module X3 (IO3/IO5)



2807425

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13893627
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(BK)

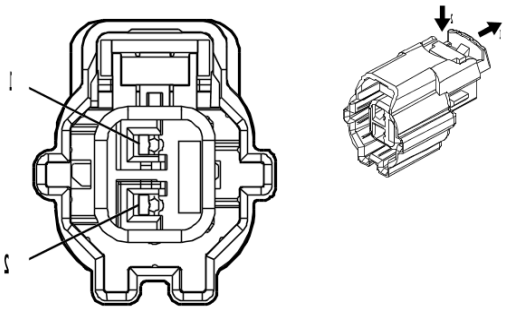
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

P17 Info Display Module X3 (IO3/IO5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

P19AG Speaker - Left Front Door



4840334

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 33380179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 MX Series, Sealed(BK)

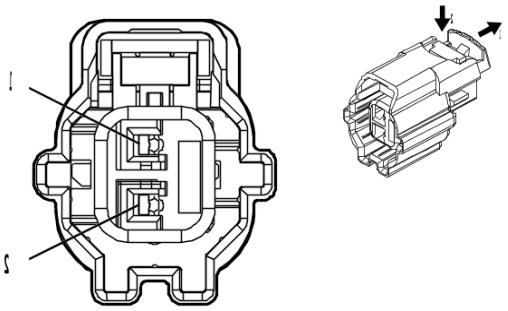
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AG Speaker - Left Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BN / BU	118	Left Front Speaker [-] Control 1	I	—
2	1	BU	201	Left Front Speaker 1 [+] Control	I	—

P19AH Speaker - Right Front Door



4840334

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 33380179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 MX Series, Sealed(BK)

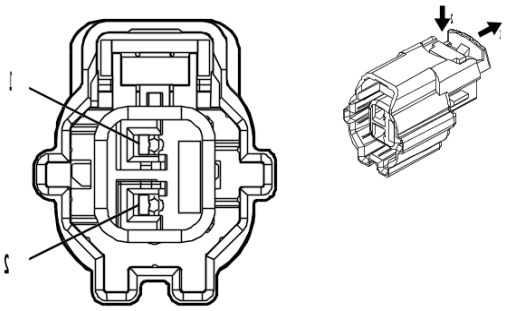
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AH Speaker - Right Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE / BK	117	Right Front Speaker [-] Control 1	I	—
2	1	YE	200	Right Front Speaker 1 [+] Control	I	—

P19AL Speaker - Left Rear Door (Crew Cab)



4840334

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 33380179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 MX Series, Sealed(BK)

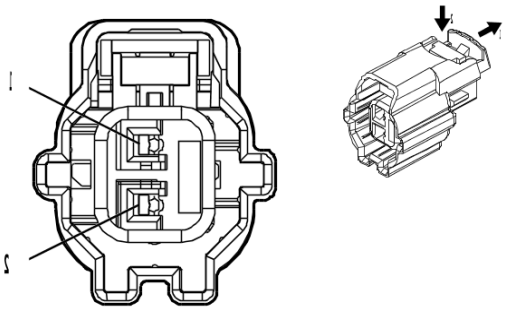
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AL Speaker - Left Rear Door (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GN / BK	116	Left Rear Speaker [-] Control	I	—
2	1	GN	199	Left Rear Speaker [+] Control	I	—

P19AM Speaker - Right Rear Door (Crew Cab)



4840334

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 33380179
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 MX Series, Sealed(BK)

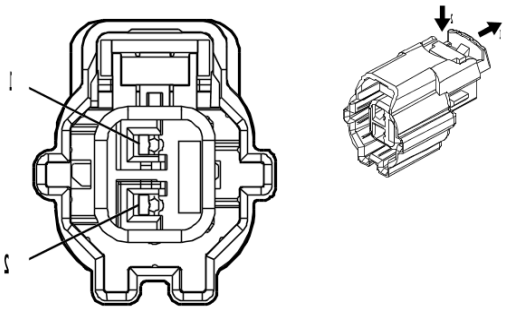
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AM Speaker - Right Rear Door (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BU / BK	115	Right Rear Speaker [-] Control	I	—
2	1	WH	46	Right Rear Speaker [+] Control	I	—

P19AN Speaker - Left Rear Trim Panel (Standard Cab)



4840334

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33380179
Service Connector: 19370459
Description: 2-Way F 1.5 MX Series, Sealed(BK)

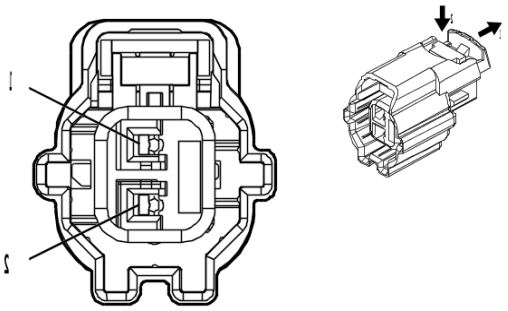
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AN Speaker - Left Rear Trim Panel (Standard Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / BK	116	Left Rear Speaker [-] Control	I	—
2	0.5	GN	199	Left Rear Speaker [+] Control	I	—

P19AP Speaker - Right Rear Trim Panel (Standard Cab)



4840334

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33380179
Service Connector: 19370459
Description: 2-Way F 1.5 MX Series, Sealed(BK)

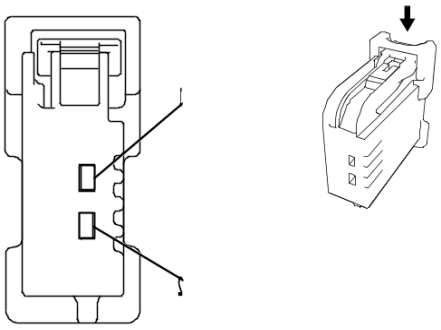
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AP Speaker - Right Rear Trim Panel (Standard Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / BK	115	Right Rear Speaker [-] Control	I	—
2	0.5	WH	46	Right Rear Speaker [+] Control	I	—

P19J Speaker - Left Instrument Panel (UQ3)



2173586

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13595207
Service Connector: 13584097
Description: 2-Way F 1.5 Series(BK)

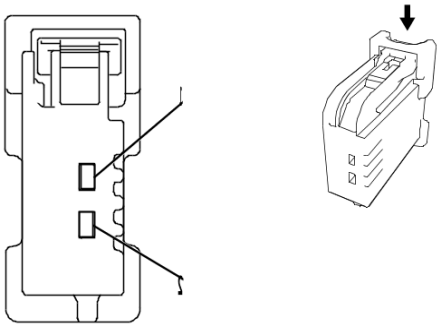
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19J Speaker - Left Instrument Panel (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / BU	118	Left Front Speaker [-] Control 1	I	—
2	0.5	BU	201	Left Front Speaker 1 [+] Control	I	—

P19W Speaker - Right Instrument Panel (UQ3)



2173586

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13595207
Service Connector: 13584097
Description: 2-Way F 1.5 Series(BK)

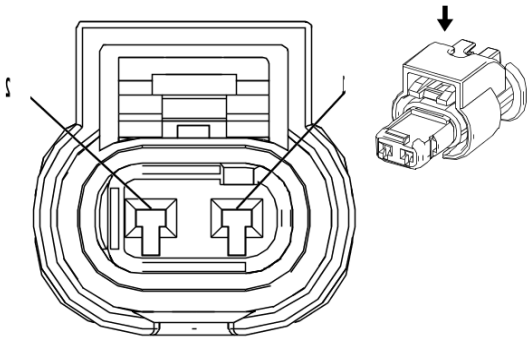
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19W Speaker - Right Instrument Panel (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BK	117	Right Front Speaker [-] Control 1	I	—
2	0.5	YE	200	Right Front Speaker 1 [+] Control	I	—

Q2 A/C Compressor Clutch



2474752

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13927761
Service Connector: 85519075
Description: 2-Way F 1.2 MCON Series, Sealed(BK with BK Inner Connector)

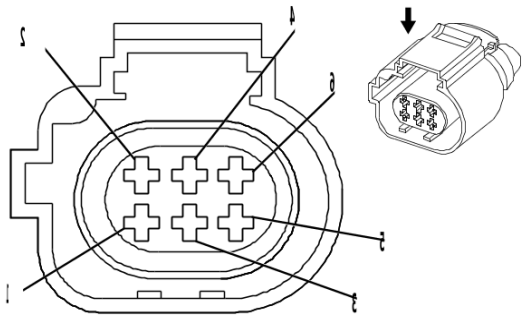
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q2 A/C Compressor Clutch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	550	Ground	I	—
2	0.75	BN / GN	59	Air Conditioning Compressor Clutch Control	I	—

Q14 Exhaust Gas Recirculation Valve



2216905

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 284716-5
Service Connector: 19354082
Description: 6-Way F 1.6 Micro-Timer Series, Sealed(GY)

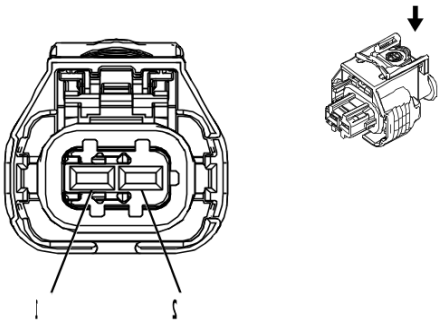
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q14 Exhaust Gas Recirculation Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / VT	5764	Exhaust Gas Recirculation Valve High Control	I	
2	0.5	BN / WH	5763	Exhaust Gas Recirculation Position Signal	I	
3	—	—	—	Not Occupied	—	—
4	0.5	BK / BN	2753	Exhaust Gas Recirculation Sensor Low Reference	I	
5	0.5	VT / BK	5746	Exhaust Gas Recirculation Valve Low Control	I	
6	0.5	BU / RD	5047	Exhaust Gas Recirculation Valve Position Sensor 5V Reference 1	I	

Q17A Fuel Injector 1



2845578

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed(BK)

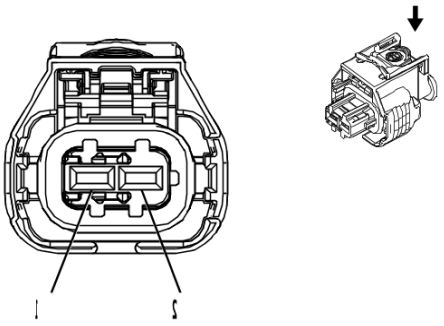
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

Q17A Fuel Injector 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	
2	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	I	

Q17B Fuel Injector 2



2845578

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed(BK)

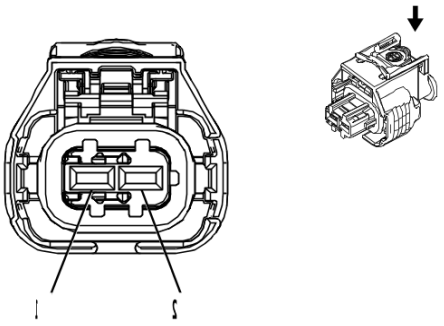
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

Q17B Fuel Injector 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU / GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	I	
2	0.75	BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	I	

Q17C Fuel Injector 3



2845578

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed(BK)

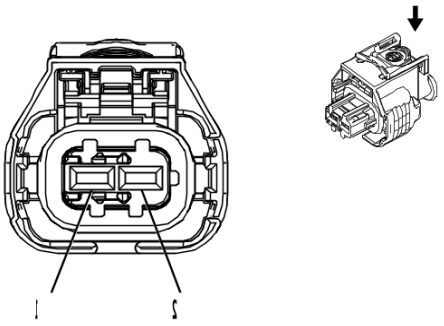
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

Q17C Fuel Injector 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN / GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	I	
2	0.75	GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	I	

Q17D Fuel Injector 4



2845578

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed(BK)

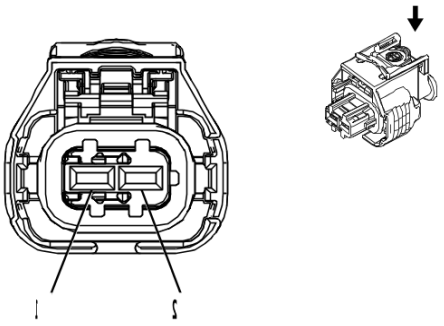
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

Q17D Fuel Injector 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU / WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	I	
2	0.75	GY / BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	I	

Q17E Fuel Injector 5



2845578

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed(BK)

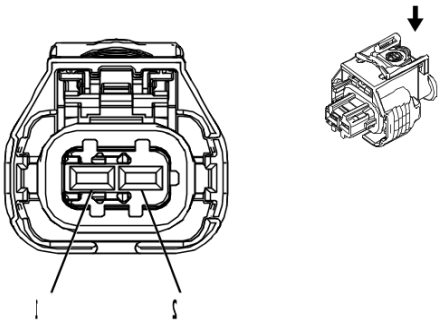
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

Q17E Fuel Injector 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN / WH	4905	Direct Fuel Injector High Voltage Supply Cylinder 5	I	
2	0.75	WH / GN	4805	Direct Fuel Injector High Voltage Control Cylinder 5	I	

Q17F Fuel Injector 6



2845578

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed(BK)

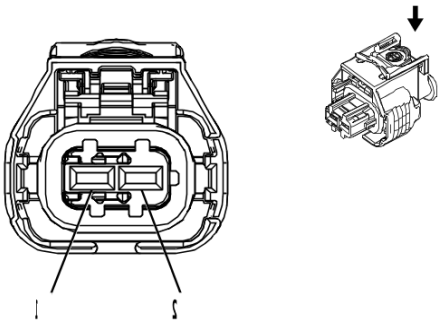
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

Q17F Fuel Injector 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / GY	4906	Direct Fuel Injector High Voltage Supply Cylinder 6	I	
2	0.75	VT / GN	4806	Direct Fuel Injector High Voltage Control Cylinder 6	I	

Q17G Fuel Injector 7



2845578

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed(BK)

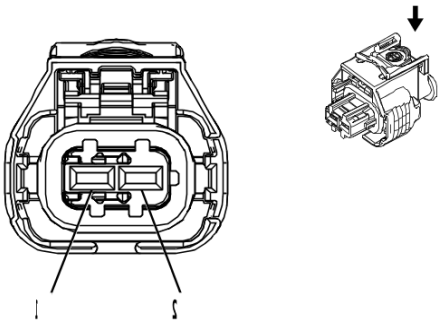
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

Q17G Fuel Injector 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH / YE	4907	Direct Fuel Injector High Voltage Supply Cylinder 7	I	
2	0.75	YE / GY	4807	Direct Fuel Injector High Voltage Control Cylinder 7	I	

Q17H Fuel Injector 8



2845578

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13343445
Service Connector: 19368140
Description: 2-Way F 2.8 Series, Sealed(BK)

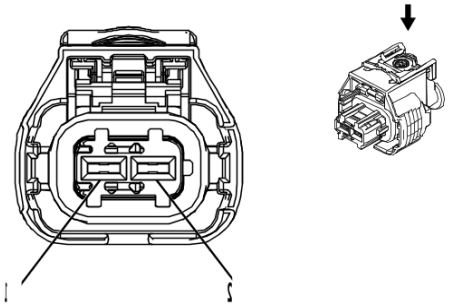
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

Q17H Fuel Injector 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY / WH	4908	Direct Fuel Injector High Voltage Supply Cylinder 8	I	
2	0.75	GY	4808	Direct Fuel Injector High Voltage Control Cylinder 8	I	

Q18A Fuel Pressure Regulator 1



2577394

Connector Part Information

Harness Type: Engine Wiring Harness - Jumper
OEM Connector: 13343443
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed(BK)

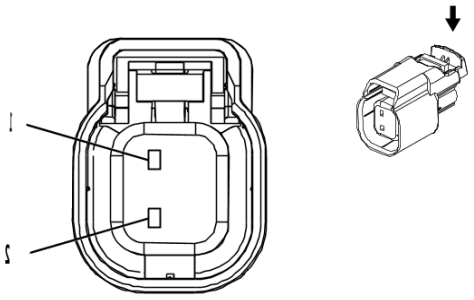
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

Q18A Fuel Pressure Regulator 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / BK	2929	Fuel Metering Solenoid Valve Low Control	I	
2	0.5	YE	2928	Fuel Metering Solenoid Valve High Control	I	

Q18B Fuel Pressure Regulator 2



2792100

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13581410
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed(BK)

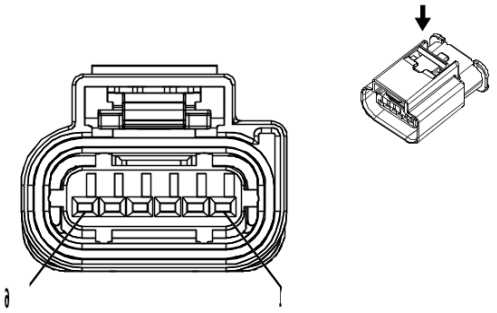
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q18B Fuel Pressure Regulator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU / WH	2530	Fuel Rail Pressure Solenoid Valve Control	I	
2	0.75	BK / YE	2834	Fuel Rail Pressure Solenoid Valve Low Control	I	

Q20 Intake Air Flow Valve



3747579

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13507087
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

Q20 Intake Air Flow Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Open Control	I	
2	0.5	BN / WH	582	Throttle Actuator Close Control	I	
3	0.5	BU / WH	3630	Throttle Position Sensor SENT 1 Signal	I	
4	0.5	BK / BN	2752	Throttle Position Sensor Low Reference	I	
5	0.5	BN / RD	2701	Throttle Position Sensor 5V Reference	I	
6	—	—	—	Not Occupied	—	—

Q23 Line Pressure Control Solenoid Valve

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q23 Line Pressure Control Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL111	Transmission Solenoid Supply	I	—
B	—	—	AL174	Transmission Mainline Pressure Solenoid Control	I	—

Q27A Pressure Control Solenoid Valve 1

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q27A Pressure Control Solenoid Valve 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL111	Transmission Solenoid Supply	I	—
B	—	—	AL155	Pressure Control Solenoid Valve 1 Low Control	I	—

Q27B Pressure Control Solenoid Valve 2

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q27B Pressure Control Solenoid Valve 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL171	Transmission Solenoid Supply	I	—
B	—	—	AL136	Pressure Control Solenoid Valve 2 Low Control	I	—

Q27C Pressure Control Solenoid Valve 3

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q27C Pressure Control Solenoid Valve 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL131	Transmission Solenoid Supply	I	—
B	—	—	AL137	Low Reference	I	—

Q32A Shift Solenoid Valve 1

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q32A Shift Solenoid Valve 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL171	Transmission Solenoid Supply	I	—
B	—	—	AL152	1 Shift Solenoid Valve Control	I	—

Q32B Shift Solenoid Valve 2

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q32B Shift Solenoid Valve 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL171	Transmission Solenoid Supply	I	—
B	—	—	AL133	2 Shift Solenoid Valve Control	I	—

Q32C Shift Solenoid Valve 3

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q32C Shift Solenoid Valve 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL171	Transmission Solenoid Supply	I	—
B	—	—	AL151	3 Shift Solenoid Valve Control	I	—

Q39A Torque Converter Clutch Pressure Control Solenoid Valve

—

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

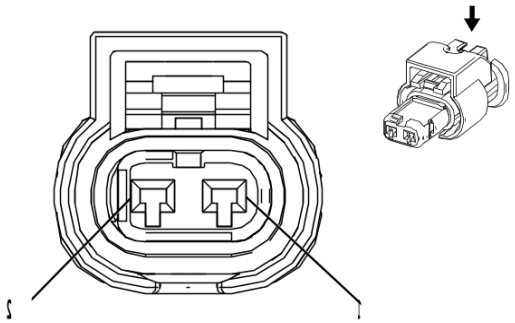
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q39A Torque Converter Clutch Pressure Control Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	AL111	Transmission Solenoid Supply	I	—
B	—	—	AL178	Torque Converter Clutch PWM Solenoid Control	I	—

Q46 A/C Compressor Solenoid Valve



2851901

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13927762
Service Connector: 19366843
Description: 2-Way F 1.2 MCP Series, Sealed(BK with NA Inner Connector)

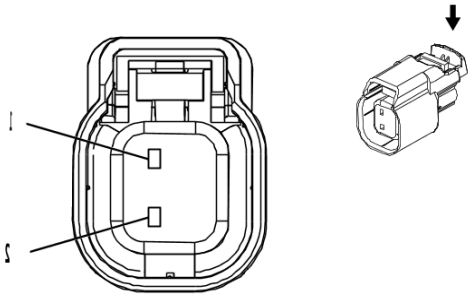
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q46 A/C Compressor Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU / YE	7574	Air Conditioning Compressor Solenoid Valve Control	I	—
2	0.75	BU / BN	7573	Air Conditioning Compressor Solenoid Valve Control	I	—

Q61 Reductant Injector



2792100

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 35011347
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed(BK)

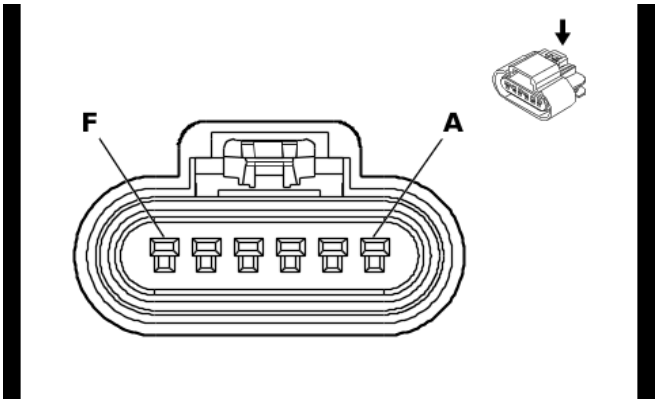
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q61 Reductant Injector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	3099	Diesel Exhaust Fluid Dosing Valve High Control	I	—
2	0.75	BN / WH	3100	Diesel Exhaust Fluid Dosing Valve Low Control	I	—

Q85 Cooling Fan Clutch



632357

Connector Part Information

Harness Type: Fan Blade Clutch Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F Sealed

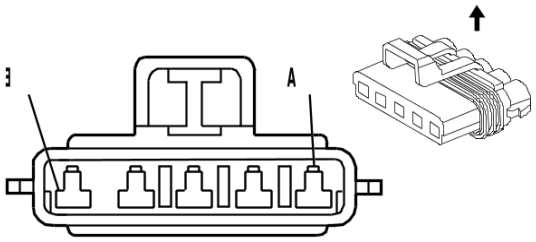
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q85 Cooling Fan Clutch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD	2368	Cooling Fan Control Signal	I	—
B	—	—	—	Not Occupied	—	—
C	—	OG	2365	Cooling Fan Speed Sensor 5V Reference	I	—
D	—	WH	2364	Cooling Fan Speed Signal	I	—
E	—	BK	6141	Cooling Fan Speed Sensor Low Reference	I	—
F	—	GN	550	Ground	I	—

Q101 Rear Air Suspension Control Valve (JPZ)



243503

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 12084891
Service Connector: 19369027
Description: 5-Way F 280 Metri-Pack Series, Sealed(GY)

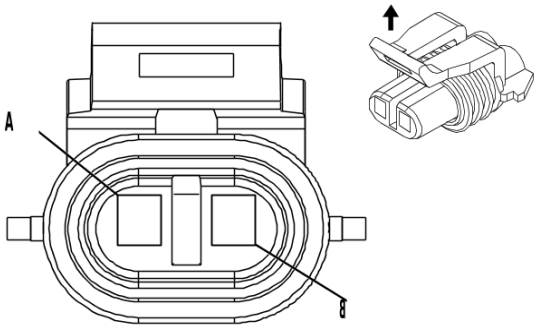
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

Q101 Rear Air Suspension Control Valve (JPZ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	BK	4461-G	Ground	I	—
B - C	—	—	—	Not Occupied	—	—
D	0.75	GN	6094	Vehicle Level Control Left Rear Air Spring Solenoid Valve Control	I	—
E	0.75	GN / GY	6095	Right Rear Air Suspension Solenoid Valve Control	I	—

Q110L Hydraulic Suspension Rate Control Solenoid Valve - Left Rear (91B/91C/91D/91E)



635009

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

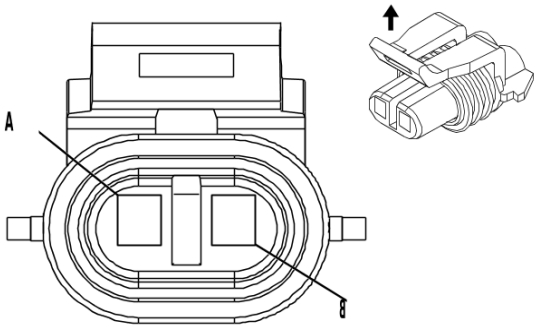
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q110L Hydraulic Suspension Rate Control Solenoid Valve - Left Rear (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	BN	61LR	Suspension Rate Control Solenoid Signal - Rear Left	I	—
B	1.5	WH	10G	Ground	I	—

Q110R Hydraulic Suspension Rate Control Solenoid Valve - Right Rear (91B/91C/91D/91E)



635009

Connector Part Information

Harness Type: Liquid Spring Volume Tank Jumper
OEM Connector: 12052641
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

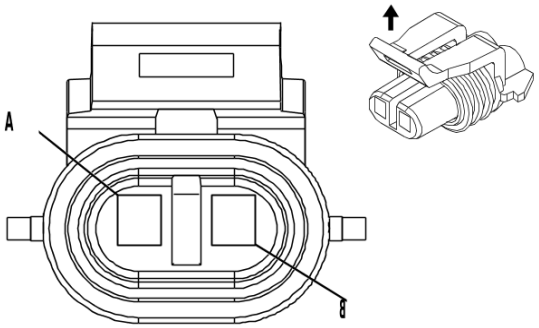
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q110R Hydraulic Suspension Rate Control Solenoid Valve - Right Rear (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	GN	61RR	Suspension Rate Control Solenoid Signal - Rear Right	I	—
B	1	WH	10G	Ground	I	—

Q111L Hydraulic Suspension Isolator Control Solenoid Valve - Left Rear (91B/91C/91D/91E)



635009

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

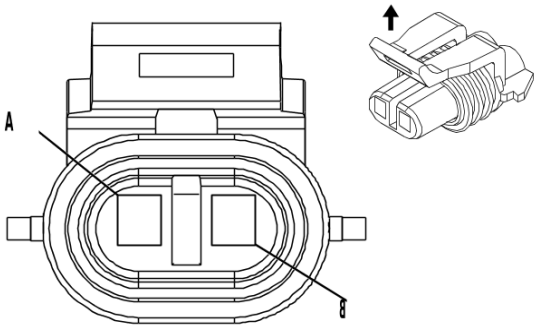
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q111L Hydraulic Suspension Isolator Control Solenoid Valve - Left Rear (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	10G	Ground	I	—
B	1	GY	61LI	Suspension Isolator Control Solenoid Signal - Rear Left	I	—

Q111R Hydraulic Suspension Isolator Control Solenoid Valve - Right Rear (91B/91C/91D/91E)



635009

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

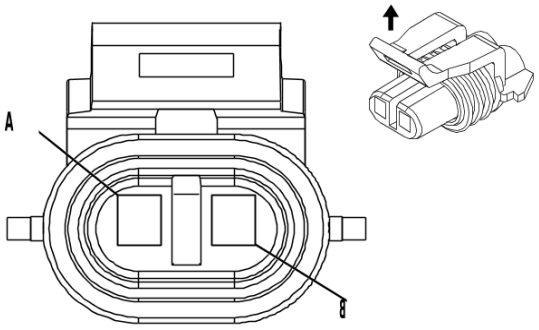
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q111R Hydraulic Suspension Isolator Control Solenoid Valve - Right Rear (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	10G	Ground	I	—
B	1	TN	61RI	Suspension Isolator Control Solenoid Signal - Rear Right	I	—

Q112 Hydraulic Suspension Pressure Release Solenoid Valve (91B/91C/91D/91E)



635009

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

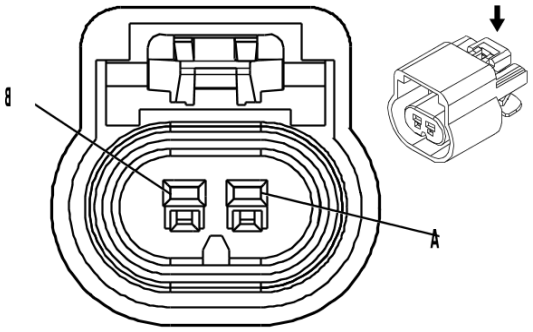
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q112 Hydraulic Suspension Pressure Release Solenoid Valve (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	10G	Ground	I	—
B	1	BU	61D	Suspension Pressure Release Solenoid Signal	I	—

R6A Terminating Resistor - High Speed Bus



523630

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 13510085
Service Connector: 87815146
Description: 2-Way F 150 GT Series, Sealed(BK)

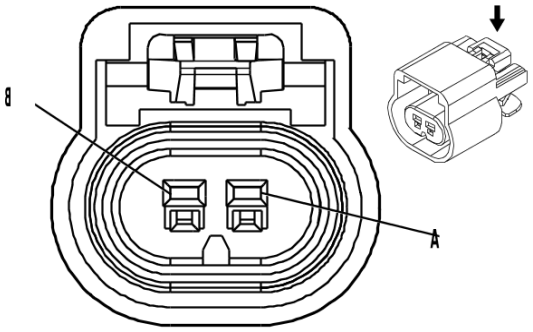
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

R6A Terminating Resistor - High Speed Bus

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
B	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

R6F Terminating Resistor - High Speed Extension Bus 2



523630

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13510085
Service Connector: 87815146
Description: 2-Way F 150 GT Series, Sealed(BK)

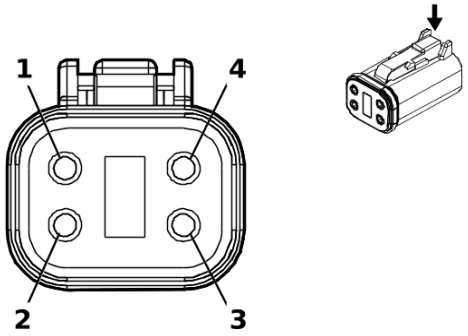
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

R6F Terminating Resistor - High Speed Extension Bus 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU / GN	1304	High Speed GMLAN Serial Data [+] 9	I	—
B	0.5	WH / GN	1305	High Speed GMLAN Serial Data [-] 9	I	—

R50 Brake Booster Diode



5168702

Connector Part Information

Harness Type: Brake Pedal Position Sensor Harness
OEM Connector: 3991593C1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.5 DT Series, Sealed(GY)

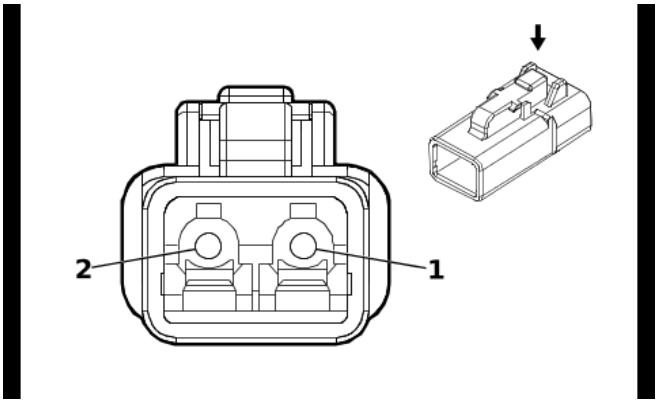
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-66 (YE)	No Tool Required

R50 Brake Booster Diode

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	WH / BU	6311	Cruise/ETC/TCC Brake Signal	I	—
3	1	GY	90DB	Brake Pipe Pressure Switch Signal	I	—
4	1	GY	90DD	Brake Pipe Pressure Switch Signal (Diode)	I	—

R52 Fuel Pump Driver Control Module Diode



5571669

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: DTP06-2S-C015
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F DT Series, Sealed(GY)

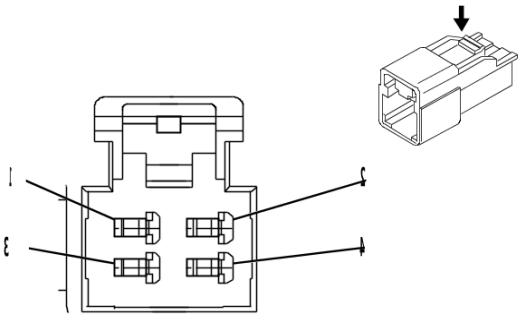
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

R52 Fuel Pump Driver Control Module Diode

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	GY / BN	439	Run/Crank Ignition 1 Voltage	I	—
2	2	VT / GN	439	Run/Crank Ignition 1 Voltage	I	—

S3 Transmission Shift Lever



2099222

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: HCMDWSB-04-K
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M HCM Series(BK)

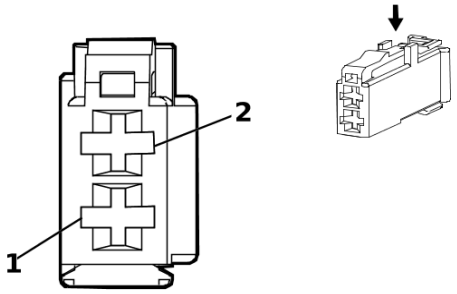
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-17 (L-GN)	No Tool Required

S3 Transmission Shift Lever

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / GY	553	Shift Select Switch Performance Signal	I	—
2	0.35	BK / WH	1851	Signal Ground	I	—
3	0.35	VT / YE	5526	Tap Up/Tap Down Switch Signal	I	—
4	0.35	BK / WH	1851	Signal Ground	I	—

S5 Center Console Compartment Lamp Switch (D07)



5215239

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 10787635
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Timer Series(NA)

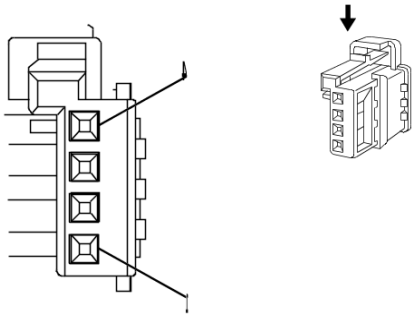
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S5 Center Console Compartment Lamp Switch (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BN	6815	Inadvertent Load Control	I	—
2	0.5	WH / BN	6815	Inadvertent Load Control	I	—

S12 Dome Lamp Switch



2667612

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 13862319
Service Connector: 13587956
Description: 4-Way F 0.64 Micro-Quadlock Series(BN)

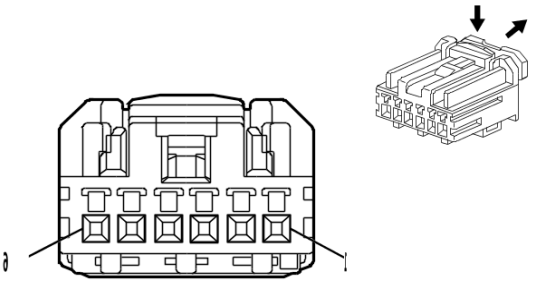
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S12 Dome Lamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1050	Ground	I	—
2	0.35	GY / GN	328	Interior Lamp Defeat Switch Signal	I	—
3	0.35	GY	156	Courtesy Lamp Switch Signal	I	—
4	0.35	YE	6817	LED Backlight Dimming Control 1	I	—

S13D Door Lock Switch - Driver (A31)



4650256

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver
OEM Connector: 33315784
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series(BK)

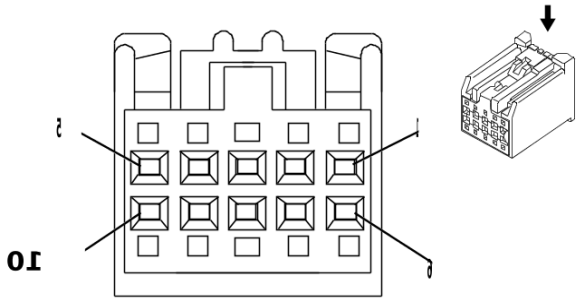
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

S13D Door Lock Switch - Driver (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
3	0.35	BN / YE	780	Driver Door Lock Switch Lock Signal	I	—
4	0.35	BN / WH	781	Driver Door Lock Switch Unlock Signal	I	—
5	0.35	BK	1150	Ground	I	—
6	—	—	—	Not Occupied	—	—

S13D Door Lock Switch - Driver (-A31)



2180211

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver
OEM Connector: 13815336
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(BK)

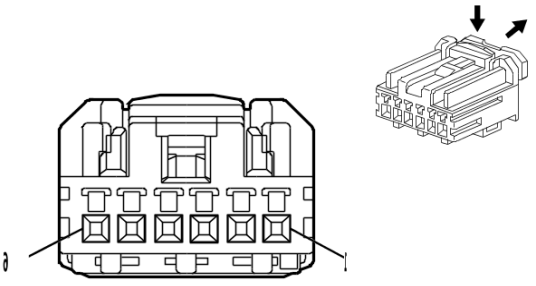
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S13D Door Lock Switch - Driver (-A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1150	Ground	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	BN / YE	780	Driver Door Lock Switch Lock Signal	I	—
7	0.35	BN / WH	781	Driver Door Lock Switch Unlock Signal	I	—
8 - 10	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger (A31)



4650256

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger
OEM Connector: 33315784
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series(BK)

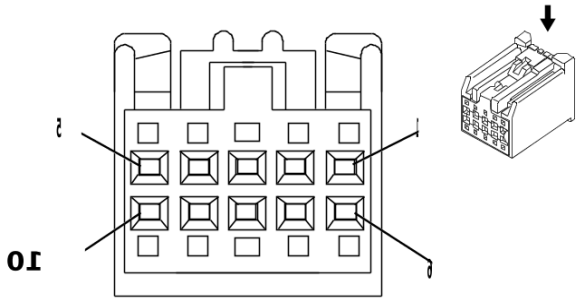
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

S13P Door Lock Switch - Passenger (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
3	0.35	YE / VT	244	Passenger Door Lock Switch Lock Control	I	—
4	0.35	BN / VT	245	Passenger Door Lock Switch Unlock Control	I	—
5	0.35	BK	1250	Ground	I	—
6	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger (-A31)



2180211

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger
OEM Connector: 13815336
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(BK)

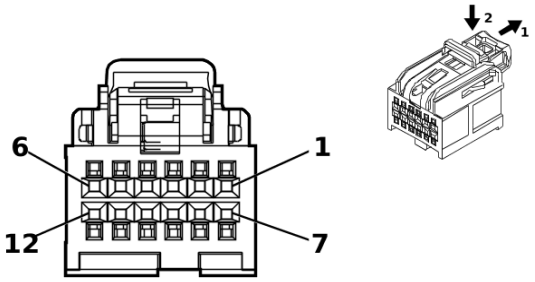
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S13P Door Lock Switch - Passenger (-A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1250	Ground	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	YE / VT	244	Passenger Door Lock Switch Lock Control	I	—
7	0.35	BN / VT	245	Passenger Door Lock Switch Unlock Control	I	—
8 - 10	—	—	—	Not Occupied	—	—

S30 Headlamp Switch



4975223

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35016616
Service Connector: 13519750
Description: 12-Way F 0.64 OCS Series(BK)

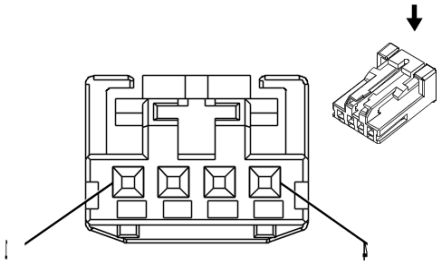
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300660	J-35616-64B (L-BU)	J-38125-215A

S30 Headlamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / VT	103	Headlamp Switch On Signal	I	—
2	0.5	YE	6817	LED Backlight Dimming Control 1	I	—
3	0.35	GN / BN	306	Headlamp Switch Off Signal	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GN / GY	13	Headlamp Switch Park Lamp Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	BK / YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	I	—
8	0.5	BK	1850	Ground	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BU / GY	192	Front Fog Lamp Switch Signal	I	—
11	0.35	YE / GY	44	Instrument Panel Lamp Dimmer Switch Signal	I	—
12	0.35	BU / RD	1688	12V Reference	I	—

S32D Seat Heating Switch - Driver (KA1)



2717162

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13853727
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

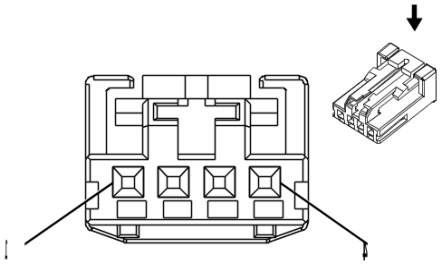
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S32D Seat Heating Switch - Driver (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1850	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GN / WH	7527	Human Machine Interface Control Module LIN Bus 1	I	—
4	0.35	RD / GY	2840	Battery Positive Voltage	I	—

S32P Seat Heating Switch - Passenger (KA1)



2717162

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13853727
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

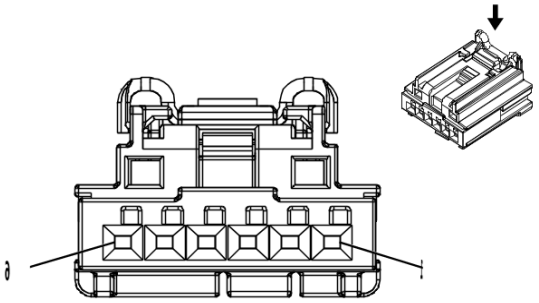
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S32P Seat Heating Switch - Passenger (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / GY	2840	Battery Positive Voltage	I	—
2	0.5	GN / WH	7527	Human Machine Interface Control Module LIN Bus 1	I	—
3	—	—	—	Not Occupied	—	—
4	0.75	BK	1850	Ground	I	—

S39 Ignition Switch



3960313

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: 13583825
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series(BK)

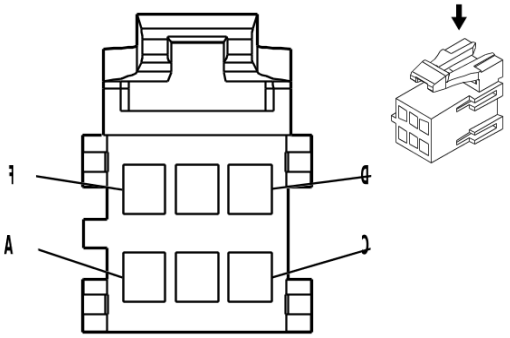
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S39 Ignition Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	VT / BK	3	Run/Crank Ignition 1 Voltage	I	—
3	0.5	VT / YE	4	Accessory Ignition Voltage	I	—
4	0.35	RD / BU	540	Battery Positive Voltage	I	—
5	0.35	WH / VT	1020	Off/Run/Crank Ignition Voltage	I	—
6	0.35	WH / BK	1073	Ignition Key Resistor Signal	I	—

S40 Passenger Air Bag Disable Switch (C99)



362753

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15305286
Service Connector: 15306014
Description: 6-Way F 150 Metri-Pack Series(YE)

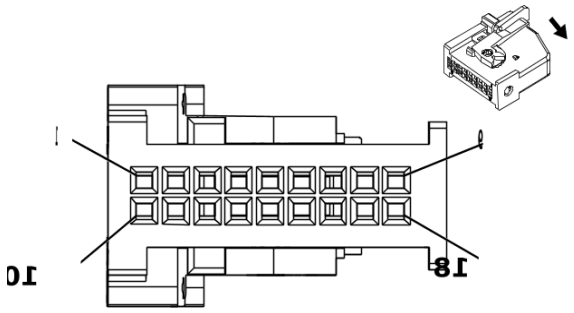
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S40 Passenger Air Bag Disable Switch (C99)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BU / OG	7328	Passenger Supplemental Inflatable Restraint Disable Switch Low Reference	I	—
B - C	—	—	—	Not Occupied	—	—
D	0.35	VT / OG	371	Passenger Supplemental Inflatable Restraint Disable Switch Signal	I	—
E - F	—	—	—	Not Occupied	—	—

S48A Multifunction Switch - Instrument Panel X1



3240103

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 10820548
Service Connector: 84976200
Description: 18-Way F 0.64 Series(BK)

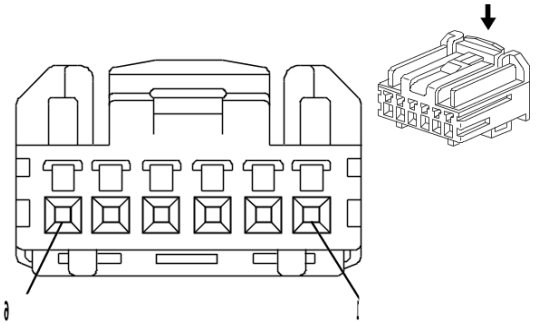
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300632	J-35616-64B (L-BU)	J-38125-215A

S48A Multifunction Switch - Instrument Panel X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
2	0.35	WH	6816	Indicator Dimming Control	I	—
3	0.35	VT / BU	5956	Vehicle Leveling Compressor Relay Coil Control	I	—
4	0.5	BN / GN	603	Air Suspension Low Pressure Warning Switch Signal	I	—
5	0.5	VT / WH	239	Run/Crank Ignition 1 Voltage	I	—
6	0.35	WH / GN	320	Vehicle Level Control Exhaust Solenoid Valve Control	I	—
7	0.5	BN / WH	1429	Standing Lamp Relay Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	VT / WH	1139	Run/Crank Ignition 1 Voltage	I	—
10	0.5	WH / BU	964	Configurable Provision Relay 4 Control	I	—
11	0.5	GN / GY	963	Configurable Provision Relay 3 Control	I	—
12	0.5	RD / WH	961	Configurable Provision Relay 1 Control	I	—
13	0.5	YE / WH	962	Configurable Provision Relay 2 Control	I	—
14	0.75	BK	1850	Ground	I	—
15 - 16	—	—	—	Not Occupied	—	—
17	0.35	BU / VT	1788	Traction Control Switch Signal 1	I	—
18	0.5	GY	158	Cargo Lamp Switch Signal	I	—

S48A Multifunction Switch - Instrument Panel X2



1664548

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15488869
Service Connector: 19115655
Description: 6-Way F 0.64 HCM Series(BK)

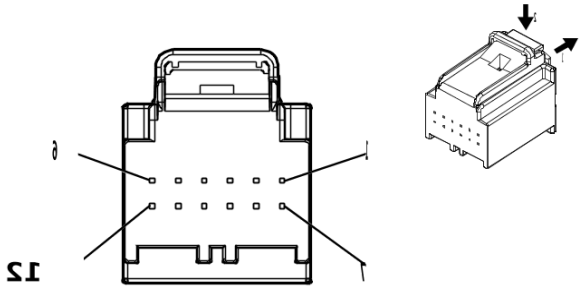
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required

S48A Multifunction Switch - Instrument Panel X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / GN	4311	Power Take-Off Enable Cabin Switch Normally Closed Signal	I	—
2	0.35	GN / WH	488	Power Take-Off Control Switch Signal	I	—
3	0.35	VT / GN	1739	Run/Crank Ignition 1 Voltage	I	—
4	0.5	GN / YE	2081	Exhaust Brake Switch Signal	II	—
5	0.35	GN / WH	3438	Exhaust Brake Switch Indicator Control	I	—
6	—	—	—	Not Occupied	—	—

S52 Outside Rearview Mirror Switch (DPN)



5142798

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver
OEM Connector: 35162721
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 0.64 Series(GY)

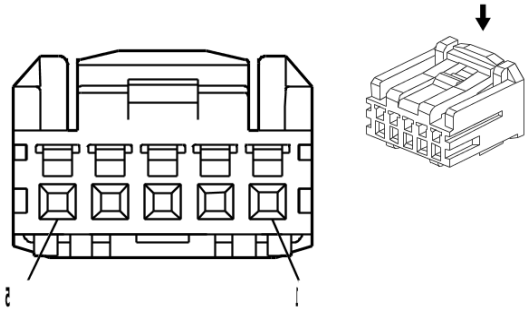
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S52 Outside Rearview Mirror Switch (DPN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE / VT	3397	Passenger Outside Rearview Mirror Motor Up [+] Down [-] Control	I	—
2	0.75	WH / GN	3412	Driver Outside Rearview Mirror Motor Fold Control	I	—
3	0.75	YE / BN	3391	Driver Mirror Motor Common Control	I	—
4	0.75	GN / BK	3396	Passenger Outside Rearview Mirror Motor Right [+] Left [-] Control	I	—
5	0.75	BK	1150	Ground	I	—
6	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
7	0.75	VT / BU	3390	Driver Outside Rearview Mirror Motor Up [+] Down [-] Control	I	—
8	0.75	WH	3398	Passenger Outside Rearview Mirror Motor Common Control	I	—
9	0.75	GY / WH	3411	Driver Outside Rearview Mirror Motor Unfold Control	I	—
10	0.75	BN / BK	3389	Driver Outside Rearview Mirror Motor Right [+] Left [-] Control	I	—
11	—	—	—	Not Occupied	—	—
12	0.75	RD / VT	1940	Battery Positive Voltage	I	—

S63 Roof Beacon Switch (TRW)



1673494

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 15491277
Service Connector: 88988747
Description: 5-Way F HCM Series(BK)

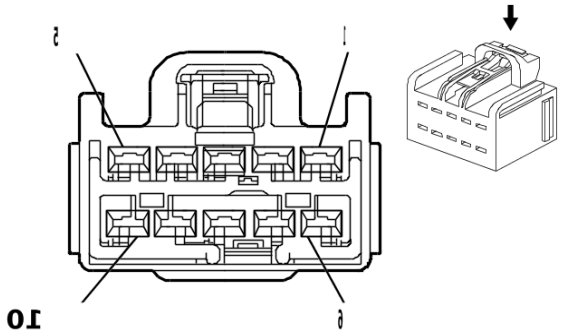
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required

S63 Roof Beacon Switch (TRW)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1050	Ground	I	—
2	0.5	YE	6817	LED Backlight Dimming Control 1	II	—
3	0.5	RD / YE	240	Battery Positive Voltage	II	—
4	0.5	WH / BK	5990	Emergency Vehicle Roof Lamp Switch Signal	II	—
5	—	—	—	Not Occupied	—	—

S64D Seat Adjuster Switch - Driver X1 (A95/AG1)



1856796

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 7283-6457-40
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 2.8 Kaizen Series(L-GY)

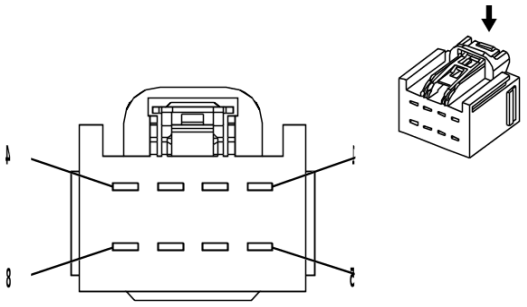
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S64D Seat Adjuster Switch - Driver X1 (A95/AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN / BN	286	Driver Seat Front Vertical Motor Up Control	I	—
2	2.5	BK	1150	Ground	I	—
3	1.5	YE / BU	285	Driver Seat Horizontal Motor Forward Control	I	—
4	1.5	GN / YE	276	Driver Seat Recline Motor Forward Control	I	—
5	1.5	BU / VT	287	Driver Seat Front Vertical Motor Down Control	I	—
6	2.5	RD / YE	5040	Battery Positive Voltage	I	—
7	1.5	GY / GN	284	Driver Seat Horizontal Motor Rearward Control	I	—
8	1.5	YE	282	Driver Seat Rear Vertical Motor Up Control	I	—
9	1.5	BU / YE	277	Driver Seat Recline Motor Rearward Control	I	—
10	1.5	GY / BU	283	Driver Seat Rear Vertical Motor Down Control	I	—

S64D Seat Adjuster Switch - Driver X2 (A95)



2832199

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 7283-3243-40
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series(L-GY)

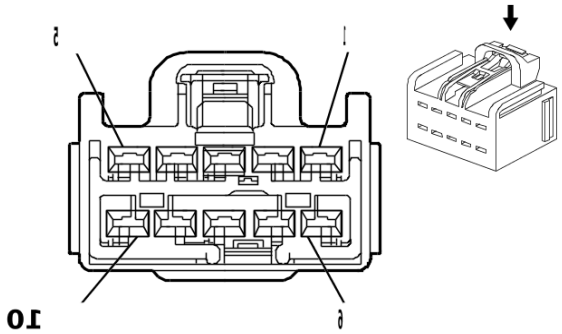
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S64D Seat Adjuster Switch - Driver X2 (A95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	1.5	BU	611	Driver Seat Lumbar Support Motor Forward Control	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	1.5	VT	610	Driver Seat Lumbar Support Motor Backward Control	I	—
7 - 8	—	—	—	Not Occupied	—	—

S64P Seat Adjuster Switch - Passenger X1 (A95)



1856796

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger
OEM Connector: 7283-6457-40
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 2.8 Kaizen Series(L-GY)

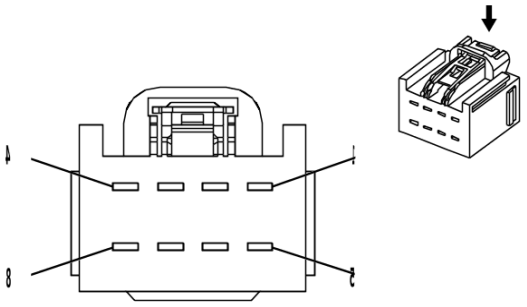
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S64P Seat Adjuster Switch - Passenger X1 (A95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	1.5	GN	76	Passenger Seat Recline Motor Forward Control	I	—
3	1.5	YE / WH	296	Passenger Seat Horizontal Motor Forward Control	I	—
4	—	—	—	Not Occupied	—	—
5	2.5	BK	1250	Ground	I	—
6	—	—	—	Not Occupied	—	—
7	1.5	BU / BN	77	Passenger Seat Recline Motor Rearward Control	I	—
8	—	—	—	Not Occupied	—	—
9	1.5	YE / BU	290	Passenger Seat Horizontal Motor Rearward Control	I	—
10	2.5	RD / BN	1440	Battery Positive Voltage	I	—

S64P Seat Adjuster Switch - Passenger X2 (A95)



2832199

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger
OEM Connector: 7283-3243-40
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series(L-GY)

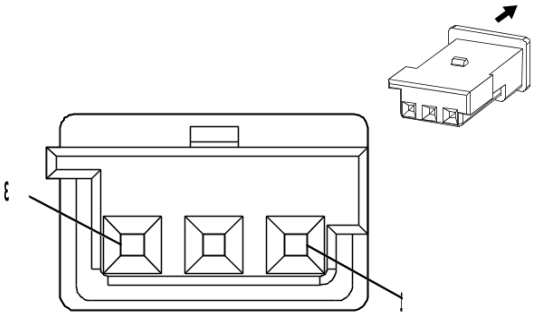
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S64P Seat Adjuster Switch - Passenger X2 (A95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	1.5	VT	210	Passenger Seat Lumbar Support Motor Backward Control	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	1.5	BU	211	Passenger Seat Lumbar Support Motor Forward Control	I	—
7 - 8	—	—	—	Not Occupied	—	—

S70E Steering Wheel Controls Switch - Radio Presets (UK3)



2179789

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 4-1718346-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Micro-Quadlock Series(PU)

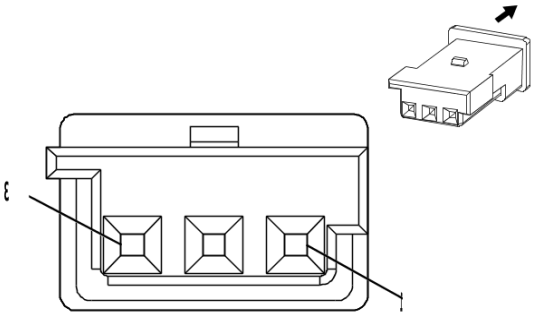
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S70E Steering Wheel Controls Switch - Radio Presets (UK3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / YE	4313	Radio Favorite Forward Switch Signal	I	—
2	0.35	YE / BU	4312	Radio Favorite Back Switch Signal	I	—
3	0.35	BK	1050	Ground	I	—

S70F Steering Wheel Controls Switch - Radio Volume (UK3)



2179789

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 4-1718346-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Micro-Quadlock Series(PU)

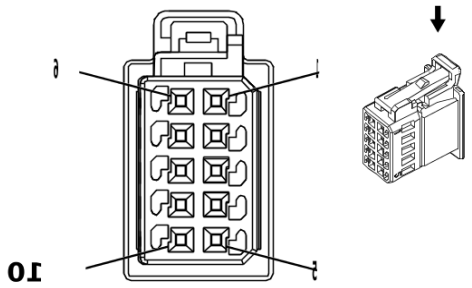
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S70F Steering Wheel Controls Switch - Radio Volume (UK3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU	4315	Radio Volume Up Switch Signal	I	—
2	0.35	GN / BN	4314	Radio Volume Down Switch Signal	I	—
3	0.35	BK	1050	Ground	I	—

S70L Steering Wheel Controls Switch - Left



2830955

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 1488973-1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Micro-Quadlock Series(BK)

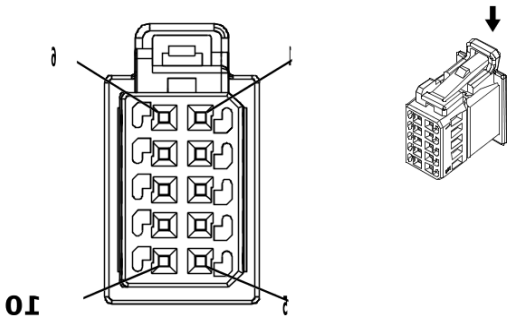
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S70L Steering Wheel Controls Switch - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1050	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GY / OG	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	UK3
4	0.35	BN / YE	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
5	—	—	—	Not Occupied	—	—
6	0.35 0.35	YE YE	6817 6136	LED Backlight Dimming Control 1 Control	I I	UK3 - UK3
7 - 8	—	—	—	Not Occupied	—	—
9	0.35	WH	1444	12V Reference	I	—
10	0.35	RD / YE	3040	Battery Positive Voltage	I	—

S70R Steering Wheel Controls Switch - Right (UK3)



3824564

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 1488973-2
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Micro-Quadlock Series(BK)

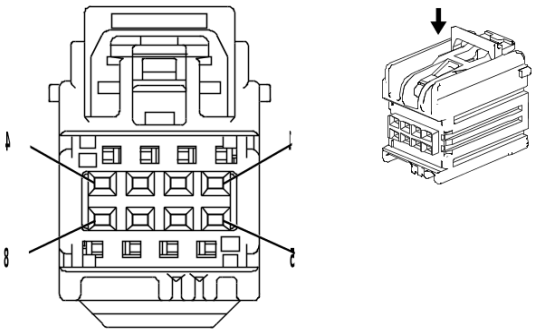
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S70R Steering Wheel Controls Switch - Right (UK3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GN	3894	Instrument Panel Cluster Control Module LIN Bus 1	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	RD / YE	3040	Battery Positive Voltage	I	—
6	0.35	BK	1050	Ground	I	—
7	0.35	BU	4315	Radio Volume Up Switch Signal	I	—
8	0.35	GN / BN	4314	Radio Volume Down Switch Signal	I	—
9	0.35	WH / YE	4313	Radio Favorite Forward Switch Signal	I	—
10	0.35	YE / BU	4312	Radio Favorite Back Switch Signal	I	—

S76 Trailer Brake Control Switch (JL1)



1716517

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13518475
Service Connector: 19368548
Description: 8-Way F Kaizen Series(BK)

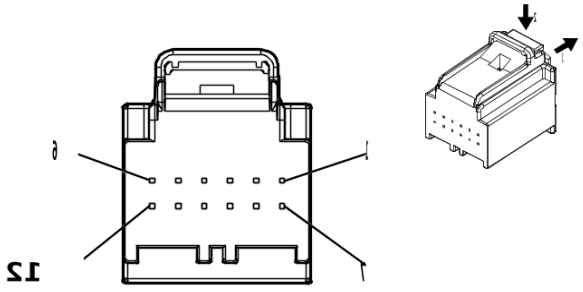
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S76 Trailer Brake Control Switch (JL1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BU / RD	7632	Trailer Brake Control Switch 5V Reference	I	—
4	0.5	YE	7635	Trailer Brake Control Manual Apply Signal	I	—
5	0.5	BN	7634	Trailer Brake Control Redundant Manual Apply Signal	I	—
6	0.5	GN / BK	7633	Trailer Brake Control User Gain Signal	I	—
7	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
8	0.5	BK / BN	7631	Trailer Brake Control Switch Low Reference	I	—

S77 Transfer Case Shift Control Switch (NQF)



5142798

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35162721
Service Connector: 13525988
Description: 12-Way F 0.64 Series(GY)

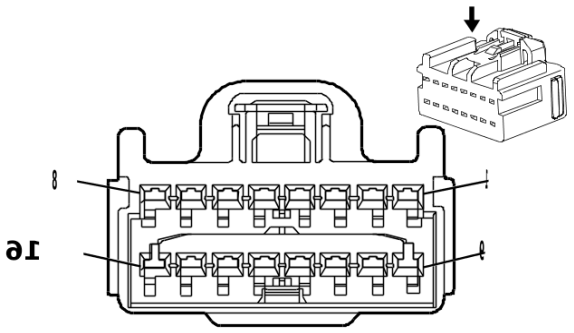
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584547	J-35616-64B (L-BU)	J-38125-215A

S77 Transfer Case Shift Control Switch (NQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	VT / BN	300	Run Ignition 3 Voltage	I	—
3	0.35	BN	1560	Neutral Indicator Control	I	—
4	0.35	WH	6816	Indicator Dimming Control	I	—
5	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
6	0.5	BK	1050	Ground	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	GN / BK	1563	2WD HI Indicator Control	I	—
9	0.35	BN / BK	1566	4WD HI Indicator Control	I	—
10	0.35	VT / WH	1565	4WD LO Indicator Control	I	—
11	0.35	GY / RD	6029	Four Wheel Drive Mode Switch 5V Reference	I	—
12	0.35	BU / YE	1693	Four Wheel Drive Switch Signal	I	—

S78 Turn Signal/Multifunction Switch X1



1592558

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: 7283-6453-60
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 Kaizen Series(GN)

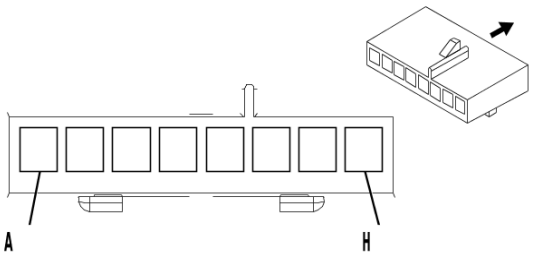
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S78 Turn Signal/Multifunction Switch X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.35	GY	1715	Windshield Wiper Switch High Signal	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	WH / BK	94	Windshield Washer Switch Signal	I	—
7	0.35	BK / GY	6009	Windshield Wiper Switch Low Reference	I	—
8	0.35	YE / BU	1714	Windshield Wiper Switch Low Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	YE / BN	307	Headlamp Switch Flash Signal	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	BK / WH	1851	Signal Ground	I	—
14	0.35	WH	524	High Beam Select Switch High Beam Signal	I	—
15 - 16	—	—	—	Not Occupied	—	—

S78 Turn Signal/Multifunction Switch X2



39746

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: 15466859
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series(L-GY)

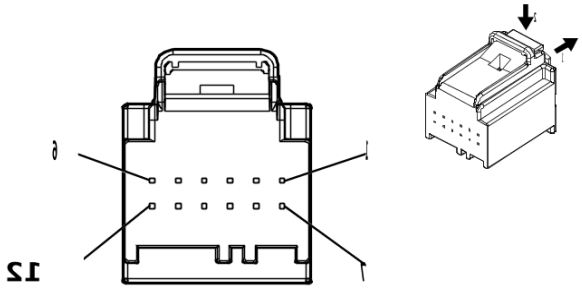
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S78 Turn Signal/Multifunction Switch X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	0.35	BK / WH	1851	Signal Ground	I	—
D	0.35	VT / BU	664	Hazard Switch Right Turn Signal	I	—
E	0.35	WH / GN	663	Hazard Switch Left Turn Signal	I	—
F	0.35	BK / WH	1851	Signal Ground	I	—
G	0.35	GN / WH	111	Hazard Warning Switch Signal	I	—
H	—	—	—	Not Occupied	—	—

S79D Window Switch - Driver (A31)



5095565

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver
OEM Connector: 35130710
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 0.64 Series(BK)

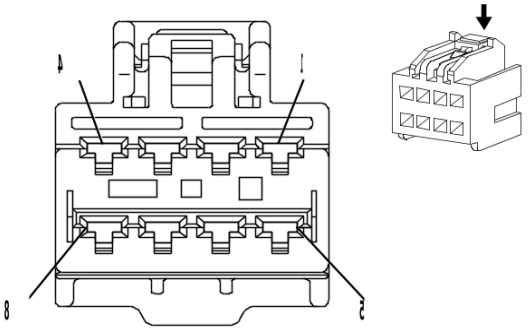
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S79D Window Switch - Driver (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1150	Ground	I	—
2	0.35	GN / VT	7628	Left Front Window Motor Express Control	I	—
3	0.35	GY	1136	Left Front Window Down Switch Main Control Signal	I	—
4	0.5	RD / VT	1940	Battery Positive Voltage	I	—
5	0.5	GN / YE	6134	Body Control Module LIN Bus 3	I	—
6	0.35	GN / WH	1300	Left Front Window Up Switch Main Control Signal	I	—
7	0.35	WH / VT	3270	Driver Door Lock Motor Status Signal	I	—
8	0.35	BU / VT	1124	Door Lock Key Switch Unlock Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	YE / BN	3265	Child Security Lock Switch Signal	I	—
11	0.35	WH	6816	Indicator Dimming Control	I	—
12	0.35	GY	5697	Child Security Lock Indicator Control	I	—

S79LR Window Switch - Left Rear (Crew Cab)



1653389

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 15491286
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series(BK)

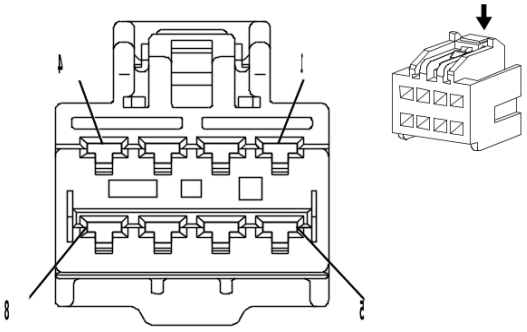
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

S79LR Window Switch - Left Rear (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / GY	6135	Body Control Module LIN Bus 4	I	—
2	0.35	GY / WH	747	Left Rear Door Ajar Switch Signal	I	—
3	0.5	BK	1150	Ground	I	—
4	—	—	—	Not Occupied	—	—
5	2.5	BK	1150	Ground	I	—
6	2.5	BU / VT	668	Left Rear Window Motor Up Control	I	—
7	2.5	YE / BU	669	Left Rear Window Motor Down Control	I	—
8	2.5	RD / BU	1842	Battery Positive Voltage	I	—

S79P Window Switch - Passenger (A31)



1653389

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger
OEM Connector: 15491286
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series(BK)

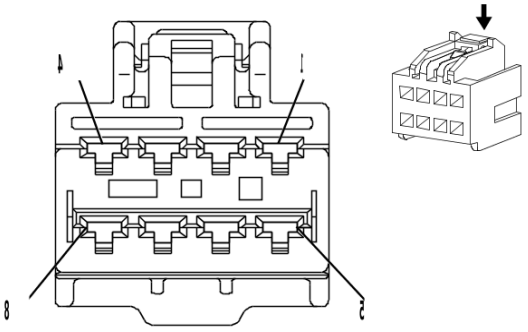
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

S79P Window Switch - Passenger (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1250	Ground	I	—
2	2.5	GN / GY	3387	Passenger Window Motor Up Control	I	—
3	2.5	YE / BU	3388	Passenger Window Motor Down Control	I	—
4	2.5	RD / WH	1340	Battery Positive Voltage	I	—
5	0.5	GN / YE	6134	Body Control Module LIN Bus 3	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	GY	746	Right Front Door Ajar Switch Signal	I	—

S79RR Window Switch - Right Rear (Crew Cab)



1653389

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 15491286
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 Series(BK)

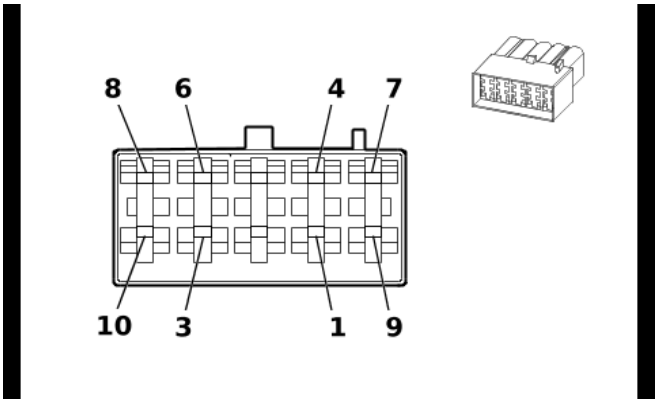
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

S79RR Window Switch - Right Rear (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / GY	6135	Body Control Module LIN Bus 4	I	—
2	0.35	GY / WH	748	Right Rear Door Ajar Switch Signal	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	2.5	BK	1250	Ground	I	—
6	2.5	BU / GY	670	Right Rear Window Motor Up Control	I	—
7	2.5	GN / BK	671	Right Rear Window Motor Down Control	I	—
8	2.5	RD / WH	1340	Battery Positive Voltage	I	—

S181E Configurable Provision Switch 5 (UEH)



5480221

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3530407C1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 2.8 Timer Sealed(BK)

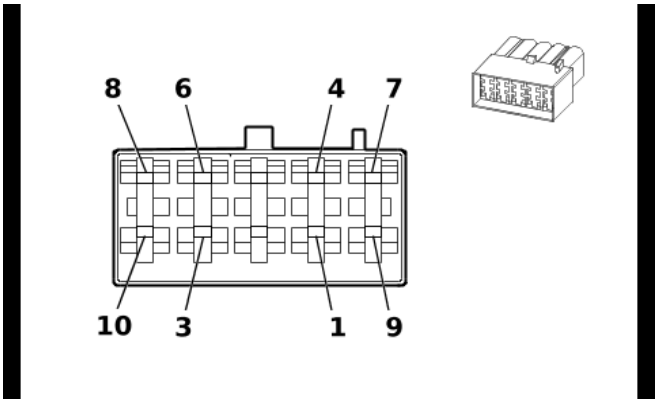
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

S181E Configurable Provision Switch 5 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
3	0.75	PK	12A	Configurable Provision Relay 5 Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
8	0.75	WH	11A	Ground	I	—
9	0.75	WH	11A	Ground	I	—
10	—	—	—	Not Occupied	—	—

S181F Configurable Provision Switch 6 (UEH)



5480221

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3530407C1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 2.8 Timer Sealed(BK)

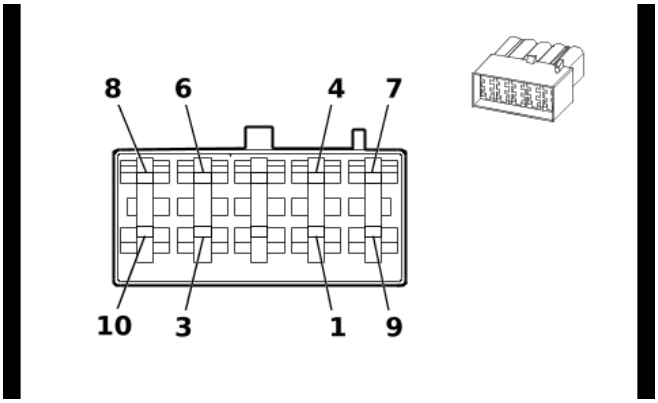
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

S181F Configurable Provision Switch 6 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
3	0.75	PK	12B	Configurable Provision Relay 6 Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
8	0.75	WH	11A	Ground	I	—
9	0.75	WH	11A	Ground	I	—
10	—	—	—	Not Occupied	—	—

S181G Configurable Provision Switch 7 (UEH)



5480221

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3530407C1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 2.8 Timer Sealed(BK)

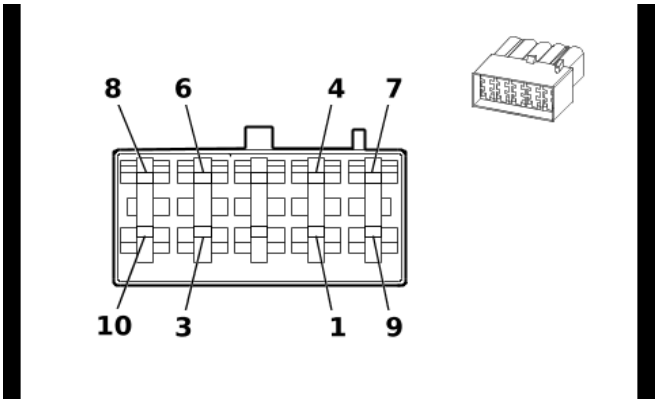
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

S181G Configurable Provision Switch 7 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
3	0.75	PK	12C	Configurable Provision Relay 7 Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
8	0.75	WH	11A	Ground	I	—
9	0.75	WH	11A	Ground	I	—
10	—	—	—	Not Occupied	—	—

S181H Configurable Provision Switch 8 (UEH)



5480221

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3530407C1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 2.8 Timer Sealed(BK)

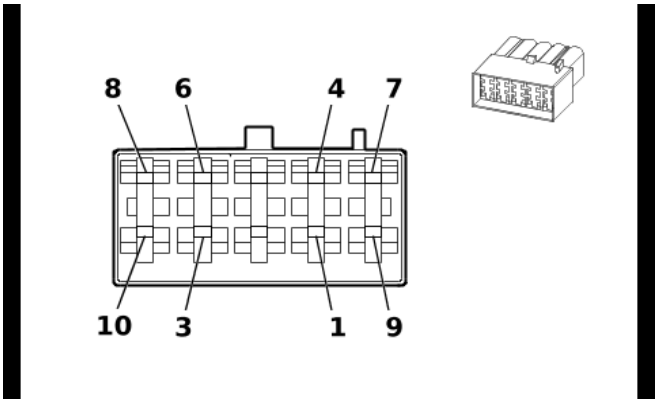
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

S181H Configurable Provision Switch 8 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
3	0.75	PK	12D	Configurable Provision Relay 8 Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
8	0.75	WH	11A	Ground	I	—
9	0.75	WH	11A	Ground	I	—
10	—	—	—	Not Occupied	—	—

S181J Configurable Provision Switch 9 (UEH)



5480221

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3530407C1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 2.8 Timer Sealed(BK)

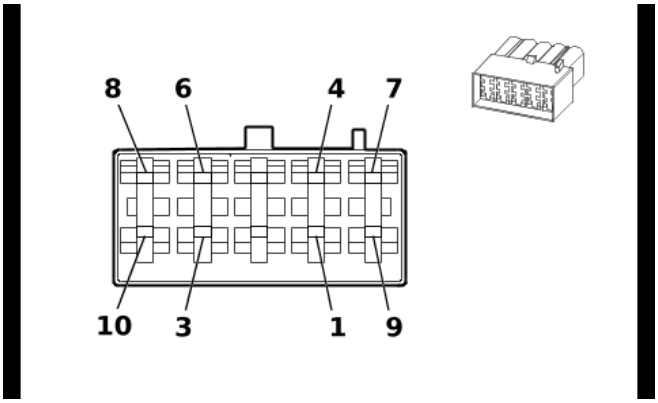
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

S181J Configurable Provision Switch 9 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
3	0.75	PK	12E	Configurable Provision Relay 9 Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
8	0.75	WH	11A	Ground	I	—
9	0.75	WH	11A	Ground	I	—
10	—	—	—	Not Occupied	—	—

S181K Configurable Provision Switch 10 (UEH)



5480221

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 3530407C1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 2.8 Timer Sealed(BK)

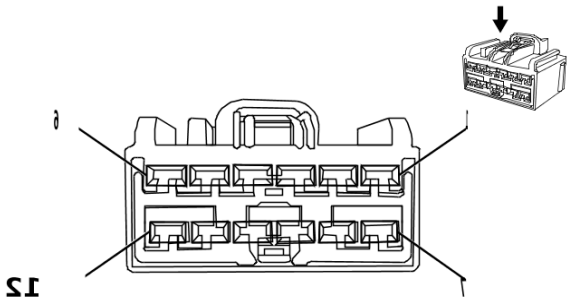
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

S181K Configurable Provision Switch 10 (UEH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
3	0.75	PK	12F	Configurable Provision Relay 10 Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	OG	13B	Run/Crank Ignition Voltage	I	—
8	0.75	WH	11A	Ground	I	—
9	0.75	WH	11A	Ground	I	—
10	—	—	—	Not Occupied	—	—

T1 Accessory DC/AC Power Inverter Module (KI4)



2231648

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 10846814
Service Connector: 13518424
Description: 12-Way F 2.8 Kaizen Series(L-GY)

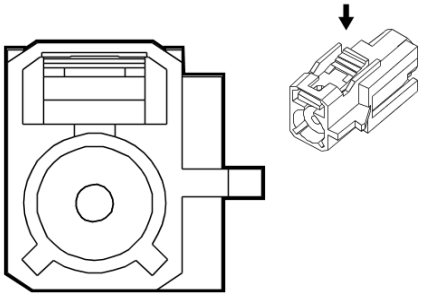
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368264	J-35616-4A (PU)	J-38125-11A

T1 Accessory DC/AC Power Inverter Module (KI4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	1.5	BK	5683	120V AC Phase A	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	2.5	RD / GY	4140	Battery Positive Voltage	I	—
7	1.5	RD	5684	120V AC Phase B	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	Bare	514	Low Reference	I	—
11	2.5	BK	1050	Ground	I	—
12	0.35	BU / BN	6807	DC/AC Inverter Control	I	—

T2RF Antenna - Roof Front X4 (U2K)



3633495

Connector Part Information

Harness Type: Right A-Pillar Coax
OEM Connector: 13688678
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(CU)

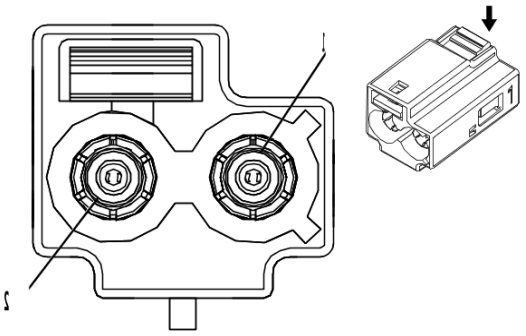
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T2RF Antenna - Roof Front X4 (U2K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(XM +/-HD) Coaxial Antenna XM Signal	I	—

T2RF Antenna - Roof Front X5 (UE1)



3417880

Connector Part Information

Harness Type: Right A-Pillar Coax
OEM Connector: 13985576
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(PU)

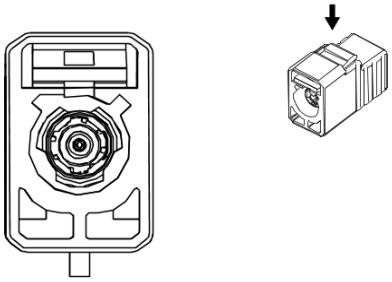
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T2RF Antenna - Roof Front X5 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	3134	Coaxial Antenna Cell/GPS Combined Signal	I	—
2	—	—	6449	Coaxial Antenna Cell Phone Signal	I	—

T4M Radio Antenna



2893647

Connector Part Information

Harness Type: Radio Antenna Jumper Coax
OEM Connector: 13581687
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BK)

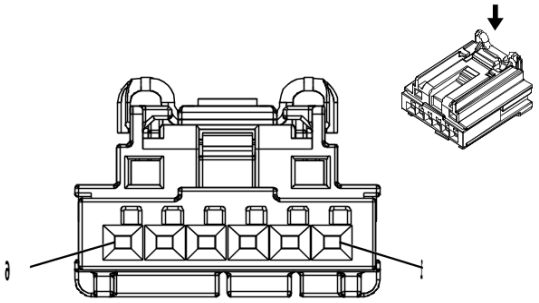
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T4M Radio Antenna

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(AM/FM) Antenna RF Signal	I	—

T22 Mobile Device Wireless Charger Module (K4C)



3960313

Connector Part Information

Harness Type: Front Floor Console Wiring Harness Extension Harness
OEM Connector: 13920633
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

T22 Mobile Device Wireless Charger Module (K4C)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT / YE	43	Accessory Ignition Voltage	I	—
2	0.75	BK	1050	Ground	I	—
3	0.35	GN	4512	Wireless Charging System Charge Indicator Control	I	—
4 - 6	—	—	—	Not Occupied	—	—

W34 Battery Positive Cable Terminal Post - Jump Start (BTN)

—

Connector Part Information

Harness Type: Battery Jump Stud
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: Ring Terminal

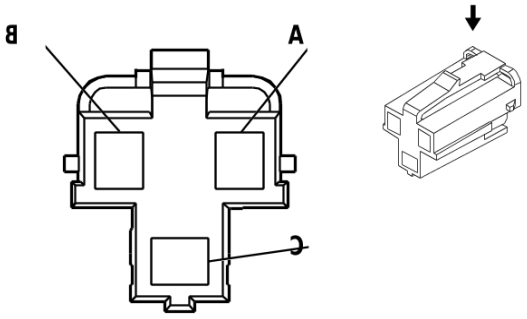
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

W34 Battery Positive Cable Terminal Post - Jump Start (BTN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	RD	1	Unfused Battery Positive Voltage	I	—

X80D Accessory Power Receptacle - Center Console Compartment ((AE7/A52)-APL)



362748

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Center
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series(GY)

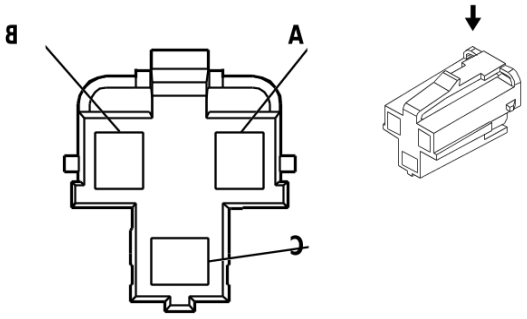
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X80D Accessory Power Receptacle - Center Console Compartment ((AE7/A52)-APL)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT / YE	243	Accessory Ignition Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1250	Ground	I	—

X80D Accessory Power Receptacle - Center Console Compartment (D07)



362748

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series(GY)

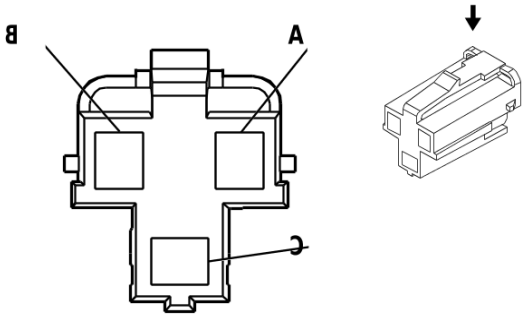
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X80D Accessory Power Receptacle - Center Console Compartment (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT / YE	143	Accessory Ignition Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X80E Accessory Power Receptacle - Center Seat (A52-APL)



362748

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Center
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series(GY)

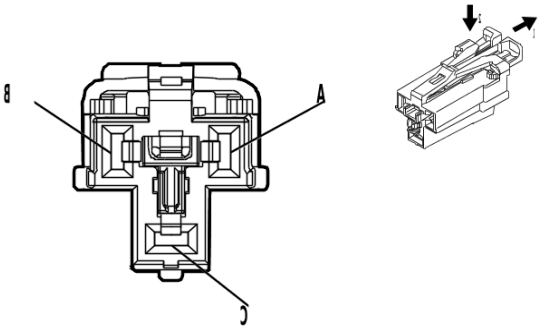
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X80E Accessory Power Receptacle - Center Seat (A52-APL)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT / YE	143	Accessory Ignition Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1250	Ground	I	—

X80G Accessory Power Receptacle - Instrument Panel (-D07)



4872413

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33386302
Service Connector: 19369281
Description: 3-Way F 2.8 APEX Series(GY)

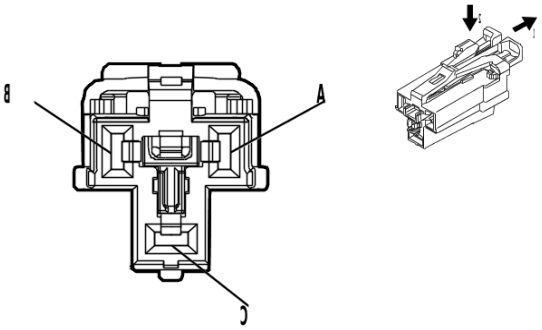
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

X80G Accessory Power Receptacle - Instrument Panel (-D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD / BN	4240	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X80J Accessory Power Receptacle - Instrument Panel 1 (D07)



4872413

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33386302
Service Connector: 19369281
Description: 3-Way F 2.8 APEX Series(GY)

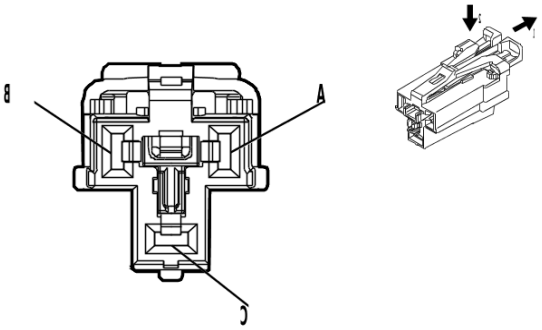
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

X80J Accessory Power Receptacle - Instrument Panel 1 (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD / WH	1040	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X80K Accessory Power Receptacle - Instrument Panel 2 (D07)



4872413

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33386302
Service Connector: 19369281
Description: 3-Way F 2.8 APEX Series(GY)

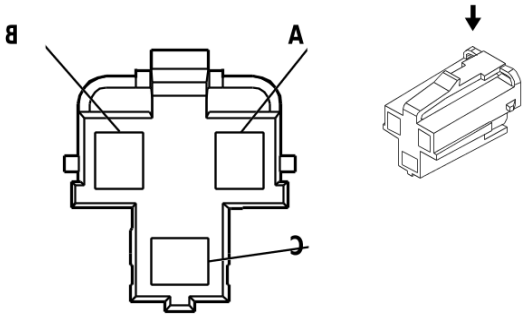
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

X80K Accessory Power Receptacle - Instrument Panel 2 (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD / BN	4240	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X80L Accessory Power Receptacle - Center Console Rear (D07)



362748

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 12176836
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 280 Metri-Pack Series(GY)

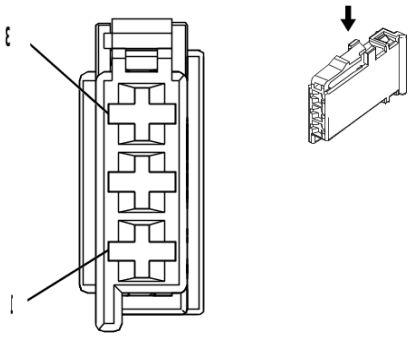
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X80L Accessory Power Receptacle - Center Console Rear (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	VT / YE	243	Accessory Ignition Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X81 Accessory Power Receptacle - 110V AC X1 (KI4)



2039656

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 10865339
Service Connector: 86790560
Description: 3-Way F 1.6 Micro-Timer Series(BK)

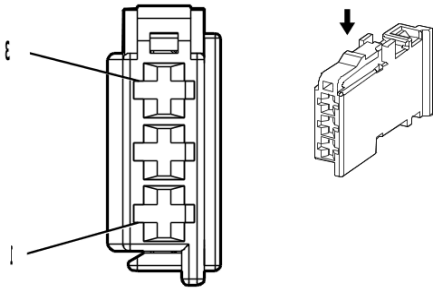
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X1 (KI4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT / BN	300	Run Ignition 3 Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BK	5683	120V AC Phase A	I	—

X81 Accessory Power Receptacle - 110V AC X2 (KI4)



2236412

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13648774
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series, Sealed(GY)

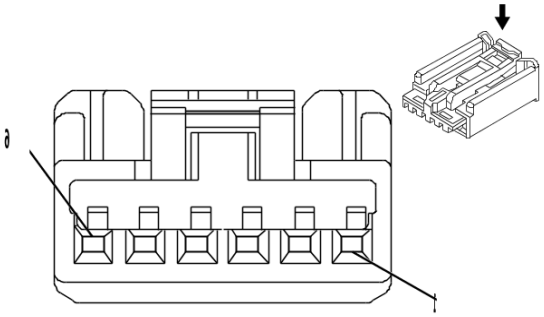
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X2 (KI4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / BN	6807	DC/AC Inverter Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	RD	5684	120V AC Phase B	I	—

X83 Auxiliary Audio Input X1 (D07)



1862240

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 13595476
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Kaizen Series(BK)

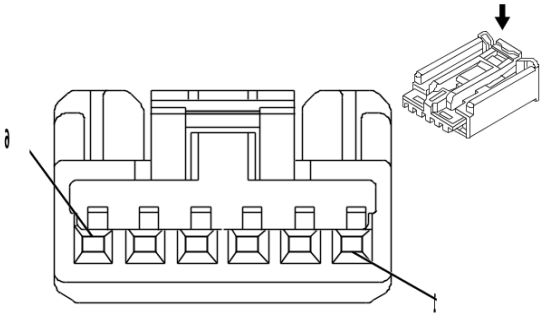
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X83 Auxiliary Audio Input X1 (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	5839	Left Auxiliary Audio Signal 2	I	—
2	0.35	GN	5841	Right Auxiliary Audio Signal 2	I	—
3	0.35	VT	5843	Auxiliary Audio Common Signal	I	—
4	0.75	BK	2550	Ground	I	—
5	0.35	BU	2060	Auxiliary Audio Plug Detection Signal	I	—
6	0.75	RD / VT	340	Battery Positive Voltage	I	—

X83 Auxiliary Audio Input X1 (-D07)



1862240

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Center
OEM Connector: AIT2PB-06-1AK
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Kaizen Series(BK)

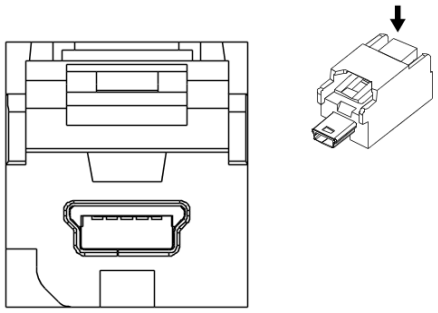
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X83 Auxiliary Audio Input X1 (-D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	5839	Left Auxiliary Audio Signal 2	I	—
2	0.35	GN	5841	Right Auxiliary Audio Signal 2	I	—
3	0.35	VT	5843	Auxiliary Audio Common Signal	I	—
4	0.35	BK	2550	Ground	I	—
5	0.35	BU	2060	Auxiliary Audio Plug Detection Signal	I	—
6	0.75	RD / VT	340	Battery Positive Voltage	I	—

X83 Auxiliary Audio Input X2 (D07)



3214018

Connector Part Information

Harness Type: Floor Console USB
OEM Connector: 13868840
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(GY)

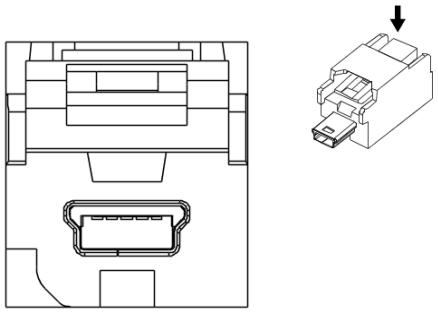
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X83 Auxiliary Audio Input X2 (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

X83 Auxiliary Audio Input X2 (-D07)



3214018

Connector Part Information

Harness Type: Center Seat USB
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: F

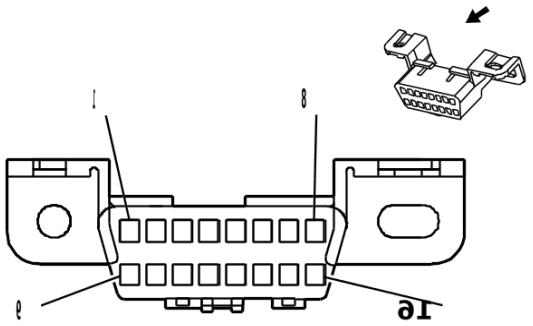
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X83 Auxiliary Audio Input X2 (-D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

X84 Data Link Connector



68793

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12110250
Service Connector: 12110250
Description: 16-Way F 150 Metri-Pack Series(BK)

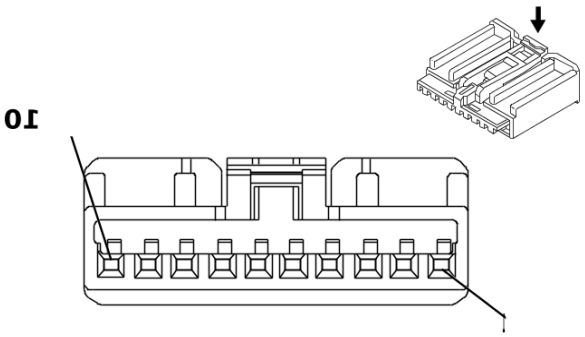
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580059	J-35616-14 (GN)	J-38125-12A

X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BK	1050	Ground	I	—
5	0.5	BK / WH	1851	Signal Ground	I	—
6	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
7 - 11	—	—	—	Not Occupied	—	—
12	0.5	BU / YE	6105	High Speed GMLAN Serial Data [+] 2	I	—
13	0.5	WH	6106	High Speed GMLAN Serial Data [-] 2	I	—
14	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	RD / BU	3240	Battery Positive Voltage	I	—

X85 Steering Wheel Air Bag Coil X1



1862241

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: AIT2PB-10-1AK
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(BK)

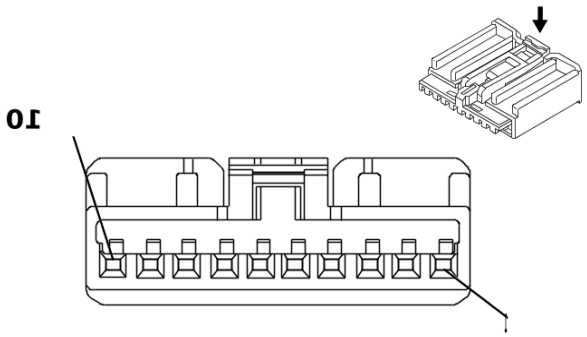
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X85 Steering Wheel Air Bag Coil X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / YE	3040	Battery Positive Voltage	I	—
2	0.5	GN / BK	3894	Instrument Panel Cluster Control Module LIN Bus 1	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	—
5	0.35	BN	6136	Control	I	—
6	0.35	WH / RD	1444	12V Reference	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	BN / GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
9	0.35	BK	1050	Ground	I	—
10	0.35	GN / WH	3287	Horn Switch Signal	I	—

X85 Steering Wheel Air Bag Coil X2



1862241

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series

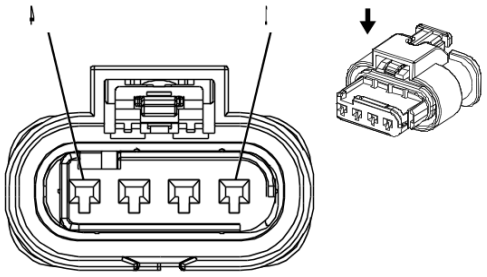
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X85 Steering Wheel Air Bag Coil X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD	3287	Horn Switch Signal	I	—
2	0.35	BK	1050	Ground	I	—
3	0.35	BN / YE	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	WH	1444	12V Reference	I	—
6	0.35	YE	6136	Control	I	- UK3
7	0.35	GY / OG	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	UK3
8	—	—	—	Not Occupied	—	—
9	0.5	GN	3894	Instrument Panel Cluster Control Module LIN Bus 1	I	UK3
10	0.35	RD / YE	3040	Battery Positive Voltage	I	—

X85 Steering Wheel Air Bag Coil X3



2684560

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13854531
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed(BK with YE Cover)

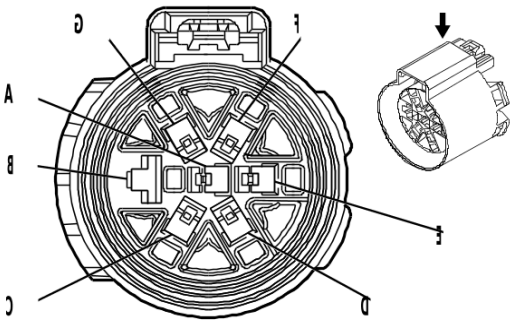
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

X85 Steering Wheel Air Bag Coil X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
2	0.35	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—
3 - 4	—	—	—	Not Occupied	—	—

X88 Trailer Connector (UY7)



2056936

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 13857223
Service Connector: 86816072
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed(BK)

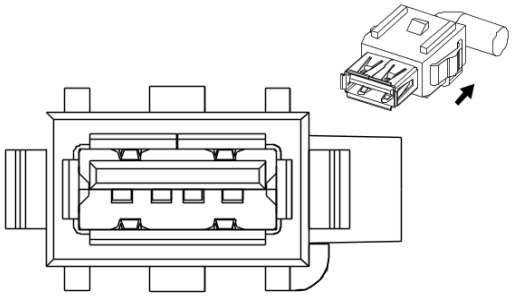
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

X88 Trailer Connector (UY7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2.5	WH / GN	1624	Trailer Backup Lamp Control	II	—
B	5	BK	22	Trailer Ground	I	—
C	2.5	BU	47	Trailer Auxiliary Control	II	—
D	2.5	GN / BN	319	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	2.5	RD / VT	1242	Battery Positive Voltage	II	—
F	2.5	GY / BN	2109	Trailer Park Lamp Control	II	—
G	2.5	YE / BU	318	Left Rear Trailer Stop/Turn Lamp Control	II	—

X92 USB Receptacle (IO5-D07)



3028813

Connector Part Information

Harness Type: USB Receptacle USB
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way F Standard-A USB Type

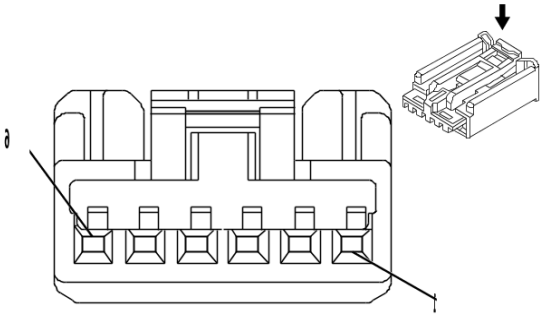
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X92 USB Receptacle (IO5-D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

X92 USB Receptacle X1 (D07)



1862240

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13595476
Service Connector: 19367517
Description: 6-Way F 0.64 Kaizen Series(BK)

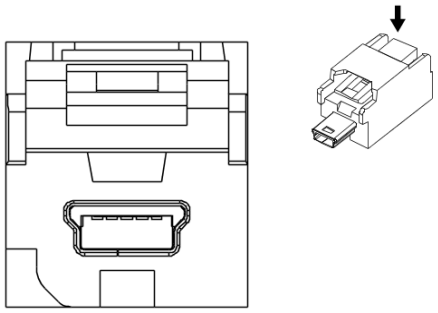
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X92 USB Receptacle X1 (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.35	BK	2550	Ground	I	—
5	—	—	—	Not Occupied	—	—
6	0.75	RD / VT	340	Battery Positive Voltage	I	—

X92 USB Receptacle X2 (D07)



3214018

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13584747
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(GY)

Terminal Part Information

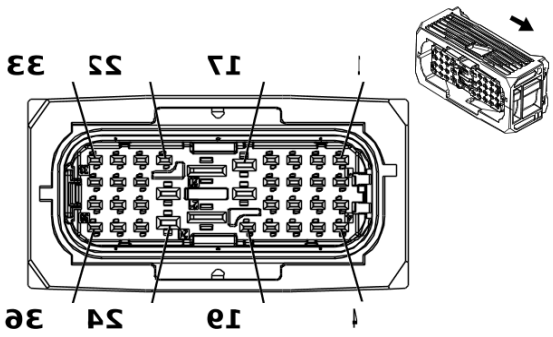
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X92 USB Receptacle X2 (D07)

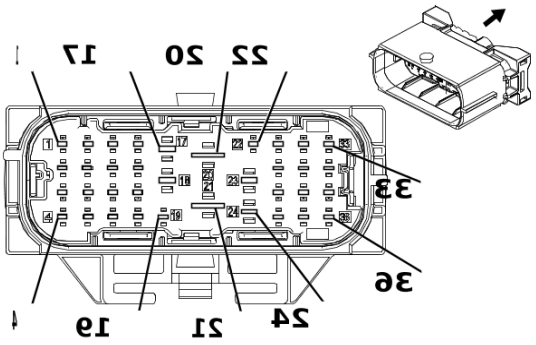
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

Inline Harness Connector End Views

X101 Engine Wiring Harness - Chassis to Engine Wiring Harness



4204560



3960400

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13929980
Service Connector: 19333092
Description: 36-Way F 1.5, 2.8 CTS, 6.3 MCP Series, Sealed(BK)

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13594541
Service Connector: 19330685
Description: 36-Way M 1.5, 2.8, 5.8 Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368624	J-35616-35 (VT)	J-38125-212
II	19369235	J-35616-14 (GN)	EL-38125-560A
III	13575364	J-35616-5 (PU)	J-38125-36
IV	19303873	J-35616-3 (GY)	EL-38125-560A

X101 Engine Wiring Harness - Chassis to Engine Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU / BN	4498	II	—	High Speed GMLAN Serial Data [+] 7	1	0.5	BU / BN	4498	IV	
2	0.5	WH	4499	II	—	High Speed GMLAN Serial Data [-] 7	2	0.5	WH	4499	IV	
3	0.5	BU	2500	II	—	High Speed GMLAN Serial Data [+] 1	3	0.5	BU	2500	IV	
4	0.5	WH	2501	II	—	High Speed GMLAN Serial Data [-] 1	4	0.5	WH	2501	IV	
5	0.5	BK / BN	6782	II	—	Exhaust Gas Temperature Sensor 1 Low Reference	5	0.5	BK / BN	6782	IV	
6	0.5	BU / WH	5277	II	—	Exhaust Gas Temperature Sensor 1 Signal	6	0.5	BU / WH	5277	IV	

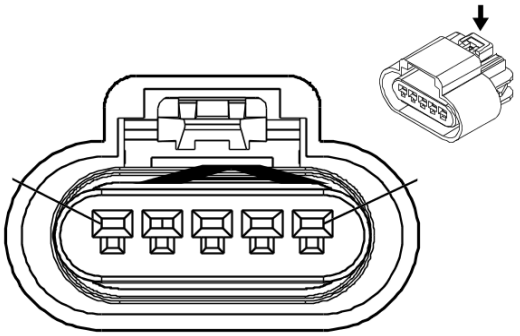
X101 Engine Wiring Harness - Chassis to Engine Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	BK / BU	6783	II	—	Exhaust Gas Temperature Sensor 2 Low Reference	7	0.5	BK / BU	6783	IV	
8	0.5	BU / GN	5377	II	—	Exhaust Gas Temperature Sensor 2 Signal	8	0.5	BU / GN	5377	IV	
9	0.5	BK / BU	6274	II	—	Exhaust Gas Recirculation Temperature Sensor Low Reference	9	0.5	BK / BU	6274	IV	
10	0.5	WH / BN	3237	II	—	Exhaust Gas Recirculation Temperature Sensor Signal	10	0.5	WH / BN	3237	IV	
11	0.5	BK / YE	6275	II	—	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	11	0.5	BK / GN	3235	IV	
12	0.5	YE / GN	3236	II	—	Exhaust Gas Recirculation Temperature Sensor 2 Signal	12	0.5	WH / GY	3234	IV	
13	0.5	YE / BK	3682	II	—	Charge Air Cooler Inlet Temperature Sensor Low Reference	13	0.5	YE / BK	3682	IV	
14	0.5	GN	3683	II	—	Charge Air Cooler Inlet Temperature Sensor Signal	14	0.5	GN	3683	IV	
15	0.5	BN / BK	2929	II	—	Fuel Metering Solenoid Valve Low Control	15	0.5	BN / BK	2929	IV	
16	0.5	YE	2928	II	—	Fuel Metering Solenoid Valve High Control	16	0.5	YE	2928	IV	
17	0.5	VT / YE	5985	I	—	Accessory Wake-Up Serial Data	17	0.5	VT / YE	5985	III	
18	0.5	VT / BK	2139	I	—	Run/Crank Ignition 1 Voltage	18	0.5	VT / BK	2139	III	
19 - 21	—	—	—	—	—	Not Occupied	19 - 21	—	—	—	—	—
22	0.5	VT / BU	3674	II	—	NOx Sensor 1 Control	22	0.5	VT / BU	3674	IV	
23	0.5	GY	23	I	—	Generator Field Duty Cycle Signal	23	0.5	GY	23	III	

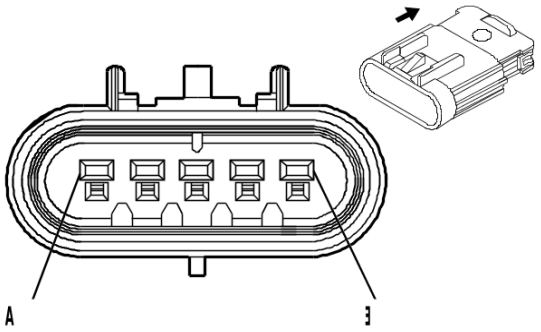
X101 Engine Wiring Harness - Chassis to Engine Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
24	0.75	BN	25	I	—	Charge Indicator Control	24	0.5	BN	25	III	
25 - 27	—	—	—	—	—	Not Occupied	25 - 27	—	—	—	—	—
28	—	—	—	—	—	Crankshaft Position Sensor Replicated Signal	28	0.5	VT / BU	6091	IV	
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	0.5	BU / GN	7071	II	—	Fuel Heater Control	30	0.5	BU / GN	7071	IV	
31	—	—	—	—	—	Exhaust Aftertreatment Fuel Injector Low Control	31	0.5	VT / BN	2927	IV	
32	—	—	—	—	—	Exhaust Aftertreatment Fuel Injector High Control	32	0.5	BN / BU	2926	IV	
33	0.5	BU / BN	4498	II	—	High Speed GMLAN Serial Data [+] 7	33	0.5	BU / BN	4498	IV	
34	0.5	WH	4499	II	—	High Speed GMLAN Serial Data [-] 7	34	0.5	WH	4499	IV	
35	0.5	BU	2500	II	—	High Speed GMLAN Serial Data [+] 1	35	0.5	BU	2500	IV	
36	0.5	WH	2501	II	—	High Speed GMLAN Serial Data [-] 1	36	0.5	WH	2501	IV	

X102 Engine Wiring Harness - Chassis to Fan Blade Clutch Wiring Harness



647974



1334521

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13519051
Service Connector: 13585858
Description: 5-Way F 150 GT Series, Sealed(BK)

Connector Part Information

Harness Type: Fan Blade Clutch Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M (BK)

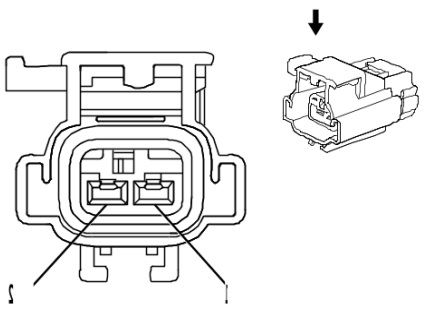
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

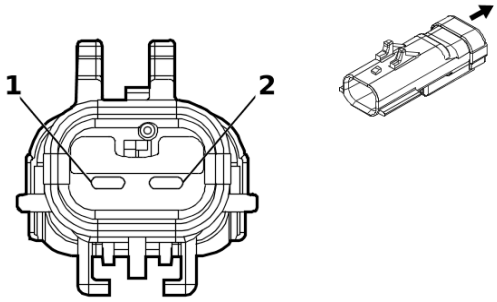
X102 Engine Wiring Harness - Chassis to Fan Blade Clutch Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	BK	550	I	—	Ground	A	0.75	GN	550	II	—
B	0.5	WH	2368	I	—	Cooling Fan Control Signal	B	0.5	RD	2368	II	—
C	0.5	BK / BN	6141	I	—	Cooling Fan Speed Sensor Low Reference	C	0.5	BK	6141	II	—
D	0.5	BU / VT	2364	I	—	Cooling Fan Speed Signal	D	0.5	WH	2364	II	—
E	0.5	GY / RD	2365	I	—	Cooling Fan Speed Sensor 5V Reference	E	0.5	OG	2365	II	—

X103 Body Front and Engine Wiring Harness to Horn Wiring Harness



2323609



5168831

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 3626435C1
Service Connector: 13585624
Description: 2-Way F 2.8 Series, Sealed(BK)

Connector Part Information

Harness Type: Horn Wiring Harness
OEM Connector: 3924162C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 2.8 APEX Series, Sealed(BK)

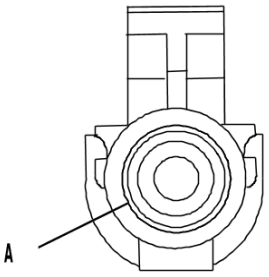
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

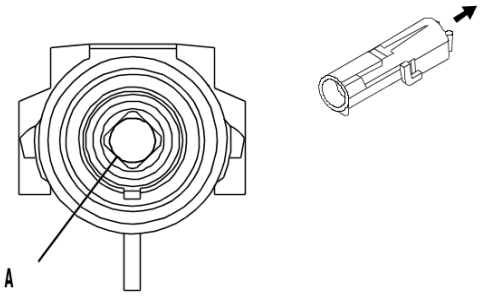
X103 Body Front and Engine Wiring Harness to Horn Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	BN / GY	29	I	—	Horn Control	1	1	BN / GY	29	II	—
2	1	BK	85-G	I	—	Ground	2	1	BK	85-G	II	—

X104 Body Front and Engine Wiring Harness to Radiator Ground



1391785



1391773

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 587566C91
Service Connector: 84788837
Description: 1-Way F Weather Pack Series, Sealed(BK)

Connector Part Information

Harness Type: Radiator Ground
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M (BK)

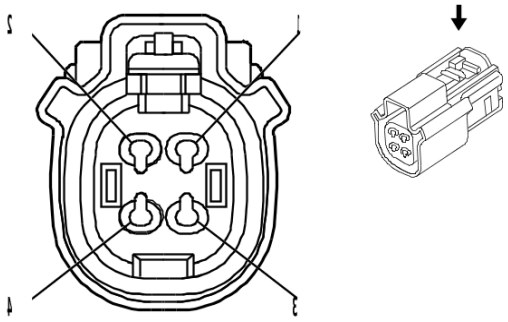
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required

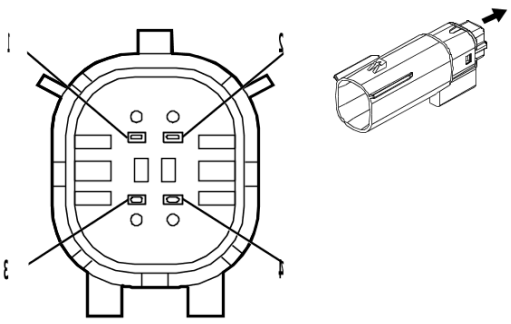
X104 Body Front and Engine Wiring Harness to Radiator Ground

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	3	BK	10-G	I	—	Ground	A	—	WH	10-G	II	—

X105 Engine Wiring Harness - Chassis to Engine Wiring Harness - Chassis



1960031



2368875

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 33346391
Service Connector: 19368217
Description: 4-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 33344515
Service Connector: 84838880
Description: 4-Way M 1.5 MX Series, Sealed(BK)

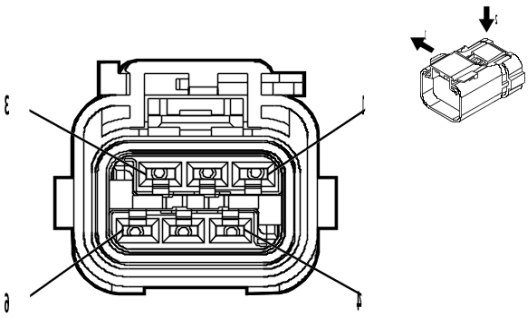
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

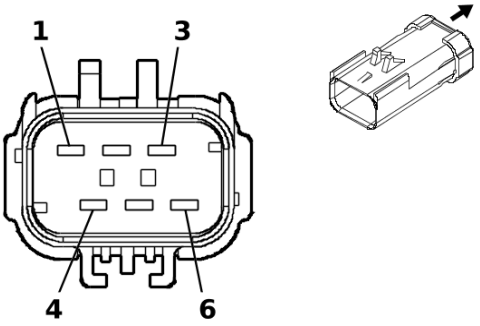
X105 Engine Wiring Harness - Chassis to Engine Wiring Harness - Chassis

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE / BK	625	I	—	Starter Enable Relay Control	1	0.5	YE / BK	625	II	—
2	0.75	BN	25	I	—	Charge Indicator Control	2	0.75	BN	25	II	—
3	0.5	YE / BK	625	I	—	Starter Enable Relay Control	3	0.5	YE / BK	625	II	—
4	0.75	BN	25	I	—	Charge Indicator Control	4	0.75	BN	25	II	—

X107 Accessory Wiring Harness Package - Snow Plow Tee Left to Snow Plow Headlight - Left (UNL)



4997615



5187846

Connector Part Information

Harness Type: Accessory Wiring Harness Package - Snow Plow Tee Left
OEM Connector: 3612305C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 2.8 APEX Series, Sealed(BK)

Connector Part Information

Harness Type: Snow Plow Headlight - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M (BK)

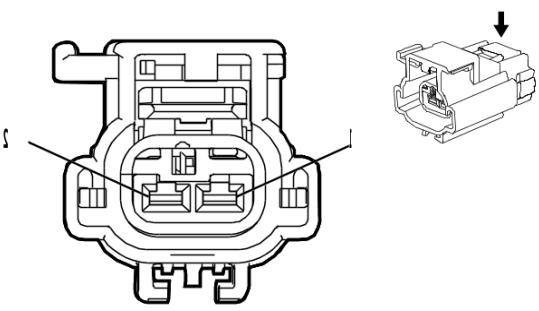
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	No Tool Required	No Tool Required

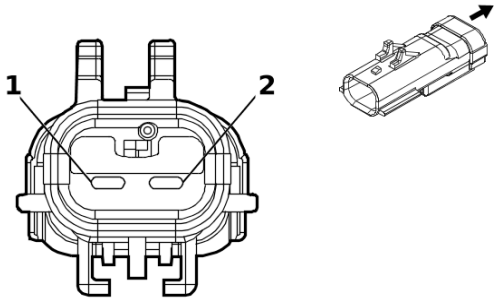
X107 Accessory Wiring Harness Package - Snow Plow Tee Left to Snow Plow Headlight - Left (UNL)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BK	250	I	—	Ground	1	1.5	—	250	II	—
2	1.5	YE	712	I	—	Left Headlamp Low Beam Control	2	1.5	—	712	II	—
3	1.5	WH	711	I	—	Left Headlamp High Beam Control	3	1.5	—	711	II	—
4	1.5	GY / BU	7539	I	—	Right Front DRL Control	4	1.5	—	7538	II	—
5	1.5	VT / GY	709	I	—	Left Park Lamp Control	5	1.5	—	709	II	—
6	1.5	BU / WH	1314	I	—	Left Front Turn Signal Lamp Control	6	1.5	—	1314	II	—

X108 Body Front and Engine Wiring Harness to Front Fog Lamp Wiring Harness - Left (T3U)



2474690



5168831

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 6105358C1
Service Connector: 13577540
Description: 2-Way F 2.8 APEX Series, Sealed(BK)

Connector Part Information

Harness Type: Front Fog Lamp Wiring Harness - Left
OEM Connector: 3924162C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 2.8 APEX Series, Sealed(BK)

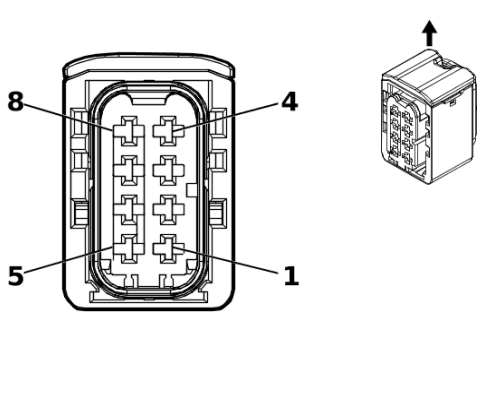
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

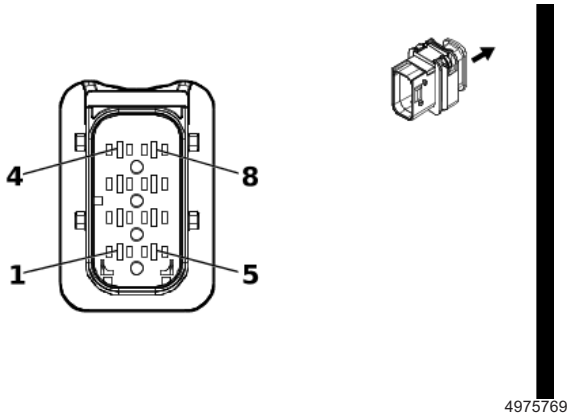
X108 Body Front and Engine Wiring Harness to Front Fog Lamp Wiring Harness - Left (T3U)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BN / VT	2234	I	—	Front Fog Lamp Control	1	1.5	BN / VT	2234	II	—
2	1.5	BK	150	I	—	Ground	2	1.5	BK	150	II	—

X109 Headlamp Wiring Harness - Left to Body Front and Engine Wiring Harness



5168606



4975769

Connector Part Information

Harness Type: Headlamp Wiring Harness - Left
OEM Connector: 4100562C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 MCP Series, Sealed(BK)

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 4100563C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 2.8 Series, Sealed(BK)

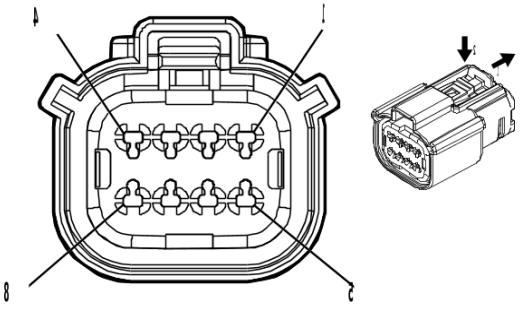
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

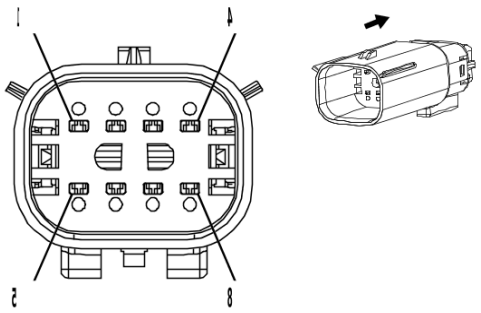
X109 Headlamp Wiring Harness - Left to Body Front and Engine Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	YE	712	I	—	Left Headlamp Low Beam Control	1	1	YE	712	II	—
2	1.5	VT / GY	709	I	—	Left Park Lamp Control	2	1	VT / GY	709	II	—
3	1.5	BU / WH	1314	I	—	Left Front Turn Signal Lamp Control	3	1	BU / WH	1314	II	—
4	1.5	BN / GN	109	I	—	Hood Ajar Switch Signal	4	1	BN / GN	109	II	—
5	1.5	WH	711	I	—	Left Headlamp High Beam Control	5	1	WH	711	II	—
6	1.5	GY / BU	7538	I	—	Left Front DRL Control	6	1	GY / BU	7538	II	—
7	1.5	YE	5530	I	—	Hood Open Switch Signal	7	1	YE	5530	II	—
8	2 1.5	BK BK	250 250	I I	BTV/ PTO/ UTJ - BTV/ PTO/ UTJ	Ground Ground	8	1.5	BK	250	II	—

X110 Headlamp Wiring Harness - Left to Left Headlight (-UNL)



4846407



2667653

Connector Part Information

Harness Type: Headlamp Wiring Harness - Left
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Left Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M (BK)

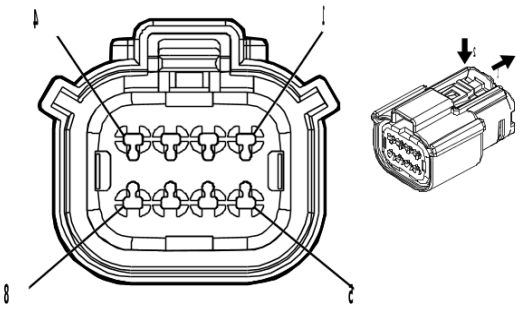
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	No Tool Required	No Tool Required

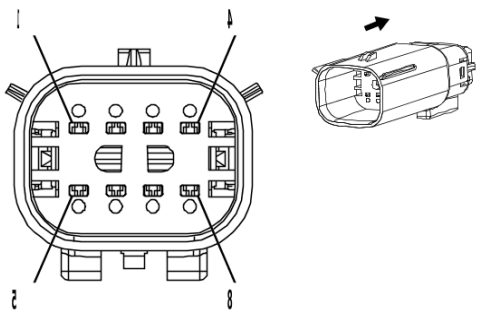
X110 Headlamp Wiring Harness - Left to Left Headlight (-UNL)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	—	Ground	1	—	BK	250	II	—
2	0.75	YE	712	I	—	Left Headlamp Low Beam Control	2	—	BK	712	II	—
3	0.75	WH	711	I	—	Left Headlamp High Beam Control	3	—	BK	711	II	—
4	0.75	GY / BU	7538	I	—	Left Front DRL Control	4	—	BK	7538	II	—
5	0.75	VT / GY	709	I	—	Left Park Lamp Control	5	—	BK	709	II	—
6	0.75	BU / WH	1314	I	—	Left Front Turn Signal Lamp Control	6	—	BK	1314	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X110 Accessory Wiring Harness Package - Snow Plow Tee Left to Left Headlight (UNL)



4846407



2667653

Connector Part Information

Harness Type: Accessory Wiring Harness Package - Snow Plow Tee Left
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Left Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M (BK)

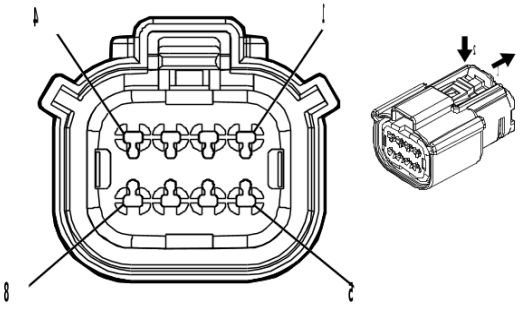
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	No Tool Required	No Tool Required

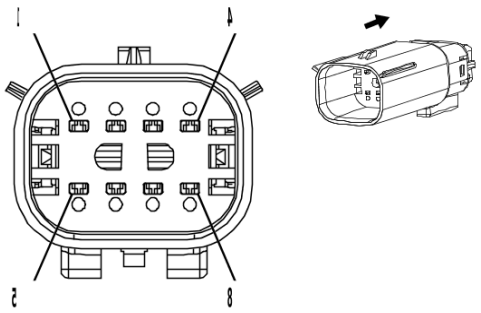
X110 Accessory Wiring Harness Package - Snow Plow Tee Left to Left Headlight (UNL)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BK	250	I	—	Ground	1	—	BK	250	II	—
2	0.75	YE	712	I	—	Left Headlamp Low Beam Control	2	—	BK	712	II	—
3	0.75	WH	711	I	—	Left Headlamp High Beam Control	3	—	BK	711	II	—
4	0.75	GY / BU	7538	I	—	Left Front DRL Control	4	—	BK	7538	II	—
5	0.75	VT / GY	709	I	—	Left Park Lamp Control	5	—	BK	709	II	—
6	0.75	BU / WH	1314	I	—	Left Front Turn Signal Lamp Control	6	—	BK	1314	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X111 Headlamp Wiring Harness - Left to Accessory Wiring Harness Package - Snow Plow Tee Left (UNL)



4846407



2667653

Connector Part Information

Harness Type: Headlamp Wiring Harness - Left
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Accessory Wiring Harness Package - Snow Plow Tee Left
OEM Connector: 3709925C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 1.5 MX Series, Sealed(BK)

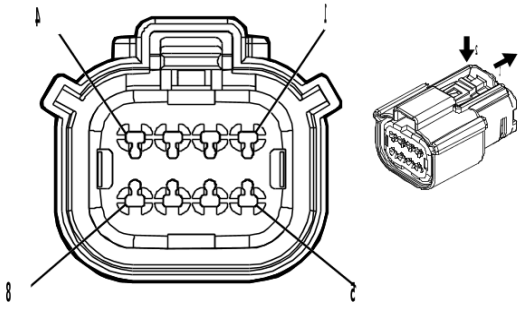
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

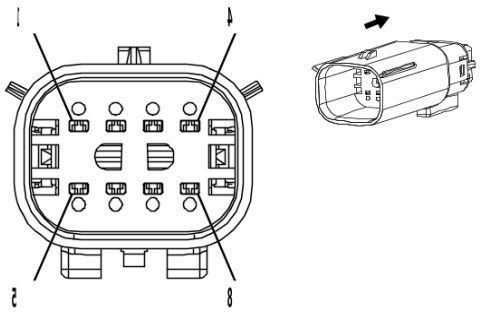
X111 Headlamp Wiring Harness - Left to Accessory Wiring Harness Package - Snow Plow Tee Left (UNL)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	—	Ground	1	1.5	BK	250	II	—
2	0.75	YE	712	I	—	Left Headlamp Low Beam Control	2	1.5	YE	712	II	—
3	0.75	WH	711	I	—	Left Headlamp High Beam Control	3	1.5	WH	711	II	—
4	0.75	GY / BU	7538	I	—	Left Front DRL Control	4	1.5	GY / BU	7538	II	—
5	0.75	VT / GY	709	I	—	Left Park Lamp Control	5	1.5	VT / GY	709	II	—
6	0.75	BU / WH	1314	I	—	Left Front Turn Signal Lamp Control	6	1.5	BU / WH	1314	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X112 Engine Wiring Harness to Engine Wiring Harness - Jumper



4846407



2667653

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13520069
Service Connector: 84928314
Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Engine Wiring Harness - Jumper
OEM Connector: 13520577
Service Connector: 19370460
Description: 8-Way M 1.5 MX Series, Sealed(BK)

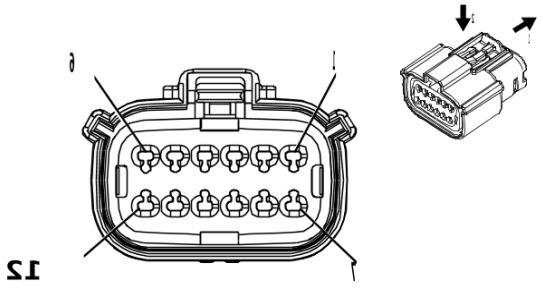
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

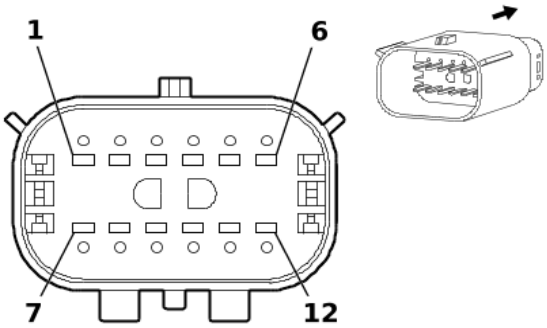
X112 Engine Wiring Harness to Engine Wiring Harness - Jumper

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT / BU	6270	I		Crankshaft Position Sensor Voltage	1	0.5	VT / BU	6270	II	
2	0.5	BK / VT	6272	I		Crankshaft Position Sensor Low Reference	2	0.5	BK / VT	6272	II	
3	0.5	GN	6271	I		Crankshaft Position Sensor Signal	3	0.5	GN	6271	II	
4	0.5	BN / RD	2917	I		Fuel Rail Pressure Sensor 5V Reference	4	0.5	BN / RD	2917	II	
5	0.5	BK / GN	2919	I		Fuel Rail Pressure Sensor Low Reference	5	0.5	BK / GN	2919	II	
6	0.5	BU / WH	2918	I		Fuel Rail Pressure Sensor Signal	6	0.5	BU / WH	2918	II	
7	0.5	BN / YE	2161	I		Fuel Rail Pressure Sensor 2 Signal	7	0.5	BN / YE	2161	II	
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X113 Engine Wiring Harness to Engine Wiring Harness - Jumper



2871860



1825167

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13503526
Service Connector: 19352907
Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Engine Wiring Harness - Jumper
OEM Connector: 13520579
Service Connector: 19369242
Description: 12-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	19119842	J-35616-3 (GY)	J-38125-217

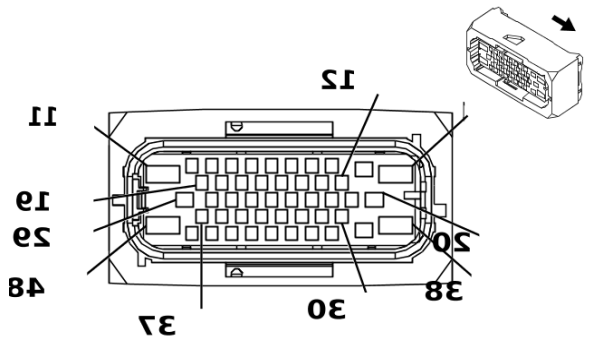
X113 Engine Wiring Harness to Engine Wiring Harness - Jumper

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	WH / RD	2705	I		Oil Pressure Sensor 5V Reference	1	0.5	WH / RD	2705	II	
2	0.5	BK / VT	2755	I		Oil Pressure Sensor Low Reference	2	0.5	BK / VT	2755	II	
3	0.5	YE / BN	331	I		Oil Pressure Sensor Signal	3	0.5	YE / BN	331	II	
4	0.5	BU	410	I		Engine Coolant Temperature Sensor Signal	4	0.5	BU	410	II	
5	0.5	BK / BN	2761	I		Coolant Temperature Sensor Low Reference	5	0.5	BK / BN	2761	II	
6	0.5	BK / WH	151	I		Signal Ground	6	0.5	BK / WH	151	II	
7	0.5	BN / GN	1174	I		Oil Level Switch Signal	7	0.5	BN / GN	1174	II	
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	YE	2928	I		Fuel Metering Solenoid Valve High Control	10	0.5	YE	2928	II	

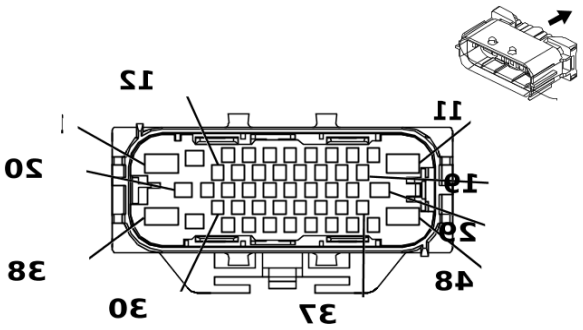
X113 Engine Wiring Harness to Engine Wiring Harness - Jumper (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5	BN / BK	2929	I		Fuel Metering Solenoid Valve Low Control	11	0.5	BN / BK	2929	II	
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—

X115 Engine Wiring Harness - Chassis to Body Wiring Harness



3620765



3240125

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 15509587
Service Connector: 19329480
Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15513437
Service Connector: 19370346
Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580821	J-35616-4A (PU)	J-38125-36
II	19369235	J-35616-14 (GN)	EL-38125-560A
III	85158596	J-35616-40 (BU)	EL-38125-560A
IV	19300651	J-35616-43 (RD)	J-38125-557
V	19301750	J-35616-32 (OG)	J-38125-36
VI	19303873	J-35616-3 (GY)	EL-38125-560A
VII	84992391	J-35616-5 (PU)	J-38125-215A

X115 Engine Wiring Harness - Chassis to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BU / BN	7573	I	—	Air Conditioning Compressor Solenoid Valve Control	2	0.5	BU / BN	7573	VII	—
3	0.5	BN / WH	419	II	—	Check Engine Indicator Control	3	0.35	BN / WH	419	VI	—
4	0.5	WH / BU	6311	II	—	Cruise/ETC/ TCC Brake Signal	4	0.5	WH / BU	6311	VI	—
5	0.5	WH	2501	II	—	High Speed GMLAN Serial Data [-] 1	5	0.5	WH	2501	VI	—
6	0.5	BU	2500	II	—	High Speed GMLAN Serial Data [+] 1	6	0.5	BU	2500	VI	—

X115 Engine Wiring Harness - Chassis to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	WH	5359	II	—	Brake Apply Sensor Control	7	0.35	WH	5359	VI	—
8	0.5	BK / BN	5360	II	—	Brake Apply Sensor Low Reference	8	0.35	BK / BN	5360	VI	—
9	0.5	BU / YE	5361	II	—	Brake Apply Sensor Signal	9	0.35	BU / YE	5361	VI	—
10	0.5	YE / WH	1161	II	—	Accelerator Pedal Position Signal 1	10	0.35	YE / WH	1161	VI	—
11	3	BK	550	III	—	Ground	11	4	BK	550	V	—
12	0.75	VT / BN	AL125	II	—	Vehicle Speed Signal	12	0.5	GN / GY	817	VI	—
13 - 14	—	—	—	—	—	Not Occupied	13 - 14	—	—	—	—	—
15	0.75	YE	AL163	II	—	Serial Data Communication Enable	15	0.75	YE	AL163	VI	—
16	0.5	VT / YE	5985	II	—	Accessory Wake-Up Serial Data	16	0.35	VT / YE	5985	VI	—
17	0.5	WH / BU	5986	II	—	Serial Data Communication Enable	17	0.5	WH / BU	5986	VI	—
18	0.5	WH / RD	1164	II	—	Accelerator Pedal Position 5V Reference 1	18	0.35	WH / RD	1164	VI	—
19	0.5	BK / BU	1271	II	—	Accelerator Pedal Position Low Reference 1	19	0.35	BK / BU	1271	VI	—
20	0.75	BU / YE	7574	I	—	Air Conditioning Compressor Solenoid Valve Control	20	0.5	BU / YE	7574	VII	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	BU / GY	7473	II	—	Incremental Encoder Impulse Signal	22	0.35	BU / GY	7473	VI	—
23	0.5	VT	7476	II	—	Incremental Encoder Sensor Low Reference	23	0.35	VT	7476	VI	—
24	0.5	BK / WH	451	II	—	Signal Ground	24	0.5	BK / WH	451	VI	—
25	0.5	BN / RD	1274	II	—	Accelerator Pedal Position 5V Reference 2	25	0.35	BN / RD	1274	VI	—
26	0.5	GN / WH	1162	II	—	Accelerator Pedal Position Signal 2	26	0.35	GN / WH	1162	VI	—

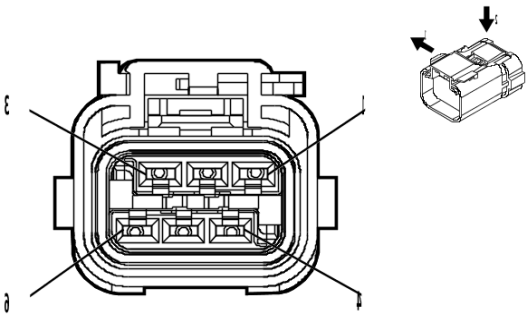
X115 Engine Wiring Harness - Chassis to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
27	0.5	BK / VT	1272	II	—	Accelerator Pedal Position Low Reference 2	27	0.35	BK / VT	1272	VI	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.5	VT / BU	3674	I	—	NOx Sensor 1 Control	29	0.5	VT / BU	3674	VII	—
30	0.5	WH / GN	7475	II	—	Incremental Encoder Sensor 8V Reference	30	0.35	WH / GN	7475	VI	—
31	—	—	—	—	—	Incremental Encoder Direction Signal	31	0.35	YE	7474	VI	—
32	0.5	BU / BN	4498	II	—	High Speed GMLAN Serial Data [+] 7	32	0.5	BU / BN	4498	VI	—
33	0.5	WH	4499	II	—	High Speed GMLAN Serial Data [-] 7	33	0.5	WH	4499	VI	—
34 - 36	—	—	—	—	—	Not Occupied	34 - 36	—	—	—	—	—
37	0.75	RD / BU	4540	II	—	Battery Positive Voltage	37	0.75	RD / BU	4540	VI	—
38	1	YE / VT	1553	III	—	Transfer Case Motor Counter Clockwise Control	38	1	YE / VT	1553	IV	—
39	0.75	RD / VT	2640	I	—	Battery Positive Voltage	39	0.75	RD / VT	2640	VII	—
40	0.5	BN / GN	4311	II	—	Power Take-Off Enable Cabin Switch Normally Closed Signal	40	0.35	BN / GN	4311	VI	—
41	0.5	GN / WH	488	II	—	Power Take-Off Control Switch Signal	41	0.35	GN / WH	488	VI	—
42	—	—	—	—	—	Not Occupied	42	—	—	—	—	—
43	0.5	GN / BN	507	II	—	Wait To Start Indicator Control	43	0.35	GN / BN	507	VI	—
44	—	—	—	—	—	Not Occupied	44	—	—	—	—	—
45	0.5	BU / GY	636	II	—	Ambient Air Temperature Sensor Signal	45	0.35	BU / GY	636	VI	—
46	0.5	BK / BU	61	II	—	Ambient Air Temperature Sensor Low Reference	46	0.35	BK / BU	61	VI	—

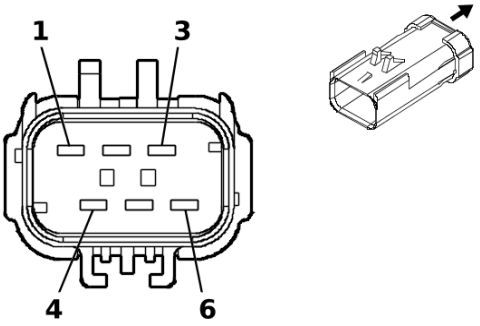
X115 Engine Wiring Harness - Chassis to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
47	—	—	—	—	—	Not Occupied	47	—	—	—	—	—
48	1	OG	1552	III	—	Transfer Case Motor Clockwise Control	48	1	YE / GY	1552	IV	—

X117 Accessory Wiring Harness Package - Snow Plow Tee Right to Snow Plow Headlight - Right (UNL)



4997615



5187846

Connector Part Information

Harness Type: Accessory Wiring Harness Package - Snow Plow Tee Right
OEM Connector: 3612305C1
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 2.8 APEX Series, Sealed(BK)

Connector Part Information

Harness Type: Snow Plow Headlight - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M (BK)

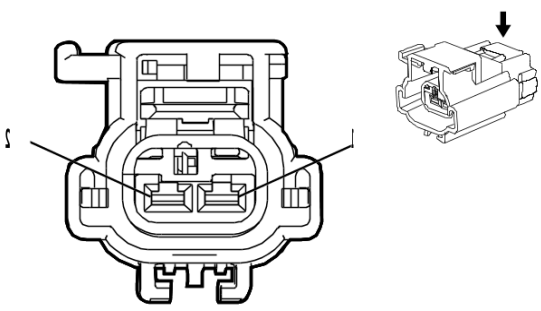
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	No Tool Required	No Tool Required

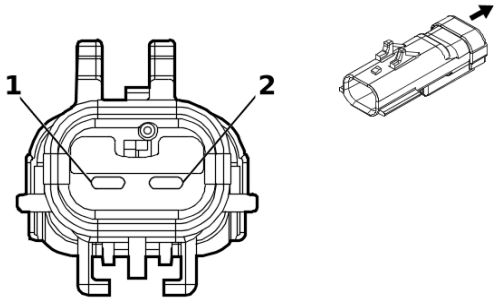
X117 Accessory Wiring Harness Package - Snow Plow Tee Right to Snow Plow Headlight - Right (UNL)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BK	250	I	—	Ground	1	1.5	—	250	II	—
2	1.5	YE	312	I	—	Right Headlamp Low Beam Control	2	1.5	—	312	II	—
3	1.5	WH	311	I	—	Right Headlamp High Beam Control	3	1.5	—	311	II	—
4	1.5	GY / BU	7539	I	—	Right Front DRL Control	4	1.5	—	7539	II	—
5	1.5	VT / GY	309	I	—	Right Park Lamp Control	5	1.5	—	309	II	—
6	1.5	BU / WH	1315	I	—	Right Front Turn Signal Lamp Control	6	1.5	—	1315	II	—

X118 Body Front and Engine Wiring Harness to Front Fog Lamp Wiring Harness - Right (T3U)



2474690



5168831

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 6105358C1
Service Connector: 13577540
Description: 2-Way F 2.8 APEX Series, Sealed(BK)

Connector Part Information

Harness Type: Front Fog Lamp Wiring Harness - Right
OEM Connector: 3924162C1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 2.8 APEX Series, Sealed(BK)

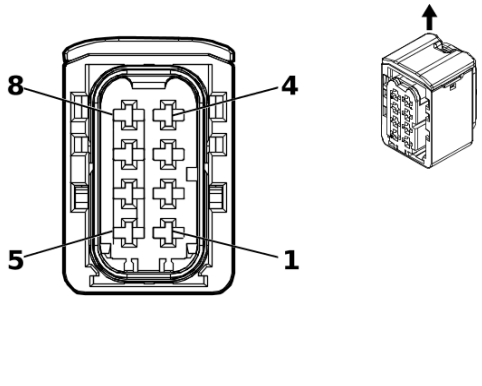
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

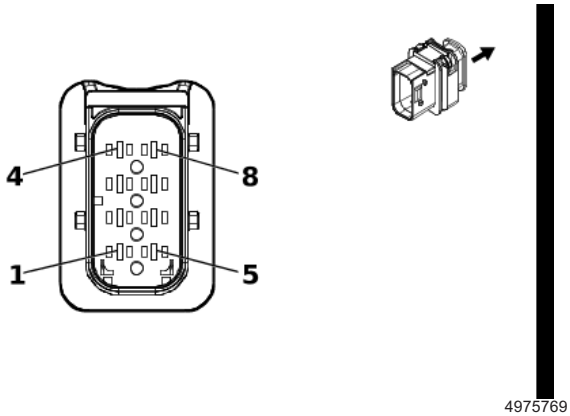
X118 Body Front and Engine Wiring Harness to Front Fog Lamp Wiring Harness - Right (T3U)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BN / VT	2234	I	—	Front Fog Lamp Control	1	1.5	BN / VT	2234	II	—
2	1.5	BK	150	I	—	Ground	2	1.5	BK	150	II	—

X119 Headlamp Wiring Harness - Right to Body Front and Engine Wiring Harness



5168606



4975769

Connector Part Information

Harness Type: Headlamp Wiring Harness - Right
OEM Connector: 4100562C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 MCP Series, Sealed(BK)

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 4100563C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 2.8 Series, Sealed(BK)

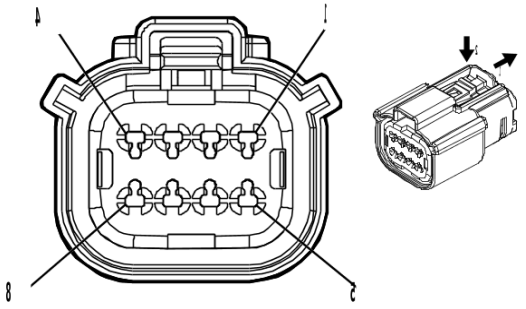
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

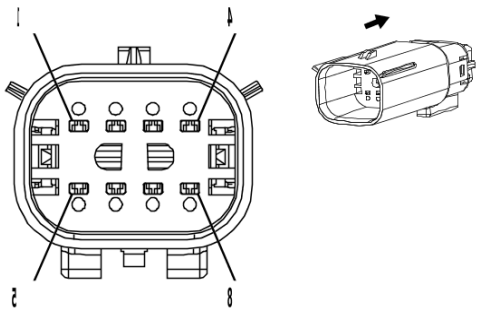
X119 Headlamp Wiring Harness - Right to Body Front and Engine Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	YE	312	I	—	Right Headlamp Low Beam Control	1	1	YE	312	II	—
2	1.5	VT / GY	309	I	—	Right Park Lamp Control	2	1	GY / BN	309	II	—
3	1.5	BU / WH	1315	I	—	Right Front Turn Signal Lamp Control	3	1	GN / VT	1315	II	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	1.5	WH	311	I	—	Right Headlamp High Beam Control	5	1	WH	311	II	—
6	1.5	GY / BU	7539	I	—	Right Front DRL Control	6	1	BU / BN	7539	II	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—
8	1.5	BK	250	I	—	Ground	8	1.5	BK	250	II	—

X120 Headlamp Wiring Harness - Right to Right Headlight (-UNL)



4846407



2667653

Connector Part Information

Harness Type: Headlamp Wiring Harness - Right
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Right Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M (BK)

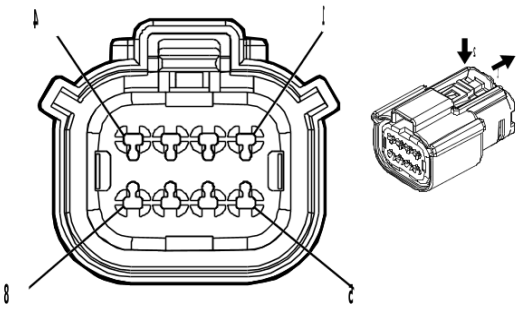
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	No Tool Required	No Tool Required

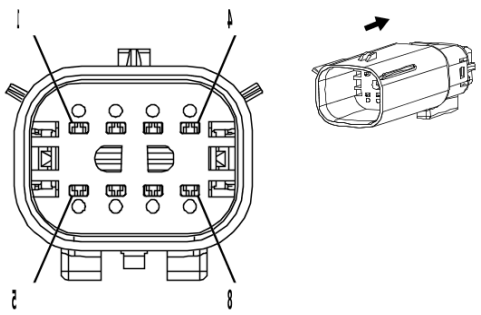
X120 Headlamp Wiring Harness - Right to Right Headlight (-UNL)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	—	Ground	1	—	BK	250	II	—
2	0.75	YE	312	I	—	Right Headlamp Low Beam Control	2	—	BK	312	II	—
3	0.75	WH	311	I	—	Right Headlamp High Beam Control	3	—	BK	311	II	—
4	0.75	GY / BU	7539	I	—	Right Front DRL Control	4	—	BK	7539	II	—
5	0.75	VT / GY	309	I	—	Right Park Lamp Control	5	—	BK	309	II	—
6	0.75	BU / WH	1315	I	—	Right Front Turn Signal Lamp Control	6	—	BK	1315	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X120 Accessory Wiring Harness Package - Snow Plow Tee Right to Right Headlight (UNL)



4846407



2667653

Connector Part Information

Harness Type: Accessory Wiring Harness Package - Snow Plow Tee Right
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Right Headlight
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M (BK)

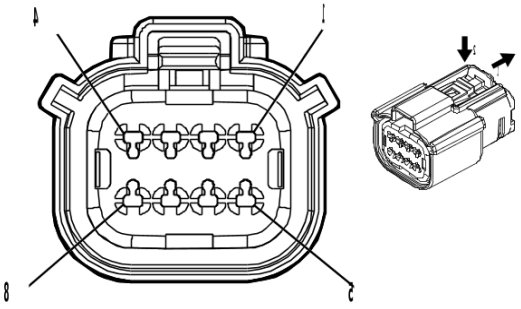
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	No Tool Required	No Tool Required

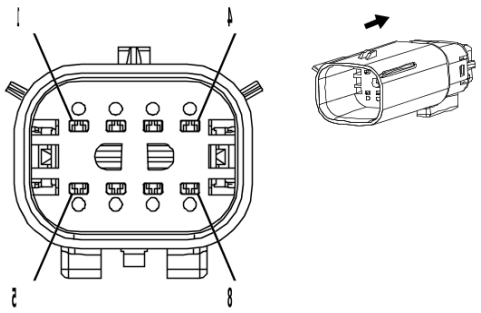
X120 Accessory Wiring Harness Package - Snow Plow Tee Right to Right Headlight (UNL)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BK	250	I	—	Ground	1	—	BK	250	II	—
2	0.75	YE	312	I	—	Right Headlamp Low Beam Control	2	—	BK	312	II	—
3	0.75	WH	311	I	—	Right Headlamp High Beam Control	3	—	BK	311	II	—
4	0.75	GY / BU	7539	I	—	Right Front DRL Control	4	—	BK	7539	II	—
5	0.75	VT / GY	309	I	—	Right Park Lamp Control	5	—	BK	309	II	—
6	0.75	BU / WH	1315	I	—	Right Front Turn Signal Lamp Control	6	—	BK	1315	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X121 Headlamp Wiring Harness - Right to Accessory Wiring Harness Package - Snow Plow Tee Right (UNL)



4846407



2667653

Connector Part Information

Harness Type: Headlamp Wiring Harness - Right
OEM Connector: 3709924C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Accessory Wiring Harness Package - Snow Plow Tee Right
OEM Connector: 3709925C1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 1.5 MX Series, Sealed(BK)

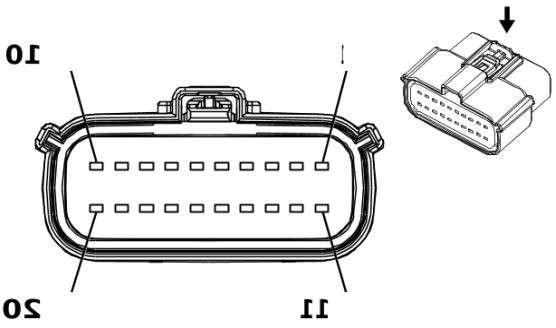
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

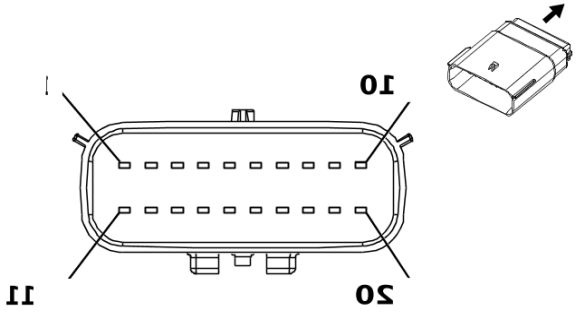
X121 Headlamp Wiring Harness - Right to Accessory Wiring Harness Package - Snow Plow Tee Right (UNL)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	—	Ground	1	1.5	BK	250	II	—
2	0.75	YE	312	I	—	Right Headlamp Low Beam Control	2	1.5	YE	312	II	—
3	0.75	WH	311	I	—	Right Headlamp High Beam Control	3	1.5	WH	311	II	—
4	0.75	GY / BU	7539	I	—	Right Front DRL Control	4	1.5	GY / BU	7539	II	—
5	0.75	VT / GY	309	I	—	Right Park Lamp Control	5	1.5	VT / GY	309	II	—
6	0.75	BU / WH	1315	I	—	Right Front Turn Signal Lamp Control	6	1.5	BU / WH	1315	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X125 Engine Wiring Harness - Chassis to Chassis Front Wiring Harness



2871898



2871861

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 13650143
Service Connector: 19300557
Description: 20-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 33482-2001
Service Connector: 19351705
Description: 20-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	86800300	J-35616-3 (GY)	J-38125-217

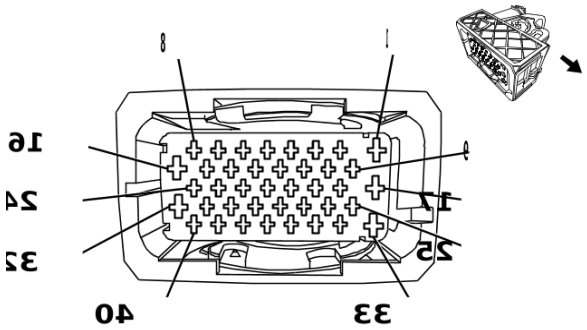
X125 Engine Wiring Harness - Chassis to Chassis Front Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK / VT	3661	I	—	Exhaust Gas Temperature Sensor 5 Low Reference	1	0.5	BK / VT	3661	II	—
2	0.5	BU / GY	3660	I	—	Exhaust Gas Temperature Sensor 5 Signal	2	0.5	BU / GY	3660	II	—
3	0.5	BK / GY	3659	I	—	Exhaust Gas Temperature Sensor 4 Low Reference	3	0.5	BK / GY	3659	II	—
4	0.5	VT / BN	3658	I	—	Exhaust Gas Temperature Sensor 4 Signal	4	0.5	VT / BN	3658	II	—
5	0.5	VT / GN	4320	I	—	Powertrain Sensor Bus Enable	5	0.75	VT / GN	4320	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.5	BK / GN	3657	I	—	Exhaust Gas Temperature Sensor 3 Low Reference	7	0.5	BK / GN	3657	II	—

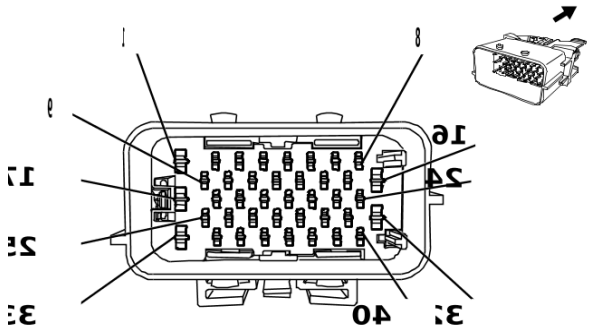
X125 Engine Wiring Harness - Chassis to Chassis Front Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	1.5	VT / GN	355	I	—	Fuel Filter Heater Control Circuit	10	2	VT / GN	355	II	—
11	0.5	GY / GN	5378	I	—	Exhaust Gas Temperature Sensor 3 Signal	11	0.5	GY / GN	5378	II	—
12	0.5	YE / BU	1465	I	—	Secondary Fuel Pump Relay Control	12	0.75	BU	10131	II	—
13 - 14	—	—	—	—	—	Not Occupied	13 - 14	—	—	—	—	—
15	0.5	WH / RD	6054	I	—	Exhaust Pressure Sensor 1 5V Reference	15	0.5	WH / RD	6054	II	—
16	0.5	BK / YE	6055	I	—	Exhaust Pressure Sensor 1 Low Reference	16	0.5	BK / YE	6055	II	—
17	0.5	BU	6053	I	—	Exhaust Pressure Sensor 1 Signal	17	0.5	BU	6053	II	—
18	—	—	—	—	—	Not Occupied	18	—	—	—	—	—
19	1.5	VT / BU	3674	I	—	NOx Sensor 1 Control	19	1.5	VT / BU	3674	II	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—

X138 Chassis Front Wiring Harness to Body Wiring Harness



2220548



2339640

Connector Part Information

Harness Type: Chassis Front Wiring Harness

OEM Connector: 13603185

Service Connector: 13576549

Description: 40-Way F 1.5 DSQ, 2.8 ATS Series, Sealed(BK)

Connector Part Information

Harness Type: Body Wiring Harness

OEM Connector: 13603208

Service Connector: 13576551

Description: 40-Way M 1.5 DSQ, 2.8 ATS Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580829	J-35616-4A (PU)	J-38125-36
II	19368143	J-35616-14 (GN)	J-38125-215A
III	13575364	J-35616-5 (PU)	J-38125-36
IV	19368136	J-35616-3 (GY)	EL-38125-560A

X138 Chassis Front Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN / BK	7633	I	—	Trailer Brake Control User Gain Signal	1	0.5	GN / BK	7633	III	—
2	0.75	WH / BU	5986	II	—	Serial Data Communication Enable	2	0.5	WH / BU	5986	IV	—
3	0.5	YE	7635	II	—	Trailer Brake Control Manual Apply Signal	3	0.5	YE	7635	IV	—
4	0.5	BU / RD	7632	II	—	Trailer Brake Control Switch 5V Reference	4	0.5	BU / RD	7632	IV	—
5	0.5	BN	7634	II	—	Trailer Brake Control Redundant Manual Apply Signal	5	0.5	BN	7634	IV	—
6	0.5	BK / BN	7631	II	—	Trailer Brake Control Switch Low Reference	6	0.5	BK / BN	7631	IV	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—

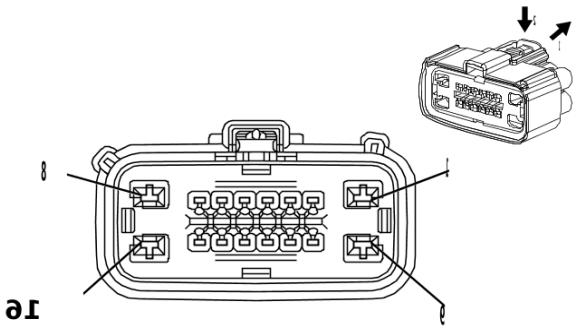
X138 Chassis Front Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	VT / GY	1054	II	—	Stop Lamp Control	8	0.75	VT / GY	1054	IV	—
9	0.5	BU / BN	4498	II	—	High Speed GMLAN Serial Data [+] 7	9	0.5	BU / BN	4498	IV	—
10	0.5	WH	4499	II	—	High Speed GMLAN Serial Data [-] 7	10	0.5	WH	4499	IV	—
11	1	YE / BU	18	II	—	Left Rear Stop/Turn Signal Lamp Control	11	0.75	YE / BU	18	IV	—
12	1	BN / GN	19	II	—	Right Rear Stop/Turn Signal Lamp Control	12	0.75	BN / GN	19	IV	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.75	WH / BU	6311	II	—	Cruise/ETC/ TCC Brake Signal	14	0.35	WH / BU	6311	IV	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.5	BU	2500	II	—	High Speed GMLAN Serial Data [+] 1	18	0.5	BU	2500	IV	—
19	0.5	WH	2501	II	—	High Speed GMLAN Serial Data [-] 1	19	0.5	WH	2501	IV	—
20	0.5	VT / YE	5985	II	—	Accessory Wake-Up Serial Data	20	0.5	VT / YE	5985	IV	—
21 - 22	—	—	—	—	—	Not Occupied	21 - 22	—	—	—	—	—
23	1.5	GY / BN	309	II	—	Right Park Lamp Control	23	0.5	GY / BN	309	IV	—
24	1	GN / VT	619	II	—	Right Rear Turn Signal Lamp Control	24	0.75	GN / VT	619	IV	—
25	—	—	—	—	—	Not Occupied	25	—	—	—	—	—
26	0.75	GN / GY	6095	II	—	Right Rear Air Suspension Solenoid Valve Control	26	0.5	WH / GN	320	IV	—
27	—	—	—	—	—	Not Occupied	27	—	—	—	—	—
28	0.75	GN	6094	II	—	Vehicle Level Control Left Rear Air Spring Solenoid Valve Control	28	0.5	GN	10138	IV	—
29	0.5	BK	2550	II	—	Ground	29	0.75	BK	2550	IV	—

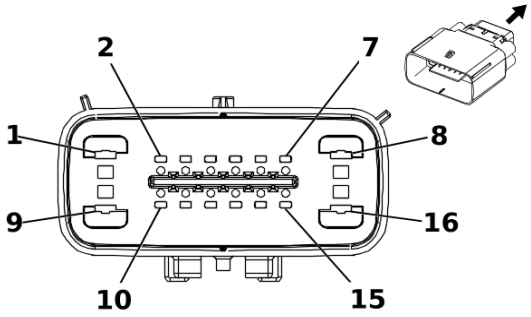
X138 Chassis Front Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
30	0.5	WH	6974	II	—	Rearview Camera Low Reference	30	0.5	BK	6974	IV	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	1.5	BU	47	I	—	Trailer Auxiliary Control	32	2.5	BU	47	III	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.5	BU	2500	II	—	High Speed GMLAN Serial Data [+] 1	34	0.5	BU / YE	6105	IV	—
35	0.5	WH	2501	II	—	High Speed GMLAN Serial Data [-] 1	35	0.5	WH	6106	IV	—
36	0.75	GN / VT	1430	II	—	Exterior Courtesy Lamp Control	36	0.75	WH / VT	1430	IV	—
37	0.75	GY / YE	6972	II	—	Rearview Camera Signal [+]	37	0.35	GY / YE	6972	IV	—
38	0.75	WH / BU	6973	II	—	Rearview Camera Signal [-]	38	0.35	WH / BU	6973	IV	—
39	—	—	—	—	—	Not Occupied	39	—	—	—	—	—
40	1	RD	3090	II	—	Steering Column Energy Absorber High Control	40	—	—	—	—	—

X143 Emission Reduction Fluid Tank Reservoir Wire Harness - Module to Engine Wiring Harness - Chassis



4341043



4209017

Connector Part Information

Harness Type: Emission Reduction Fluid Tank Reservoir Wire Harness - Module

OEM Connector: 34985-2181

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 1.5, 2.8 MX Series, Sealed(GY)

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis

OEM Connector: 33182033

Service Connector: 19354088

Description: 16-Way M 1.5, 2.8 MX Series, Sealed(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	19119395	J-35616-3 (GY)	J-38125-217
IV	19332569	J-35616-5 (PU)	J-38125-12A
V	19366658	J-35616-5 (PU)	J-38125-12A

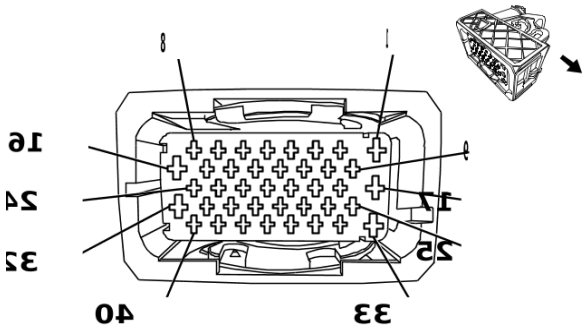
X143 Emission Reduction Fluid Tank Reservoir Wire Harness - Module to Engine Wiring Harness - Chassis

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD / WH	3440	II	—	Battery Positive Voltage	1	0.75	RD / WH	3440	IV	—
2 - 3	—	—	—	—	—	Not Occupied	2 - 3	—	—	—	—	—
4	0.5	WH	4499	I	—	High Speed GMLAN Serial Data [-] 7	4	0.5	WH	4499	III	—
5	0.5	BU / BN	4498	I	—	High Speed GMLAN Serial Data [+] 7	5	0.5	BU / BN	4498	III	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	2.5	BK	550	II	—	Ground	8	2.5	BK	550	V	—
9	2.5	PU / GN	4320	II	—	Powertrain Sensor Bus Enable	9	0.5	VT / GN	4320	IV	—
10 - 13	—	—	—	—	—	Not Occupied	10 - 13	—	—	—	—	—

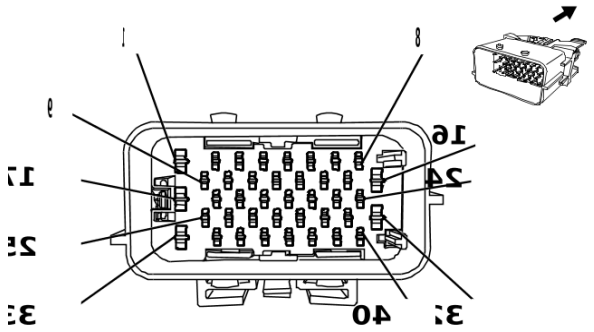
X143 Emission Reduction Fluid Tank Reservoir Wire Harness - Module to Engine Wiring Harness - Chassis (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
14	0.5	WH	4499	I	—	High Speed GMLAN Serial Data [-] 7	14	0.5	WH	4499	III	—
15	0.5	BU / BN	4498	I	—	High Speed GMLAN Serial Data [+] 7	15	0.5	BU / BN	4498	III	—
16	2.5	BU	3921	II	—	Diesel Exhaust Fluid Heater Control 1	16	2.5	BU	3921	V	—

X150 Body Front and Engine Wiring Harness to Body Wiring Harness



2220548



2339640

Connector Part Information

Harness Type: Body Front and Engine Wiring Harness
OEM Connector: 4086709C1
Service Connector: 13576549
Description: 40-Way F 1.5 DSQ, 2.8 ATS Series, Sealed(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13603208
Service Connector: 13576551
Description: 40-Way M 1.5 DSQ, 2.8 ATS Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368143	J-35616-14 (GN)	J-38125-215A
II	19368136	J-35616-3 (GY)	EL-38125-560A

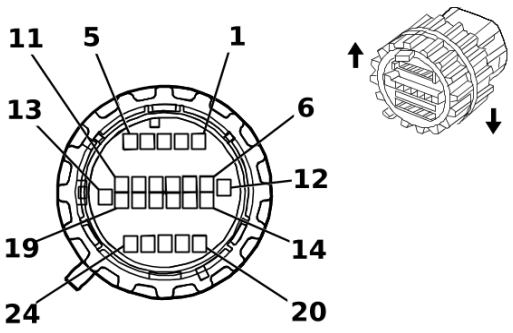
X150 Body Front and Engine Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	1	BN / GY	29	I	—	Horn Control	2	0.75	BN / GY	29	II	—
3	1	GY / BU	7538	I	—	Left Front DRL Control	3	—	—	—	—	—
4	1	GY	603	I	—	Air Suspension Low Pressure Warning Switch Signal	4	0.5	BN / GN	603	II	—
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—
7	1	BU / BN	7539	I	—	Right Front DRL Control	7	—	—	—	—	—
8	1	WH	311	I	—	Right Headlamp High Beam Control	8	0.5	WH	311	II	—
9	1	WH	711	I	—	Left Headlamp High Beam Control	9	0.5	WH	711	II	—
10	1	BU / WH	1314	I	—	Left Front Turn Signal Lamp Control	10	0.75	BU / WH	1314	II	—

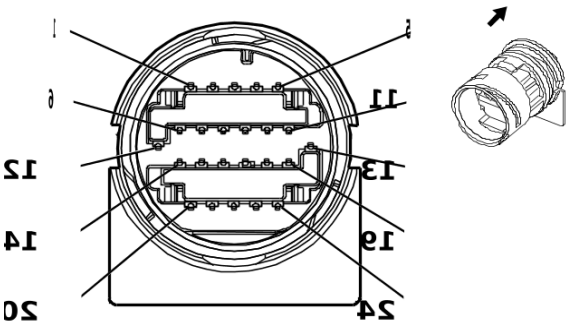
X150 Body Front and Engine Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	1	VT / GY	709	I	—	Left Park Lamp Control	11	0.5	VT / GY	709	II	—
12	1	BN / VT	2234	I	—	Front Fog Lamp Control	12	0.5	BN / VT	2234	II	—
13 - 14	—	—	—	—	—	Not Occupied	13 - 14	—	—	—	—	—
15	1	GN / VT	1315	I	—	Right Front Turn Signal Lamp Control	15	0.75	GN / VT	1315	II	—
16 - 17	—	—	—	—	—	Not Occupied	16 - 17	—	—	—	—	—
18	1	VT / GY	139	I	—	Run/Crank Ignition 1 Voltage	18	1.5	VT / GY	139	II	—
19	1	YE	5530	I	—	Hood Open Switch Signal	19	0.5	YE	5530	II	—
20	1	BN / GN	109	I	—	Hood Ajar Switch Signal	20	0.5	BN / GN	109	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	1	YE	312	I	—	Right Headlamp Low Beam Control	22	0.75	YE	312	II	—
23	1	GY / BN	309	I	—	Right Park Lamp Control	23	0.5	GY / BN	309	II	—
24	—	—	—	—	—	Not Occupied	24	—	—	—	—	—
25	1	YE	712	I	—	Left Headlamp Low Beam Control	25	0.75	YE	712	II	—
26	—	—	—	—	—	Not Occupied	26	—	—	—	—	—
27	1.5	OG / GY	6618	I	—	Front Middle Impact Discriminating Sensor Signal	27	0.5	OG / GY	6618	II	—
28	1.5	BK / OG	6619	I	—	Front Middle Impact Discriminating Sensor Low Reference	28	0.5	BK / OG	6619	II	—
29 - 40	—	—	—	—	—	Not Occupied	29 - 40	—	—	—	—	—

X175 Engine Wiring Harness - Chassis to Automatic Transmission Wiring Harness



1608549



1629123

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 15483856
Service Connector: 88988936
Description: 24-Way F 1.5 Series, Sealed(BK)

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 24-Way M (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578813	J-35616-2A (GY)	J-38125-217
II	Not required	No Tool Required	No Tool Required

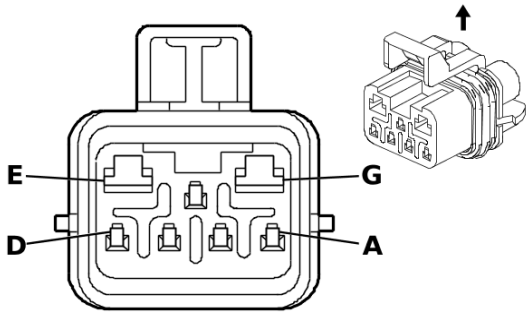
X175 Engine Wiring Harness - Chassis to Automatic Transmission Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GN	AL152	I	—	1 Shift Solenoid Valve Control	1	0.75	—	AL152	II	—
2	0.75	YE	AL133	I	—	2 Shift Solenoid Valve Control	2	0.75	—	AL133	II	—
3	0.75	WH	AL151	I	—	3 Shift Solenoid Valve Control	3	0.75	—	AL151	II	—
4	0.75	BU	AL117	I	—	Transmission Fluid Pressure Switch Signal Bit 1	4	0.75	—	AL117	II	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.75	WH	AL157	I	—	Transmission Fluid Pressure Switch Signal Bit 3	6	0.75	—	AL157	II	—
7	0.75	RD	AL179	I	—	Transmission Fluid Pressure Switch Signal Bit 2	7	0.75	—	AL179	II	—
8	0.75	TN	AL154	I	—	Transmission Temperature Sensor Signal	8	0.75	—	AL154	II	—

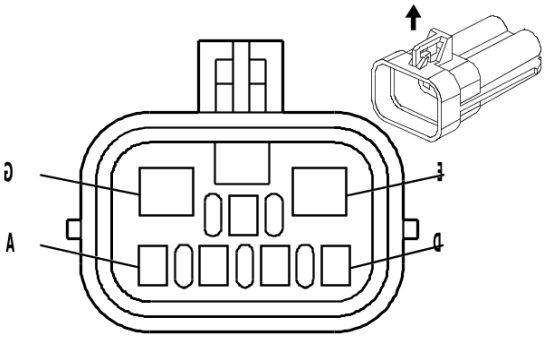
X175 Engine Wiring Harness - Chassis to Automatic Transmission Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.75	GN	AL158	I	—	Transmission Fluid Temperature Sensor Low Reference	9	0.75	—	AL158	II	—
10	0.75	WH	AL178	I	—	Torque Converter Clutch PWM Solenoid Control	10	0.75	—	AL178	II	—
11	0.75	GN	AL177	I	—	Transmission Fluid Pressure Switch Signal Bit 4	11	0.75	—	AL177	II	—
12	0.75	WH	AL137	I	—	Low Reference	12	0.75	—	AL137	II	—
13	0.75	YE	AL131	I	—	Transmission Solenoid Supply	13	0.75	—	AL131	II	—
14	0.75	OG	AL111	I	—	Transmission Solenoid Supply	14	0.75	—	AL111	II	—
15	0.75	WH	AL155	I	—	Pressure Control Solenoid Valve 1 Low Control	15	0.75	—	AL155	II	—
16	0.75	YE	AL171	I	—	Transmission Solenoid Supply	16	0.75	—	AL171	II	—
17	0.75	OG	AL136	I	—	Pressure Control Solenoid Valve 2 Low Control	17	0.75	—	AL136	II	—
18	0.75	OG	AL138	I	—	Transmission Park/Neutral Signal 1	18	0.75	—	AL138	II	—
19	0.75	BU	AL174	I	—	Transmission Mainline Pressure Solenoid Control	19	0.75	—	AL174	II	—
20	0.75	GY	AL114	I	—	Transmission Position Switch Bit 3 Signal	20	0.75	—	AL114	II	—
21	0.75	YE	AL153	I	—	Transmission Position Switch Bit 2 Signal	21	0.75	—	AL153	II	—
22	0.75	BU	AL173	I	—	Transmission Position Switch Bit 1 Signal	22	0.75	—	AL173	II	—
23	0.75	WH	AL134	I	—	Transmission Position Switch Parity Bit Signal	23	0.75	—	AL134	II	—
24	—	—	—	—	—	Not Occupied	24	—	—	—	—	—

X180 Brake Pedal Position Sensor Harness to Chassis Front Wiring Harness



816167



1372292

Connector Part Information

Harness Type: Brake Pedal Position Sensor Harness
OEM Connector: 3540565C1
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 150 Metri-Pack, 480 Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 12052200
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way M 150, 480 Metri-Pack Series, Sealed(BK)

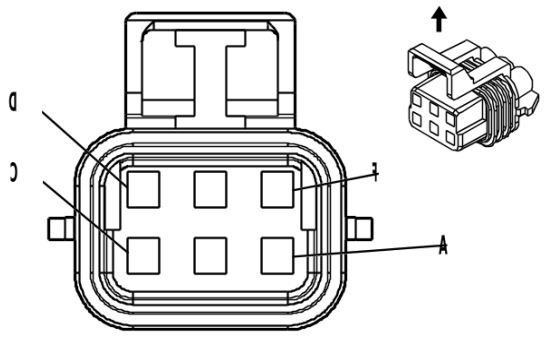
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-40 (BU)	No Tool Required
III	Not required	J-35616-3 (GY)	No Tool Required
IV	Not required	J-35616-41 (BU)	No Tool Required

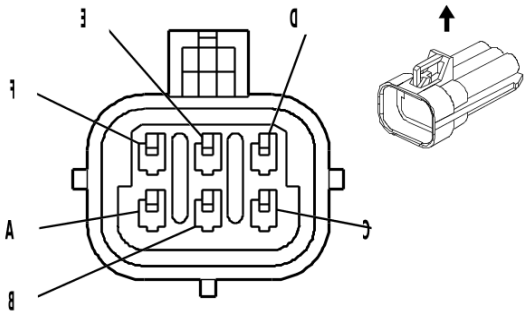
X180 Brake Pedal Position Sensor Harness to Chassis Front Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	GY	90HB	I	—	Brake Booster Pump Motor Active Signal	A	0.75	GY	90HB	III	—
B	0.75	GY	90M	I	—	Brake Hydraulic Fault	B	0.75	GY	90M	III	—
C	0.75	GY	90D	I	—	Brake Booster Pump Motor Relay High Control/ Signal	C	0.75	GY	90D	III	—
D	0.75	WH / BU	6311	I	—	Cruise/ETC/ TCC Brake Signal	D	0.75	WH / BU	6311	III	—
E	6	RD	90J	II	—	Battery Positive Voltage	E	6	RD	90J	IV	—
F	0.75	GY	9AB	I	—	Brake Fluid Level Switch Signal	F	0.75	GY	9AB	III	—
G	3	WH	90-G	II	—	Ground	G	3	WH	90-G	IV	—

X182 Liquid Spring Instrument Panel to Chassis Front Wiring Harness (91B/91C/91D/91E)



697039



333040

Connector Part Information

Harness Type: Liquid Spring Instrument Panel
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 12124107
Service Connector: 19368866
Description: 6-Way M 150 Metri-Pack Series, Sealed(BK)

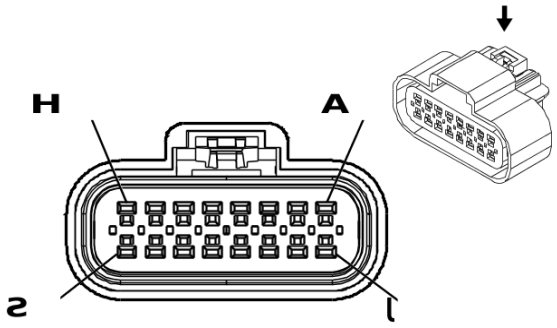
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

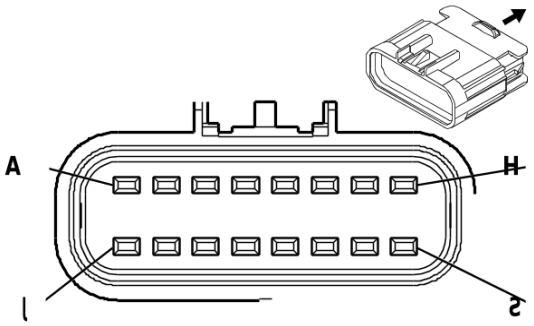
X182 Liquid Spring Instrument Panel to Chassis Front Wiring Harness (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	—	—	5LSA	I	—	Suspension CAN High	A	1	YE	5LSA	II	—
B	—	—	5LSB	I	—	Suspension CAN Low	B	1	GN	5LSB	II	—
C	—	—	14LS	I	—	Battery Positive Voltage - Fused	C	1	RD	14LS	II	—
D	—	—	13LS	I	—	Ignition Voltage	D	1	PK	13LS	II	—
E	—	—	10LS	I	—	Ground	E	1	WH	10LS	II	—
F	—	—	47LS	I	—	Vehicle Speed Signal	F	1	GY	47LS	II	—

X191 Engine Wiring Harness - Chassis to Engine Wiring Harness - Chassis (PTO)



646383



632345

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 15326863
Service Connector: 19180282
Description: 16-Way F 150 GT Series, Sealed(BK)

Connector Part Information

Harness Type: Engine Wiring Harness - Chassis
OEM Connector: 15326868
Service Connector: 15306364
Description: 16-Way M 150 GT Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368215	J-35616-14 (GN)	J-38125-553
II	13575397	J-35616-3 (GY)	J-38125-215A

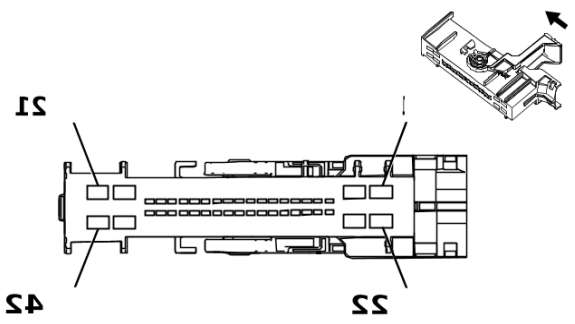
X191 Engine Wiring Harness - Chassis to Engine Wiring Harness - Chassis (PTO)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	BN / WH	6085	I	—	Power Take-Off Remote Engine Start Switch Signal	A	0.5	BN / WH	6085	II	—
B	0.75	BN	6381	I	—	Power Take-Off Relay Engage Signal	B	—	—	—	—	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.75	BK	550	I	—	Ground	D	—	—	—	—	—
E - F	—	—	—	—	—	Not Occupied	E - F	—	—	—	—	—
G	0.75	YE	2522	I	—	Power Take-Off Status Signal	G	—	—	—	—	—
H	0.5	VT / BU	2562	I	—	Power Take-Off Relay Coil Control	H	—	—	—	—	—
J	0.5	WH / GN	6142	I	—	Power Take-Off Engine Shutdown Signal	J	0.5	BN / WH	6085	II	—
K	0.75	RD / VT	2640	I	—	Battery Positive Voltage	K	—	—	—	—	—
L - M	—	—	—	—	—	Not Occupied	L - M	—	—	—	—	—

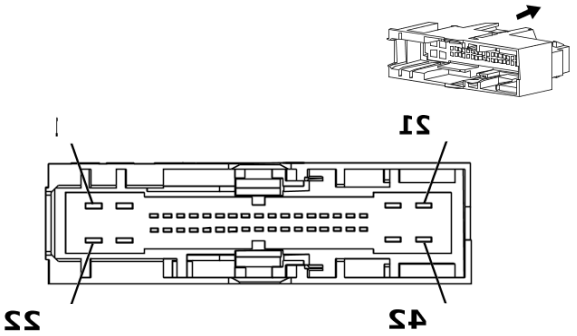
X191 Engine Wiring Harness - Chassis to Engine Wiring Harness - Chassis (PTO) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
N	0.5	BU / GY	6089	I	—	Power Take-Off Remote Switch Set Signal 1	N	—	—	—	—	—
P	—	—	—	—	—	Not Occupied	P	—	—	—	—	—
R	0.5	VT / WH	239	I	—	Run/Crank Ignition 1 Voltage	R	—	—	—	—	—
S	—	—	—	—	—	Not Occupied	S	—	—	—	—	—

X201 Steering Column Wiring Harness to Instrument Panel Wiring Harness



3955711



3240116

Connector Part Information

Harness Type: Steering Column Wiring Harness
OEM Connector: 13597189
Service Connector: Service by Harness - See Part Catalog
Description: 42-Way F 1.2, 2.8 Series(GY)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33155180
Service Connector: 13597187
Description: 42-Way M 0.64, 2.8 Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required
III	13578908	J-35616-5 (PU)	J-38125-11A
IV	19329836	J-35616-65B (L-BU)	J-38125-215A

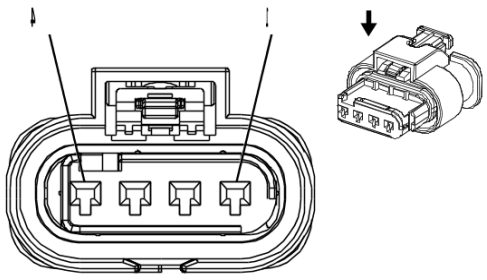
X201 Steering Column Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.35	RD / BU	540	II	—	Battery Positive Voltage	4	0.35	RD / BU	540	IV	—
5 - 8	—	—	—	—	—	Not Occupied	5 - 8	—	—	—	—	—
9	0.35	GN / BN	2087	II	—	Multi-axis Acceleration Sensor Supply Voltage	9	0.35	VT / YE	43	IV	—
10	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	10	0.5	BU / YE	6105	IV	—
11	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	11	0.5	BU / YE	6105	IV	—
12 - 15	—	—	—	—	—	Not Occupied	12 - 15	—	—	—	—	—
16	0.35	GN / WH	111	II	—	Hazard Warning Switch Signal	16	0.35	GN / WH	111	IV	—

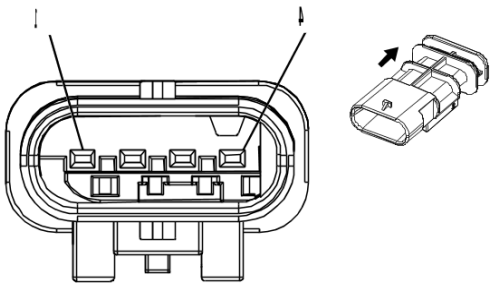
X201 Steering Column Wiring Harness to Instrument Panel Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.5	YE / WH	816	I	—	Brake Transmission Shift Interlock Solenoid Actuator Control	17	0.35	YE / WH	816	IV	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	0.35	BK	1050	II	—	Ground	20	0.5	BK	1050	III	—
21 - 24	—	—	—	—	—	Not Occupied	21 - 24	—	—	—	—	—
25	0.35	RD / YE	3040	II	—	Battery Positive Voltage	25	0.35	RD / YE	3040	IV	—
26 - 29	—	—	—	—	—	Not Occupied	26 - 29	—	—	—	—	—
30	0.5	OG	7527	I	—	Human Machine Interface Control Module LIN Bus 1	30	0.5	GN / WH	7527	IV	—
31	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	31	0.5	WH	6106	IV	—
32	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	32	0.5	WH	6106	IV	—
33	0.5	GN / BK	3894	I	—	Instrument Panel Cluster Control Module LIN Bus 1	33	0.5	GN / BK	3894	IV	—
34 - 37	—	—	—	—	—	Not Occupied	34 - 37	—	—	—	—	—
38	0.35	BN	6136	II	—	Control	38	0.35	BN	6136	IV	—
39 - 41	—	—	—	—	—	Not Occupied	39 - 41	—	—	—	—	—
42	1	BK / WH	1851	II	—	Signal Ground	42	0.5	BK / WH	1851	III	—

X205 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness Extension Wire



2684560



3225223

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13854531
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed(BK with YE Cover)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness Extension Wire
OEM Connector: 13854529
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series, Sealed(YE)

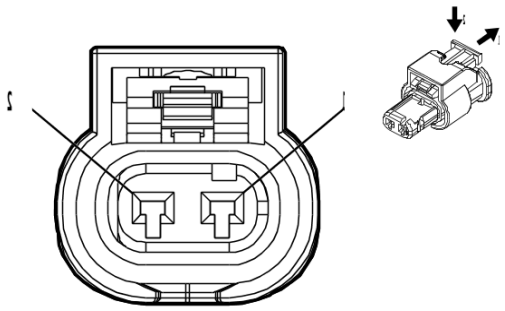
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-13 (BU)	No Tool Required

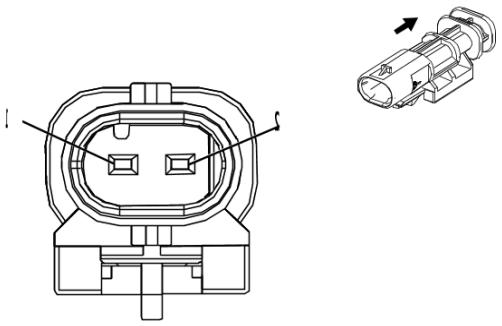
X205 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness Extension Wire

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE / OG	3025	I	—	Passenger Instrument Panel Air Bag Stage 1 High Control	1	0.35	YE / OG	3025	II	—
2	0.35	OG / WH	3024	I	—	Passenger Instrument Panel Air Bag Stage 1 Low Control	2	0.35	OG / WH	3024	II	—
3	0.35	GY / OG	3027	I	—	Passenger Instrument Panel Air Bag Stage 2 High Control	3	—	—	—	—	—
4	0.35	OG / VT	3026	I	—	Passenger Instrument Panel Air Bag Stage 2 Low Control	4	—	—	—	—	—

X206 Instrument Panel Wiring Harness Extension Wire to Passenger Instrument Panel Air Bag Wiring Harness (AJ7/AY0)



2698576



2474755

Connector Part Information

Harness Type: Instrument Panel Wiring Harness Extension Wire

OEM Connector: 13863037

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 MCON Series, Sealed(YE)

Connector Part Information

Harness Type: Passenger Instrument Panel Air Bag Wiring Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M (YE)

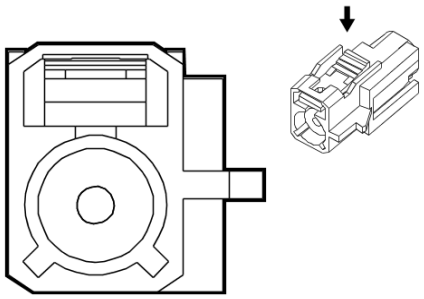
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

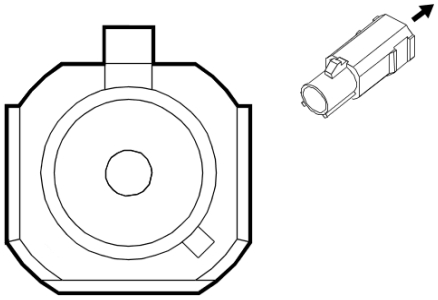
X206 Instrument Panel Wiring Harness Extension Wire to Passenger Instrument Panel Air Bag Wiring Harness (AJ7/AY0)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE / OG	3025	I	—	Passenger Instrument Panel Air Bag Stage 1 High Control	1	0.35	YE	3025	II	—
2	0.35	OG / WH	3024	I	—	Passenger Instrument Panel Air Bag Stage 1 Low Control	2	0.35	OG	3024	II	—

X210 Instrument Panel Wiring Harness to Roof Wiring Harness (U2K)



3633495



5238648

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13585508

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(CU)

Connector Part Information

Harness Type: Roof Wiring Harness COAX

OEM Connector: 13688680

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way M Coax Type(CU)

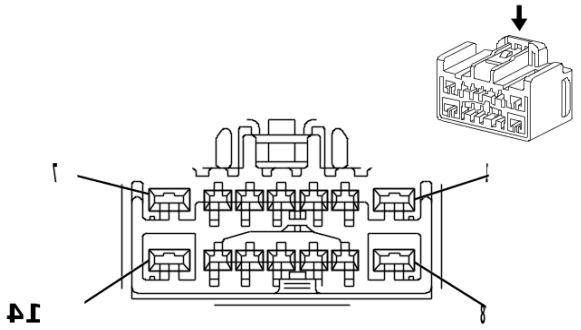
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

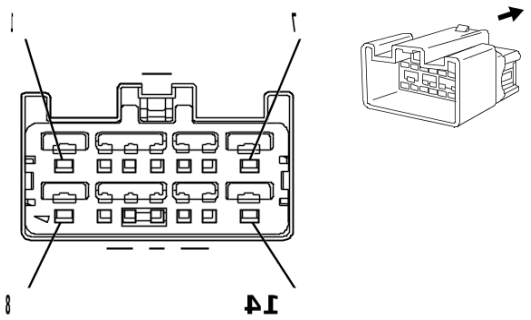
X210 Instrument Panel Wiring Harness to Roof Wiring Harness (U2K)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	(XM +/-HD) Coaxial Antenna XM Signal	—	—	Coax Cable	—	I	—

X215 Air Conditioning Wiring Harness to Instrument Panel Wiring Harness



823290



1283905

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 10847017
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F 1.5, 2.8 YESC Series(L-GY)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 10846900
Service Connector: 88956523
Description: 14-Way M 1.5, 2.8 YESC Series(L-GY)

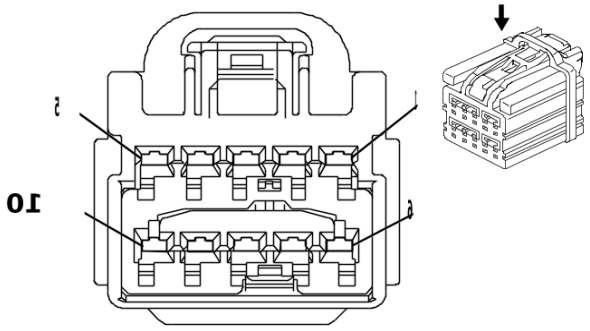
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	13578907	J-35616-3 (GY)	J-38125-215A

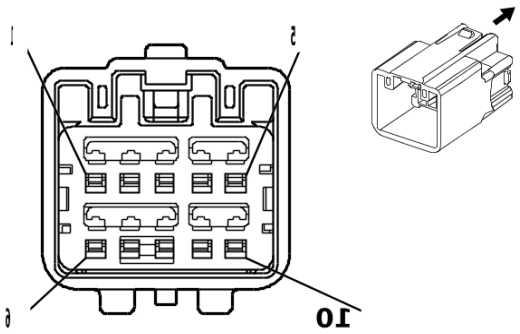
X215 Air Conditioning Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	2	0.35	GN	5060	II	—
3	0.35	GN / YE	7531	I	—	HVAC Control Module LIN Bus 1	3	0.35	GN / YE	7531	II	—
4	0.5	RD / VT	3340	I	—	Battery Positive Voltage	4	0.5	RD / VT	3340	II	—
5	0.5	VT / GY	539	I	—	Run/Crank Ignition 1 Voltage	5	0.5	VT / GY	539	II	—
6 - 8	—	—	—	—	—	Not Occupied	6 - 8	—	—	—	—	—
9	0.35	BK / WH	1851	I	—	Signal Ground	9	0.35	BK / WH	1851	II	—
10	0.35	BK / YE	1791	I	—	Air Temperature Door Low Reference	10	0.35	BK / YE	1791	II	—
11 - 14	—	—	—	—	—	Not Occupied	11 - 14	—	—	—	—	—

X216 Body Wiring Harness to Air Conditioning Wiring Harness



1733159



1732767

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 10847018
Service Connector: 22708788
Description: 10-Way F 1.5 Kaizen Series(L-GY)

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 10846817
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way M Kaizen Series(L-GY)

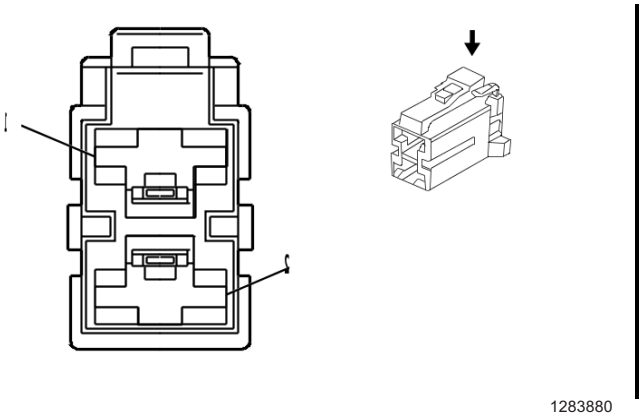
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578891	J-35616-2A (GY)	J-38125-11A
II	Not required	J-35616-3 (GY)	No Tool Required

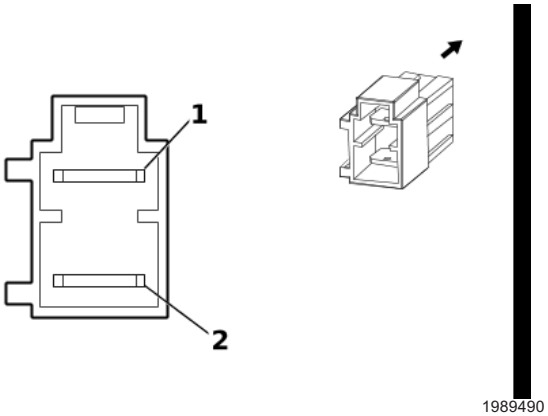
X216 Body Wiring Harness to Air Conditioning Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.35	BN / VT	193	I	—	Rear Defogger Relay Control	4	0.35	BN / VT	193	II	—
5	0.5	BU / BN	7573	I	—	Air Conditioning Compressor Solenoid Valve Control	5	0.5	BU / BN	7573	II	—
6	0.5	BU / YE	7574	I	—	Air Conditioning Compressor Solenoid Valve Control	6	0.5	BU / YE	7574	II	—
7 - 10	—	—	—	—	—	Not Occupied	7 - 10	—	—	—	—	—

X217 Body Wiring Harness to Air Conditioning Wiring Harness



1283880



1989490

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 10721337
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 56 Series(BK)

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 10722288
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 375 Series(BK)

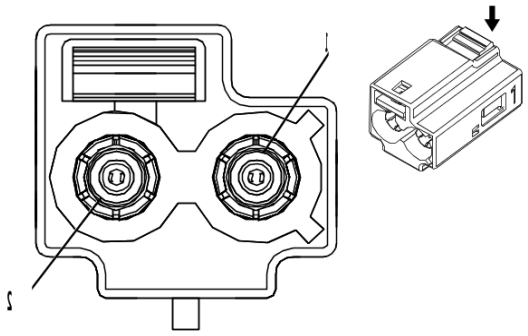
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-22 (RD)	No Tool Required
II	Not required	J-35616-21 (RD)	No Tool Required

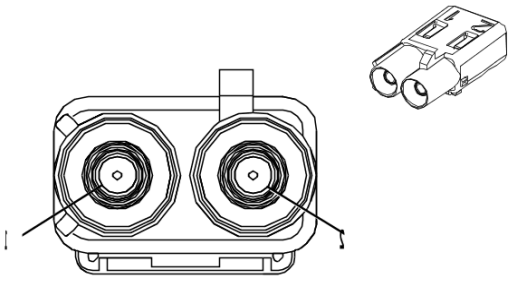
X217 Body Wiring Harness to Air Conditioning Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	4	RD / VT	542	I	—	Battery Positive Voltage	1	4	RD / VT	542	II	—
2	10	RD / GY	642	I	—	Battery Positive Voltage	2	10	RD / GY	642	II	—

X222 Instrument Panel Wiring Harness to Roof Wiring Harness (UE1)



3417880



3959803

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13583911

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way F Coax Type(PU)

Connector Part Information

Harness Type: Roof Wiring Harness COAX

OEM Connector: 33179147

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way M Coax Type(VT)

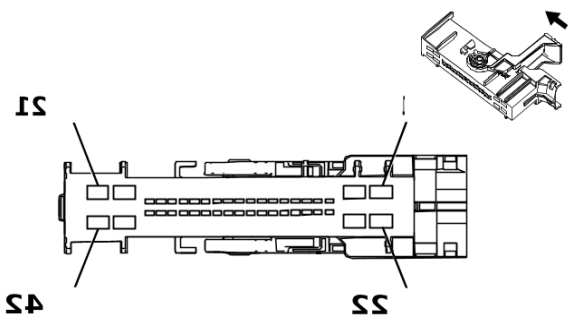
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

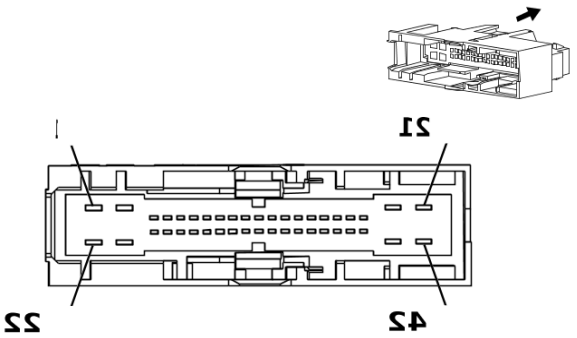
X222 Instrument Panel Wiring Harness to Roof Wiring Harness (UE1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	(GPS/Cell) Coaxial Antenna Cell/ GPS combined Signal	—	—	Coax Cable	—	I	—

X225 Body Wiring Harness to Instrument Panel Wiring Harness



3955711



3240116

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33160247
Service Connector: 19301820
Description: 42-Way F 1.2, 2.8 Series(GY)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33155179
Service Connector: 13597186
Description: 42-Way M 0.64, 2.8 Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19370818	J-35616-12 (BU)	J-38125-215A
III	13578908	J-35616-5 (PU)	J-38125-11A
IV	19329836	J-35616-65B (L-BU)	J-38125-215A

X225 Body Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	1.5	BK	1850	I	—	Ground	2	0.75	BK	1850	III	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.5	WH / BN	6815	II	—	Inadvertent Load Control	4	0.5	WH / BN	6815	IV	—
5	0.35	GY / WH	3272	II	—	Remote Control Door Lock Receiver Control	5	0.35	GY / WH	3272	IV	—
6	0.35	BU / WH	3275	II	—	Remote Control Door Lock Receiver Receive Signal	6	0.35	BU / WH	3275	IV	—
7	0.35	GN / BN	507	II	—	Wait To Start Indicator Control	7	0.35	GN / BN	507	IV	—
8	0.5	GY / VT	3998	II	—	MOST Bus Serial Data [+]	8	0.5	GY / VT	3998	IV	—

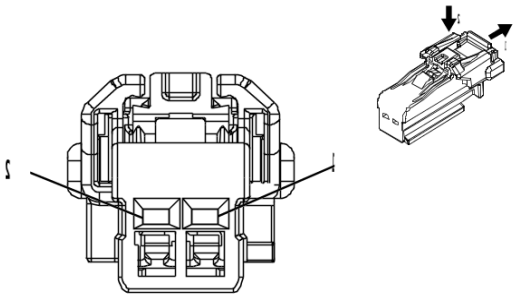
X225 Body Wiring Harness to Instrument Panel Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.35	YE	321	II	—	Vehicle Level Control Relay Coil Control	9	0.35	YE	321	IV	—
10	0.5	GN	10138	II	—	Automatic Level Control Inflator Solenoid Control	10	0.5	GN	10138	IV	—
11	0.5	WH / GN	3997	II	—	MOST Bus Serial Data [-]	11	0.5	WH / GN	3997	IV	—
12	0.5	BN / BU	118	II	—	Left Front Speaker [-] Control 1	12	0.5	BN / BU	118	IV	—
13	0.5	WH / GN	320	II	—	Vehicle Level Control Exhaust Solenoid Valve Control	13	0.5	WH / GN	320	IV	—
14	0.5	GN	199	II	—	Left Rear Speaker [+] Control	14	0.5	GN	199	IV	—
15	0.5	BN / GN	603	II	—	Air Suspension Low Pressure Warning Switch Signal	15	0.5	BN / GN	603	IV	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
17	0.35	VT / YE	43	II	—	Accessory Ignition Voltage	17	0.35	VT / YE	43	IV	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	0.5 0.75	BN / BU BN / BU	118 118	I	— —	Left Front Speaker [-] Control 1 Left Front Speaker [-] Control 1	20	0.75	BN / BU	118	III	—
21 - 22	—	—	—	—	—	Not Occupied	21 - 22	—	—	—	—	—
23	0.35	GN	4512	I	—	Wireless Charging System Charge Indicator Control	23	0.35	GN	4512	III	—
24	0.35	GN / WH	3438	II	—	Exhaust Brake Switch Indicator Control	24	0.35	GN / WH	3438	IV	—
25	0.35	BN / WH	419	II	—	Check Engine Indicator Control	25	0.35	BN / WH	419	IV	—

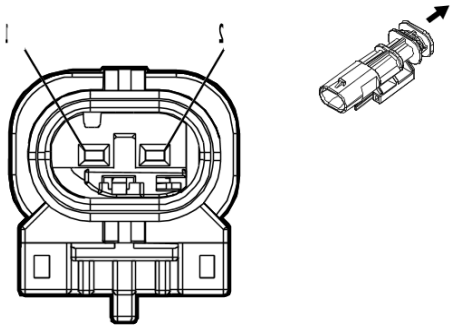
X225 Body Wiring Harness to Instrument Panel Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
26	0.35	YE / GN	3274	II	—	Remote Control Door Lock Receiver Transmit Signal	26	0.35	YE / GN	3274	IV	—
27	0.35	GY	3273	II	—	Remote Control Door Lock Receiver Low Reference	27	0.35	GY	3273	IV	—
28	0.5	BK	1850	II	—	Ground	28	0.5	BK	1850	IV	—
29	0.5	WH / GN	3997	II	—	MOST Bus Serial Data [-]	29	0.5	WH / GN	3997	IV	—
30	0.35	GN / WH	488	II	—	Power Take-Off Control Switch Signal	30	0.35	GN / WH	488	IV	—
31	0.35	BN / GN	4311	II	—	Power Take-Off Enable Cabin Switch Normally Closed Signal	31	0.35	BN / GN	4311	IV	—
32	0.5	GY / VT	3998	II	—	MOST Bus Serial Data [+]	32	0.5	GY / VT	3998	IV	—
33	0.5	BU	201	II	—	Left Front Speaker 1 [+] Control	33	0.5	BU	201	IV	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	GN / BK	116	II	—	Left Rear Speaker [-] Control	35	0.5	GN / BK	116	IV	—
36	0.5	GN / YE	2081	II	—	Exhaust Brake Switch Signal	36	0.5	GN / YE	2081	IV	—
37	0.35	VT / YE	43	II	—	Accessory Ignition Voltage	37	0.35	VT / YE	43	IV	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—
40	0.5	GN / GY	6135	II	—	Body Control Module LIN Bus 4	40	0.5	GN / GY	6135	IV	—
41	0.5 0.75	BU BU	201 201	I	— —	Left Front Speaker 1 [+] Control Left Front Speaker 1 [+] Control	41	0.75	BU	201	III	—
42	—	—	—	—	—	Not Occupied	42	—	—	—	—	—

X231 Body Wiring Harness to Upfitter Wiring Harness



4373379



4569729

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35311601
Service Connector: 19369632
Description: 2-Way F 1.2 MCON Series(GY)

Connector Part Information

Harness Type: Upfitter Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M (GY)

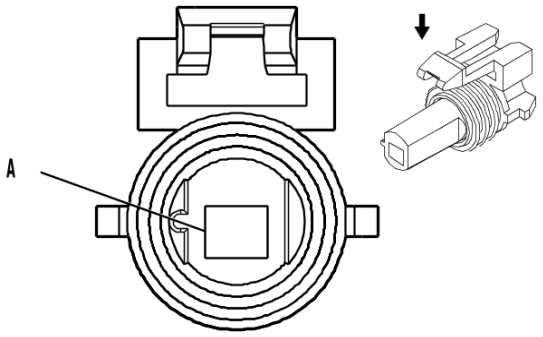
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

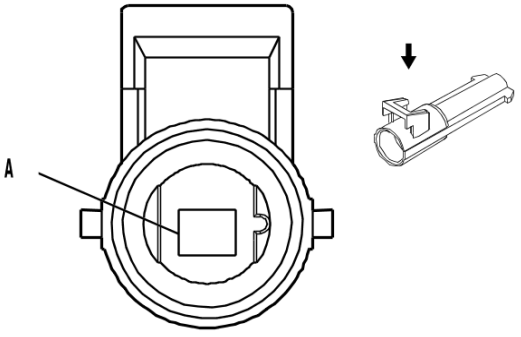
X231 Body Wiring Harness to Upfitter Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT / GY	539	I	—	Run/Crank Ignition 1 Voltage	1	0.5	VT / GY	539	II	—
2	—	—	—	—	—	Not Occu-pied	2	—	—	—	—	—

X232 Upfitter Wiring Harness to Roof Accessory Wiring Harness (UEH)



696940



696937

Connector Part Information

Harness Type: Upfitter Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F

Connector Part Information

Harness Type: Roof Accessory Wiring Harness
OEM Connector: 1669834C1
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M 280 Metri-Pack Series, Sealed(BK)

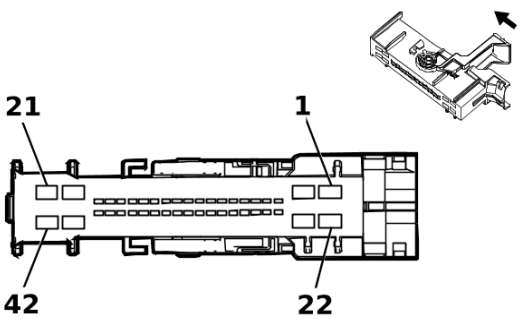
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

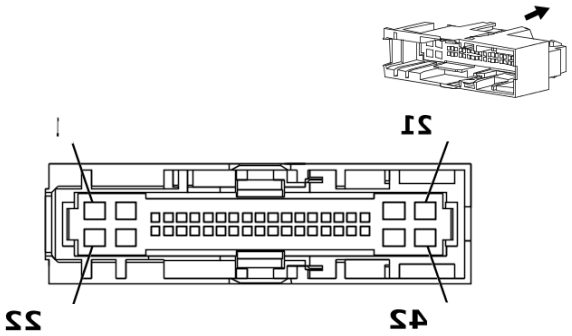
X232 Upfitter Wiring Harness to Roof Accessory Wiring Harness (UEH)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	—	—	13A	I	—	Run/Crank Ignition Voltage	A	0.75	PK	13A	II	—

X275 Instrument Panel Wiring Harness to Body Wiring Harness



2871892



3240118

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33160245
Service Connector: 19332682
Description: 42-Way F 1.2, 2.8 Series(YE)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33155177
Service Connector: 13597184
Description: 42-Way M 0.64, 2.8 Series(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19368264	J-35616-4A (PU)	J-38125-11A
III	19370818	J-35616-12 (BU)	J-38125-215A
IV	19371240	J-35616-12 (BU)	J-38125-215A
V	85524896	J-35616-4A (PU)	J-38125-215A
VI	13575823	J-35616-5 (PU)	J-38125-11A
VII	19301762	J-35616-65B (L-BU)	J-38125-215A
VIII	19329836	J-35616-65B (L-BU)	J-38125-215A
IX	84888592	J-35616-5 (PU)	J-38125-11A

X275 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	1.5	VT / YE	143	V	—	Accessory Ignition Voltage	2	1.5	VT / YE	143	IX	—
3	0.35	BU	2060	IV	—	Auxiliary Audio Plug Detection Signal	3	0.5	BU	2060	VII	—
4	0.5	Bare	5842	IV	—	Auxiliary Audio Shield	4	0.5	Bare	5842	VII	—
5	0.35	VT	5843	IV	—	Auxiliary Audio Common Signal	5	0.5	VT	5843	VII	—
6	0.35	GY	5839	IV	—	Left Auxiliary Audio Signal 2	6	0.5	GY	5839	VII	—

X275 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.35	GN	5841	IV	—	Right Auxiliary Audio Signal 2	7	0.5	GN	5841	VII	—
8	0.35	GY / YE	6972	IV	—	Rearview Camera Signal [+]	8	0.35	GY / YE	6972	VII	—
9	0.35	WH / BU	6973	IV	—	Rearview Camera Signal [-]	9	0.35	WH / BU	6973	VII	—
10 - 11	—	—	—	—	—	Not Occupied	10 - 11	—	—	—	—	—
12	0.5	YE / BK	117	IV	—	Right Front Speaker [-] Control 1	12	0.5	YE / BK	117	VII	—
13	0.5	BN / WH	1429	IV	—	Standing Lamp Relay Control	13	0.5	BN / WH	1429	VII	—
14	0.5	WH	46	IV	—	Right Rear Speaker [+] Control	14	0.5	WH	46	VII	—
15	0.35	YE / OG	3025	IV	—	Passenger Instrument Panel Air Bag Stage 1 High Control	15	0.35	YE / OG	3025	VIII	—
16	0.35	OG / WH	3024	IV	—	Passenger Instrument Panel Air Bag Stage 1 Low Control	16	0.35	OG / WH	3024	VIII	—
17	0.35	GY / OG	3027	IV	—	Passenger Instrument Panel Air Bag Stage 2 High Control	17	0.35	GY / OG	3027	VIII	—
18	0.35	OG / VT	3026	IV	—	Passenger Instrument Panel Air Bag Stage 2 Low Control	18	0.35	OG / VT	3026	VIII	—
19	0.75	BK / WH	1851	III	—	Signal Ground	19	0.75	BK / WH	1851	VII	—
20	0.75	YE / BK	117	I	—	Right Front Speaker [-] Control 1 Right Front Speaker [-] Control 1	20	0.5 0.75	YE / BK YE / BK	117 117	VI	— —
21	1.5	VT / YE	243	V	—	Accessory Ignition Voltage	21	1.5	VT / YE	243	IX	—
22	—	—	—	—	—	Not Occupied	22	—	—	—	—	—

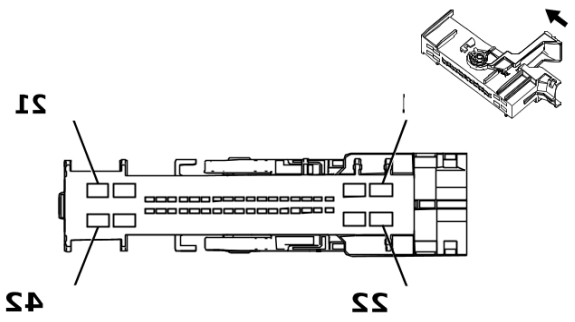
X275 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
23	0.35 0.5 0.35	WH / BU WH / BU WH / BU	5986 5986 5986	II I I	IO3/ (IOB-UE1) IO5 IO5/ (IOB+ UE1)	Serial Data Communication Enable Serial Data Communication Enable Serial Data Communication Enable	23	0.5	WH / BU	5986	VI	—
24	—	—	—	—	—	Not Occupied	24	—	—	—	—	—
25	0.5	GN	5060	IV	—	Low Speed GMLAN Serial Data	25	0.5	GN	5060	VII	—
26 - 28	—	—	—	—	—	Not Occupied	26 - 28	—	—	—	—	—
29	0.35	Bare	6974	IV	—	Rearview Camera Low Reference	29	0.35	Bare	6974	VII	—
30	—	—	—	—	—	Not Occupied	30	—	—	—	—	—
31	0.5	BU / YE	68	IV	—	Low Coolant Level Indicator Control	31	0.75	BU / YE	68	VII	—
32	—	—	—	—	—	Not Occupied	32	—	—	—	—	—
33	0.5	YE	200	IV	—	Right Front Speaker 1 [+] Control	33	0.5	YE	200	VII	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	BU / BK	115	IV	—	Right Rear Speaker [-] Control	35	0.5	BU / BK	115	VII	—
36	0.35	BU / OG	7328	IV	—	Passenger Supplemental Inflatable Restraint Disable Switch Low Reference	36	0.35	BU / OG	7328	VII	—
37	0.35	VT / OG	371	IV	—	Passenger Supplemental Inflatable Restraint Disable Switch Signal	37	0.35	VT / OG	371	VII	—
38	0.75	BK	1050	III	—	Ground	38	0.75	BK	1050	VII	—
39	0.75	BK	1050	III	—	Ground	39	0.75	BK	1050	VII	—
40	—	—	—	—	—	Not Occupied	40	—	—	—	—	—
41	0.75	YE	200	I	—	Right Front Speaker 1 [+] Control Right Front Speaker 1 [+] Control	41	0.5 0.75	YE YE	200 200	VI	— —

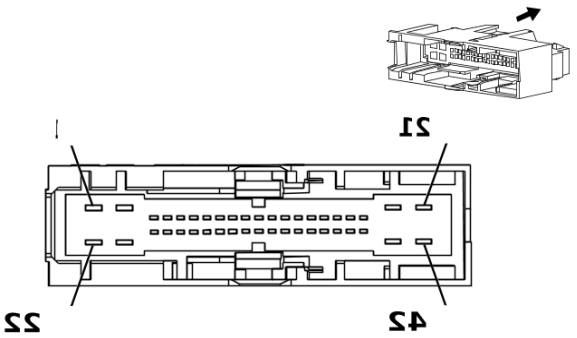
X275 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
42	—	—	—	—	—	Not Occu-pied	42	—	—	—	—	—

X300 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness (D07)



3955711



3240116

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 33160247
Service Connector: 19301820
Description: 42-Way F 1.2, 2.8 Series(GY)

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 33155180
Service Connector: Service by Harness - See Part Catalog
Description: 42-Way M 0.64, 2.8 Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19301761	J-35616-4A (PU)	J-38125-215A
II	19370818	J-35616-12 (BU)	J-38125-215A
III	Not required	J-35616-5 (PU)	No Tool Required
IV	Not required	J-35616-65B (L-BU)	No Tool Required

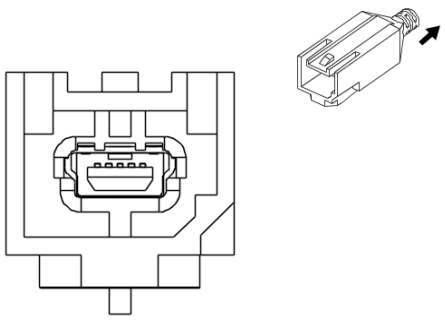
X300 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness (D07)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	VT / YE	243	I	—	Accessory Ignition Voltage	1	1.5	VT / YE	243	III	—
2	1.5	VT / YE	143	I	—	Accessory Ignition Voltage	2	1.5	VT / YE	143	III	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.35	BU	2060	II	—	Auxiliary Audio Plug Detection Signal	4	0.35	BU	2060	IV	—
5	0.75	BK	2550	II	—	Ground	5	0.75	BK	2550	IV	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.35	VT / YE	43	II	—	Accessory Ignition Voltage	7	0.35	VT / YE	43	IV	—
8 - 12	—	—	—	—	—	Not Occupied	8 - 12	—	—	—	—	—
13	0.5	Bare	5842	II	—	Auxiliary Audio Shield	13	0.5	Bare	5842	IV	—

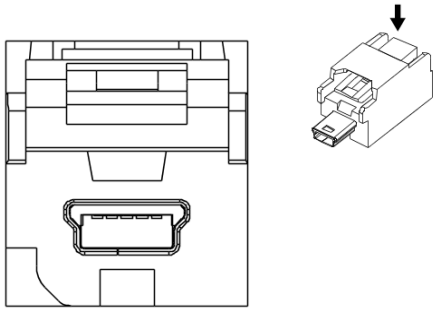
X300 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness (D07) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
14	0.35	VT	5843	II	—	Auxiliary Audio Common Signal	14	0.35	VT	5843	IV	—
15 - 22	—	—	—	—	—	Not Occupied	15 - 22	—	—	—	—	—
23	2.5	BK	1050	I	—	Ground	23	2.5	BK	1050	III	—
24 - 27	—	—	—	—	—	Not Occupied	24 - 27	—	—	—	—	—
28	0.5	WH / BN	6815	II	—	Inadvertent Load Control	28	0.5	WH / BN	6815	IV	—
29	0.35	GN	4512	II	—	Wireless Charging System Charge Indicator Control	29	0.35	GN	4512	IV	—
30 - 33	—	—	—	—	—	Not Occupied	30 - 33	—	—	—	—	—
34	0.35	GN	5841	II	—	Right Auxiliary Audio Signal 2	34	0.35	GN	5841	IV	—
35	0.35	GY	5839	II	—	Left Auxiliary Audio Signal 2	35	0.35	GY	5839	IV	—
36 - 41	—	—	—	—	—	Not Occupied	36 - 41	—	—	—	—	—
42	0.75	RD / VT	340	I	—	Battery Positive Voltage	42	0.75	RD / VT	340	III	—

X301 Body Wiring Harness to Instrument Panel Wiring Harness (-D07)



3214016



3214018

Connector Part Information

Harness Type: Body Wiring Harness USB

OEM Connector: 13699760

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way F 2.0 Mini-B USB Type(GY)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB

OEM Connector: 13868840

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini-B USB Type(GY)

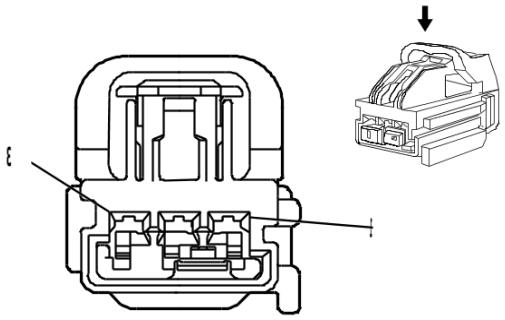
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

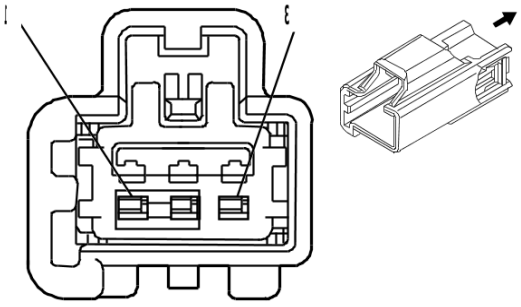
X301 Body Wiring Harness to Instrument Panel Wiring Harness (-D07)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	USB	—	I	—	USB Serial Data	—	—	USB	—	I	—

X302 Front Floor Console Wiring Harness Extension Harness to Front Floor Console Wiring Harness (K4C)



1787799



1787800

Connector Part Information

Harness Type: Front Floor Console Wiring Harness Extension Harness
OEM Connector: 10847008
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.5 Kaizen Series(L-GY)

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 10846803
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way M 1.5 Kaizen Series(L-GY)

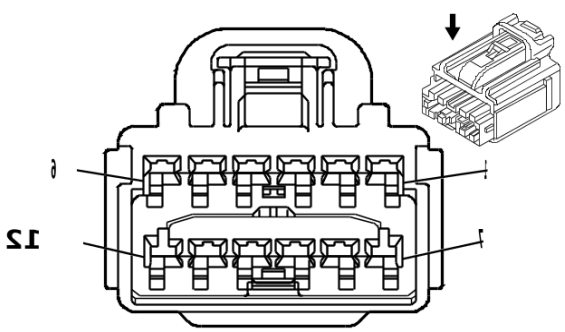
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

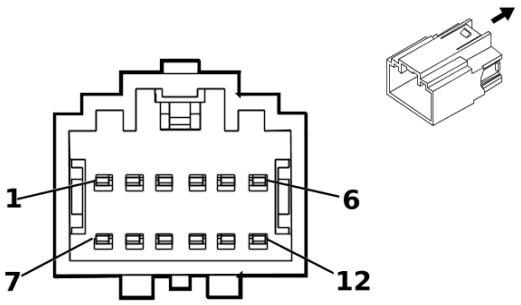
X302 Front Floor Console Wiring Harness Extension Harness to Front Floor Console Wiring Harness (K4C)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	VT / YE	43	I	—	Accessory Ignition Voltage	1	0.35	VT / YE	43	II	—
2	0.75	BK	1050	I	—	Ground	2	0.75	BK	1050	II	—
3	0.35	GN	4512	I	—	Wireless Charging System Charge Indicator Control	3	0.35	GN	4512	II	—

X305 Instrument Panel Wiring Harness to Headlining Trim Panel Harness



1856789



3240100

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13507762
Service Connector: 89046712
Description: 12-Way F Kaizen Series(L-GY)

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 13507705
Service Connector: 88988266
Description: 12-Way M 1.5 Series(L-GY)

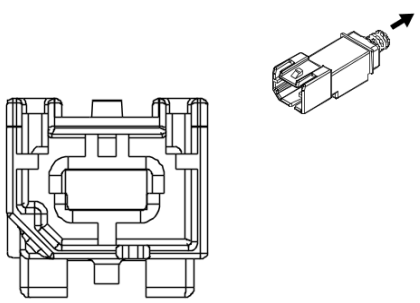
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575850	J-35616-2A (GY)	J-38125-557
II	19352418	J-35616-3 (GY)	J-38125-215A

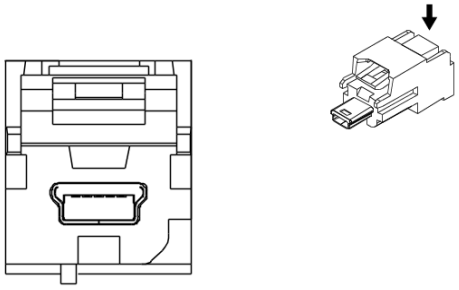
X305 Instrument Panel Wiring Harness to Headlining Trim Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.35	BK / BN	654	I	—	Cellular Telephone Microphone Low Reference	3	0.35	BK / BN	654	II	—
4	0.35	BU	655	I	—	Cellular Telephone Microphone Signal	4	0.35	BU	655	II	—
5 - 12	—	—	—	—	—	Not Occupied	5 - 12	—	—	—	—	—

X309 Front Floor Console Wiring Harness to Instrument Panel Wiring Harness (D07)



4163103



3028814

Connector Part Information

Harness Type: Front Floor Console Wiring Harness USB

OEM Connector: 13869595

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way F 2.0 Mini-B USB Type(BN)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB

OEM Connector: 13584748

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini-B USB Type(BN)

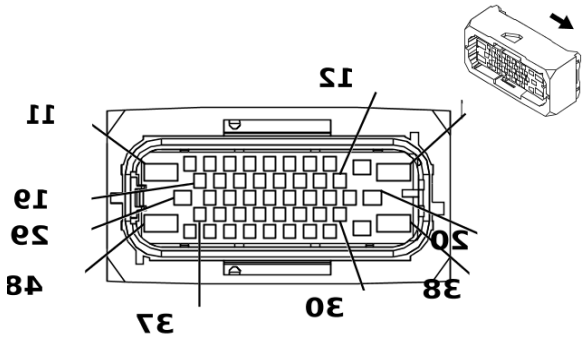
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

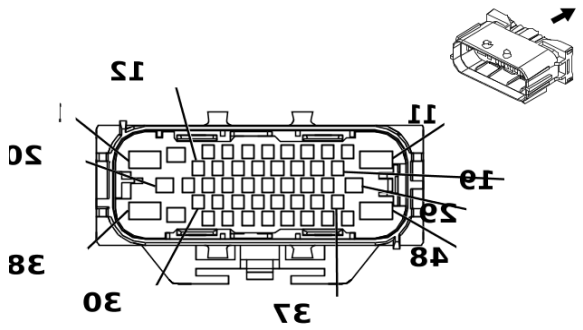
X309 Front Floor Console Wiring Harness to Instrument Panel Wiring Harness (D07)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	USB	—	I	—	USB Serial Data	—	—	USB	—	I	—

X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness (AE7)



3620765



3240126

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 15509611
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed(YE)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15513436
Service Connector: 19301796
Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	13575376	J-35616-32 (OG)	J-38125-36
III	19303873	J-35616-3 (GY)	EL-38125-560A
IV	84992391	J-35616-5 (PU)	J-38125-215A

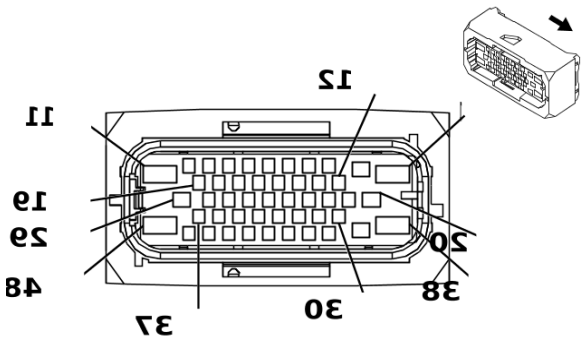
X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness (AE7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	—	—	—	—	—	Battery Positive Voltage	2	2.5	RD / YE	5040	IV	—
3 - 5	—	—	—	—	—	Not Occupied	3 - 5	—	—	—	—	—
6	0.35	OG / BN	238	I	—	Driver Seat Belt Switch Signal	6	0.35	OG / BN	238	III	—
7	0.35	BK / OG	1363	I	—	Driver Seat Belt Switch Low Reference	7	0.35	BK / OG	1363	III	—
8 - 10	—	—	—	—	—	Not Occupied	8 - 10	—	—	—	—	—
11	—	—	—	—	—	Ground	11	4	BK	1150	II	—
12 - 21	—	—	—	—	—	Not Occupied	12 - 21	—	—	—	—	—
22	—	—	—	—	—	Driver Seat Heating Element Low Reference	22	0.75	BN / BK	2078	III	—

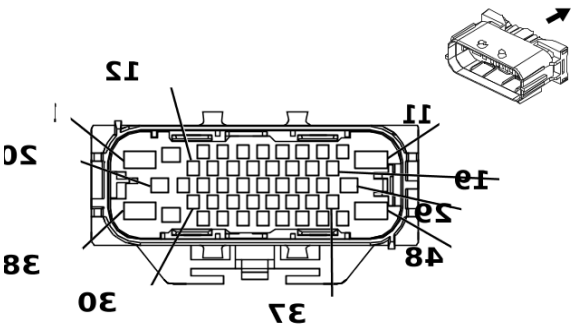
X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness (AE7) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	GN / OG	3069	I	—	Driver Seat Side Air Bag Low Control	24	0.35	GN / OG	3069	III	—
25 - 27	—	—	—	—	—	Not Occupied	25 - 27	—	—	—	—	—
28	—	—	—	—	—	Driver Heated Seat Thermistor Low Reference	28	0.5	BK / YE	2080	III	—
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	—	—	—	—	—	Driver Seat Back Heating Temperature Sensor Signal	30	0.5	BU	2425	III	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	—	—	—	—	—	Driver Seat Heating Temperature Sensor Signal	32	0.5	YE / GY	2079	III	—
33	0.5	OG / BU	3068	I	—	Driver Seat Side Air Bag High Control	33	0.35	OG / BU	3068	III	—
34 - 35	—	—	—	—	—	Not Occupied	34 - 35	—	—	—	—	—
36	—	—	—	—	—	Driver Seat Back Heating Element Control	36	0.75	BN	2432	III	—
37	—	—	—	—	—	Driver Seat Heating Element Control	37	0.75	BN / VT	2077	III	—
38 - 48	—	—	—	—	—	Not Occupied	38 - 48	—	—	—	—	—

X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness (AG1-KA1)



3620765



3240126

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 15509590
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed(YE)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15513436
Service Connector: 19301796
Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required
III	Not required	No Tool Required	No Tool Required
IV	13575376	J-35616-32 (OG)	J-38125-36
V	19303873	J-35616-3 (GY)	EL-38125-560A
VI	84992391	J-35616-5 (PU)	J-38125-215A

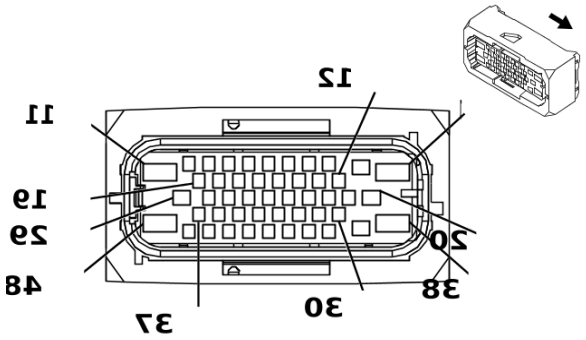
X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness (AG1-KA1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2.5	RD / YE	5040	II	—	Battery Positive Voltage	2	2.5	RD / YE	5040	VI	—
3 - 5	—	—	—	—	—	Not Occupied	3 - 5	—	—	—	—	—
6	0.35	OG / BN	238	I	—	Driver Seat Belt Switch Signal	6	0.35	OG / BN	238	V	—
7	0.35	BK / OG	1363	I	—	Driver Seat Belt Switch Low Reference	7	0.35	BK / OG	1363	V	—
8 - 10	—	—	—	—	—	Not Occupied	8 - 10	—	—	—	—	—
11	2.5	BK	1150	III	—	Ground	11	4	BK	1150	IV	—
12 - 21	—	—	—	—	—	Not Occupied	12 - 21	—	—	—	—	—

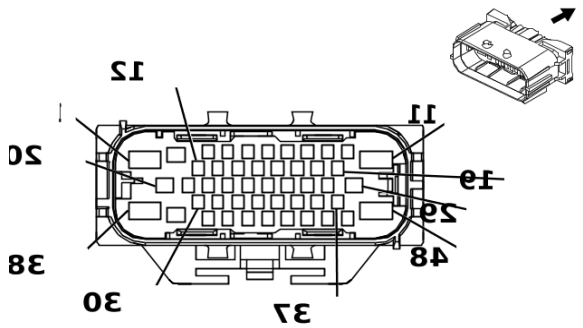
X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness (AG1-KA1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
22	—	—	—	—	—	Driver Seat Heating Element Low Reference	22	0.75	BN / BK	2078	V	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	GN / OG	3069	I	—	Driver Seat Side Air Bag Low Control	24	0.35	GN / OG	3069	V	—
25 - 27	—	—	—	—	—	Not Occupied	25 - 27	—	—	—	—	—
28	—	—	—	—	—	Driver Heated Seat Thermistor Low Reference	28	0.5	BK / YE	2080	V	—
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	—	—	—	—	—	Driver Seat Back Heating Temperature Sensor Signal	30	0.5	BU	2425	V	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	—	—	—	—	—	Driver Seat Heating Temperature Sensor Signal	32	0.5	YE / GY	2079	V	—
33	0.5	OG / BU	3068	I	—	Driver Seat Side Air Bag High Control	33	0.35	OG / BU	3068	V	—
34 - 35	—	—	—	—	—	Not Occupied	34 - 35	—	—	—	—	—
36	—	—	—	—	—	Driver Seat Back Heating Element Control	36	0.75	BN	2432	V	—
37	—	—	—	—	—	Driver Seat Heating Element Control	37	0.75	BN / VT	2077	V	—
38 - 48	—	—	—	—	—	Not Occupied	38 - 48	—	—	—	—	—

X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness (KA1)



3620765



3240126

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 15509588
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed(YE)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15513436
Service Connector: 19301796
Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-40 (BU)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required
IV	13575376	J-35616-32 (OG)	J-38125-36
V	19303873	J-35616-3 (GY)	EL-38125-560A
VI	84992391	J-35616-5 (PU)	J-38125-215A

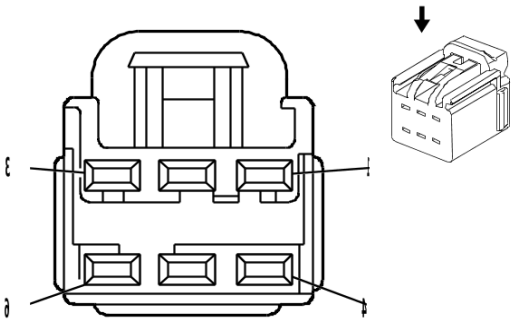
X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness (KA1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2.5	RD / YE	5040	III	—	Battery Positive Voltage	2	2.5	RD / YE	5040	VI	—
3 - 5	—	—	—	—	—	Not Occupied	3 - 5	—	—	—	—	—
6	0.35	OG / BN	238	I	—	Driver Seat Belt Switch Signal	6	0.35	OG / BN	238	V	—
7	0.35	BK / OG	1363	I	—	Driver Seat Belt Switch Low Reference	7	0.35	BK / OG	1363	V	—
8 - 10	—	—	—	—	—	Not Occupied	8 - 10	—	—	—	—	—
11	4	BK	1150	II	—	Ground	11	4	BK	1150	IV	—
12 - 21	—	—	—	—	—	Not Occupied	12 - 21	—	—	—	—	—

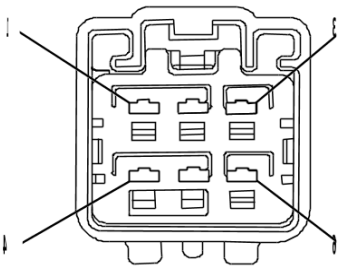
X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness (KA1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
22	0.75	BN / BK	2078	I	—	Driver Seat Heating Element Low Reference	22	0.75	BN / BK	2078	V	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	GN / OG	3069	I	—	Driver Seat Side Air Bag Low Control	24	0.35	GN / OG	3069	V	—
25 - 27	—	—	—	—	—	Not Occupied	25 - 27	—	—	—	—	—
28	0.5	BN / YE	2080	I	—	Driver Heated Seat Thermistor Low Reference	28	0.5	BK / YE	2080	V	—
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	0.5	BU	2425	I	—	Driver Seat Back Heating Temperature Sensor Signal	30	0.5	BU	2425	V	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	YE / GY	2079	I	—	Driver Seat Heating Temperature Sensor Signal	32	0.5	YE / GY	2079	V	—
33	0.5	OG / BU	3068	I	—	Driver Seat Side Air Bag High Control	33	0.35	OG / BU	3068	V	—
34 - 35	—	—	—	—	—	Not Occupied	34 - 35	—	—	—	—	—
36	0.75	BN	2432	I	—	Driver Seat Back Heating Element Control	36	0.75	BN	2432	V	—
37	0.75	BN / VT	2077	I	—	Driver Seat Heating Element Control	37	0.75	BN / VT	2077	V	—
38 - 48	—	—	—	—	—	Not Occupied	38 - 48	—	—	—	—	—

X311 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver (A95/AG1)



1519696



1849802

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Driver
OEM Connector: 7283-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F Kaizen Series(L-GY)

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 7282-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M Kaizen Series(L-GY)

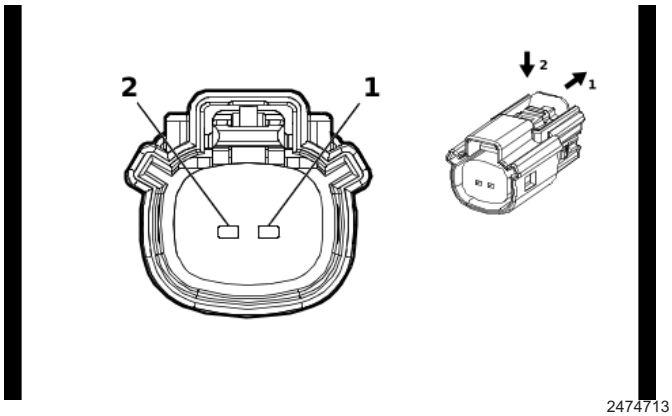
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

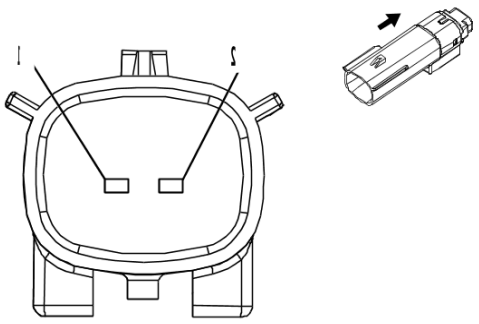
X311 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver (A95/AG1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	1.5	BU	611	I	—	Driver Seat Lumbar Support Motor Forward Control	3	1.5	BU	611	II	—
4	1.5	VT	610	I	—	Driver Seat Lumbar Support Motor Backward Control	4	1.5	VT	610	II	—
5	1.5	GN / YE	276	I	—	Driver Seat Recline Motor Forward Control	5	1.5	GN / YE	276	II	—
6	1.5	BU / YE	277	I	—	Driver Seat Recline Motor Rearward Control	6	1.5	BU / YE	277	II	—

X312 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver (-KA1)



2474713



3338703

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Driver
OEM Connector: 33471-0223
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(YE)

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 33481-0210
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.5 MX Series, Sealed(YE)

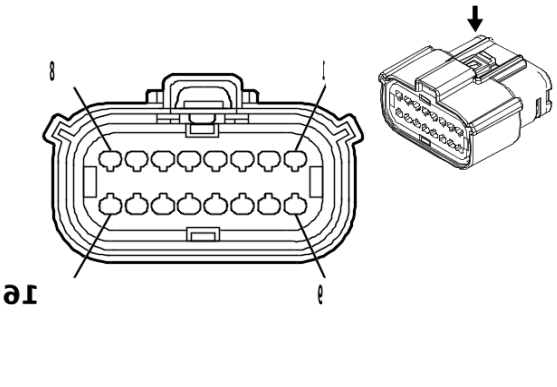
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

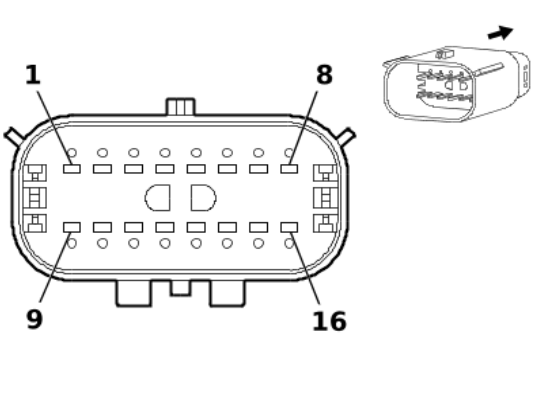
X312 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver (-KA1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG / BU	3068	I	—	Driver Seat Side Air Bag High Control	1	0.5	OG / BU	3068	II	—
2	0.5	GN / OG	3069	I	—	Driver Seat Side Air Bag Low Control	2	0.5	GN / OG	3069	II	—

X312 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver (KA1)



2548389



2548390

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Driver
OEM Connector: 33472-1886
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 MX Series, Sealed(YE)

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Driver
OEM Connector: 33482-8777
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 1.5 MX Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-3 (GY)	No Tool Required

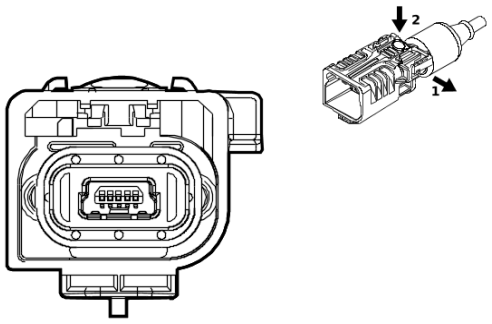
X312 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver (KA1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG / BU	3068	I	—	Driver Seat Side Air Bag High Control	1	0.5	OG / BU	3068	III	—
2	0.5	GN / OG	3069	I	—	Driver Seat Side Air Bag Low Control	2	0.5	GN / OG	3069	III	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—
5	—	—	—	—	—	Ground	5	0.75	BK	1150	III	—
6	0.75	BN	2432	II	—	Driver Seat Back Heating Element Control	6	0.75	BN	2432	III	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—
8	0.5	BK / YE	2080	I	—	Driver Heated Seat Thermistor Low Reference	8	0.5	BN / YE	2080	III	—
9	0.75	BN / BK	2078	II	—	Driver Seat Heating Element Low Reference	9	0.75	BN / BK	2078	III	—

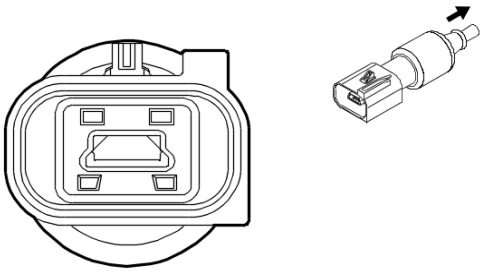
X312 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver (KA1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	BU	2425	I	—	Driver Seat Back Heating Temperature Sensor Signal	10	0.5	BU	2425	III	—
11 - 16	—	—	—	—	—	Not Occupied	11 - 16	—	—	—	—	—

X313 Body Wiring Harness to Front Seat Cushion Wiring Harness - Center (-D07)



5238665



5238666

Connector Part Information

Harness Type: Body Wiring Harness USB

OEM Connector: 33337853

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way F 2.0 Mini-B USB Type, Sealed(BK)

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Center USB

OEM Connector: 15500373

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini-B USB Type, Sealed(BK)

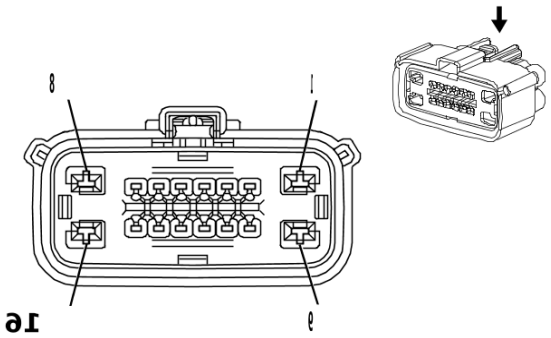
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

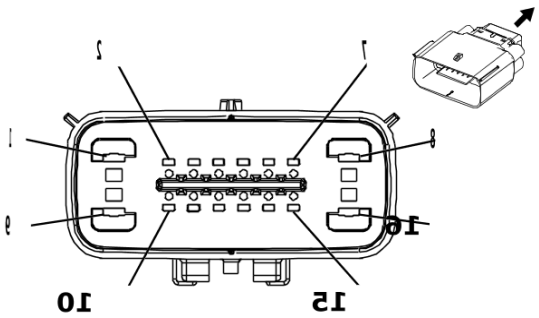
X313 Body Wiring Harness to Front Seat Cushion Wiring Harness - Center (-D07)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	USB	—	I	—	USB Serial Data	—	—	USB	—	I	—

X314 Front Seat Cushion Wiring Harness - Center to Body Wiring Harness (-D07)



3684497



2373686

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Center
OEM Connector: 34985-1606
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33129084
Service Connector: 19331031
Description: 16-Way M 1.5, 2.8 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	19366658	J-35616-5 (PU)	J-38125-12A
IV	86800300	J-35616-3 (GY)	J-38125-217

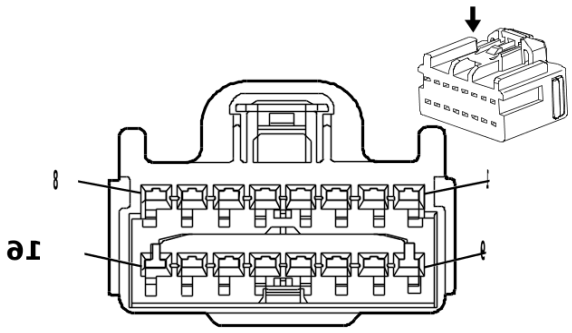
X314 Front Seat Cushion Wiring Harness - Center to Body Wiring Harness (-D07)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	VT / YE	143	II	—	Accessory Ignition Voltage	1	1.5	VT / YE	143	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.35	BK	5842	I	—	Auxiliary Audio Shield	3	0.5	BK	5842	IV	—
4	0.35	GY	5839	I	—	Left Auxiliary Audio Signal 2	4	0.5	GY	5839	IV	—
5	0.35	BU	2060	I	—	Auxiliary Audio Plug Detection Signal	5	0.5	BU	2060	IV	—
6	0.35	BK	2550	I	—	Ground	6	0.75	BK	2550	IV	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—
8	1.5	BK	1250	II	—	Ground	8	1.5	BK	1250	III	—
9	1.5	VT / YE	243	II	—	Accessory Ignition Voltage	9	1.5	VT / YE	243	III	—
10	—	—	—	—	—	Not Occupied	10	—	—	—	—	—

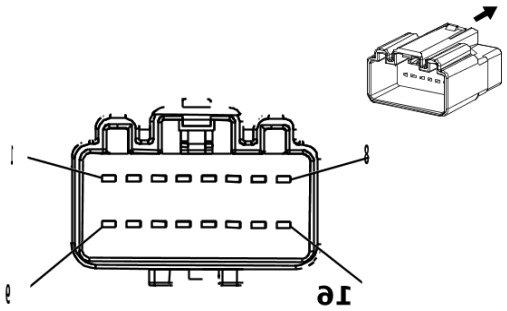
X314 Front Seat Cushion Wiring Harness - Center to Body Wiring Harness (-D07) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.35	GN	5841	I	—	Right Auxiliary Audio Signal 2	11	0.5	GN	5841	IV	—
12	0.35	VT	5843	I	—	Auxiliary Audio Common Signal	12	0.5	VT	5843	IV	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.75	RD / VT	340	I	—	Battery Positive Voltage	14	0.75	RD / VT	340	IV	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	1.5	BK	1250	II	—	Ground	16	1.5	BK	1250	III	—

X315 Body Wiring Harness to Auxiliary Fuse Block Wiring Harness



1592558



1483278

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 10847013
Service Connector: 13591061
Description: 16-Way F 1.5 Kaizen Series(GN)

Connector Part Information

Harness Type: Auxiliary Fuse Block Wiring Harness
OEM Connector: 13507433
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 1.5 Kaizen Series(GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84757974	J-35616-2A (GY)	J-38125-215A
II	Not required	J-35616-3 (GY)	No Tool Required

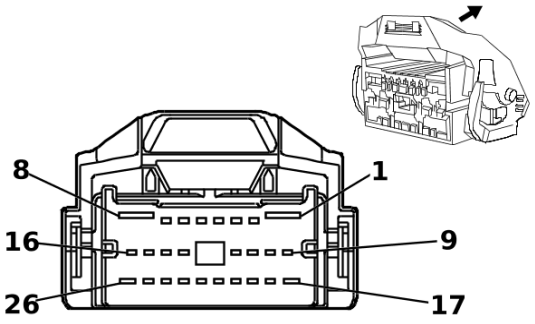
X315 Body Wiring Harness to Auxiliary Fuse Block Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BK / BU	1271	I	—	Accelerator Pedal Position Low Reference 1 Accelerator Pedal Position Low Reference 1	1	0.35	BK / BU	1271	II	—
2	0.35	YE / WH	1161	I	—	Accelerator Pedal Position Signal 1 Accelerator Pedal Position Signal 1	2	0.35	YE / WH	1161	II	—
3	0.35	WH / RD	1164	I	—	Accelerator Pedal Position 5V Reference 1 Accelerator Pedal Position 5V Reference 1	3	0.35	WH / RD	1164	II	—
4	0.35	BK / VT	1272	I	—	Accelerator Pedal Position Low Reference 2 Accelerator Pedal Position Low Reference 2	4	0.35	BK / VT	1272	II	—

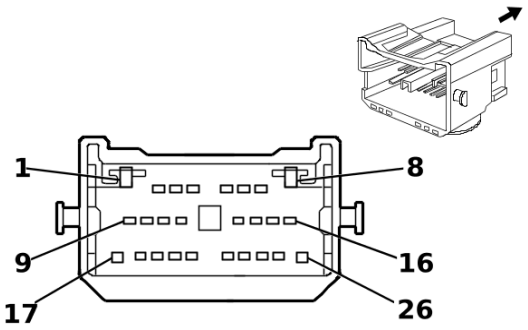
X315 Body Wiring Harness to Auxiliary Fuse Block Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	0.35	GN / WH	1162	I	—	Accelerator Pedal Position Signal 2 Accelerator Pedal Position Signal 2	5	0.35	GN / WH	1162	II	—
6	0.35	BN / RD	1274	I	—	Accelerator Pedal Position 5V Reference 2 Accelerator Pedal Position 5V Reference 2	6	0.35	BN / RD	1274	II	—
7	0.35	WH	5359	I	—	Brake Apply Sensor Control Brake Apply Sensor Control	7	0.5	WH	5359	II	—
8	0.35	BK / BN	5360	I	—	Brake Apply Sensor Low Reference Brake Apply Sensor Low Reference	8	0.5	BK / BN	5360	II	—
9	0.35	BU / YE	5361	I	—	Brake Apply Sensor Signal Brake Apply Sensor Signal	9	0.5	BU / YE	5361	II	—
10 - 16	—	—	—	—	—	Not Occupied	10 - 16	—	—	—	—	—

X316 Headlining Trim Panel Harness to Roof Console Wiring Harness



823264



823289

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 15518265
Service Connector: 13587877
Description: 26-Way F 1.5, 2.8, 6.3 Series(BK)

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 13536441
Service Connector: 88952802
Description: 26-Way M 1.5, 2.8, 6.3 YESC Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575838	J-35616-4A (PU)	J-38125-553
II	13575850	J-35616-2A (GY)	J-38125-557
III	19368264	J-35616-4A (PU)	J-38125-11A
IV	13578908	J-35616-5 (PU)	J-38125-11A
V	85544421	J-35616-3 (GY)	J-38125-215A

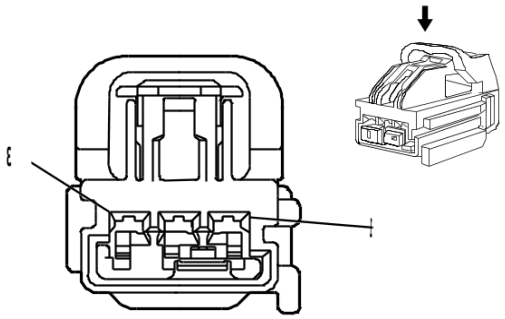
X316 Headlining Trim Panel Harness to Roof Console Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.5	BK	1050	II	—	Ground	4	0.5	BK	1050	V	—
5	0.35	GY / GN	328	II	—	Interior Lamp Defeat Switch Signal	5	0.35	GY / GN	328	V	—
6	0.35	GY / BU	156	II	—	Courtesy Lamp Switch Signal	6	0.35	GY	156	V	—
7	0.5	WH / BN	6815	II	—	Inadvertent Load Control	7	0.5	WH / BN	6815	V	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.35	VT / GN	7558	II	—	Front Footwell Accent Lighting Control	9	0.35	VT / GN	7558	V	—
10	0.5	YE	6817	II	—	LED Backlight Dimming Control 1	10	0.5	YE	6817	V	—

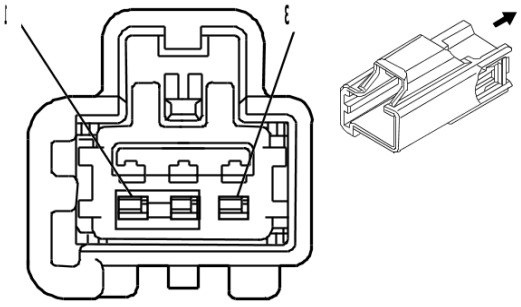
X316 Headlining Trim Panel Harness to Roof Console Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.35	VT / BK	1139	II	—	Run/Crank Ignition 1 Voltage	11	0.35	VT / WH	1139	V	—
12	0.35	VT / WH	5234	II	—	Passenger Seat Belt Indicator Control	12	0.35	VT / WH	5234	V	—
13	0.35	BU	2307	II	—	Passenger Air Bag On Indicator Control	13	0.35	BU	2307	V	—
14	0.35	GN / RD	2308	II	—	Passenger Air Bag Off Indicator Control	14	0.35	GN	2308	V	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.5	WH / BK	5990	II	—	Emergency Vehicle Roof Lamp Switch Signal	16	0.5	WH / BK	5990	V	—
17	0.5	RD / YE	240	I	—	Battery Positive Voltage	17	0.5	RD / YE	240	IV	—
18	0.35	BN / WH	2517	II	—	Telematics Switch Red LED Indicator Control	18	—	—	—	—	—
19 - 20	—	—	—	—	—	Not Occupied	19 - 20	—	—	—	—	—
21	0.5	GY	157	II	—	Interior Lamp Control	21	0.5	GY	157	V	—
22	0.35	GN / BU	2514	II	—	Telematics Switch Signal	22	—	—	—	—	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.35	GN / BK	2515	II	—	Telematics Switch Supply Voltage	24	—	—	—	—	—
25	0.35	YE / BN	2516	II	—	Telematics Switch Green LED Indicator Control	25	—	—	—	—	—
26	2	GN / BU	5989	III	—	Emergency Vehicle Lamp Relay Control	26	2.5	GN / BU	5989	IV	—

X317 Headlining Trim Panel Harness to High Mount Stop Lamp Wiring Harness



1787799



1787800

Connector Part Information

Harness Type: Headlining Trim Panel Harness
OEM Connector: 10847008
Service Connector: 86825460
Description: 3-Way F 1.5 Kaizen Series(L-GY)

Connector Part Information

Harness Type: High Mount Stop Lamp Wiring Harness
OEM Connector: 7282-3440-40
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way M 1.5 Kaizen Series(L-GY)

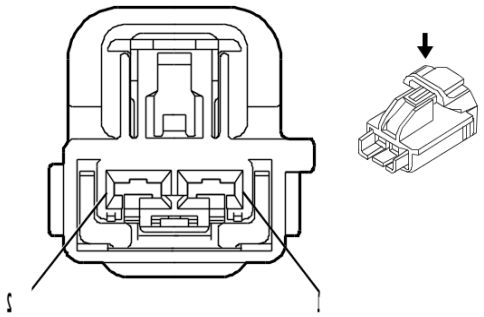
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

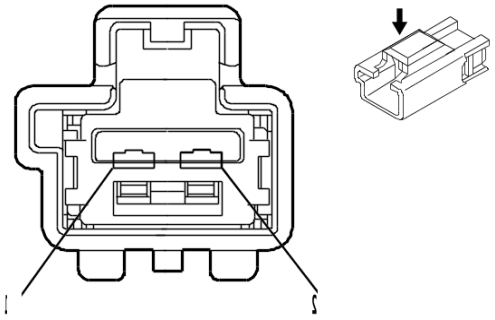
X317 Headlining Trim Panel Harness to High Mount Stop Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	WH / VT	1430	I	—	Exterior Courtesy Lamp Control	1	0.82	BN	1430	II	T3V
2	0.75	VT / GY	1054	I	—	Stop Lamp Control	2	0.82	RD	1054	II	T3V
3	0.5	BK	1050	I	—	Ground	3	0.82	BK	1050	II	T3V

X319 Roof Console Wiring Harness to Roof Wiring Harness (TRW)



1803142



1803144

Connector Part Information

Harness Type: Roof Console Wiring Harness
OEM Connector: 10846819
Service Connector: 19367562
Description: 2-Way F Kaizen Series(L-GY)

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 10846812
Service Connector: 88988510
Description: 2-Way M Kaizen Series(L-GY)

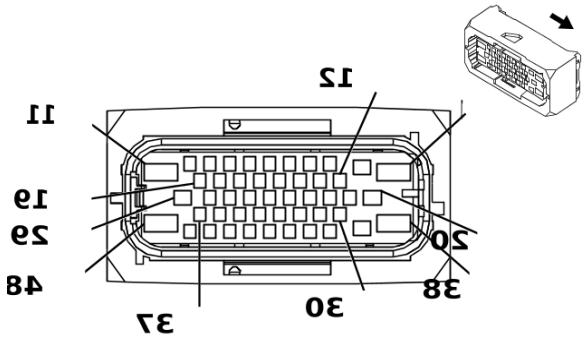
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

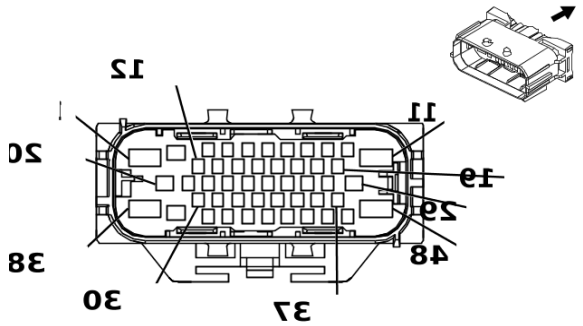
X319 Roof Console Wiring Harness to Roof Wiring Harness (TRW)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Battery Positive Voltage	1	2.5	RD / GN	3140	II	—
2	2.5	BK	1050	I	—	Ground	2	2.5	BK	1050	II	—

X320 Front Seat Cushion Wiring Harness - Passenger to Body Wiring Harness



3620765



3240126

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger

OEM Connector: 15509588

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed(YE)

Connector Part Information

Harness Type: Body Wiring Harness

OEM Connector: 15513436

Service Connector: 19301796

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-40 (BU)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required
IV	13575376	J-35616-32 (OG)	J-38125-36
V	19303873	J-35616-3 (GY)	EL-38125-560A
VI	84992391	J-35616-5 (PU)	J-38125-215A

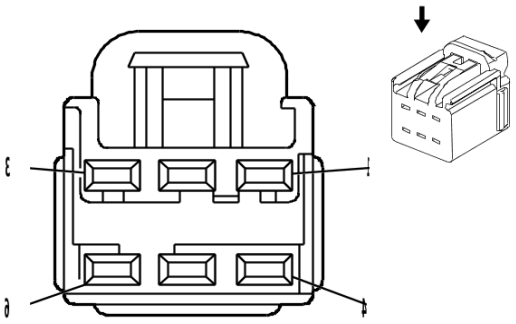
X320 Front Seat Cushion Wiring Harness - Passenger to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2.5	RD / BN	1440	III	—	Battery Positive Voltage	2	2.5	RD / BN	1440	VI	—
3 - 7	—	—	—	—	—	Not Occupied	3 - 7	—	—	—	—	—
8	0.75	BN / VT	2077	I	—	Driver Seat Heating Element Control	8	0.75	BN / VT	2077	V	—
9	0.75	BN	2432	I	—	Driver Seat Back Heating Element Control	9	0.75	BN	2432	V	—
10	—	—	—	—	—	Not Occupied	10	—	—	—	—	—
11	4	BK	1250	II	A95/ KA1	Ground	11	4	BK	1250	IV	A95/ KA1
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

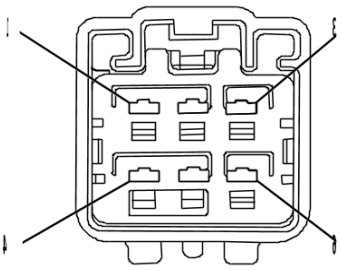
X320 Front Seat Cushion Wiring Harness - Passenger to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.75	RD / GN	6140	I	—	Battery Positive Voltage	17	0.75	RD / GN	6140	V	—
18 - 21	—	—	—	—	—	Not Occupied	18 - 21	—	—	—	—	—
22	0.75	BN / BK	2078	I	—	Driver Seat Heating Element Low Reference	22	0.75	BN / BK	2078	V	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	BN / OG	3067	I	—	Passenger Seat Side Air Bag Low Control	24	0.35	BN / OG	3067	V	—
25 - 26	—	—	—	—	—	Not Occupied	25 - 26	—	—	—	—	—
27	0.35	GN / BU	6133	I	—	Body Control Module LIN Bus 2	27	0.5	GN / BU	6133	V	—
28	0.5	BK / YE	2080	I	—	Driver Heated Seat Thermistor Low Reference	28	0.5	BK / YE	2080	V	—
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	0.5	BU	2425	I	—	Driver Seat Back Heating Temperature Sensor Signal	30	0.5	BU	2425	V	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	YE / GY	2079	I	—	Driver Seat Heating Temperature Sensor Signal	32	0.5	YE / GY	2079	V	—
33	0.5	OG / GY	3066	I	—	Passenger Seat Side Air Bag High Control	33	0.35	OG / GY	3066	V	—
34 - 46	—	—	—	—	—	Not Occupied	34 - 46	—	—	—	—	—
47	0.75	RD / GN	5140	I	—	Battery Positive Voltage	47	0.75	RD / GN	5140	V	—
48	—	—	—	—	—	Not Occupied	48	—	—	—	—	—

X321 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (A95)



1519696



1849802

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Passenger
OEM Connector: 7283-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F Kaizen Series(L-GY)

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger
OEM Connector: 7282-6466-40
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M Kaizen Series(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

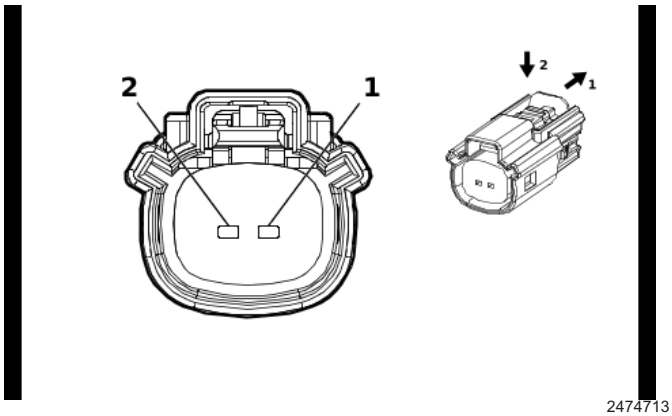
X321 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (A95)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.75 1.5	BU BU	211 211	I I	KA1 - KA1	Passenger Seat Lumbar Support Motor Forward Control Passenger Seat Lumbar Support Motor Forward Control	3	1.5	BU	211	II	—
4	0.75 1.5	VT VT	210 210	I I	KA1 - KA1	Passenger Seat Lumbar Support Motor Backward Control Passenger Seat Lumbar Support Motor Backward Control	4	1.5	VT	210	II	—
5	1.5	GN	76	I	—	Passenger Seat Recline Motor Forward Control	5	1.5	GN	76	II	—

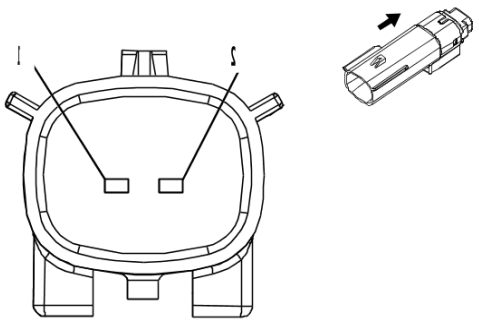
X321 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (A95) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	1.5	BU / BN	77	I	—	Passenger Seat Recline Motor Rearward Control	6	1.5	BU / BN	77	II	—

X322 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (-KA1)



2474713



3338703

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Passenger
OEM Connector: 33471-0223
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(YE)

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger
OEM Connector: 33481-0210
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.5 MX Series, Sealed(YE)

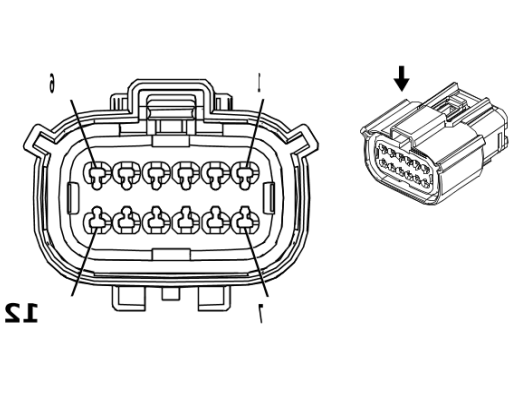
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

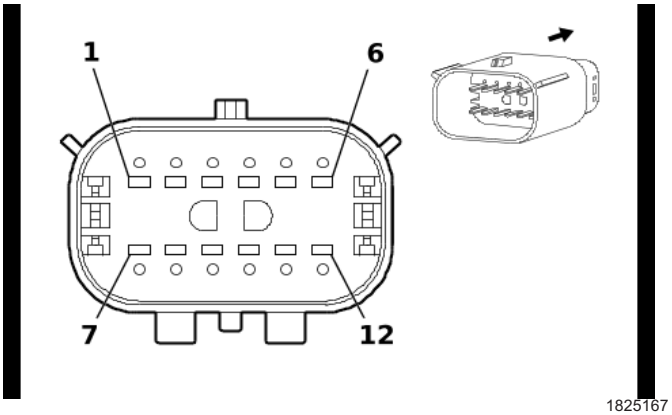
X322 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (-KA1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG / GY	3066	I	—	Passenger Seat Side Air Bag High Control	1	0.5	OG / GY	3066	II	—
2	0.5	BN / OG	3067	I	—	Passenger Seat Side Air Bag Low Control	2	0.5	BN / OG	3067	II	—

X322 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (KA1)



2424960



1825167

Connector Part Information

Harness Type: Front Seat Back Wiring Harness - Passenger
OEM Connector: 33472-1292
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 1.5 MX Series, Sealed(YE)

Connector Part Information

Harness Type: Front Seat Cushion Wiring Harness - Passenger
OEM Connector: 33482-6336
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M 1.5 MX Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-3 (GY)	No Tool Required

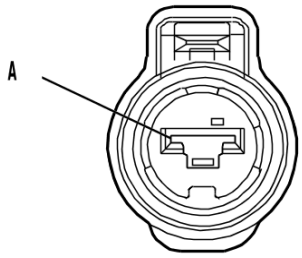
X322 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (KA1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG / GY	3066	I	—	Passenger Seat Side Air Bag High Control	1	0.5	OG / GY	3066	III	—
2	0.5	BN / OG	3067	I	—	Passenger Seat Side Air Bag Low Control	2	0.5	BN / OG	3067	III	—
3	—	—	—	—	—	Ground	3	0.75	BK	1250	III	—
4	0.75	WH / BN	2481	II	—	Passenger Seat Back Heating Element Control	4	0.75	WH / BN	2481	III	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.5	BK / GN	2482	I	—	Passenger Heated Back Thermistor Low Reference	6	0.5	BK / GN	2482	III	—

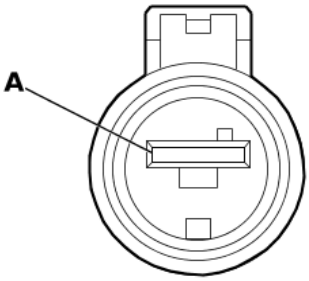
X322 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (KA1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.75	GY / BK	2480	II	—	Passenger Seat Heating Element Low Reference	7	0.75	GY / BK	2480	III	—
8	0.5	WH / BU	2436	I	—	Passenger Seat Back Heating Temperature Sensor Signal	8	0.5	WH / BU	2436	III	—
9 - 12	—	—	—	—	—	Not Occupied	9 - 12	—	—	—	—	—

X330 Chassis Front Wiring Harness to Battery Feed Harness (7Y7/7Y8)



4976432





5207744

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 6189-0101
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 312 Series, Sealed(GY)

Connector Part Information

Harness Type: Battery Feed Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M (GY)

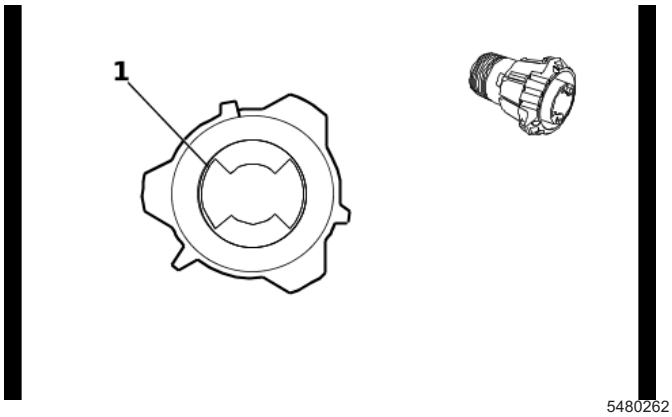
Terminal Part Information

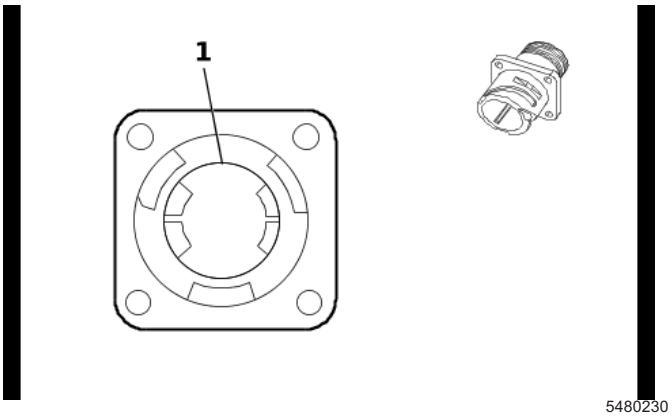
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required

X330 Chassis Front Wiring Harness to Battery Feed Harness (7Y7/7Y8)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	6	RD	90J	I	—	Battery Positive Voltage	A	6	RD	90J	II	—

X331 Auxiliary Battery Positive Cable - Battery to Auxiliary Battery Positive Cable - Cab (UEH)





Connector Part Information

Harness Type: Auxiliary Battery Positive Cable - Battery
OEM Connector: 3606342C1
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 14.3 Series(RD)

Connector Part Information

Harness Type: Auxiliary Battery Positive Cable - Cab
OEM Connector: 3663256C1
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M 14.3 Series(RD)

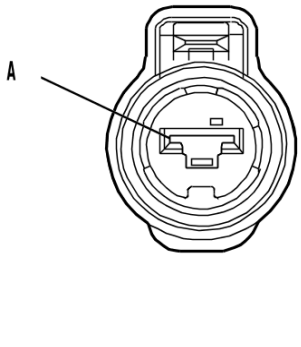
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	No Tool Required	No Tool Required

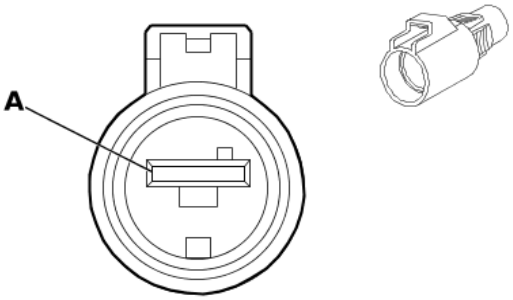
X331 Auxiliary Battery Positive Cable - Battery to Auxiliary Battery Positive Cable - Cab (UEH)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	35	RD	A	I	—	Unfused Battery Positive Voltage	1	35	RD	A	II	—

X332 Chassis Front Wiring Harness to Battery Feed Harness ((7Y7/7Y8)+(91B/91C/91D/91E))



4976432



5207744

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 6189-0101
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 312 Series, Sealed(GY)

Connector Part Information

Harness Type: Battery Feed Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M (GY)

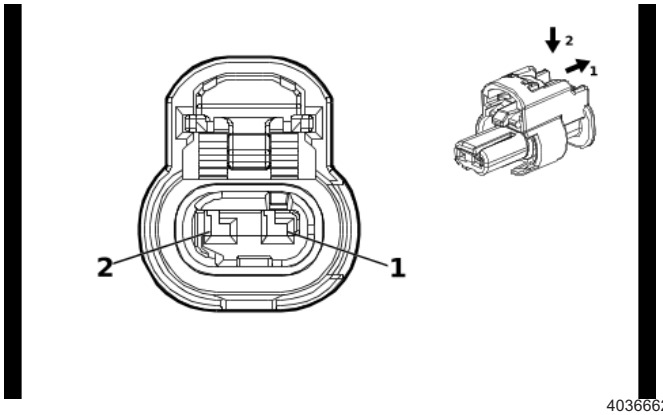
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required

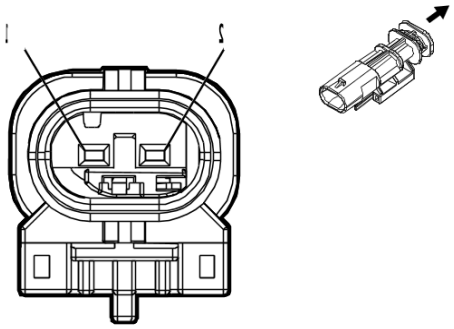
X332 Chassis Front Wiring Harness to Battery Feed Harness ((7Y7/7Y8)+(91B/91C/91D/91E))

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	10	RD	14B	I	—	Battery Positive Voltage - Fused	A	8	—	14B	II	—

X380 Body Wiring Harness to Roof Rail Air Bag Jumper Wiring Harness - Left (AY0/AY1)



4036662



4569729

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33386204
Service Connector: 19369032
Description: 2-Way F 1.2 MCON-CB Series, Sealed(BK)

Connector Part Information

Harness Type: Roof Rail Air Bag Jumper Wiring Harness - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M (BK)

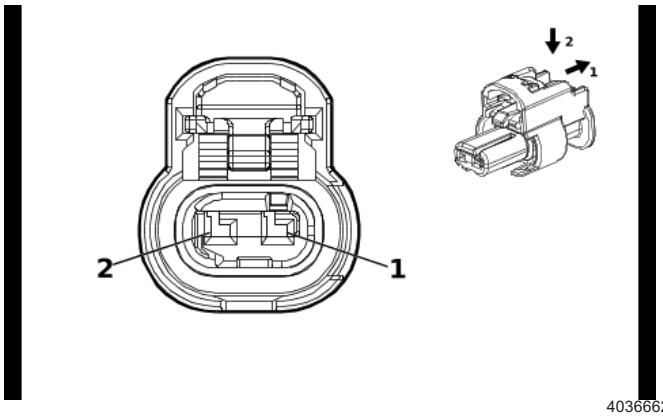
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

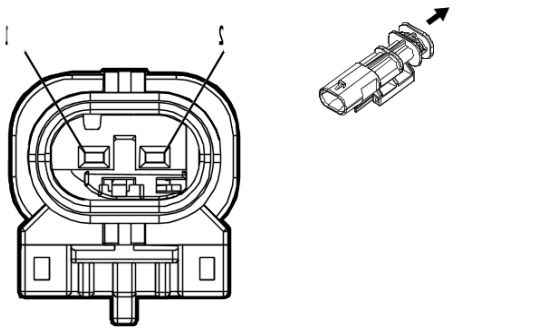
X380 Body Wiring Harness to Roof Rail Air Bag Jumper Wiring Harness - Left (AY0/AY1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	OG / GN	5019	I	—	Left Front Roof Rail Air Bag High Control	1	0.35	BK	5019	II	—
2	0.35	VT / OG	5020	I	—	Left Front Roof Rail Air Bag Low Control	2	0.35	WH	5020	II	—

X390 Body Wiring Harness to Roof Rail Air Bag Jumper Wiring Harness - Right (AY0/AY1)



4036662



4569729

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33386204
Service Connector: 19369032
Description: 2-Way F 1.2 MCON-CB Series, Sealed(BK)

Connector Part Information

Harness Type: Roof Rail Air Bag Jumper Wiring Harness - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M (BK)

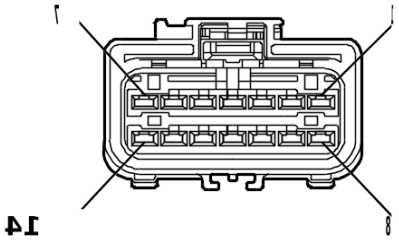
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

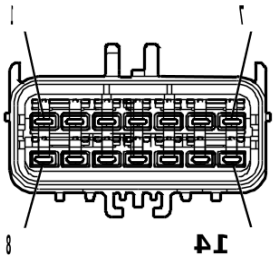
X390 Body Wiring Harness to Roof Rail Air Bag Jumper Wiring Harness - Right (AY0/AY1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	OG / GY	5021	I	—	Right Front Roof Rail Air Bag High Control	1	0.35	BK	5021	II	—
2	0.35	WH / OG	5022	I	—	Right Front Roof Rail Air Bag Low Control	2	0.35	WH	5022	II	—

X401 Chassis Rear Wiring Harness - Left to Chassis Front Wiring Harness



4977613



4976624

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 33401041
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F 2.8 APEX Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 54201415
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M 2.8 APEX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579988	J-35616-35 (VT)	J-38125-12A
II	19119859	J-35616-35 (VT)	J-38125-12A
III	13579987	J-35616-35 (VT)	J-38125-12A
IV	13579988	J-35616-35 (VT)	J-38125-12A
V	19119859	J-35616-35 (VT)	J-38125-12A
VI	Not Available	J-35616-35 (VT)	J-38125-12A

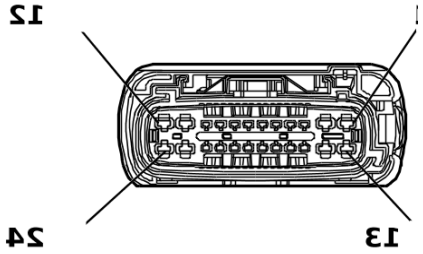
X401 Chassis Rear Wiring Harness - Left to Chassis Front Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2	GN / WH	24	I	—	Backup Lamp Control	1	2	GN / WH	24	IV	—
2	2	YE / BU	18	I	—	Left Rear Stop/Turn Signal Lamp Control Left Rear Stop/Turn Signal Lamp Control	2	1 1	YE / BU YE / BU	18 18	VI IV	- 5DX/ 5DY 5DX/ 5DY
3	2	VT / GY	709	I	—	Left Park Lamp Control	3	2	VT / GY	709	IV	—
4	1	GY / BK	7127	II	—	Left Rear Wheel Speed Sensor Control	4	0.75	GY / BK	7127	V	—
5	1	BU	884	II	—	Left Rear Wheel Speed Sensor Signal	5	0.75	BU	884	V	—
6	2.5	RD / VT	1242	I	—	Battery Positive Voltage	6	2	RD / YE	1242	IV	—

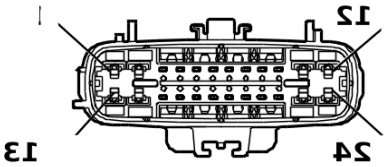
X401 Chassis Rear Wiring Harness - Left to Chassis Front Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	2.5	WH / GN	1624	I	—	Trailer Back-up Lamp Control	7	2	WH / GN	1624	IV	—
8	2.5	BU	47	I	—	Trailer Auxiliary Control Trailer Auxiliary Control	8	1.5 3	BU BU	47 47	IV III	UY7- JL1 UY7+ JL1
9	2.5	GN / BN	319	I	—	Right Rear Trailer Stop/ Turn Lamp Control	9	2	GN / BN	319	IV	—
10	2.5	GY / BN	2109	I	—	Trailer Park Lamp Control	10	5	GY / BN	2109	III	—
11	2.5	YE / BU	318	I	—	Left Rear Trailer Stop/ Turn Lamp Control	11	1.5	YE / BU	318	IV	—
12	1.5	GN	1058	I	—	Fuel Transfer Pump Control	12	2.5	GY	1058	IV	—
13	1.5	BK / YE	2737	I	—	Fuel Balance Pump Ground	13	0.75	BK / YE	2737	V	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—

X402 Chassis Rear Wiring Harness - Right to Chassis Front Wiring Harness



4977737



4977715

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: F934000
Service Connector: Service by Harness - See Part Catalog
Description: 24-Way F 1.5, 2.8 APEX Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: F254000
Service Connector: Service by Harness - See Part Catalog
Description: 24-Way M 1.5, 2.8 APEX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579988	J-35616-35 (VT)	J-38125-12A
II	13588901	J-35616-2A (GY)	J-38125-215A
III	13579988	J-35616-35 (VT)	J-38125-12A
IV	13579989	J-35616-2A (GY)	J-38125-215A
V	13579989	J-35616-3 (GY)	J-38125-215A
VI	13588901	J-35616-2A (GY)	J-38125-215A

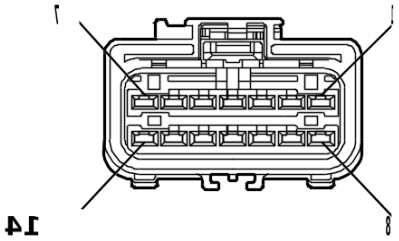
X402 Chassis Rear Wiring Harness - Right to Chassis Front Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2	BN / GN	19	I	—	Right Rear Stop/Turn Signal Lamp Control	2	1	BN / GN	19	III	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.75	WH / GN	1624	II	—	Trailer Back-up Lamp Control	4	1.5	GN / WH	24	V	—
5	1	GY / BU	7128	II	—	Right Rear Wheel Speed Sensor Control	5	0.75	WH / BU	7128	VI	—
6	1	VT	882	II	—	Right Rear Wheel Speed Sensor Signal	6	0.75	VT	882	VI	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—

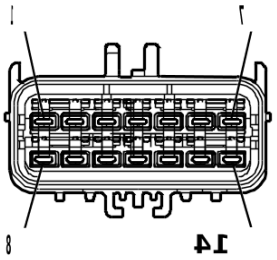
X402 Chassis Rear Wiring Harness - Right to Chassis Front Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5 0.5	BU / VT BU / WH	1589 1937	II II	N2L NSQ	Primary Fuel Level Sensor Signal Secondary Fuel Level Sensor Signal	8	0.5 0.5	GY / BN BU	1589 1937	IV IV	N2L NSQ
9	0.5 0.5	BK / GN BK / GN	6281 6282	II II	N2L NSQ	Fuel Level Sensor Low Reference Fuel Level Sensor 2 Low Reference	9	0.5 0.5	BK / GN BK	6281 6282	IV IV	N2L NSQ
10	0.75	WH / VT	1430	II	—	Exterior Courtesy Lamp Control	10	0.75	GN / VT	1430	VI	—
11	1.5	GY	120	I	—	Fuel Pump Control	11	1.5	GY	120	III	—
12	1.5	YE / GY	4137	I	—	Fuel Pump Supply Voltage Phase 2	12	1.5	YE / GY	4137	III	—
13	1.5	WH / BN	4138	I	—	Fuel Pump Supply Voltage Phase 3	13	1.5	WH / BN	4138	III	—
14	2	GN / WH	24	I	—	Backup Lamp Control	14	2	GN / WH	24	III	—
15	0.75	GY / YE	6972	II	—	Rearview Camera Signal [+]	15	0.75	GY / YE	6972	VI	—
16	0.5	BK	6974	II	—	Rearview Camera Low Reference	16	0.75	WH	6974	VI	—
17	0.75	WH / BU	6973	II	—	Rearview Camera Signal [-]	17	0.75	WH / BU	6973	VI	—
18	0.75	VT / GN	1739	II	—	Run/Crank Ignition 1 Voltage	18	0.5	PK	1739	IV	—
19	0.5	BK	7444	II	—	Fuel Pump Assembly Shield Ground	19	0.5	BK	7444	IV	—
20	—	—	—	—	—	Ground	20	0.5	BK	2550	IV	—
21 - 22	—	—	—	—	—	Not Occupied	21 - 22	—	—	—	—	—
23	2	GY / BN	309	I	—	Right Park Lamp Control	23	2	GY / BN	309	III	—
24	—	—	—	—	—	Ground	24	2	BK	A50	III	—

X405 Body Builder Connection Harness to Chassis Front Wiring Harness (5DX)



4977613



4976624

Connector Part Information

Harness Type: Body Builder Connection Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 54201415
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M 2.8 APEX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	13579987	J-35616-35 (VT)	J-38125-12A
III	13579988	J-35616-35 (VT)	J-38125-12A
IV	Not required	J-35616-5 (PU)	J-38125-12A

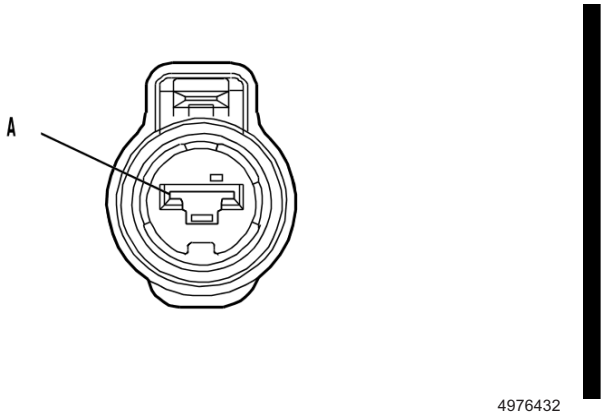
X405 Body Builder Connection Harness to Chassis Front Wiring Harness (5DX)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	618-G	I	—	Ground	1	3	BK	618-G	II	—
2	—	—	24	I	—	Backup Lamp Control	2	2	GN / WH	24	III	—
3	—	—	618	I	—	Left Rear Turn Signal Lamp Control	3	2	YE / BN	618	III	—
4	—	—	619	I	—	Right Rear Turn Signal Lamp Control	4	1	GN / VT	619	IV	—
5	—	—	1054	I	—	Stop Lamp Control	5	1	VT / GY	1054	III	—
6 - 7	—	—	—	—	—	Not Occu-pied	6 - 7	—	—	—	—	—
8	—	—	709	I	—	Left Park Lamp Control	8	2	VT / GY	709	III	—
9	—	—	309	I	—	Right Park Lamp Control	9	2	GY / BN	309	III	—
10 - 11	—	—	—	—	—	Not Occu-pied	10 - 11	—	—	—	—	—

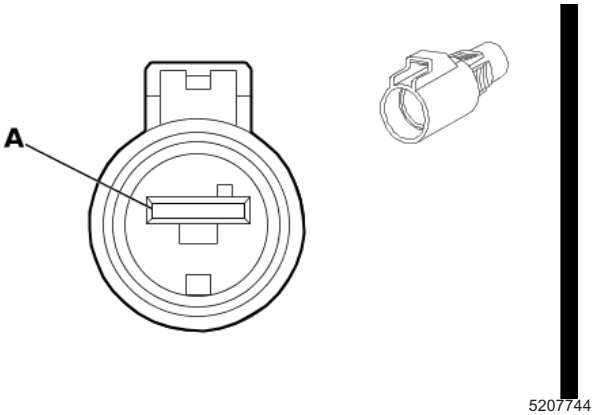
X405 Body Builder Connection Harness to Chassis Front Wiring Harness (5DX) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	— —	— —	18 18	I I	JL1/ UZF - JL1/ UZF	Left Rear Stop/Turn Signal Lamp Control Left Rear Stop/Turn Signal Lamp Control	12	1 2	YE / BU YE / BU	18 18	III III	JL1/ UZF - JL1/ UZF
13	—	—	19	I	—	Right Rear Stop/Turn Signal Lamp Control	13	1	BN / GN	19	III	—
14	—	—	442	I	—	Battery Positive Voltage	14	5	RD / YE	442	II	—

X412 Chassis Rear Wiring Harness - Left to Chassis Front Wiring Harness (91B/91C/91D/91E)



4976432



5207744

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 6189-0101
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 312 Series, Sealed(GY)

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 6188-0049
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M 312 Series, Sealed(GY)

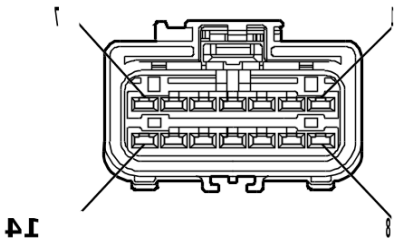
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-45 (YE)	No Tool Required

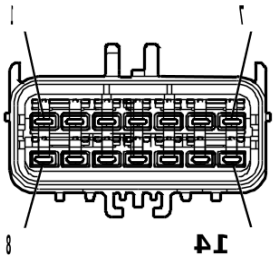
X412 Chassis Rear Wiring Harness - Left to Chassis Front Wiring Harness (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	10	RD	14B	I	—	Battery Positive Voltage - Fused	A	10	RD	14B	II	—

X422 Chassis Front Wiring Harness to Chassis Rear Wiring Harness - Left (91B/91C/91D/91E)



4977613



4976624

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 54201411
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F 2.8 APEX Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 54201415
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M 2.8 APEX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579988	J-35616-35 (VT)	J-38125-12A
II	19119859	J-35616-35 (VT)	J-38125-12A
III	Not required	J-35616-5 (PU)	J-38125-12A

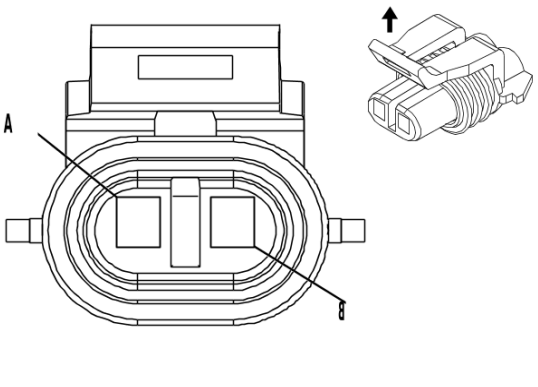
X422 Chassis Front Wiring Harness to Chassis Rear Wiring Harness - Left (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	YE	5LSA	II	—	Suspension CAN High	1	1	YE	5LSA	III	—
2	1	GN	5LSB	II	—	Suspension CAN Low	2	1	GN	5LSB	III	—
3	1	RD	14LS	II	—	Battery Positive Voltage - Fused	3	1	RD	14LS	III	—
4	1	PK	13LS	II	—	Ignition Voltage	4	1	PK	13LS	III	—
5	1	WH	10LS	II	—	Ground	5	1	WH	10LS	III	—
6	1	GY	47LS	II	—	Vehicle Speed Signal	6	1	GY	47LS	III	—
7	1	BN	61LR	II	—	Suspension Rate Control Solenoid Signal - Rear Left	7	1	BN	61LR	III	—
8	1	GN	61RR	II	—	Suspension Rate Control Solenoid Signal - Rear Right	8	1	GN	61RR	III	—
9	1.5	WH	10G	I	—	Ground	9	1	WH	10G	III	—

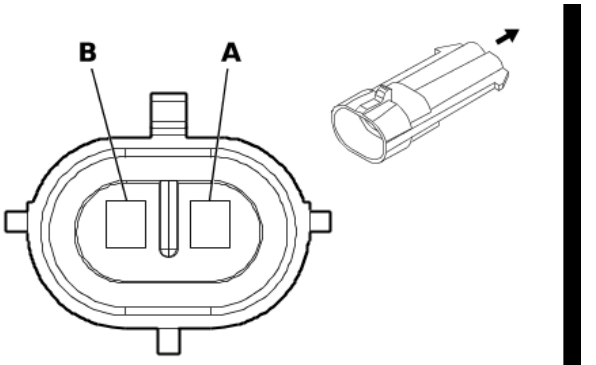
X422 Chassis Front Wiring Harness to Chassis Rear Wiring Harness - Left (91B/91C/91D/91E) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	1	GY	61LSC	II	—	Steering Gear Angle Sensor Voltage Reference	10	1	GY	61LSC	III	—
11	1	GY	61LSA	II	—	Steering Gear Angle Sensor Low Reference	11	1	GY	61LSA	III	—
12	1	GY	61LSB	II	—	Steering Gear Angle Sensor Signal	12	1	GY	61LSB	III	—
13	1	VT / GY	1054	II	—	Stop Lamp Control	13	1	VT / GY	1054	III	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—

X423 Chassis Front Wiring Harness to Liquid Spring Volume Tank Jumper (91B/91C/91D/91E)



635009



333041

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

Connector Part Information

Harness Type: Liquid Spring Volume Tank Jumper
OEM Connector: 12162000
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series, Sealed(BK)

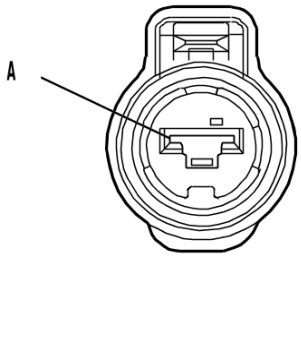
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

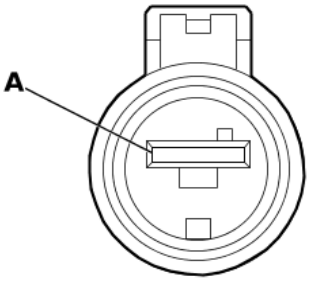
X423 Chassis Front Wiring Harness to Liquid Spring Volume Tank Jumper (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	GN	61RR	I	—	Suspension Rate Control Solenoid Signal - Rear Right	A	1	GN	61RR	II	—
B	1	WH	10G	I	—	Ground	B	1	WH	10G	II	—

X430 Chassis Front Wiring Harness to Battery Feed Harness (7Y9)



4976432



5207744

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 6189-0101
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 312 Series, Sealed(GY)

Connector Part Information

Harness Type: Battery Feed Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M (GY)

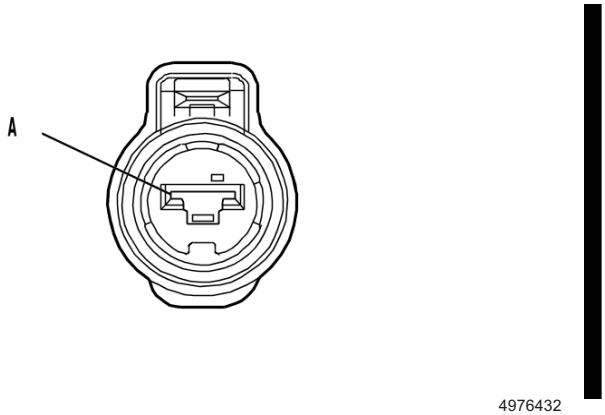
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required

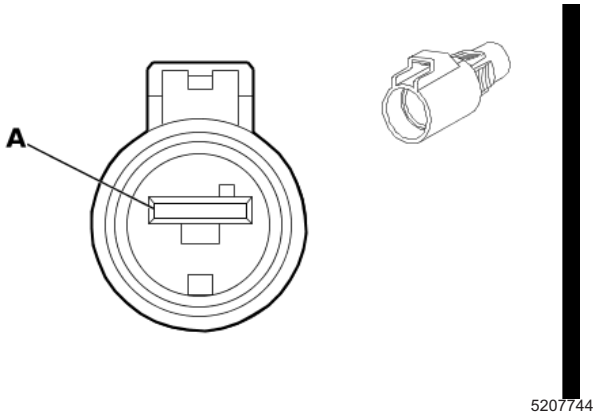
X430 Chassis Front Wiring Harness to Battery Feed Harness (7Y9)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	6	RD	90J	I	—	Battery Positive Voltage	A	6	RD	90J	II	—

X432 Chassis Front Wiring Harness to Battery Feed Harness (7Y9+(91B/91C/91D/91E))



4976432



5207744

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 6189-0101
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 312 Series, Sealed(GY)

Connector Part Information

Harness Type: Battery Feed Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M (GY)

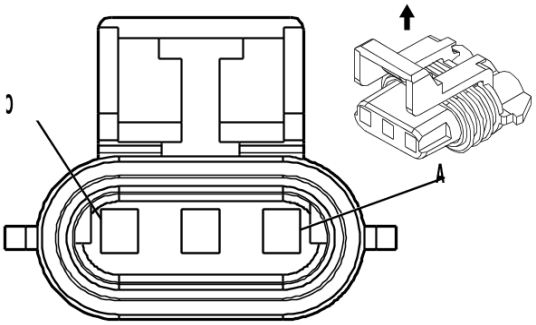
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required

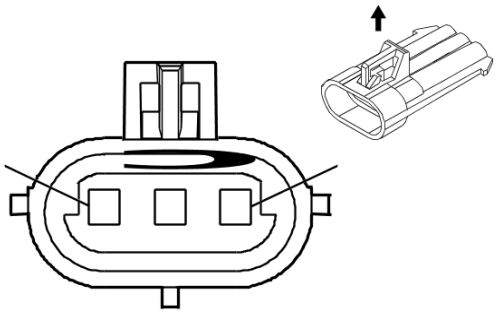
X432 Chassis Front Wiring Harness to Battery Feed Harness (7Y9+(91B/91C/91D/91E))

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	10	RD	14B	I	—	Battery Positive Voltage - Fused	A	8	—	14B	II	—

X442 Chassis Rear Wiring Harness - Left to Liquid Spring Door Wiring Harness (91B/91C/91D/91E)



684807



655690

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 12110293
Service Connector: 12117025
Description: 3-Way F 150 Metri-Pack Series, Sealed(BK)

Connector Part Information

Harness Type: Liquid Spring Door Wiring Harness
OEM Connector: 12129615
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way M 150 Metri-Pack Series, Sealed(BK)

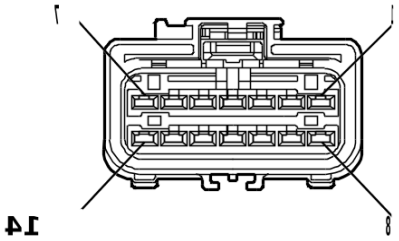
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

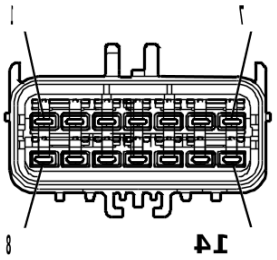
X442 Chassis Rear Wiring Harness - Left to Liquid Spring Door Wiring Harness (91B/91C/91D/91E)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	GY	61DA	I	—	Rear Door Open Signal	A	1	—	61DA	II	—
B	1	WH	10LS	I	—	Ground	B	1	—	10LS	II	—
C	1	GY	61DB	I	—	Passenger Door Open Signal	C	1	—	61DB	II	—

X455 Chassis Front Wiring Harness to Chassis Rear Wiring Harness - Right (5DY)



4977613



4976624

Connector Part Information

Harness Type: Chassis Front Wiring Harness
OEM Connector: 33401041
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F 2.8 APEX Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: 54201415
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M 2.8 APEX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579987	J-35616-35 (VT)	J-38125-12A
II	13579988	J-35616-35 (VT)	J-38125-12A
III	19119859	J-35616-35 (VT)	J-38125-12A
IV	13579988	J-35616-35 (VT)	J-38125-12A

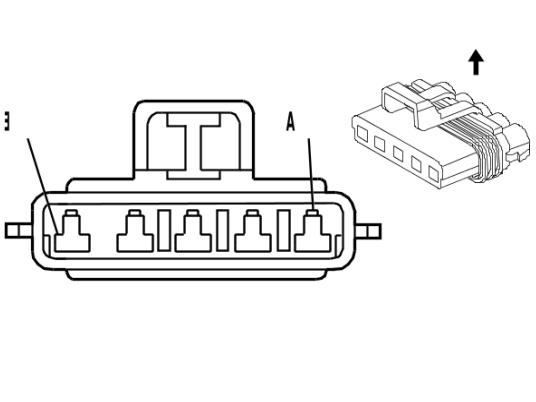
X455 Chassis Front Wiring Harness to Chassis Rear Wiring Harness - Right (5DY)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2	GN / WH	24	II	—	Backup Lamp Control	2	2	GN / WH	24	IV	—
3	2	YE / BN	618	II	—	Left Rear Turn Signal Lamp Control	3	2	YE / BN	618	IV	—
4	1	GN / VT	619	III	—	Right Rear Turn Signal Lamp Control	4	2	GN / VT	619	IV	—
5	0.75	VT / GY	1054	III	—	Stop Lamp Control	5	2	VT / GY	1054	IV	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	2	VT / GY	709	II	—	Left Park Lamp Control	8	2	VT / GY	709	IV	—
9	2	GY / BN	309	II	—	Right Park Lamp Control	9	2	GY / BN	309	IV	—
10 - 11	—	—	—	—	—	Not Occupied	10 - 11	—	—	—	—	—

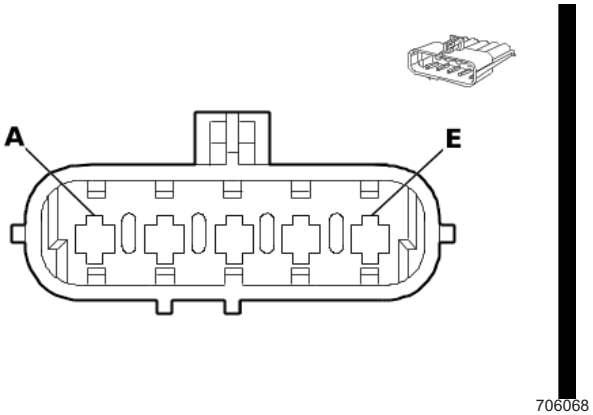
X455 Chassis Front Wiring Harness to Chassis Rear Wiring Harness - Right (5DY) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	2 1	YE / BU YE / BU	18 18	II III	- (JL1/ UZF) JL1/ UZF	Left Rear Stop/Turn Signal Lamp Control Left Rear Stop/Turn Signal Lamp Control	12	2	YE / BU	18	IV	—
13	1	BN / GN	19	III	—	Right Rear Stop/Turn Signal Lamp Control	13	2	BN / GN	19	IV	—
14	5	RD / YE	442	I	—	Battery Positive Voltage	14	2	RD / YE	1142	IV	—

X491 Chassis Rear Wiring Harness - Left to Rear Lamp Wiring Harness Extension Harness - Left (JTR)



243503



706068

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Left
OEM Connector: 12084891
Service Connector: 19369027
Description: 5-Way F 280 Metri-Pack Series, Sealed(GY)

Connector Part Information

Harness Type: Rear Lamp Wiring Harness Extension Harness - Left
OEM Connector: 12186400
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 280 Metri-Pack Series, Sealed(GY)

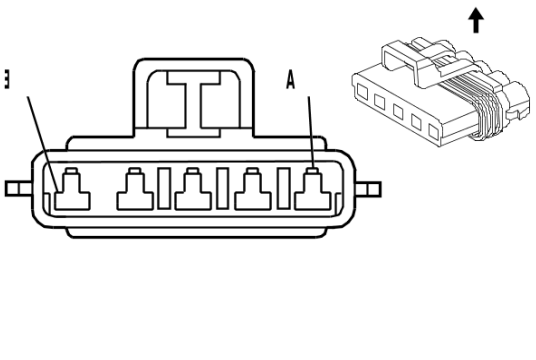
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

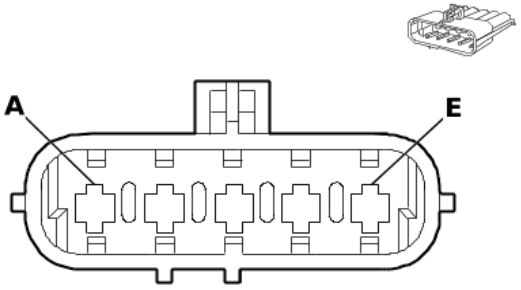
X491 Chassis Rear Wiring Harness - Left to Rear Lamp Wiring Harness Extension Harness - Left (JTR)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	2	GN / WH	24	I	—	Backup Lamp Control	A	2	GN / WH	24	II	—
B	2	YE / BU	18	I	—	Left Rear Stop/Turn Signal Lamp Control	B	2	YE / BU	18	II	—
C	—	—	—	—	—	Not Occu-pied	C	—	—	—	—	—
D	2	VT / GY	709	I	—	Left Park Lamp Control	D	2	VT / GY	709	II	—
E	3	BK	10-G	I	—	Ground	E	3	BK	10-G	II	—

X492 Chassis Rear Wiring Harness - Right to Rear Lamp Wiring Harness Extension Harness - Right (JTR)



243503



706068

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: 12084891
Service Connector: 19369027
Description: 5-Way F 280 Metri-Pack Series, Sealed(GY)

Connector Part Information

Harness Type: Rear Lamp Wiring Harness Extension Harness - Right
OEM Connector: 12186400
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 280 Metri-Pack Series, Sealed(GY)

Terminal Part Information

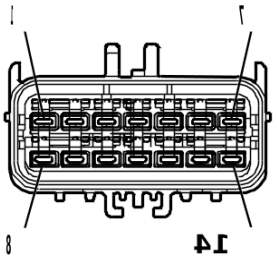
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X492 Chassis Rear Wiring Harness - Right to Rear Lamp Wiring Harness Extension Harness - Right (JTR)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	2	GN / WH	24	I	—	Backup Lamp Control	A	2	GN / WH	24	II	—
B	2	GY / BN	309	I	TR1	Right Park Lamp Control	B	2	GY / BN	309	II	TR1
C	2	BN / GN	19	I	—	Right Rear Stop/Turn Signal Lamp Control	C	2	BN / GN	19	II	—
D	2	GY / BN	309	I	UGE	Right Park Lamp Control	D	2	GY / BN	309	II	UGE
E	3	BK	10-G	I	—	Ground	E	3	BK	10-G	II	—

X495 Body Builder Connection Harness to Chassis Rear Wiring Harness - Right (5DY)

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4976624

Connector Part Information

Harness Type: Body Builder Connection Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: 54201415
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M 2.8 APEX Series, Sealed(BK)

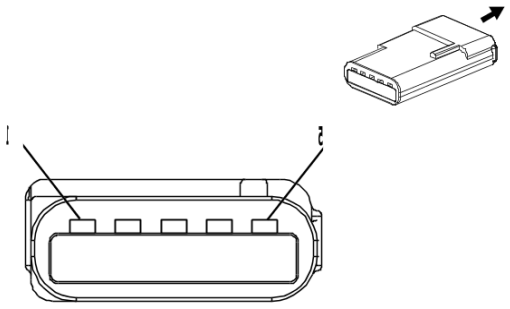
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	13579988	J-35616-35 (VT)	J-38125-12A

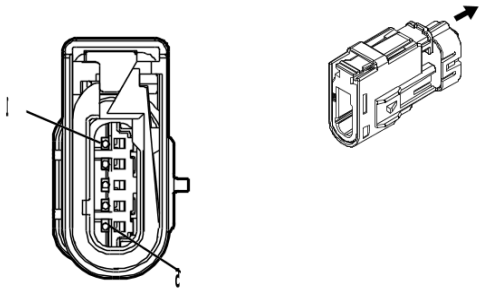
X495 Body Builder Connection Harness to Chassis Rear Wiring Harness - Right (5DY)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BK	10-G	I	—	Ground	1	1.5	BK	10-G	II	—
2	2	GN / WH	24	I	—	Backup Lamp Control	2	2	GN / WH	24	II	—
3	2	YE / BN	618	I	—	Left Rear Turn Signal Lamp Control	3	2	YE / BN	618	II	—
4	2	GN / VT	619	I	—	Right Rear Turn Signal Lamp Control	4	2	GN / VT	619	II	—
5	2	VT / GY	1054	I	—	Stop Lamp Control	5	2	VT / GY	1054	II	—
8	2	VT / GY	709	I	—	Left Park Lamp Control	8	2	VT / GY	709	II	—
9	2	GY / BN	309	I	—	Right Park Lamp Control	9	2	GY / BN	309	II	—
12	2	YE / BU	18	I	—	Left Rear Stop/Turn Signal Lamp Control	12	2	YE / BU	18	II	—
13	2	BN / GN	19	I	—	Right Rear Stop/Turn Signal Lamp Control	13	2	BN / GN	19	II	—
14	2	RD / YE	1142	I	—	Battery Positive Voltage	14	2	RD / YE	1142	II	—

X499 Rearview Camera Wiring Harness to Chassis Rear Wiring Harness - Right (RWR/UVC)



4242737



4808321

Connector Part Information

Harness Type: Rearview Camera Wiring Harness
OEM Connector: 13582041
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way F 1.2 Series, Sealed(GY)

Connector Part Information

Harness Type: Chassis Rear Wiring Harness - Right
OEM Connector: SRVWSB-05A-AH
Service Connector: 84581345
Description: 5-Way M 1.2 Series, Sealed(GY)

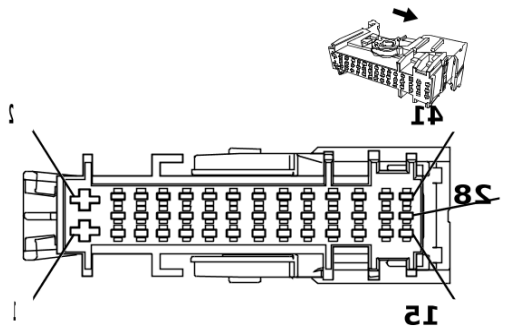
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-13 (BU)	No Tool Required

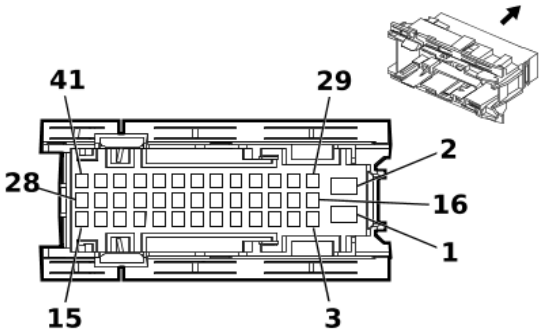
X499 Rearview Camera Wiring Harness to Chassis Rear Wiring Harness - Right (RWR/UVC)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	RD	6972	I	—	Rearview Camera Signal [+]	1	0.75	GY / YE	6972	II	—
2	0.5	BU	6973	I	—	Rearview Camera Signal [-]	2	0.75	WH / BU	6973	II	—
3	0.5	WH	6974	I	—	Rearview Camera Low Reference	3	0.5	BK	6974	II	—
4	0.5	BK	2550	I	—	Ground	4	0.75	BK	2550	II	—
5	0.5	PK	1739	I	—	Run/Crank Ignition 1 Voltage	5	0.75	VT / GN	1739	II	—

X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness



2173986



2474679

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 13600509
Service Connector: Service by Harness - See Part Catalog
Description: 41-Way F 4.8 Timer, 1.5 DSQ Series(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13946876
Service Connector: 13587760
Description: 41-Way M 1.5, 5.8 TTS Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-42 (RD)	No Tool Required
III	13575776	J-35616-3 (GY)	J-38125-215A
IV	13584452	J-35616-3 (GY)	J-38125-215A
V	19368242	J-35616-32 (OG)	J-38125-36
VI	19369193	J-35616-34 (YE)	EL-38125-560A

X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD / BU	1842	II	A31	Battery Positive Voltage	1	2.5	RD / BU	1842	V	A31
2	3	BK	1150	II	—	Ground	2	4	BK	1150	V	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.5	WH	3398	I	DPN	Passenger Outside Rearview Mirror Motor Common Control	4	0.5	WH	3398	III	—
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—
7	0.5	WH / GN	3412	I	DPN	Driver Outside Rearview Mirror Motor Fold Control	7	0.5	WH / GN	3412	III	—
8	0.5	GY / WH	3411	I	DPN	Driver Outside Rearview Mirror Motor Unfold Control	8	0.5	GY / WH	3411	III	—

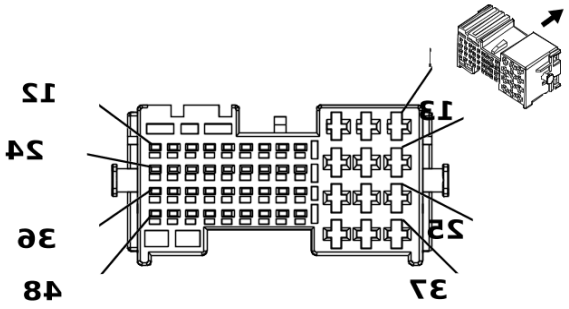
X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	WH / VT	1430	I	DPN	Exterior Courtesy Lamp Control	9	0.5	WH / VT	1430	III	—
10	1	BU	201	I	—	Left Front Speaker 1 [+] Control	10	0.75	BU	201	III	—
11	0.5	VT / GY	709	I	DPN	Left Park Lamp Control	11	0.5	VT / GY	709	III	—
12	0.35	GY	745	I	- A31	Left Front Door Ajar Switch Signal	12	0.35	GY	745	IV	—
13	0.35	WH / VT	3270	I	- A31	Driver Door Lock Motor Status Signal	13	0.35	WH / VT	3270	IV	—
14	0.5	OG / GN	2132	I	—	Left Front Side Impact Sensor Signal	14	0.35	OG / GN	2132	IV	—
15	0.5	BK / OG	6628	I	—	Left Front Side Impact Sensor Low Reference	15	0.35	BK / OG	6628	IV	—
16	0.35	WH	6816	I	CREW CAB	Indicator Dimming Control	16	0.5	WH	6816	III	CREW CAB
17	0.35	BN / WH	781	I	—	Driver Door Lock Switch Unlock Signal	17	0.35	BN / WH	781	IV	—
18	0.35	BN / YE	780	I	—	Driver Door Lock Switch Lock Signal	18	0.35	BN / YE	780	IV	—
19	0.75	BN / BK	294	I	—	Door Lock Actuator Unlock Control	19	0.75	BN / YE	294	III	—
20	0.75	GY	5911	I	—	Door Lock Actuator Lock Control 2	20	0.75	GY	5911	III	—
21 - 22	—	—	—	—	—	Not Occupied	21 - 22	—	—	—	—	—
23	1	BN / BU	118	I	—	Left Front Speaker [-] Control 1	23	0.75	BN / BU	118	III	—
24 - 25	—	—	—	—	—	Not Occupied	24 - 25	—	—	—	—	—
26	0.35	BU / VT	1124	I	- A31	Door Lock Key Switch Unlock Signal	26	0.35	BU / VT	1124	IV	—
27 - 28	—	—	—	—	—	Not Occupied	27 - 28	—	—	—	—	—
29	0.35	YE	6817	I	—	LED Backlight Dimming Control 1	29	0.35	YE	6817	IV	—

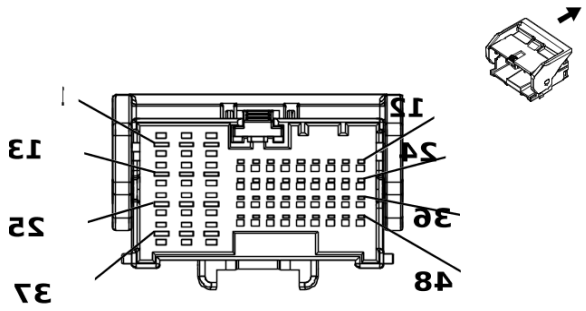
X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
30	0.35	WH / YE	7557	I	A31	Interior Door Handle Accent Lighting Control	30	0.35	WH / YE	7557	IV	A31
31	0.5	BN / OG	2267	I	DPN	Outside Rearview Mirror Heater Control	31	0.5	BN / YE	2267	III	—
32	0.35	GY	5697	I	CREW CAB	Child Security Lock Indicator Control	32	0.35	GY	5697	IV	—
33	0.5	GN / YE	6134	I	A31	Body Control Module LIN Bus 3	33	0.5	GN / YE	6134	VI	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.35	BN / RD	3265	I	CREW CAB	Child Security Lock Switch Signal	35	0.35	YE / BN	3265	IV	—
36	0.5	GN / BK	3396	I	DPN	Passenger Outside Rearview Mirror Motor Right [+] Left [-] Control	36	0.5	GN / BK	3396	III	—
37	—	—	—	—	—	Not Occupied	37	—	—	—	—	—
38	0.5	YE / VT	3397	I	DPN	Passenger Outside Rearview Mirror Motor Up [+] Down [-] Control	38	0.5	YE / VT	3397	III	—
39	—	—	—	—	—	Door Dead Lock Actuator Lock Control	39	0.75	BN	5910	III	—
40	0.5	RD / VT	1940	I	A31	Battery Positive Voltage	40	0.5	RD / VT	1940	III	A31
41	0.5	BU / WH	1314	I	DPN	Left Front Turn Signal Lamp Control	41	0.75	BU / WH	1314	III	—

X505 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver (A31)



3277913



3277901

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 13889713
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F 1.2 MCON, 2.8 MCP Series(BK)

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver
OEM Connector: 15512031
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way M 1.2 MCON, 2.8 MCP Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required
III	Not required	J-35616-17 (L-GN)	No Tool Required
IV	Not required	J-35616-5 (PU)	No Tool Required

X505 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver (A31)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE	6817	II	—	LED Backlight Dimming Control 1	1	0.35	YE	6817	IV	—
2	0.35	WH / YE	7557	II	—	Interior Door Handle Accent Lighting Control	2	0.35	WH / YE	7557	IV	—
3	0.35	WH	6816	II	—	Indicator Dimming Control	3	0.35	WH	6816	IV	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	BN / BK	3389	I	—	Driver Outside Rearview Mirror Motor Right [+] Left [-] Control	5	0.75	BN / BK	3389	III	—

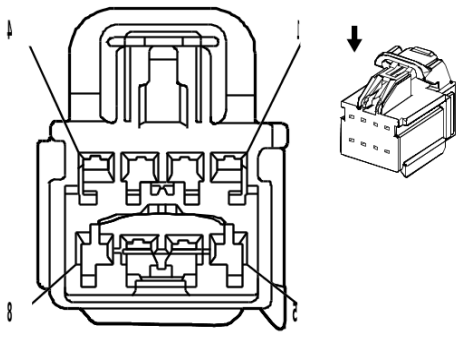
X505 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver (A31) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	VT / BU	3390	I	—	Driver Outside Rearview Mirror Motor Up [+] Down [-] Control	6	0.75	VT / BU	3390	III	—
7	0.5	YE / BN	3391	I	—	Driver Mirror Motor Common Control	7	0.75	YE / BN	3391	III	—
8 - 16	—	—	—	—	—	Not Occupied	8 - 16	—	—	—	—	—
17	0.5	BK	1150	I	—	Ground	17	0.35	BK	1150	III	—
18 - 21	—	—	—	—	—	Not Occupied	18 - 21	—	—	—	—	—
22	0.5	RD / VT	1940	I	—	Battery Positive Voltage	22	0.5	RD / VT	1940	III	—
23	0.75	BK	1150	I	—	Ground	23	0.75	BK	1150	III	—
24	—	—	—	—	—	Not Occupied	24	—	—	—	—	—
25	0.5	GY / WH	3411	II	—	Driver Outside Rearview Mirror Motor Unfold Control	25	0.75	GY / WH	3411	IV	—
26	0.5	WH / GN	3412	II	—	Driver Outside Rearview Mirror Motor Fold Control	26	0.75	WH / GN	3412	IV	—
27 - 28	—	—	—	—	—	Not Occupied	27 - 28	—	—	—	—	—
29	0.35	GY	1136	I	—	Left Front Window Down Switch Main Control Signal	29	0.35	GY	1136	III	—
30	0.35	GN / WH	1300	I	—	Left Front Window Up Switch Main Control Signal	30	0.35	GN / WH	1300	III	—
31	0.35	GN / VT	7628	I	—	Left Front Window Motor Express Control	31	0.35	GN / VT	7628	III	—
32 - 35	—	—	—	—	—	Not Occupied	32 - 35	—	—	—	—	—
36	0.5	GN / YE	6134	I	—	Body Control Module LIN Bus 3	36	0.5	GN / YE	6134	III	—
37 - 39	—	—	—	—	—	Not Occupied	37 - 39	—	—	—	—	—

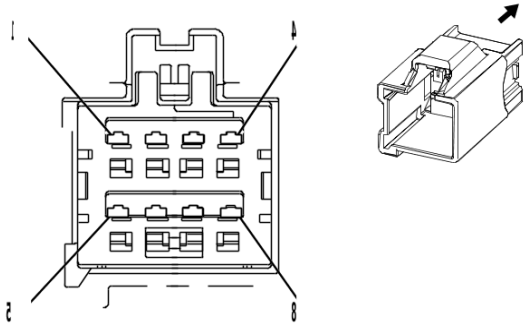
X505 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver (A31) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
40	0.35	BN / RD	3265	I	—	Child Security Lock Switch Signal	40	0.35	YE / BN	3265	III	—
41	0.35	WH / VT	3270	I	—	Driver Door Lock Motor Status Signal	41	0.35	WH / VT	3270	III	—
42	0.5	GN / BK	3396	I	—	Passenger Outside Rearview Mirror Motor Right [+] Left [-] Control	42	0.75	GN / BK	3396	III	—
43	0.5	YE / VT	3397	I	—	Passenger Outside Rearview Mirror Motor Up [+] Down [-] Control	43	0.75	YE / VT	3397	III	—
44	0.5	WH	3398	I	—	Passenger Outside Rearview Mirror Motor Common Control	44	0.75	WH	3398	III	—
45	0.35	GY	5697	I	—	Child Security Lock Indicator Control	45	0.35	GY	5697	III	—
46	0.35	BU / VT	1124	I	—	Door Lock Key Switch Unlock Signal	46	0.35	BU / VT	1124	III	—
47	0.35	BN / WH	781	I	—	Driver Door Lock Switch Unlock Signal	47	0.35	BN / WH	781	III	—
48	0.35	BN / YE	780	I	—	Driver Door Lock Switch Lock Signal	48	0.35	BN / YE	780	III	—

X506 Front Side Door Door Lock Door Wiring Harness - Driver to Front Side Door Door Wiring Harness - Driver (-A31)



1849808



1849807

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver
OEM Connector: 10846802
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.5 Kaizen Series(L-GY)

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 10847035
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 1.5 Kaizen Series(L-GY)

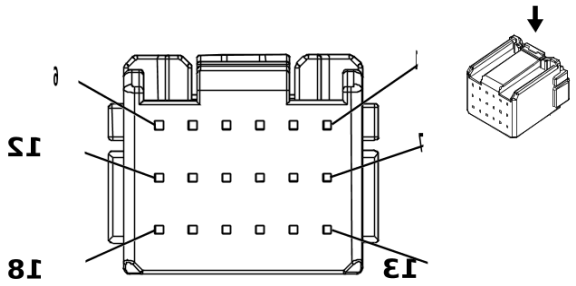
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

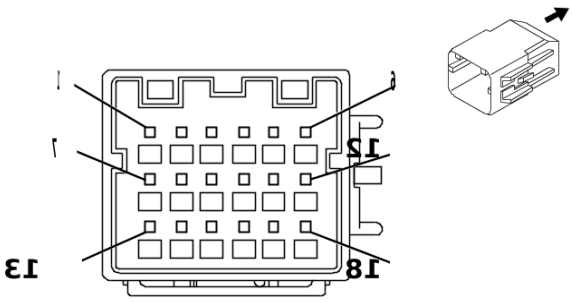
X506 Front Side Door Door Lock Door Wiring Harness - Driver to Front Side Door Door Wiring Harness - Driver (-A31)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.35	BN / YE	780	I	—	Driver Door Lock Switch Lock Signal	4	0.35	BN / YE	780	II	—
5	0.35	BN / WH	781	I	—	Driver Door Lock Switch Unlock Signal	5	0.35	BN / WH	781	II	—
6	0.35	YE	6817	I	—	LED Backlight Dimming Control 1	6	0.35	YE	6817	II	—
7	0.35	BK	1150	I	—	Ground	7	0.5	BK	1150	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X510 Outside Rearview Mirror Wiring Harness - Driver to Front Side Door Door Wiring Harness - Driver (DPN)



2667608



2907751

Connector Part Information

Harness Type: Outside Rearview Mirror Wiring Harness - Driver
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 18-Way F

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 13888973
Service Connector: Service by Harness - See Part Catalog
Description: 18-Way M 0.64 Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-65B (L-BU)	No Tool Required

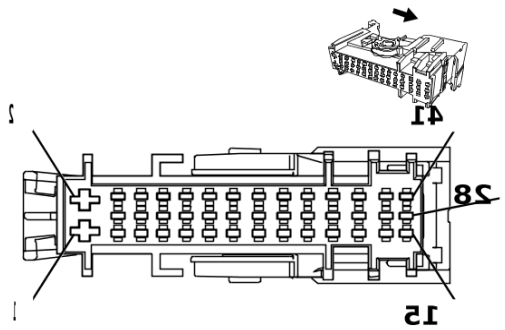
X510 Outside Rearview Mirror Wiring Harness - Driver to Front Side Door Door Wiring Harness - Driver (DPN)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG	709	I	—	Left Park Lamp Control	1	0.5	VT / GY	709	II	—
2	0.5	YE	1430	I	—	Exterior Courtesy Lamp Control	2	0.5	WH / VT	1430	II	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	—	—	—	—	—	Driver Outside Rearview Mirror Motor Unfold Control	4	0.5	GY / WH	3411	II	—
5	0.5	BK / WH	1150	I	—	Ground	5	0.5	BK	1150	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.5	BK	2267	I	—	Outside Rearview Mirror Heater Control	8	0.5	BN / OG	2267	II	—

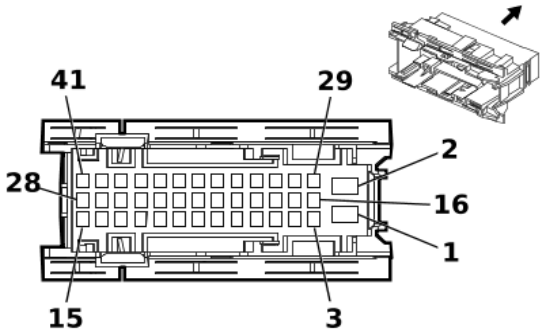
X510 Outside Rearview Mirror Wiring Harness - Driver to Front Side Door Door Wiring Harness - Driver (DPN) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	BU / WH	3390	I	—	Driver Outside Rearview Mirror Motor Up [+] Down [-] Control	9	0.5	VT / BU	3390	II	—
10	0.5	GN / WH	3389	I	—	Driver Outside Rearview Mirror Motor Right [+] Left [-] Control	10	0.5	BN / BK	3389	II	—
11	0.5	BK	1150	I	—	Ground	11	0.5	BK	1150	II	—
12	0.5	WH	3391	I	—	Driver Mirror Motor Common Control	12	0.5	YE / BN	3391	II	—
13	0.5	RD / VT	1314	I	—	Left Front Turn Signal Lamp Control	13	0.5	BU / WH	1314	II	—
14 - 17	—	—	—	—	—	Not Occupied	14 - 17	—	—	—	—	—
18	—	—	—	—	—	Driver Outside Rearview Mirror Motor Fold Control	18	0.5	WH / GN	3412	II	—

X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness



2173986



2474679

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 13600509
Service Connector: Service by Harness - See Part Catalog
Description: 41-Way F 4.8 Timer, 1.5 DSQ Series(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13946876
Service Connector: 13587760
Description: 41-Way M 1.5, 5.8 TTS Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-42 (RD)	No Tool Required
III	13575776	J-35616-3 (GY)	J-38125-215A
IV	13584452	J-35616-3 (GY)	J-38125-215A
V	19368242	J-35616-32 (OG)	J-38125-36

X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD / WH	1340	II	A31	Battery Positive Voltage	1	2.5	RD / WH	1340	V	—
2	2.5	BK	1250	II	—	Ground	2	2.5	BK	1250	V	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.5	WH	3398	I	DPN	Passenger Outside Rearview Mirror Motor Common Control	4	0.5	WH	3398	III	—
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—
7	0.5	WH / GN	3412	I	DPN	Driver Outside Rearview Mirror Motor Fold Control	7	0.5	WH / GN	3412	III	DPN
8	0.5	GY / WH	3411	I	DPN	Driver Outside Rearview Mirror Motor Unfold Control	8	0.5	GY / WH	3411	III	DPN

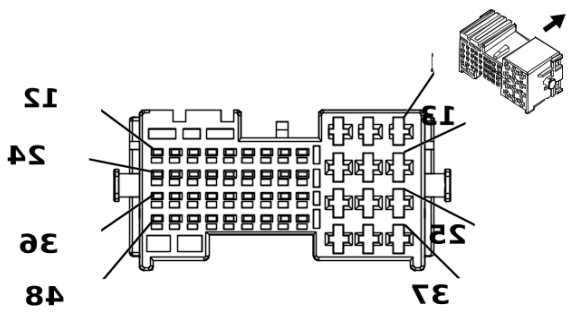
X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	WH / VT	1430	I	DPN	Exterior Courtesy Lamp Control	9	0.5	WH / VT	1430	III	DPN
10	1	YE / BK	117	I	—	Right Front Speaker [-] Control 1	10	0.75	YE / BK	117	III	—
11	0.5	GY / BN	309	I	DPN	Right Park Lamp Control	11	0.5	GY / BN	309	III	—
12	0.35	GY	746	I	- A31	Right Front Door Ajar Switch Signal	12	0.35	GY	746	IV	- A31
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	OG / GN	2134	I	AJ7/ AY0	Right Front Side Impact Sensor Signal	14	0.35	BN / OG	2134	IV	—
15	0.5	BK / OG	6629	I	AJ7/ AY0	Right Front Side Impact Sensor Low Reference	15	0.35	BK / OG	6629	IV	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
17	0.35	BN / VT	245	I	—	Passenger Door Lock Switch Unlock Control	17	0.35	BN / VT	245	IV	—
18	0.35	YE / BK	244	I	—	Passenger Door Lock Switch Lock Control	18	0.35	YE / VT	244	IV	—
19	0.75	BN / YE	294	I	—	Door Lock Actuator Unlock Control	19	0.75	BN / YE	294	III	—
20	0.75	GY	295	I	—	Door Lock Actuator Lock Control	20	0.75	GY	295	III	—
21	0.5	BK / BU	61	I	—	Ambient Air Temperature Sensor Low Reference	21	0.35	BK / BU	61	IV	—
22	—	—	—	—	—	Not Occupied	22	—	—	—	—	—
23	1	YE	200	I	—	Right Front Speaker 1 [+] Control	23	0.75	YE	200	III	—
24	0.5	BU / GY	636	I	—	Ambient Air Temperature Sensor Signal	24	0.35	BU / GY	636	IV	—
25 - 28	—	—	—	—	—	Not Occupied	25 - 28	—	—	—	—	—
29	0.35	YE	6817	I	—	LED Backlight Dimming Control 1	29	0.5	YE	6817	III	—

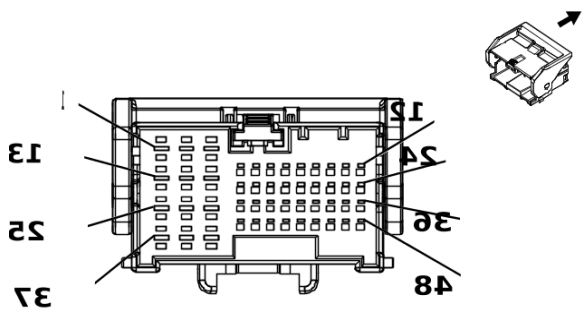
X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
30	0.35	WH / YE	7557	I	A31	Interior Door Handle Accent Lighting Control	30	0.35	WH / YE	7557	IV	A31
31	0.5	BN / OG	2267	I	DPN	Outside Rearview Mirror Heater Control	31	0.5	BN / YE	2267	III	DPN
32	—	—	—	—	—	Not Occupied	32	—	—	—	—	—
33	0.5	GN / YE	6134	I	A31	Body Control Module LIN Bus 3	33	0.5	GN / YE	6134	III	A31
34 - 35	—	—	—	—	—	Not Occupied	34 - 35	—	—	—	—	—
36	0.5	GN / BK	3396	I	DPN	Passenger Outside Rearview Mirror Motor Right [+] Left [-] Control	36	0.5	GN / BK	3396	III	DPN
37	—	—	—	—	—	Not Occupied	37	—	—	—	—	—
38	0.5	YE / VT	3397	I	DPN	Passenger Outside Rearview Mirror Motor Up [+] Down [-] Control	38	0.5	YE / VT	3397	III	DPN
39	—	—	—	—	—	Door Dead Lock Actuator Lock Control	39	0.75	BN	5910	III	—
40	—	—	—	—	—	Not Occupied	40	—	—	—	—	—
41	0.5	GN / VT	1315	I	DPN	Right Front Turn Signal Lamp Control	41	0.75	GN / VT	1315	III	—

X605 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger (A31)



3277913



3277901

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 13889713

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way F 1.2 MCON, 2.8 MCP Series(BK)

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger

OEM Connector: 15512031

Service Connector: Service by Harness - See Part Catalog

Description: 48-Way M 1.2 MCON, 2.8 MCP Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required
III	Not required	J-35616-17 (L-GN)	No Tool Required
IV	Not required	J-35616-5 (PU)	No Tool Required

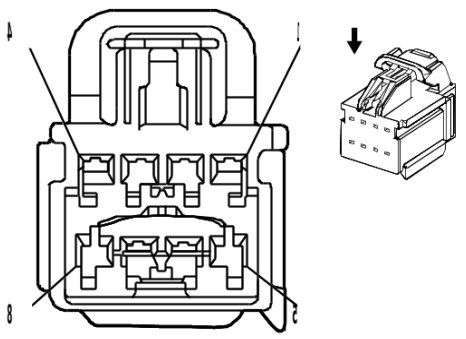
X605 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger (A31)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	YE	6817	II	—	LED Backlight Dimming Control 1	1	0.35	YE	6817	IV	—
2	0.35	WH / YE	7557	II	—	Interior Door Handle Accent Lighting Control	2	0.35	WH / YE	7557	IV	—
3 - 14	—	—	—	—	—	Not Occupied	3 - 14	—	—	—	—	—
15	2.5	BK	1250	II	—	Ground	15	2.5	BK	1250	IV	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
17	0.5	BK	1250	I	—	Ground	17	0.35	BK	1250	III	—
18 - 24	—	—	—	—	—	Not Occupied	18 - 24	—	—	—	—	—
25	2.5	GN / GY	3387	II	—	Passenger Window Motor Up Control	25	2.5	GN / GY	3387	IV	—

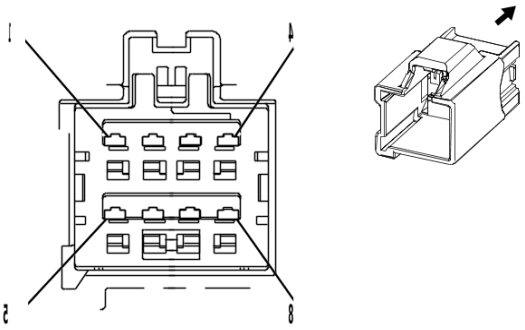
X605 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger (A31) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
26	2.5	YE / BU	3388	II	—	Passenger Window Motor Down Control	26	2.5	YE / BU	3388	IV	—
27	2.5	RD / WH	1340	II	—	Battery Positive Voltage	27	2.5	RD / WH	1340	IV	—
28 - 35	—	—	—	—	—	Not Occupied	28 - 35	—	—	—	—	—
36	0.5	GN / YE	6134	I	—	Body Control Module LIN Bus 3	36	0.5	GN / YE	6134	III	—
37 - 45	—	—	—	—	—	Not Occupied	37 - 45	—	—	—	—	—
46	0.35	GY	746	I	—	Right Front Door Ajar Switch Signal	46	0.35	GY	746	III	—
47	0.35	BN / VT	245	I	—	Passenger Door Lock Switch Unlock Control	47	0.35	BN / VT	245	III	—
48	0.35	YE / BK	244	I	—	Passenger Door Lock Switch Lock Control	48	0.35	YE / VT	244	III	—

X606 Front Side Door Door Lock Door Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger (-A31)



1849808



1849807

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger

OEM Connector: 10846802

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 1.5 Kaizen Series(L-GY)

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 10847035

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way M 1.5 Kaizen Series(L-GY)

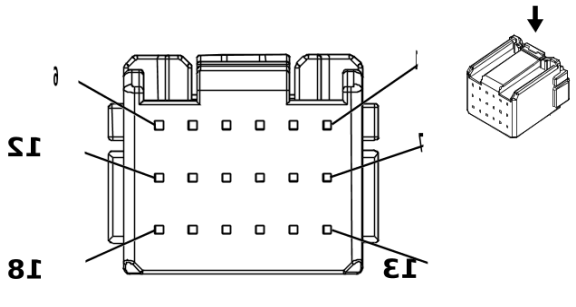
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

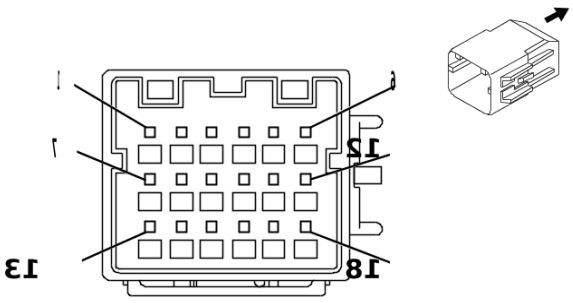
X606 Front Side Door Door Lock Door Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger (-A31)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.35	YE / VT	244	I	—	Passenger Door Lock Switch Lock Control	4	0.35	YE / BK	244	II	—
5	0.35	BN / VT	245	I	—	Passenger Door Lock Switch Unlock Control	5	0.35	BN / VT	245	II	—
6	0.35	YE	6817	I	—	LED Backlight Dimming Control 1	6	0.35	YE	6817	II	—
7	0.35	BK	1250	I	—	Ground	7	0.5	BK	1250	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X610 Outside Rearview Mirror Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger (DPN)



2667608



2907751

Connector Part Information

Harness Type: Outside Rearview Mirror Wiring Harness - Passenger

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 18-Way F

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 13888973

Service Connector: Service by Harness - See Part Catalog

Description: 18-Way M 0.64 Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-65B (L-BU)	No Tool Required

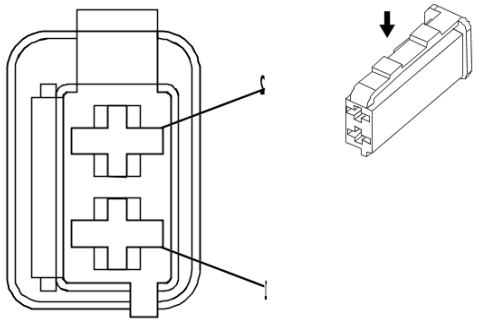
X610 Outside Rearview Mirror Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger (DPN)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	OG	309	I	—	Right Park Lamp Control	1	0.5	GY / BN	309	II	—
2	0.5	YE	1430	I	—	Exterior Courtesy Lamp Control	2	0.5	WH / VT	1430	II	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	—	—	—	—	—	Driver Outside Rearview Mirror Motor Unfold Control	4	0.5	GY / WH	3411	II	—
5	0.5	BK / WH	1250	I	—	Ground	5	0.5	BK	1250	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.5	BK	2267	I	—	Outside Rearview Mirror Heater Control	8	0.5	BN / OG	2267	II	—

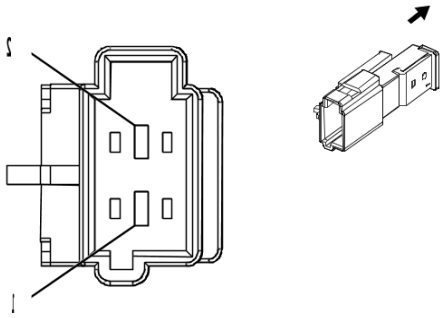
X610 Outside Rearview Mirror Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger (DPN) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	OG	3397	I	—	Passenger Outside Rearview Mirror Motor Up [+] Down [-] Control	9	0.5	YE / VT	3397	II	—
10	0.5	WH	3396	I	—	Passenger Outside Rearview Mirror Motor Right [+] Left [-] Control	10	0.5	GN / BK	3396	II	—
11	0.5	BK	1250	I	—	Ground	11	0.5	BK	1250	II	—
12	0.5	WH	3398	I	—	Passenger Outside Rearview Mirror Motor Common Control	12	0.5	WH	3398	II	—
13	0.5	RD / VT	1315	I	—	Right Front Turn Signal Lamp Control	13	0.5	GN / VT	1315	II	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—
15	0.5	WH / RD	636	I	—	Ambient Air Temperature Sensor Signal	15	0.5	BU / GY	636	II	—
16	0.5	RD	61	I	—	Ambient Air Temperature Sensor Low Reference	16	0.5	BK / BU	61	II	—
17	—	—	—	—	—	Not Occupied	17	—	—	—	—	—
18	—	—	—	—	—	Driver Outside Rearview Mirror Motor Fold Control	18	0.5	WH / GN	3412	II	—

X611 Outside Rearview Mirror Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger (DF2)



2339593



2339581

Connector Part Information

Harness Type: Outside Rearview Mirror Wiring Harness - Passenger

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 13662506

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M 1.6 Timer Series(BK)

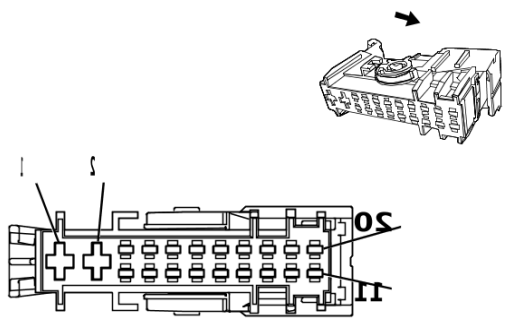
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-34 (YE)	No Tool Required

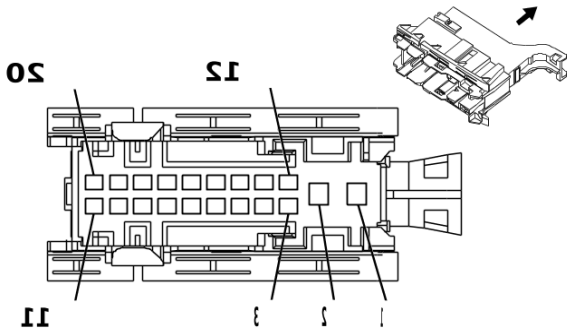
X611 Outside Rearview Mirror Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger (DF2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY	636	I	—	Ambient Air Temperature Sensor Signal	1	0.5	BU / GY	636	II	—
2	0.5	GY	61	I	—	Ambient Air Temperature Sensor Low Reference	2	0.5	BK / BU	61	II	—

X700 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness (Crew Cab)



2180228



3621541

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 13600493
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5 DSQ, 4.8 Timer Series(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15539528
Service Connector: 19329469
Description: 20-Way M 1.5, 5.8 TTS Series(D-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-42 (RD)	No Tool Required
III	19368242	J-35616-32 (OG)	J-38125-36
IV	19368263	J-35616-3 (GY)	J-38125-215A

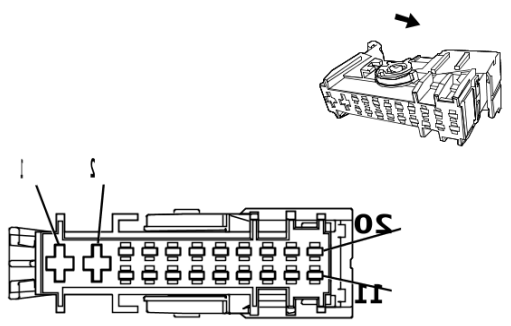
X700 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD / BU	1842	II	—	Battery Positive Voltage	1	2.5	RD / BU	1842	III	—
2	3	BK	1150	II	—	Ground	2	4	BK	1150	III	—
3 - 6	—	—	—	—	—	Not Occupied	3 - 6	—	—	—	—	—
7	1	GN	199	I	—	Left Rear Speaker [+] Control	7	0.5	GN	199	IV	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.75	WH / BU	3266	I	—	Child Security Lock Motor Lock Control	9	0.75	WH / BU	3266	IV	—
10	0.75	BN / YE	294	I	—	Door Lock Actuator Unlock Control	10	0.75	BN / YE	294	IV	—
11	0.75	GY	295	I	—	Door Lock Actuator Lock Control	11	0.75	GY	295	IV	—

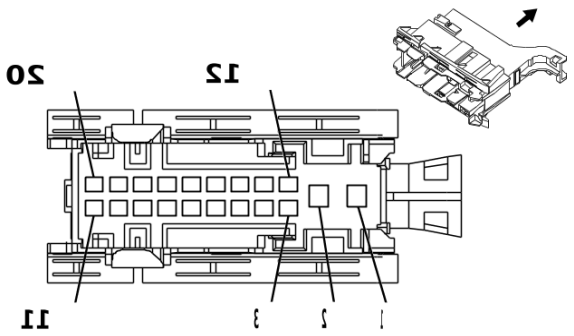
X700 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	—	—	—	—	—	Left Rear Door Ajar Switch Signal	12	0.35	GY	747	IV	—
13	—	—	—	—	—	Door Dead Lock Actuator Lock Control	13	0.75	BN	5910	IV	—
14 - 15	—	—	—	—	—	Not Occupied	14 - 15	—	—	—	—	—
16	1	GN / BK	116	I	—	Left Rear Speaker [-] Control	16	0.5	GN / BK	116	IV	—
17	0.5	OG / BU	6620	I	—	Left Middle Side Impact Sensor Signal	17	0.35	OG / BU	6620	IV	—
18	0.5	BK / OG	6621	I	—	Left Middle Side Impact Sensor Low Reference	18	0.35	BK / OG	6621	IV	—
19	0.35	BN / WH	3269	I	—	Child Security Lock Actuator Status Signal Left Rear	19	0.35	BN / WH	3269	IV	—
20	0.5	GN / GY	6135	I	—	Body Control Module LIN Bus 4	20	0.5	GN / GY	6135	IV	—

X800 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness (Crew Cab)



2180228



3621541

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 13600493
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5 DSQ, 4.8 Timer Series(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15539528
Service Connector: 19329469
Description: 20-Way M 1.5, 5.8 TTS Series(D-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-42 (RD)	No Tool Required
III	19368242	J-35616-32 (OG)	J-38125-36
IV	19368263	J-35616-3 (GY)	J-38125-215A

X800 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD / WH	1340	II	—	Battery Positive Voltage	1	2.5	RD / WH	1340	III	—
2	2.5	BK	1250	II	—	Ground	2	2.5	BK	1250	III	—
3 - 6	—	—	—	—	—	Not Occupied	3 - 6	—	—	—	—	—
7	1	WH	46	I	—	Right Rear Speaker [+] Control	7	0.5	WH	46	IV	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.75	WH / BU	3266	I	—	Child Security Lock Motor Lock Control	9	0.75	WH / BU	3266	IV	—
10	0.75	BN / YE	294	I	—	Door Lock Actuator Unlock Control	10	0.75	BN / YE	294	IV	—
11	0.75	GY	295	I	—	Door Lock Actuator Lock Control	11	0.75	GY	295	IV	—

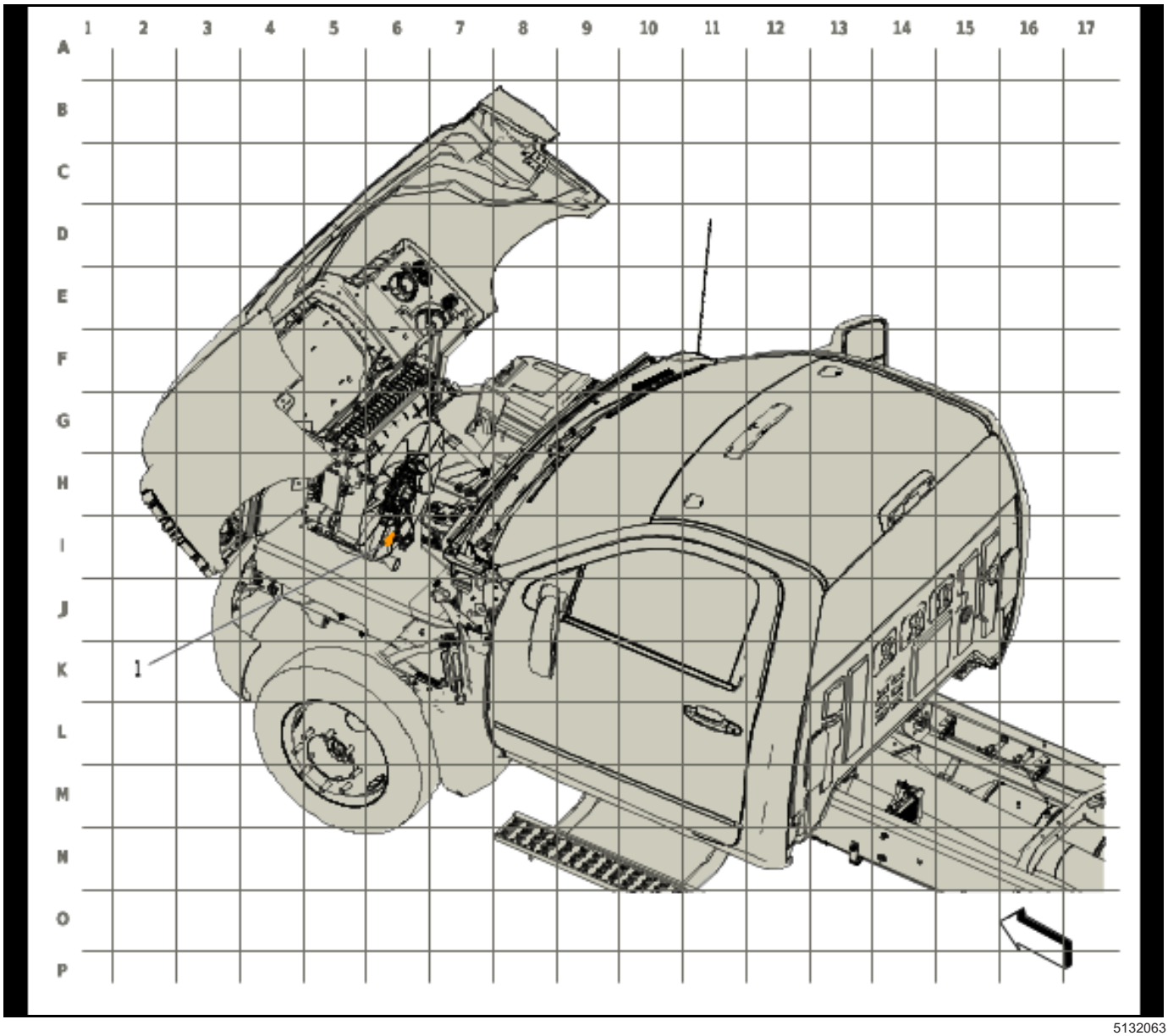
X800 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	—	—	—	—	—	Right Rear Door Ajar Switch Signal	12	0.35	GY	748	IV	—
13	—	—	—	—	—	Door Dead Lock Actuator Lock Control	13	0.75	BN	5910	IV	—
14 - 15	—	—	—	—	—	Not Occupied	14 - 15	—	—	—	—	—
16	1	BU / BK	115	I	—	Right Rear Speaker [-] Control	16	0.5	BU / BK	115	IV	—
17	0.5	OG / VT	6624	I	—	Right Middle Side Impact Sensor Signal	17	0.35	OG / VT	6624	IV	—
18	0.5	BK / OG	6625	I	—	Right Middle Side Impact Sensor Low Reference	18	0.35	BK / OG	6625	IV	—
19	0.35	GY / BK	3268	I	—	Child Security Lock Actuator Status Signal Right Rear	19	0.35	GY / BK	3268	IV	—
20	0.5	GN / GY	6135	I	—	Body Control Module LIN Bus 4	20	0.5	GN / GY	6135	IV	—

Electrical Component Locator and Harness Routing Views

Schematic and Routing Diagrams

Harness Routing Views (Fan Blade Clutch Wiring Harness Routing)

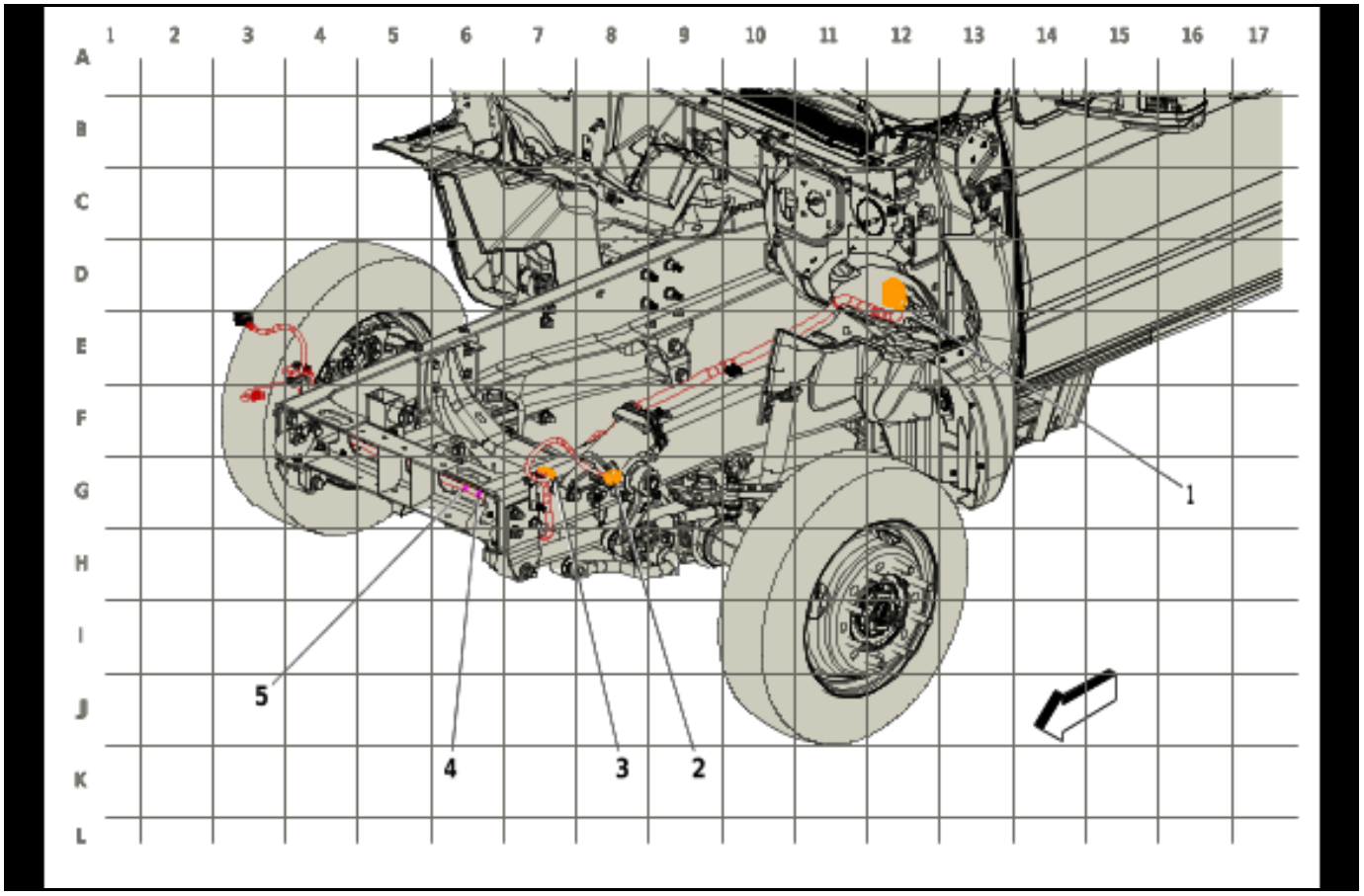


5132063

Items

(1) X102 Engine Wiring Harness - Chassis to Fan Blade Clutch Wiring Harness

Harness Routing Views (Body Front and Engine Wiring Harness Routing - Left Front)



5278601

Items

(1) X150 Body Front and Engine Wiring Harness to Body Wiring Harness

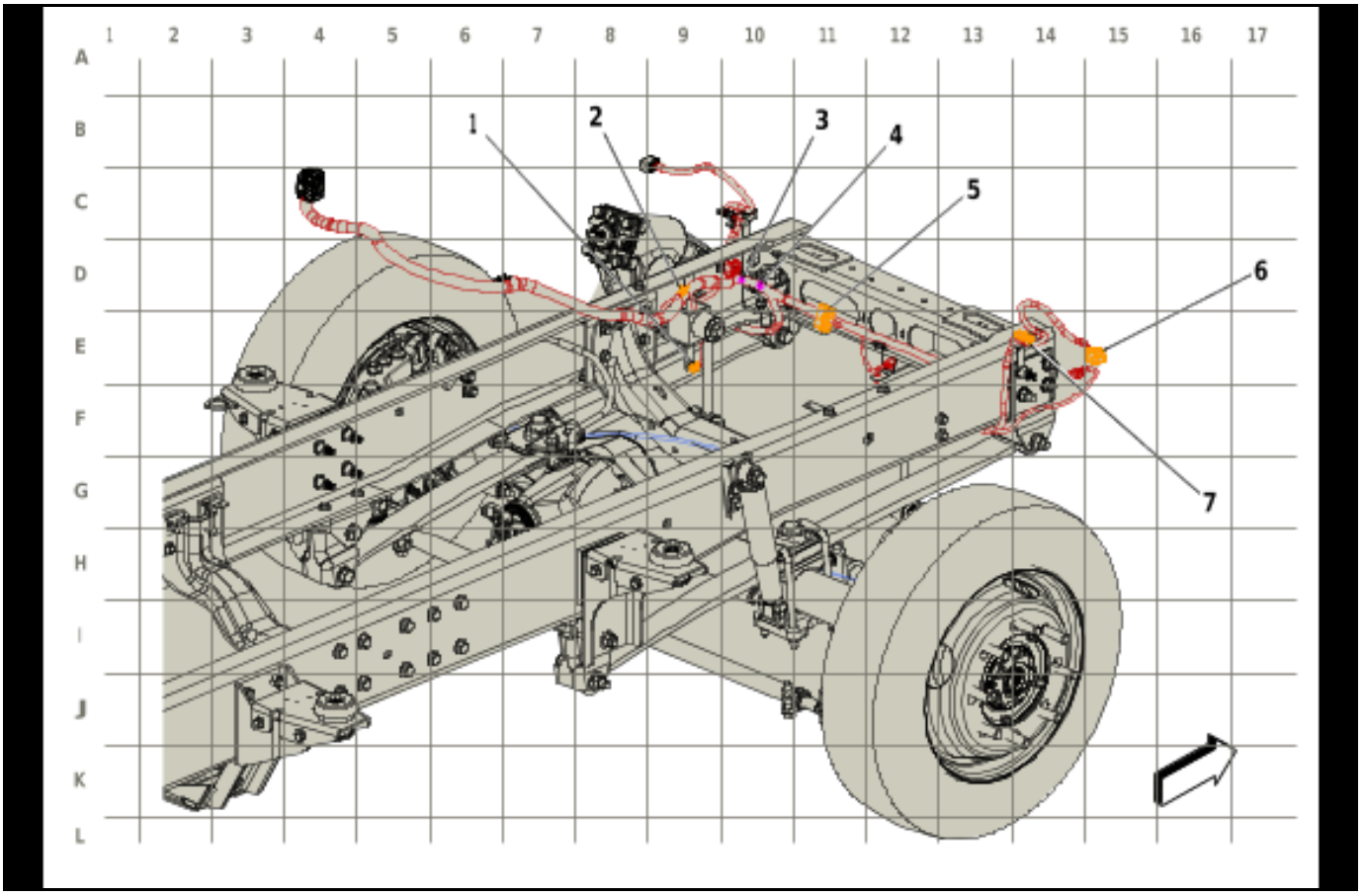
(2) X109 Headlamp Wiring Harness - Left to Body Front and Engine Wiring Harness

(3) X108 Body Front and Engine Wiring Harness to Front Fog Lamp Wiring Harness - Left (T3U)

(4) J105 Body Front and Engine Wiring Harness

(5) J104 Body Front and Engine Wiring Harness (T3U)

Harness Routing Views (Body Front and Engine Wiring Harness Routing - Right Front)



5278605

Items

(1) X103 Body Front and Engine Wiring Harness to Horn Wiring Harness

(2) X104 Body Front and Engine Wiring Harness to Radiator Ground

(3) J102 Body Front and Engine Wiring Harness

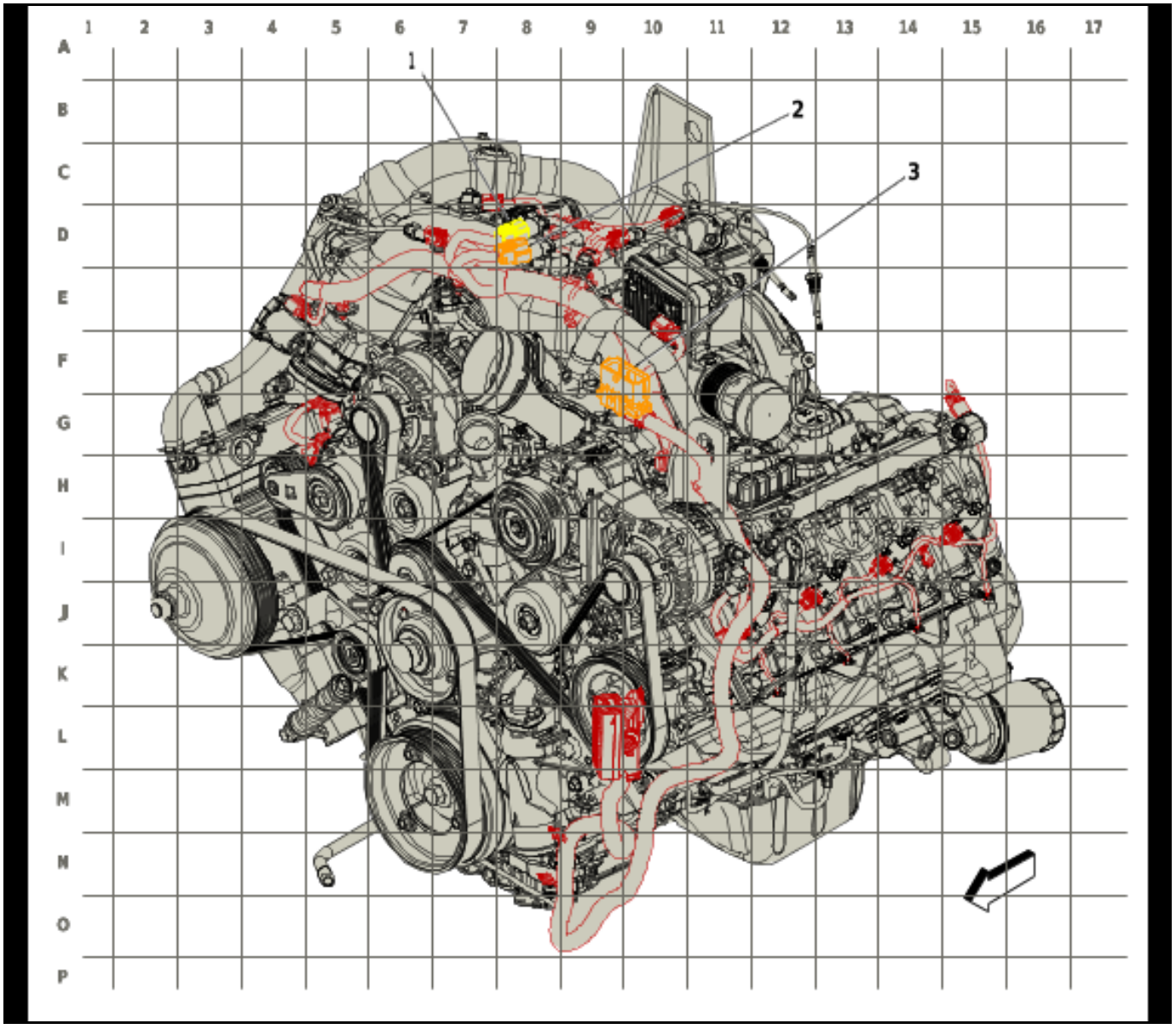
(4) J101 Body Front and Engine Wiring Harness (T3U)

(5) JX100 Body Front and Engine Wiring Harness

(6) X119 Headlamp Wiring Harness - Right to Body Front and Engine Wiring Harness

(7) X118 Body Front and Engine Wiring Harness to Front Fog Lamp Wiring Harness - Right (T3U)

Harness Routing Views (Engine Wiring Harness Routing - Left Front)



4975496

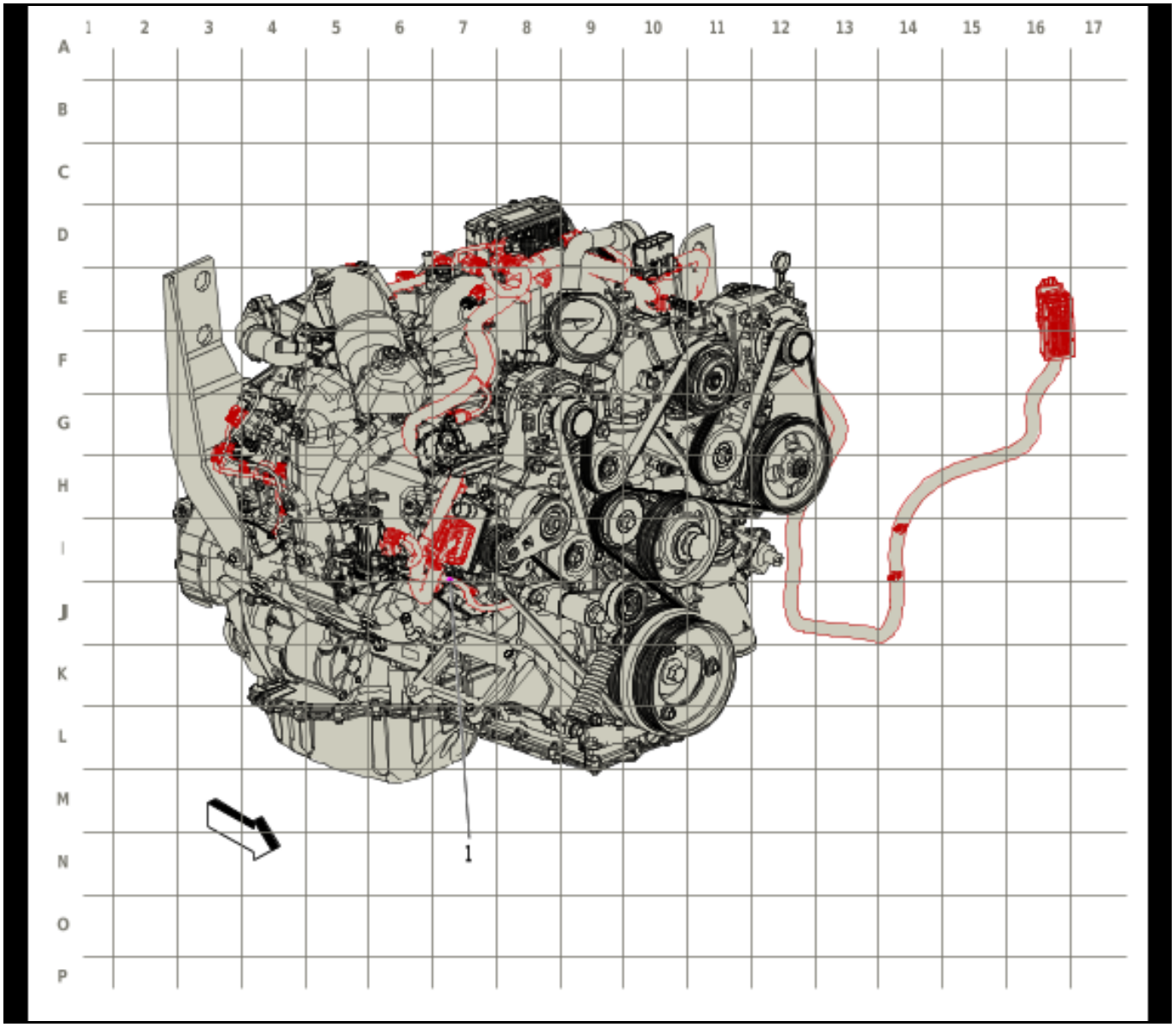
Items

(1) X112 Engine Wiring Harness to Engine Wiring Harness - Jumper

(2) X113 Engine Wiring Harness to Engine Wiring Harness - Jumper

(3) X101 Engine Wiring Harness - Chassis to Engine Wiring Harness

Harness Routing Views (Engine Wiring Harness Routing - Right Front)

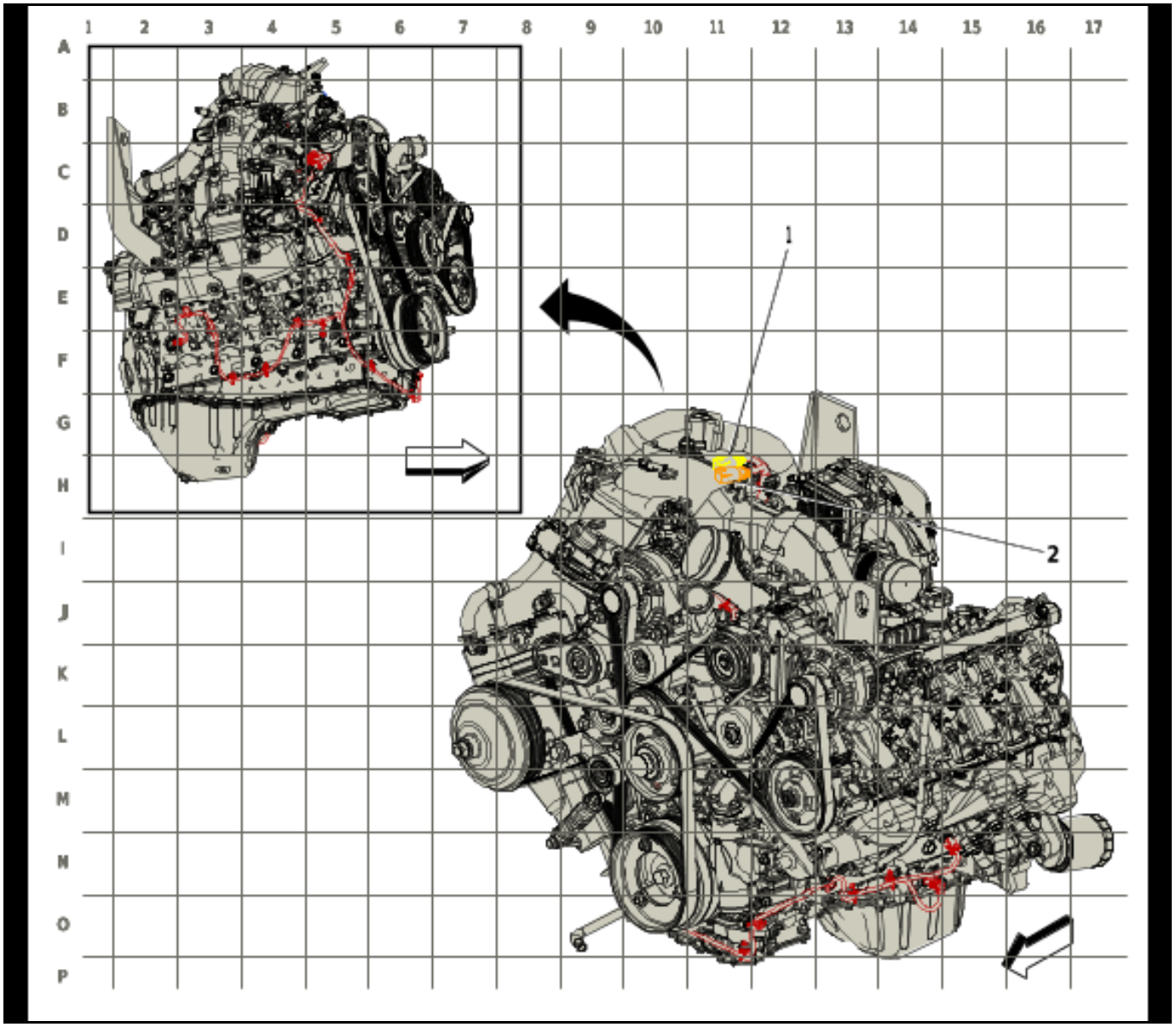


4975498

Items

(1) J124 Engine Wiring Harness - Chassis

Harness Routing Views (Engine Wiring Harness - Jumper Routing)



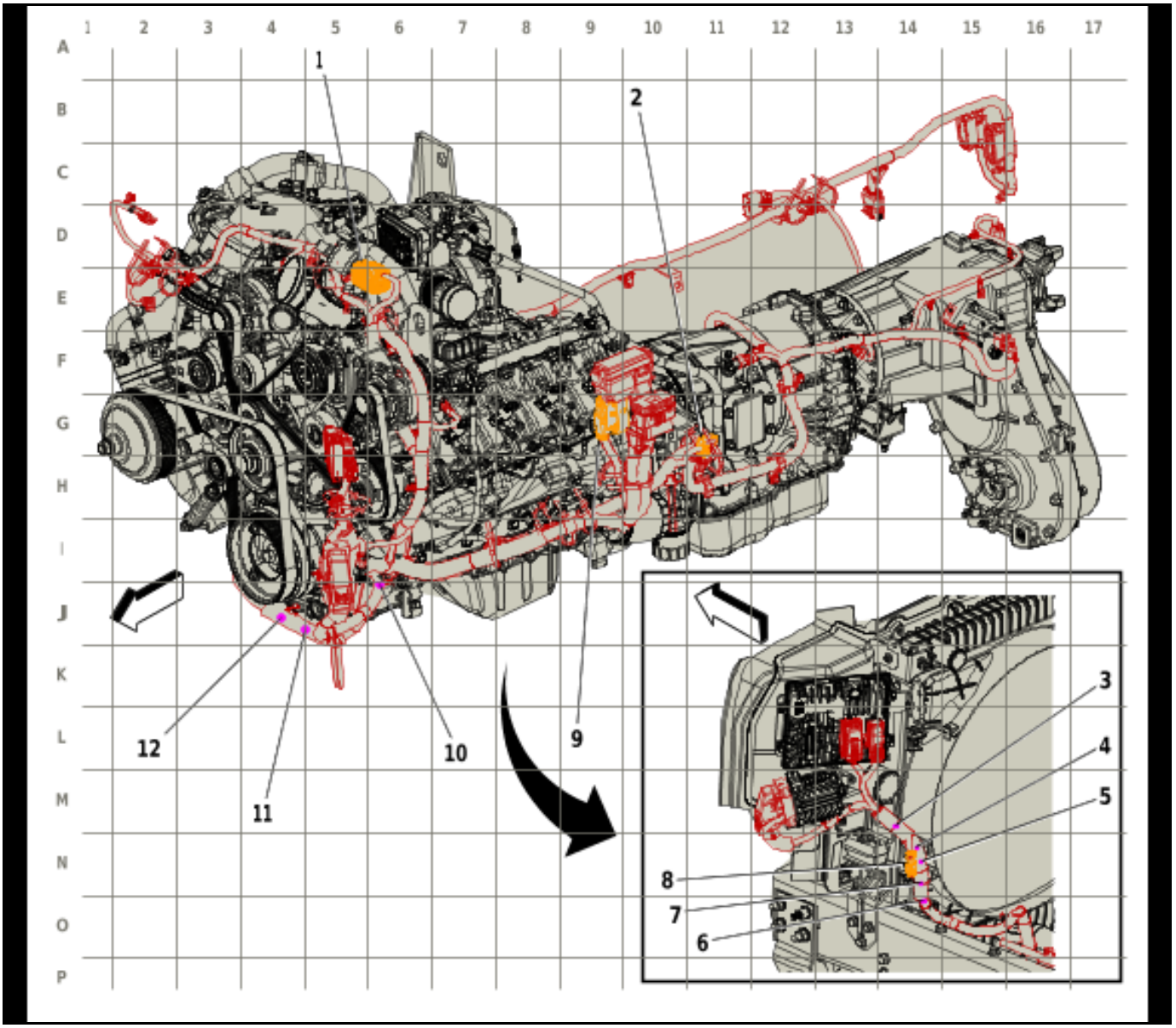
4975499

Items

(1) X112 Engine Wiring Harness to Engine Wiring Harness - Jumper

(2) X113 Engine Wiring Harness to Engine Wiring Harness - Jumper

Harness Routing Views (Engine Wiring Harness - Chassis Routing - Left)



6164934

Items

(1) X101 Engine Wiring Harness - Chassis to Engine Wiring Harness

(2) X125 Engine Wiring Harness - Chassis to Chassis Front Wiring Harness

(3) J113 Engine Wiring Harness - Chassis

(4) J153 Engine Wiring Harness - Chassis

(5) J152 Engine Wiring Harness - Chassis

(6) J125 Engine Wiring Harness - Chassis

(7) J165 Engine Wiring Harness - Chassis

(8) X105 Engine Wiring Harness - Chassis to Engine Wiring Harness - Chassis

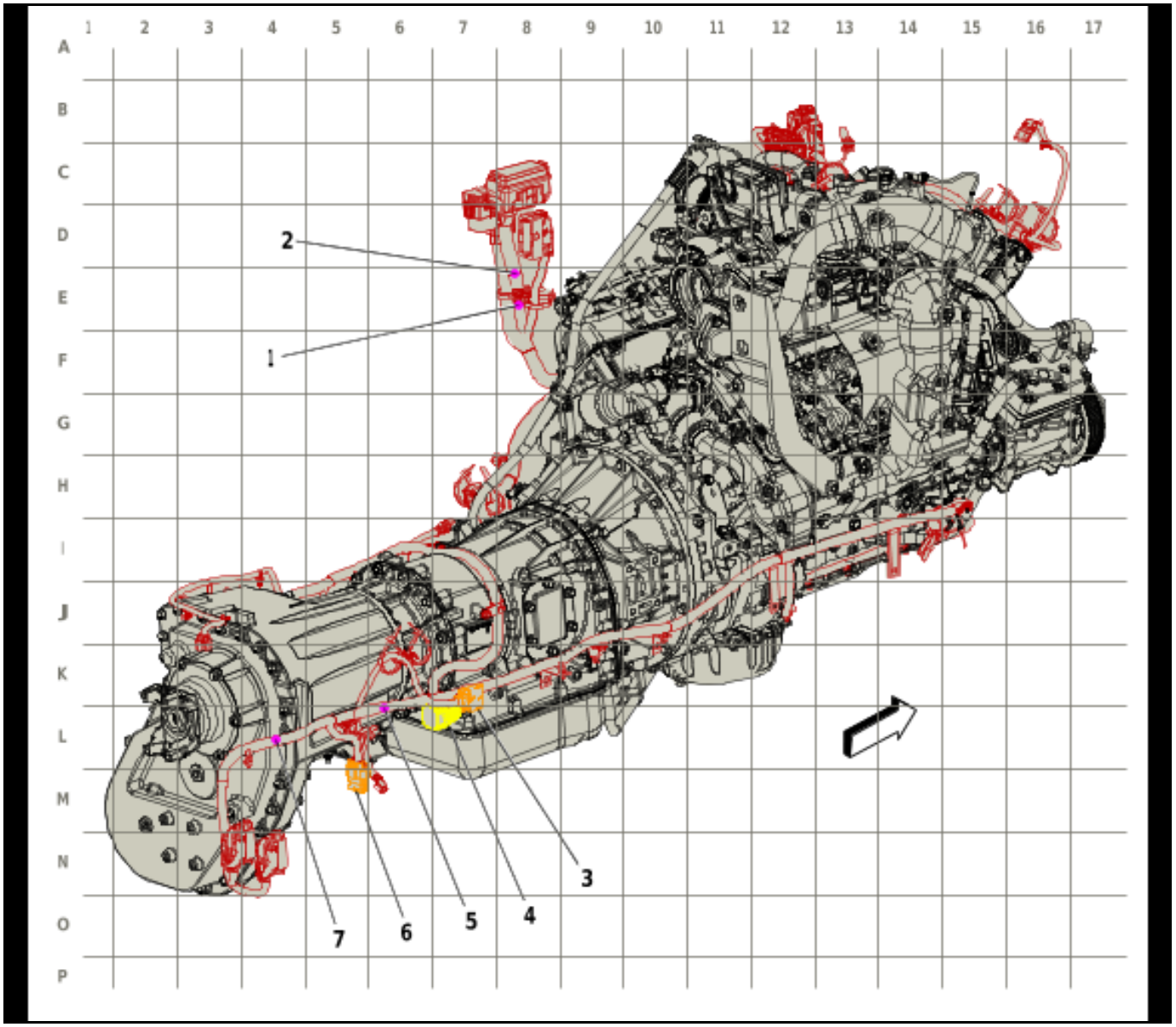
(9) X115 Engine Wiring Harness - Chassis to Body Wiring Harness

(10) J123 Engine Wiring Harness - Chassis

(11) J124 Engine Wiring Harness - Chassis

(12) J126 Engine Wiring Harness - Chassis

Harness Routing Views (Engine Wiring Harness - Chassis Routing - Right)



4975504

Items

(1) J196 Engine Wiring Harness - Chassis

(2) J197 Engine Wiring Harness - Chassis

(3) X143 Emission Reduction Fluid Tank Reservoir Wire Harness - Module to Engine Wiring Harness - Chassis

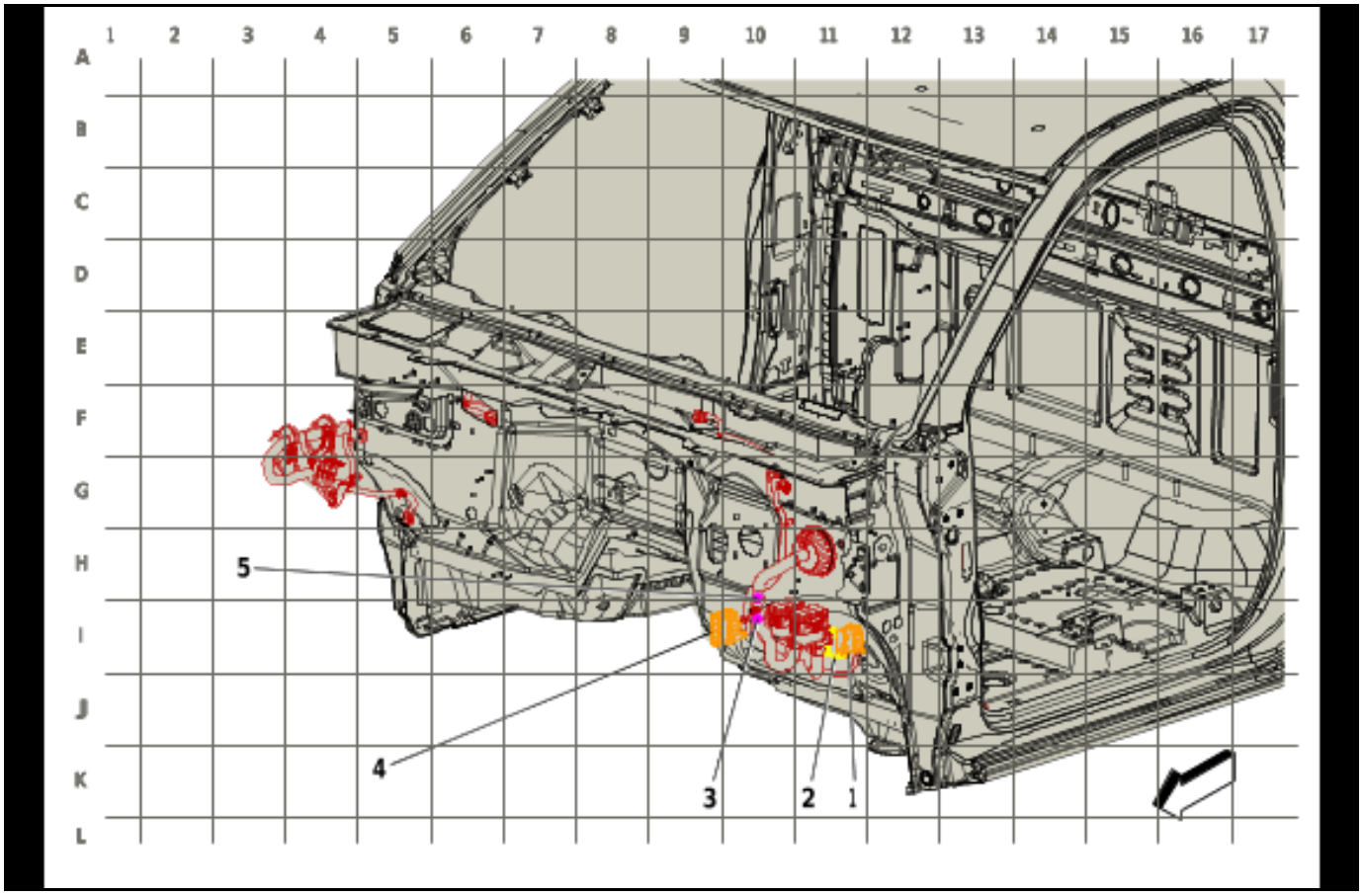
(4) X175 Engine Wiring Harness - Chassis to Automatic Transmission Wiring Harness

(5) J195 Engine Wiring Harness - Chassis (PTO)

(6) X191 Engine Wiring Harness - Chassis to Engine Wiring Harness - Chassis (PTO)

(7) J194 Engine Wiring Harness - Chassis (PTO)

Harness Routing Views (Body Wiring Harness Routing - Engine Compartment)



4992536

Items

(1) X138 Chassis Front Wiring Harness to Body Wiring Harness

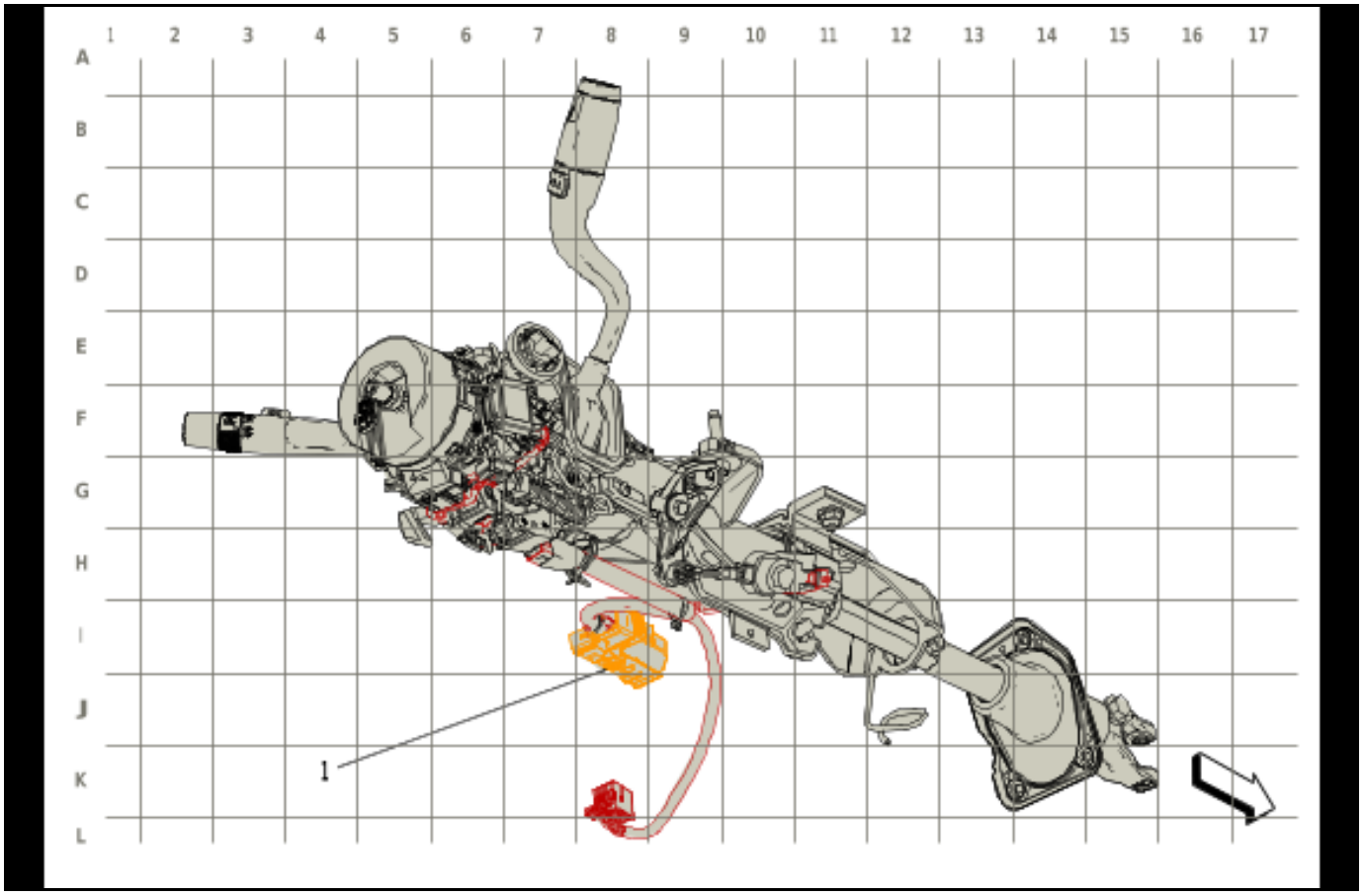
(2) X150 Body Front and Engine Wiring Harness to Body Wiring Harness

(3) J307 Body Wiring Harness

(4) X115 Engine Wiring Harness - Chassis to Body Wiring Harness

(5) J367 Body Wiring Harness

Harness Routing Views (Steering Column Wiring Harness Routing)

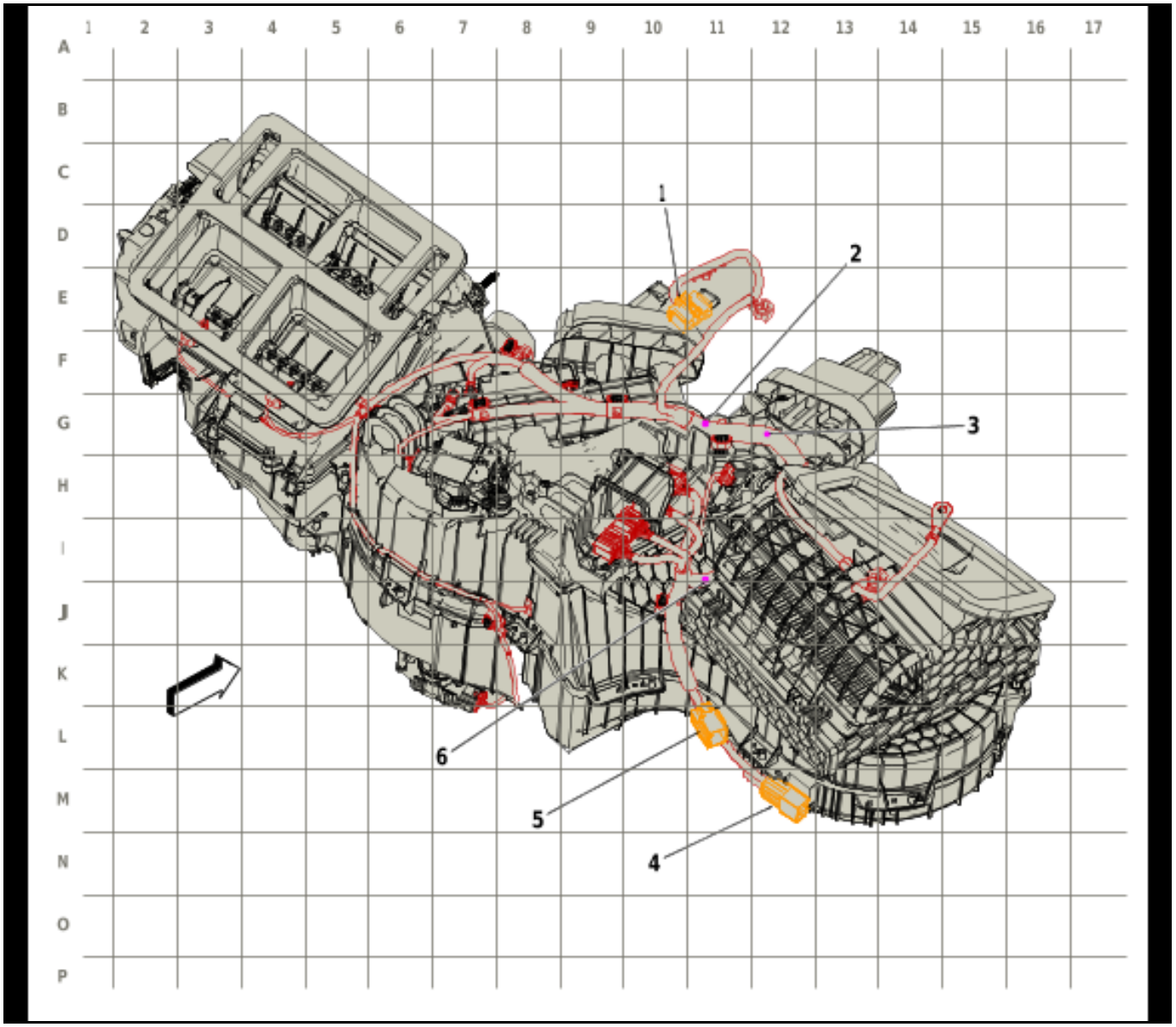


5132064

Items

(1) X201 Steering Column Wiring Harness to Instrument Panel Wiring Harness

Harness Routing Views (Air Conditioning Wiring Harness Routing)



4975507

Items

(1) X215 Air Conditioning Wiring Harness to Instrument Panel Wiring Harness

(2) J255 Air Conditioning Wiring Harness

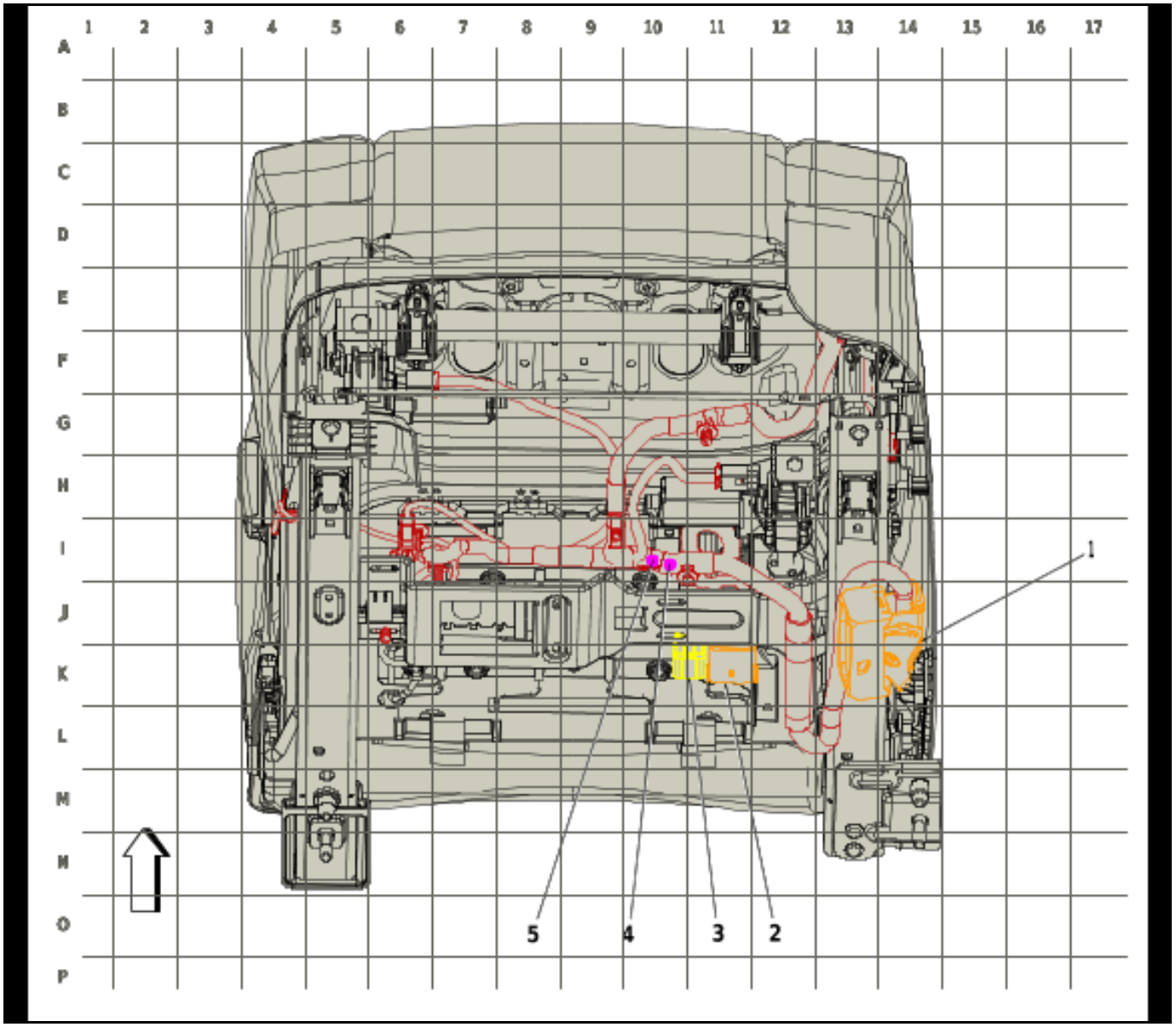
(3) J216 Air Conditioning Wiring Harness (C32)

(4) X217 Body Wiring Harness to Air Conditioning Wiring Harness

(5) X216 Body Wiring Harness to Air Conditioning Wiring Harness

(6) J257 Air Conditioning Wiring Harness

Harness Routing Views (Front Seat Cushion Wiring Harness - Driver Routing)



4975521

Items

(1) X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness

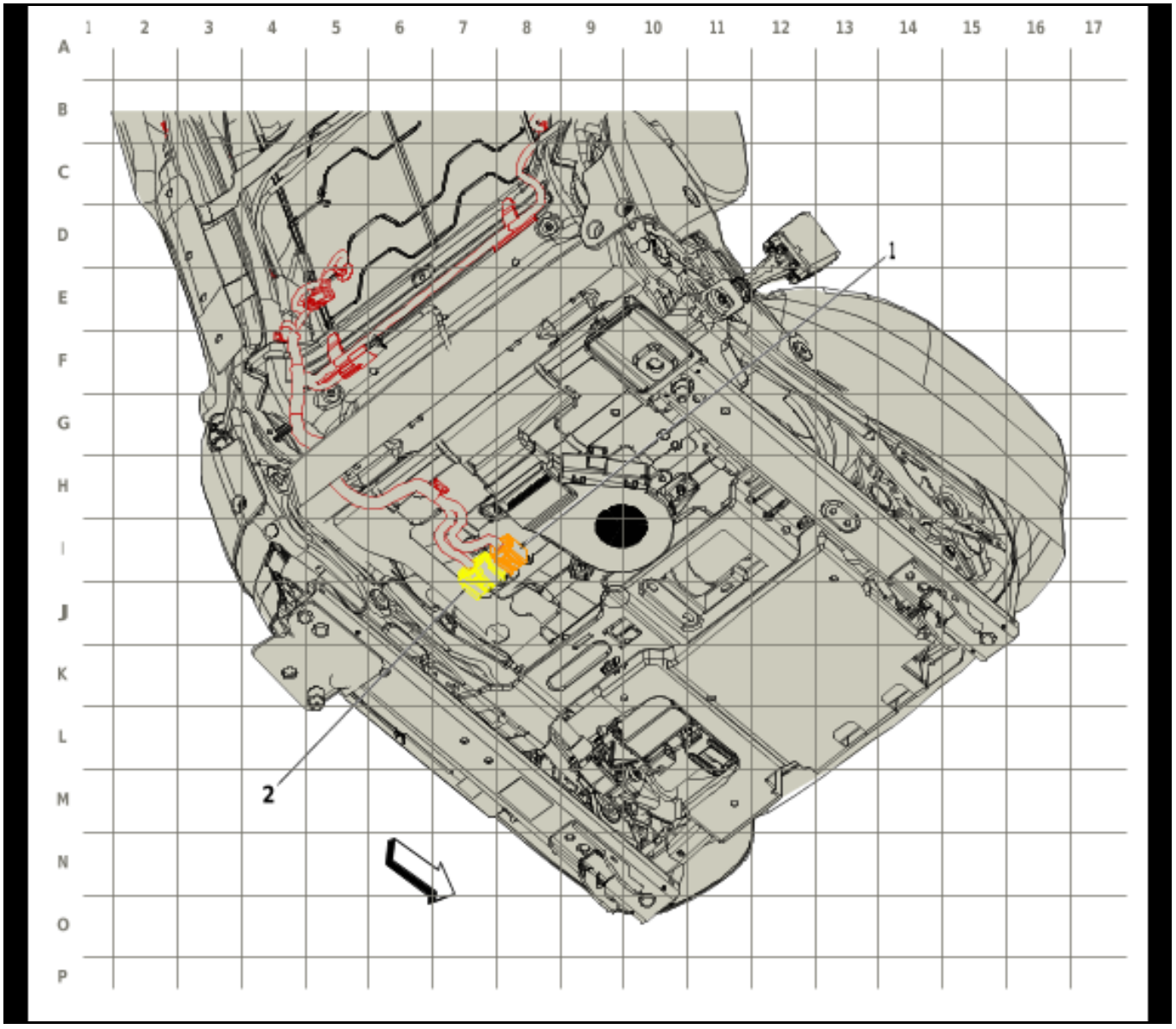
(2) X312 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver

(3) X311 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver (A95/AG1)

(4) J320 Front Seat Cushion Wiring Harness - Driver (KA1)

(5) J319 Front Seat Cushion Wiring Harness - Driver (KA1)

Harness Routing Views (Front Seat Back Wiring Harness - Driver Routing)



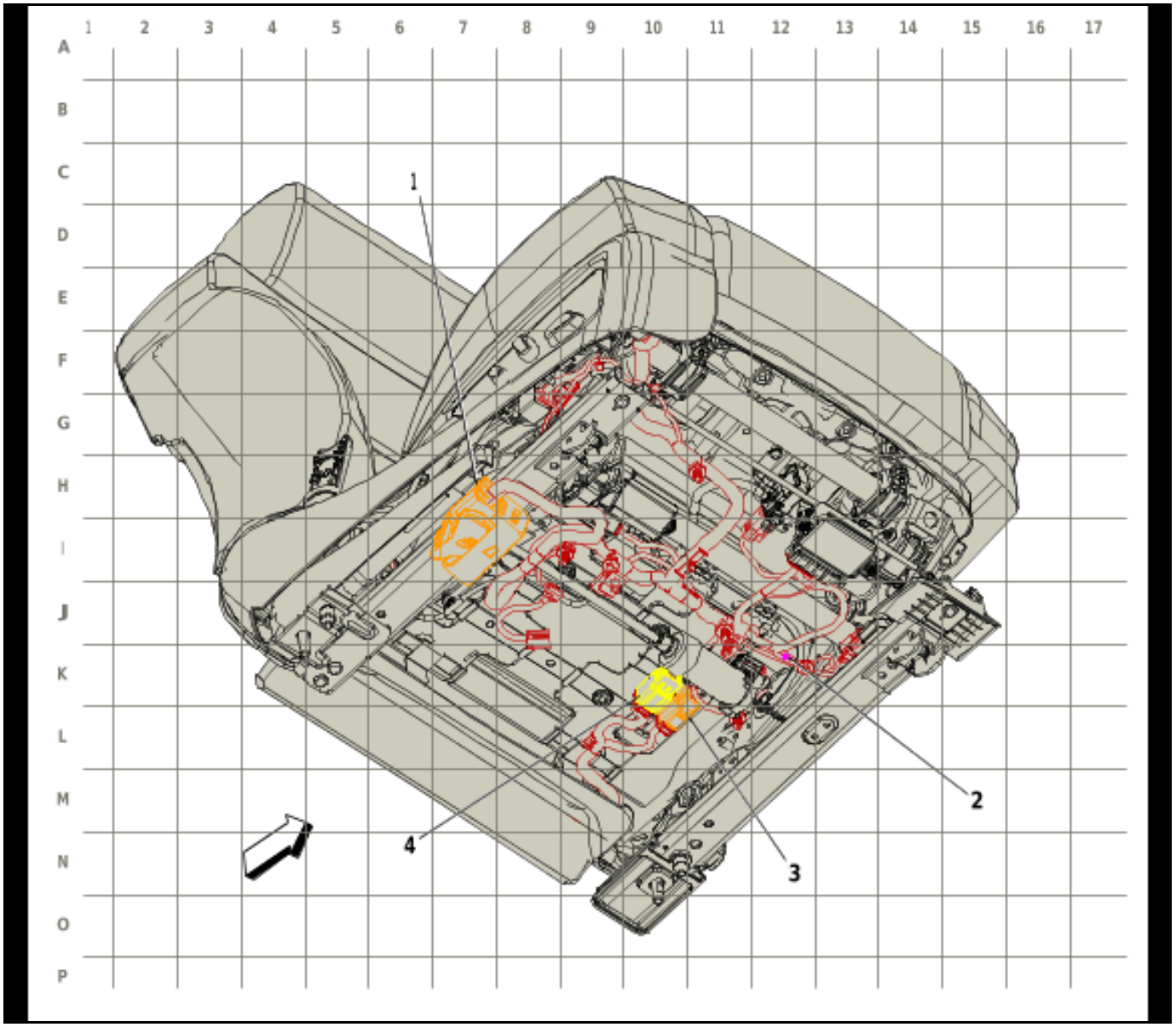
4975523

Items

(1) X311 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver (A95/AG1)

(2) X312 Front Seat Back Wiring Harness - Driver to Front Seat Cushion Wiring Harness - Driver

Harness Routing Views (Front Seat Cushion Wiring Harness - Passenger Routing)



4975525

Items

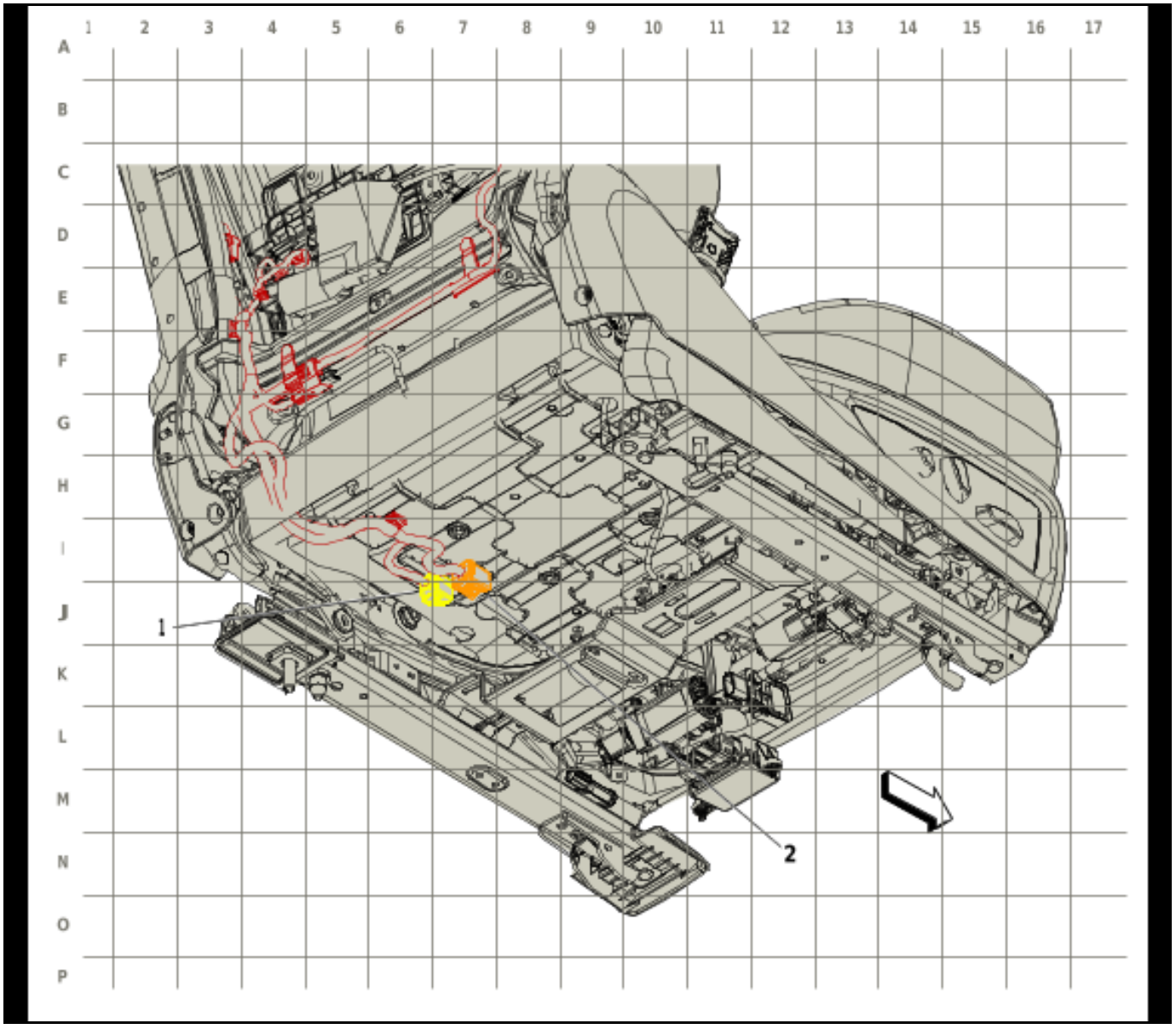
(1) X320 Front Seat Cushion Wiring Harness - Passenger to Body Wiring Harness

(2) J321 Front Seat Cushion Wiring Harness - Passenger (KA1)

(3) X322 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger

(4) X321 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (A95)

Harness Routing Views (Front Seat Back Wiring Harness - Passenger Routing)



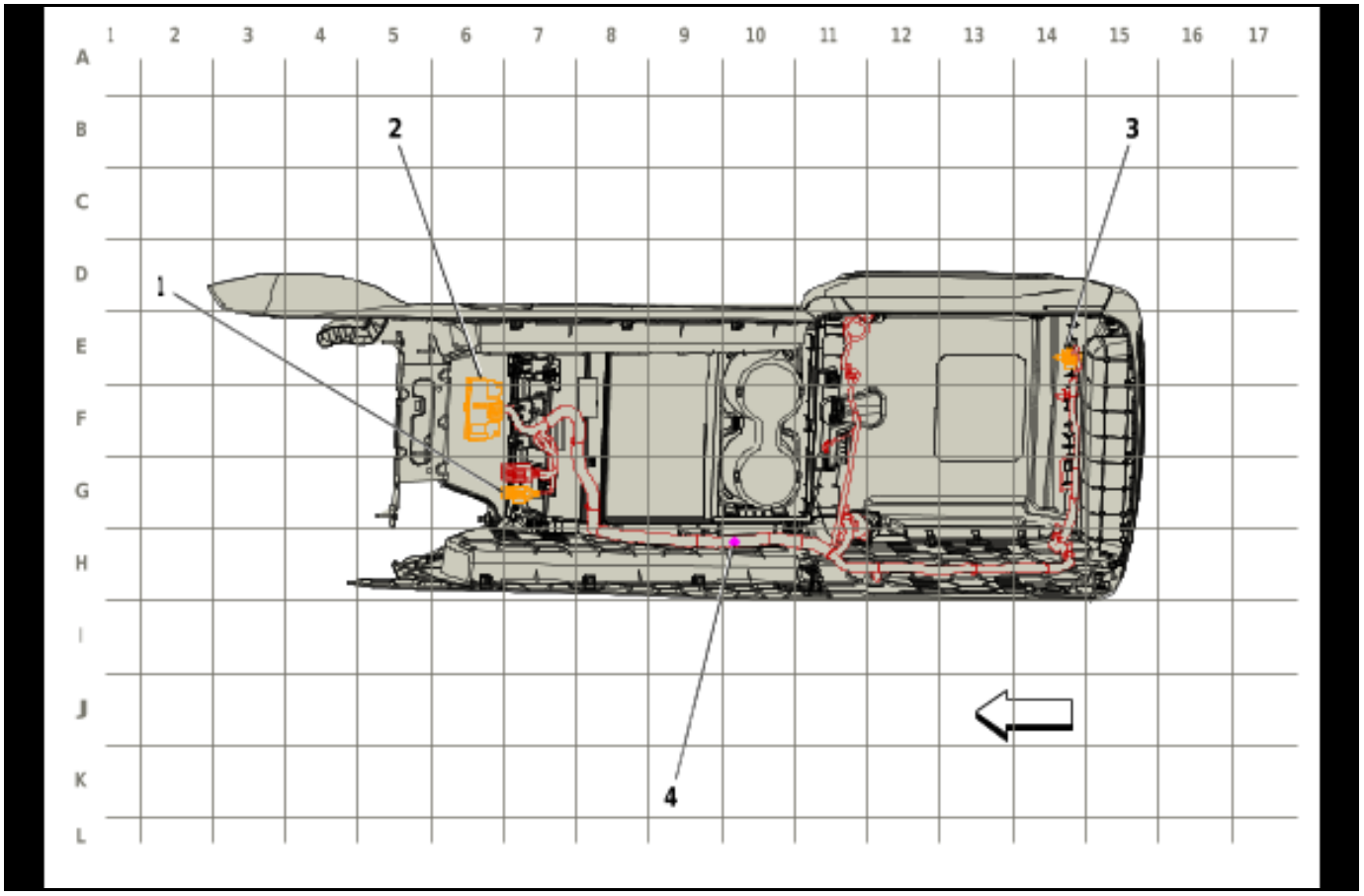
4975529

Items

(1) X322 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger

(2) X321 Front Seat Back Wiring Harness - Passenger to Front Seat Cushion Wiring Harness - Passenger (A95)

Harness Routing Views (Front Floor Console Wiring Harness Routing (D07))



4975532

Items

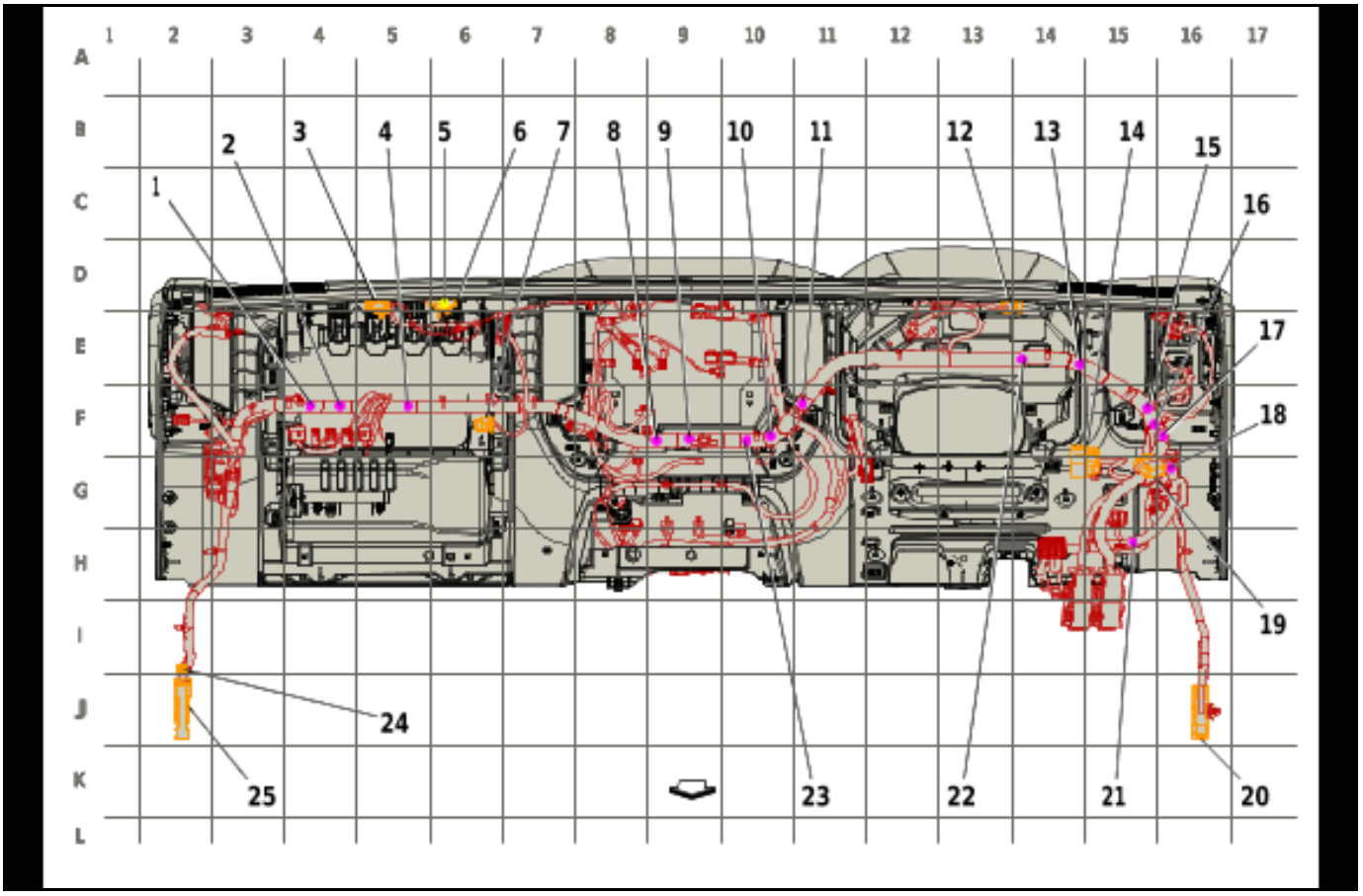
(1) X309 Front Floor Console Wiring Harness to Instrument Panel Wiring Harness (D07)

(2) X300 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness (D07)

(3) X302 Front Floor Console Wiring Harness Extension Harness to Front Floor Console Wiring Harness (K4C)

(4) J358 Front Floor Console Wiring Harness (D07)

Harness Routing Views (Instrument Panel Wiring Harness Routing (1WT))

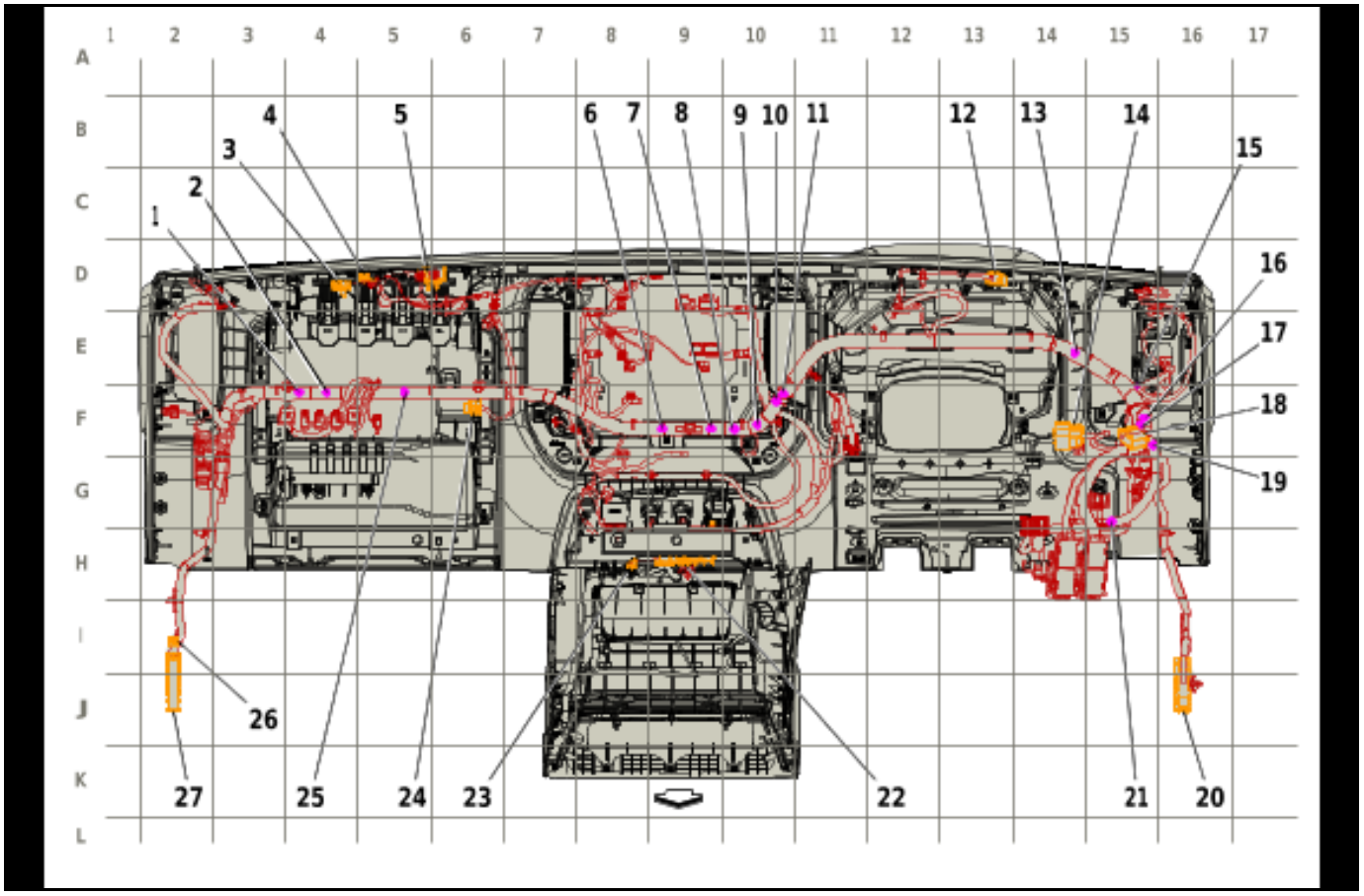


4975539

Items

(1) J241 Instrument Panel Wiring Harness
(2) J242 Instrument Panel Wiring Harness
(3) X222 Instrument Panel Wiring Harness to Roof Wiring Harness (UE1)
(4) J215 Instrument Panel Wiring Harness
(5) X210 Instrument Panel Wiring Harness to Roof Wiring Harness (U2K)
(6) X215 Air Conditioning Wiring Harness to Instrument Panel Wiring Harness
(7) X205 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness Extension Wire
(8) J251 Instrument Panel Wiring Harness (IOB)
(9) J266 Instrument Panel Wiring Harness (IOB)
(10) J240 Instrument Panel Wiring Harness (D07/KI4)
(11) J289 Instrument Panel Wiring Harness
(12) X305 Instrument Panel Wiring Harness to Headlining Trim Panel Harness
(13) J205 Instrument Panel Wiring Harness
(14) X201 Steering Column Wiring Harness to Instrument Panel Wiring Harness
(15) J210 Instrument Panel Wiring Harness
(16) J200 Instrument Panel Wiring Harness
(17) J201 Instrument Panel Wiring Harness
(18) J212 Instrument Panel Wiring Harness
(19) JX200 Instrument Panel Wiring Harness
(20) X225 Body Wiring Harness to Instrument Panel Wiring Harness
(21) J211 Instrument Panel Wiring Harness
(22) J213 Instrument Panel Wiring Harness
(23) J290 Instrument Panel Wiring Harness (9L7/JPZ)
(24) X301 Body Wiring Harness to Instrument Panel Wiring Harness (-D07)
(25) X275 Instrument Panel Wiring Harness to Body Wiring Harness

Harness Routing Views (Instrument Panel Wiring Harness Routing (1LT))

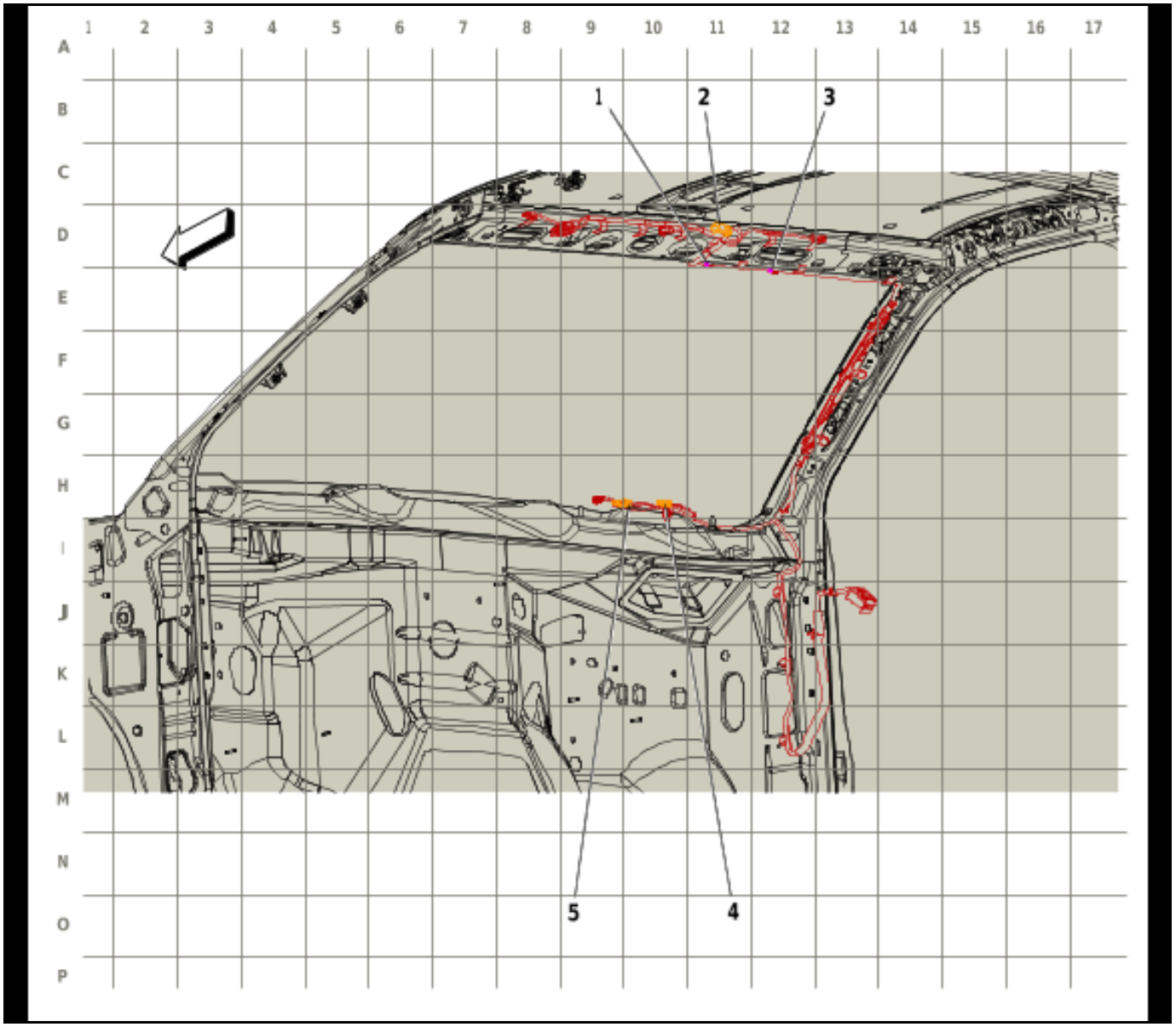


5909861

Items

(1) J241 Instrument Panel Wiring Harness
(2) J242 Instrument Panel Wiring Harness
(3) X210 Instrument Panel Wiring Harness to Roof Wiring Harness (U2K)
(4) X222 Instrument Panel Wiring Harness to Roof Wiring Harness (UE1)
(5) X215 Air Conditioning Wiring Harness to Instrument Panel Wiring Harness
(6) J249 Instrument Panel Wiring Harness (IO5)
(7) J220 Instrument Panel Wiring Harness
(8) J290 Instrument Panel Wiring Harness (9L7/JPZ)
(9) J240 Instrument Panel Wiring Harness (D07/KI4)
(10) J245 Instrument Panel Wiring Harness (KA1)
(11) J289 Instrument Panel Wiring Harness
(12) X305 Instrument Panel Wiring Harness to Headlining Trim Panel Harness
(13) J205 Instrument Panel Wiring Harness
(14) X201 Steering Column Wiring Harness to Instrument Panel Wiring Harness
(15) J213 Instrument Panel Wiring Harness
(16) J200 Instrument Panel Wiring Harness
(17) J201 Instrument Panel Wiring Harness
(18) JX200 Instrument Panel Wiring Harness
(19) J212 Instrument Panel Wiring Harness
(20) X225 Body Wiring Harness to Instrument Panel Wiring Harness
(21) J211 Instrument Panel Wiring Harness
(22) X300 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness (D07)
(23) X309 Front Floor Console Wiring Harness to Instrument Panel Wiring Harness (D07)
(24) X205 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness Extension Wire
(25) J215 Instrument Panel Wiring Harness
(26) X301 Body Wiring Harness to Instrument Panel Wiring Harness (-D07)
(27) X275 Instrument Panel Wiring Harness to Body Wiring Harness

Harness Routing Views (Roof Wiring Harness Routing)



4975544

Items

(1) J292 Roof Wiring Harness

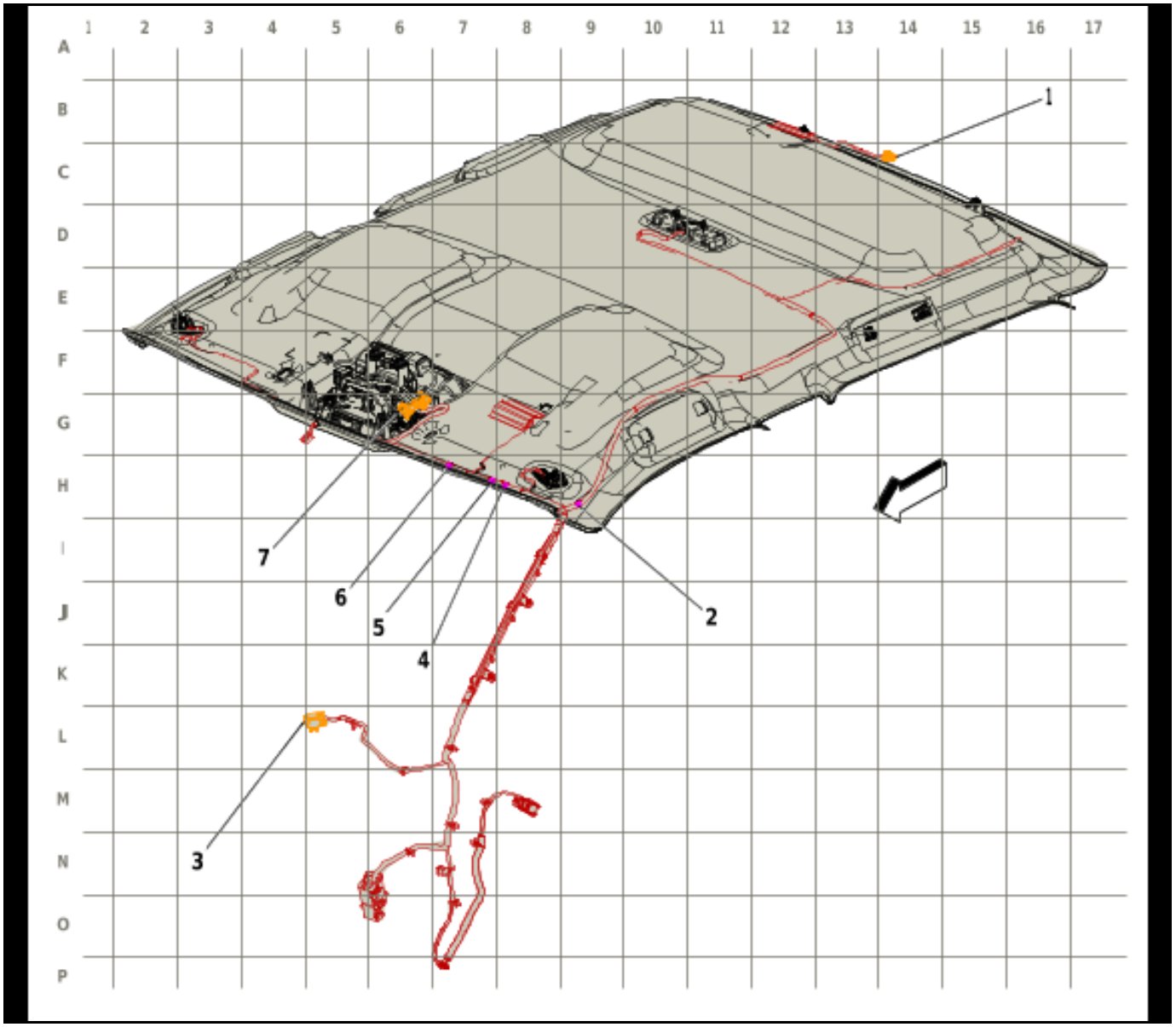
(2) X319 Roof Console Wiring Harness to Roof Wiring Harness (TRW)

(3) J293 Roof Wiring Harness

(4) X210 Instrument Panel Wiring Harness to Roof Wiring Harness (U2K)

(5) X222 Instrument Panel Wiring Harness to Roof Wiring Harness (UE1)

Harness Routing Views (Headlining Trim Panel Harness Routing)



4975545

Items

(1) X317 Headlining Trim Panel Harness to High Mount Stop Lamp Wiring Harness

(2) J317 Headlining Trim Panel Harness (Crew Cab)

(3) X305 Instrument Panel Wiring Harness to Headlining Trim Panel Harness

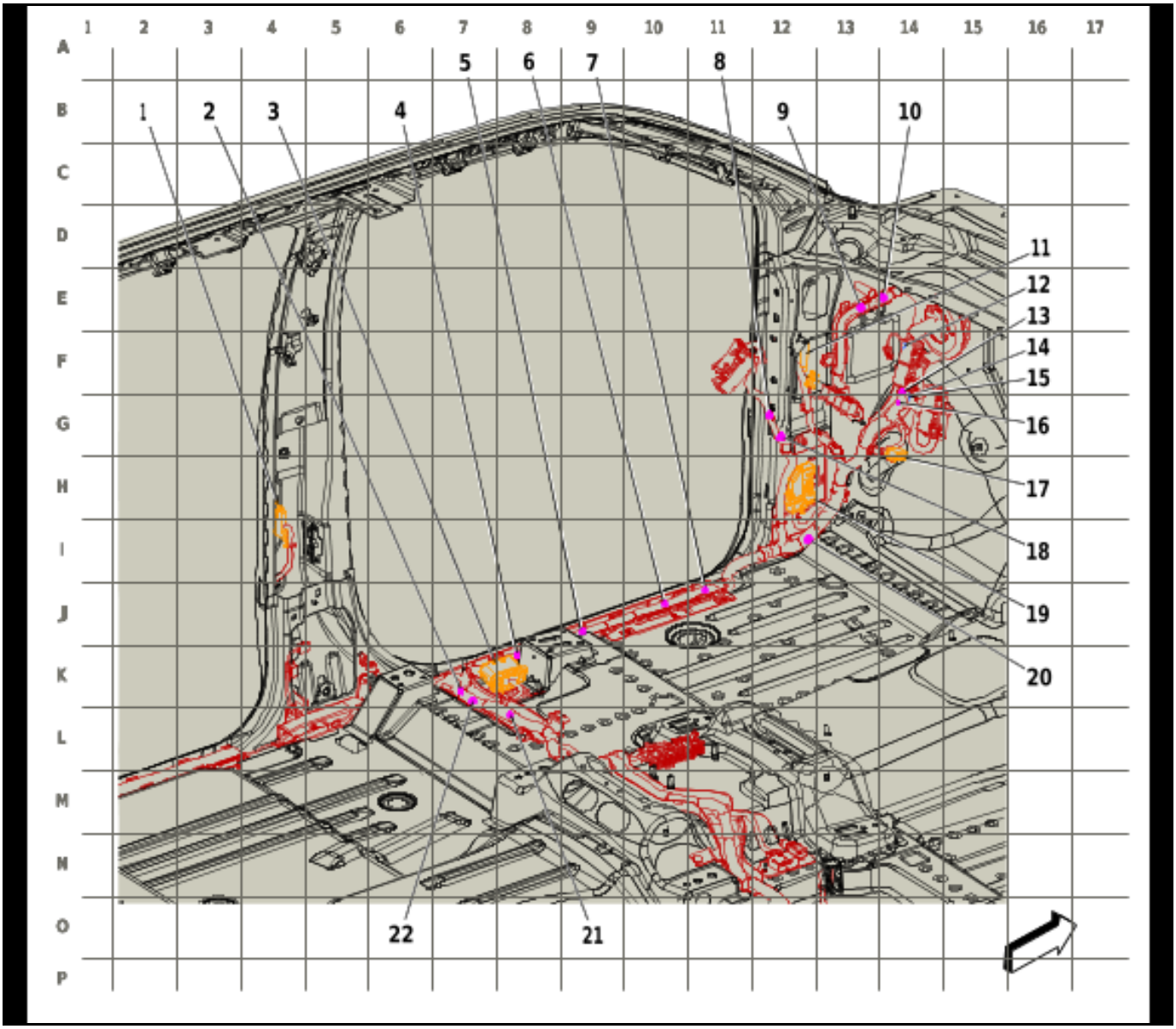
(4) J310 Headlining Trim Panel Harness (Crew Cab/DH6)

(5) J312 Headlining Trim Panel Harness (Crew Cab)

(6) J332 Headlining Trim Panel Harness

(7) X316 Headlining Trim Panel Harness to Roof Console Wiring Harness

Harness Routing Views (Body Wiring Harness Routing - Passenger Compartment Left)



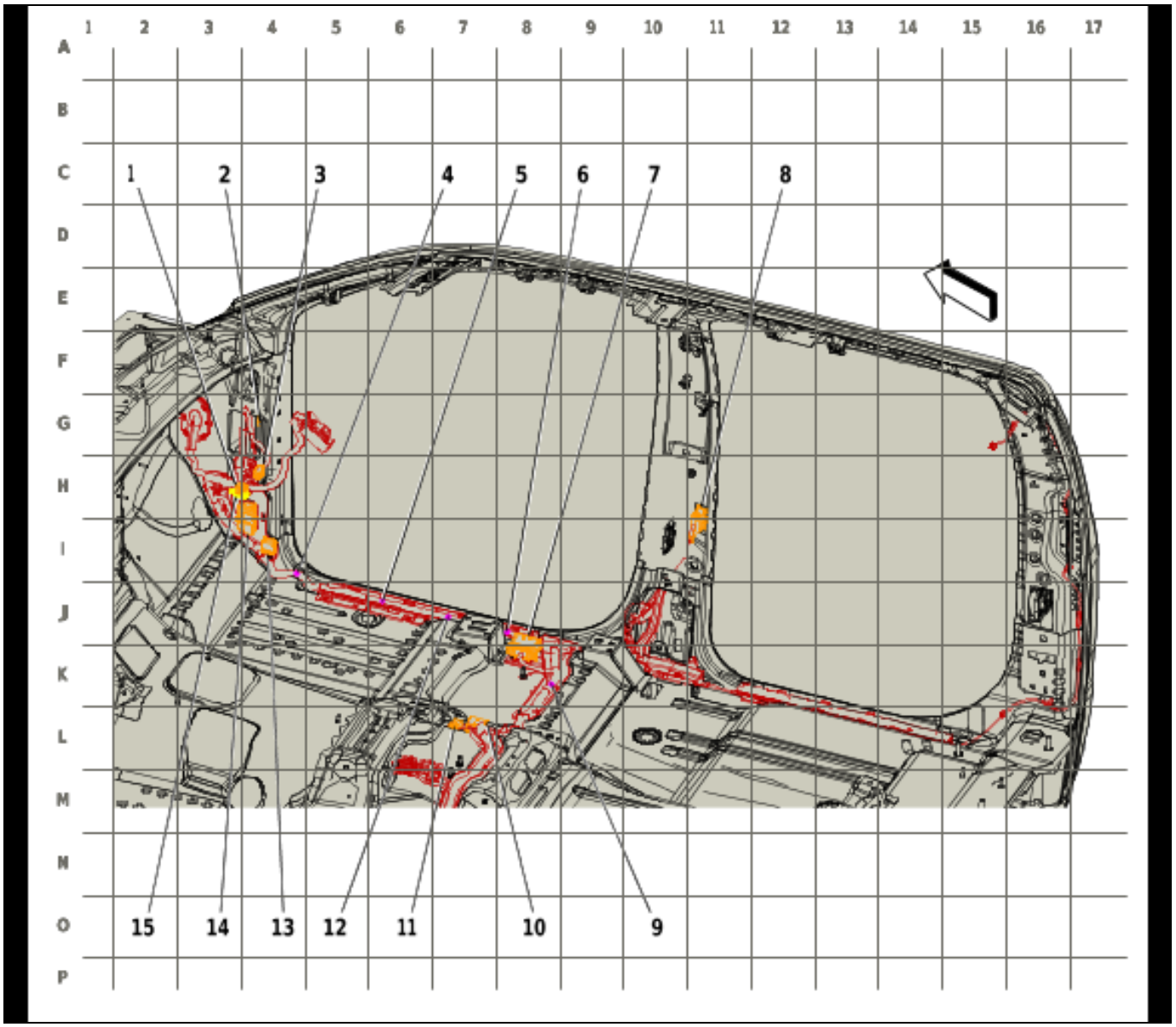
4992537

Items

(1) X700 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness (Crew Cab)
(2) J350 Body Wiring Harness (IOB/UVC)
(3) X310 Front Seat Cushion Wiring Harness - Driver to Body Wiring Harness
(4) J365 Body Wiring Harness
(5) J309 Body Wiring Harness (JL1/NQF)
(6) J383 Body Wiring Harness
(7) J384 Body Wiring Harness (A31)
(8) J301 Body Wiring Harness
(9) J299 Body Wiring Harness (UY7)
(10) J357 Body Wiring Harness
(11) X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
(12) W33 Blunt Cut - Master Disconnect Switch Indicator Provision
(13) J300 Body Wiring Harness
(14) W31 Blunt Cut - Crank Inhibit Provision
(15) W32 Blunt Cut - Master Disconnect Switch Provision
(16) J302 Body Wiring Harness (DPN)
(17) X315 Body Wiring Harness to Auxiliary Fuse Block Wiring Harness
(18) J304 Body Wiring Harness
(19) X225 Body Wiring Harness to Instrument Panel Wiring Harness
(20) J367 Body Wiring Harness
(21) J360 Body Wiring Harness

(22) J370 Body Wiring Harness (Crew Cab)

Harness Routing Views (Body Wiring Harness Routing - Passenger Compartment Right)



4992539

Items

(1) X216 Body Wiring Harness to Air Conditioning Wiring Harness

(2) X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness

(3) X217 Body Wiring Harness to Air Conditioning Wiring Harness

(4) J373 Body Wiring Harness

(5) J361 Body Wiring Harness (Crew Cab)

(6) J331 Body Wiring Harness (Crew Cab)

(7) X320 Front Seat Cushion Wiring Harness - Passenger to Body Wiring Harness

(8) X800 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness (Crew Cab)

(9) J362 Body Wiring Harness (A52)

(10) X314 Front Seat Cushion Wiring Harness - Center to Body Wiring Harness (-D07)

(11) X313 Body Wiring Harness to Front Seat Cushion Wiring Harness - Center (-D07)

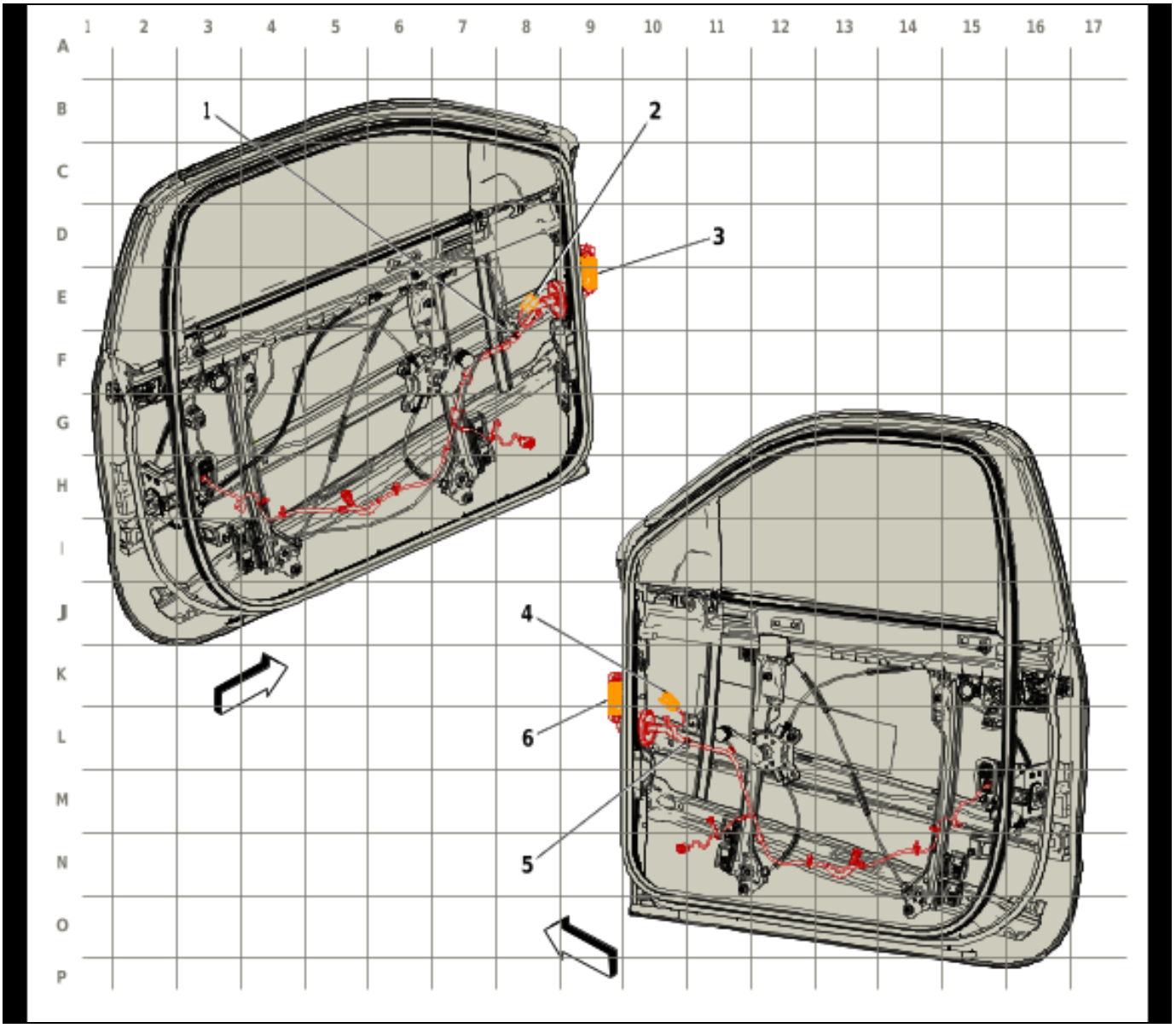
(12) J366 Body Wiring Harness (Crew Cab)

(13) JX300 Body Wiring Harness

(14) X275 Instrument Panel Wiring Harness to Body Wiring Harness

(15) X301 Body Wiring Harness to Instrument Panel Wiring Harness (-D07)

Harness Routing Views (Front Side Door Door Wiring Harness - Driver and Front Side Door Door Wiring Harness - Passenger Routing (-A31))



4975547

Items

(1) J515 Front Side Door Door Wiring Harness - Driver

(2) X506 Front Side Door Door Lock Door Wiring Harness - Driver to Front Side Door Door Wiring Harness - Dri (-A31)

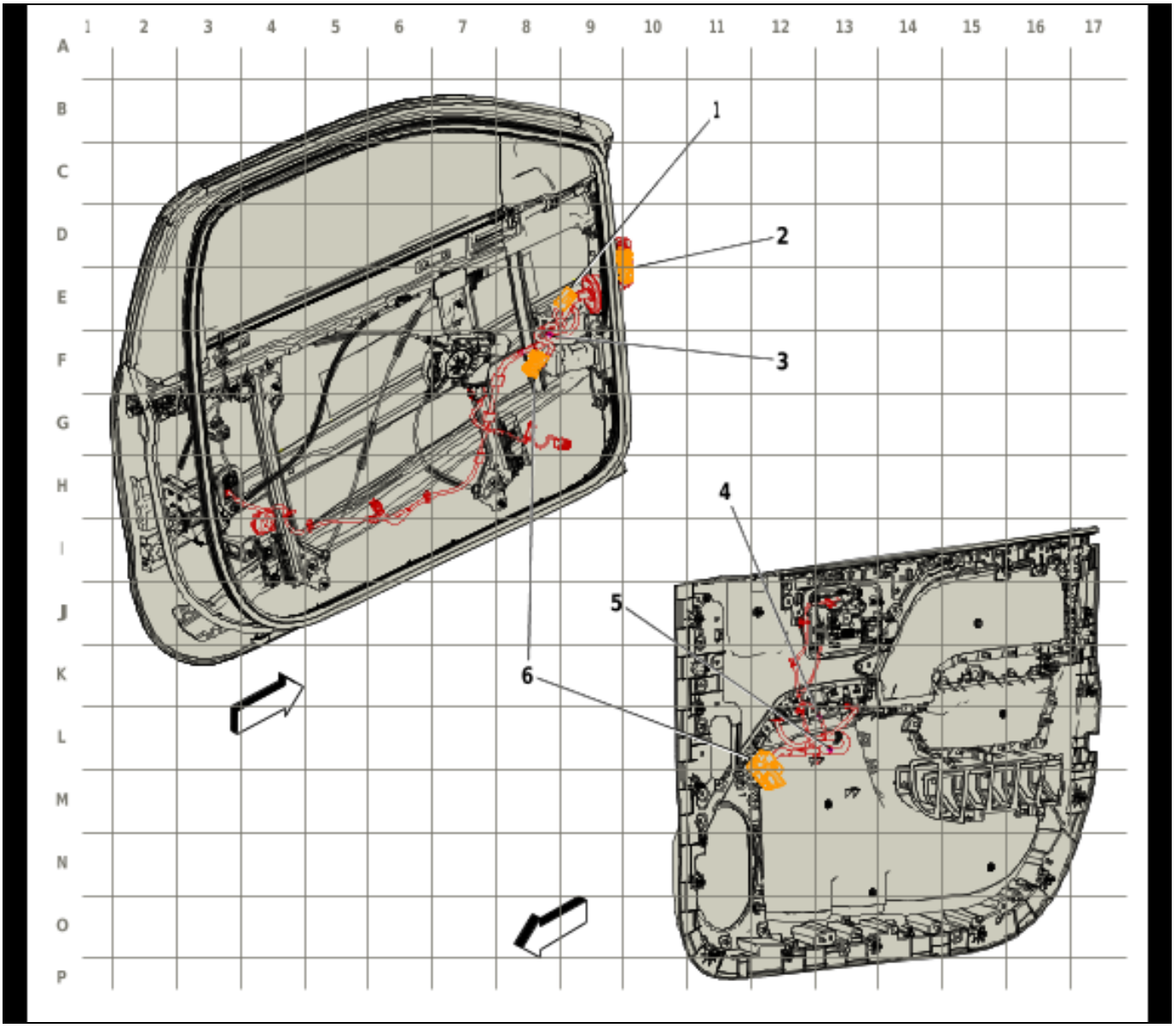
(3) X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness

(4) X606 Front Side Door Door Lock Door Wiring Harness - Passenger to Front Side Door Door Wiring Harness - (-A31)

(5) J615 Front Side Door Door Wiring Harness - Passenger

(6) X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness

Harness Routing Views (Front Side Door Door Wiring Harness - Driver and Front Side Door Door Lock Door Wiring Harness - Driver Routing (A31))



4975550

Items

(1) X510 Outside Rearview Mirror Wiring Harness - Driver to Front Side Door Door Wiring Harness - Driver (DPN)

(2) X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness

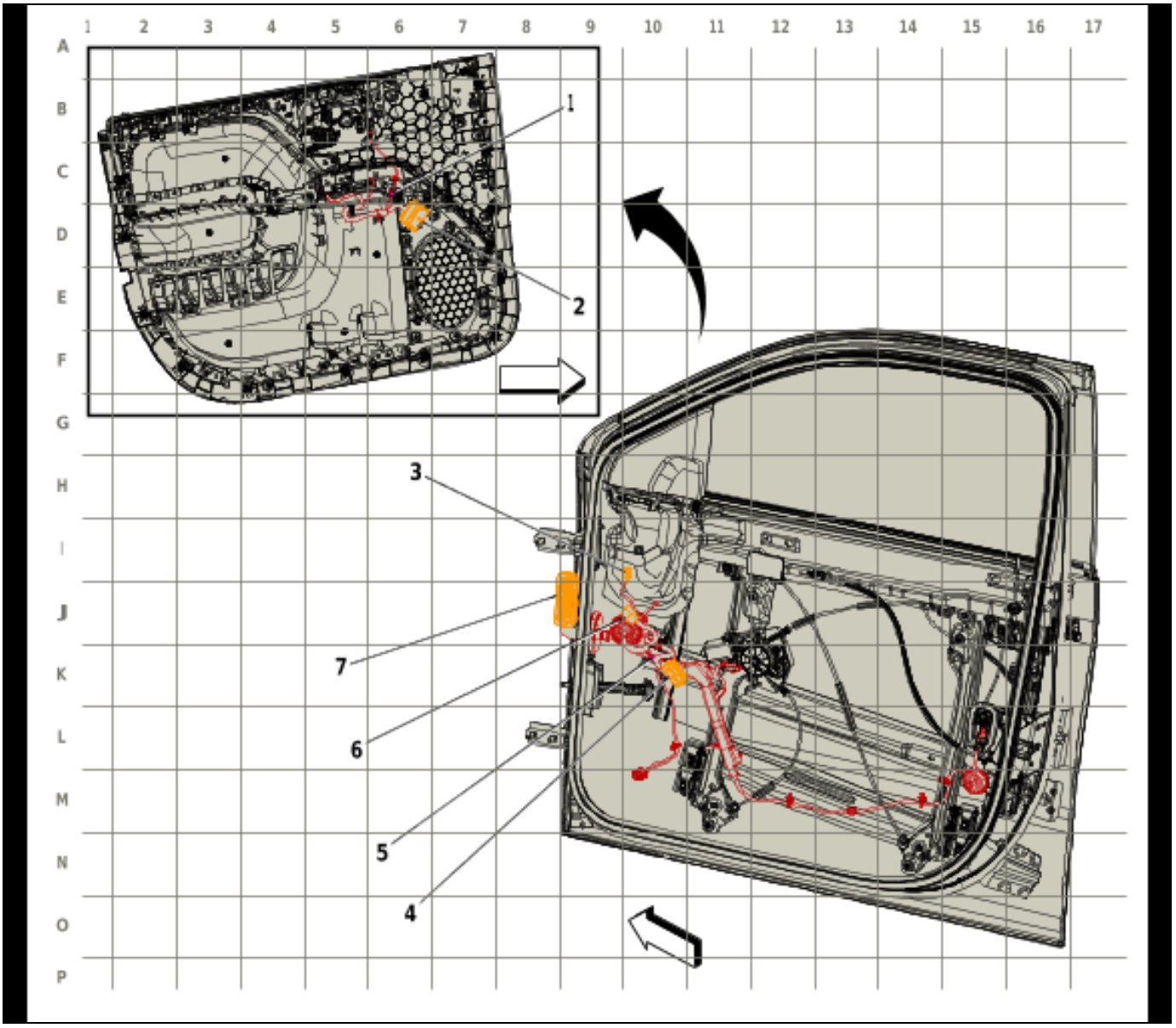
(3) J550 Front Side Door Door Wiring Harness - Driver (A31)

(4) J515 Front Side Door Door Wiring Harness - Driver

(5) J519 Front Side Door Door Lock Door Wiring Harness - Driver (DPN)

(6) X505 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Dri (A31)

Harness Routing Views (Front Side Door Door Wiring Harness - Passenger and Front Side Door Door Lock Door Wiring Harness - Passenger Routing (A31))



4975552

Items

(1) J615 Front Side Door Door Wiring Harness - Passenger

(2) X605 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - (A31)

(3) X611 Outside Rearview Mirror Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passeng (DF2)

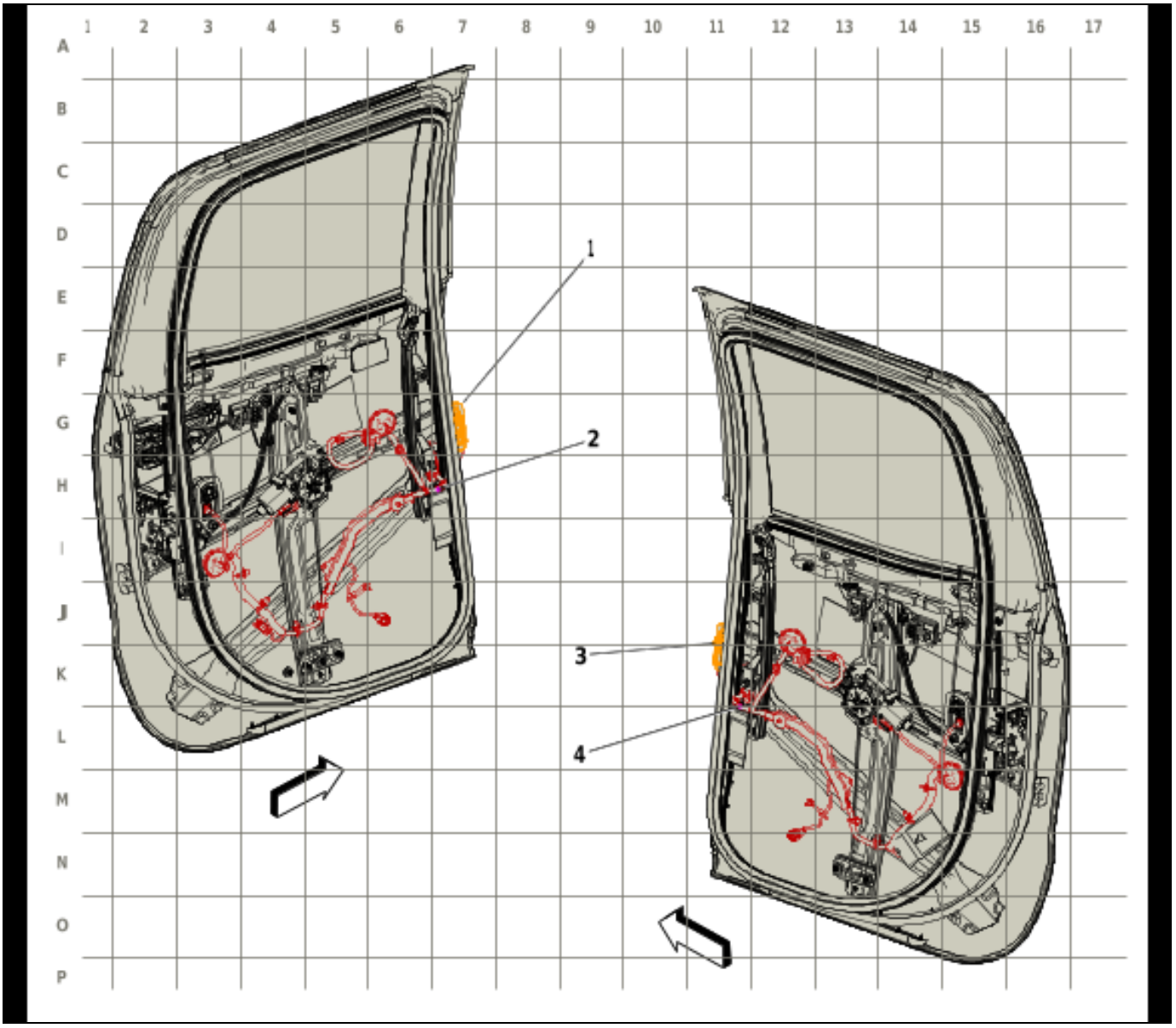
(4) X605 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - (A31)

(5) J615 Front Side Door Door Wiring Harness - Passenger

(6) X610 Outside Rearview Mirror Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passeng (DPN)

(7) X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness

Harness Routing Views (Rear Side Door Door Wiring Harness - Left and Rear Side Door Door Wiring Harness - Right Routing (Crew Cab))



4975554

Items

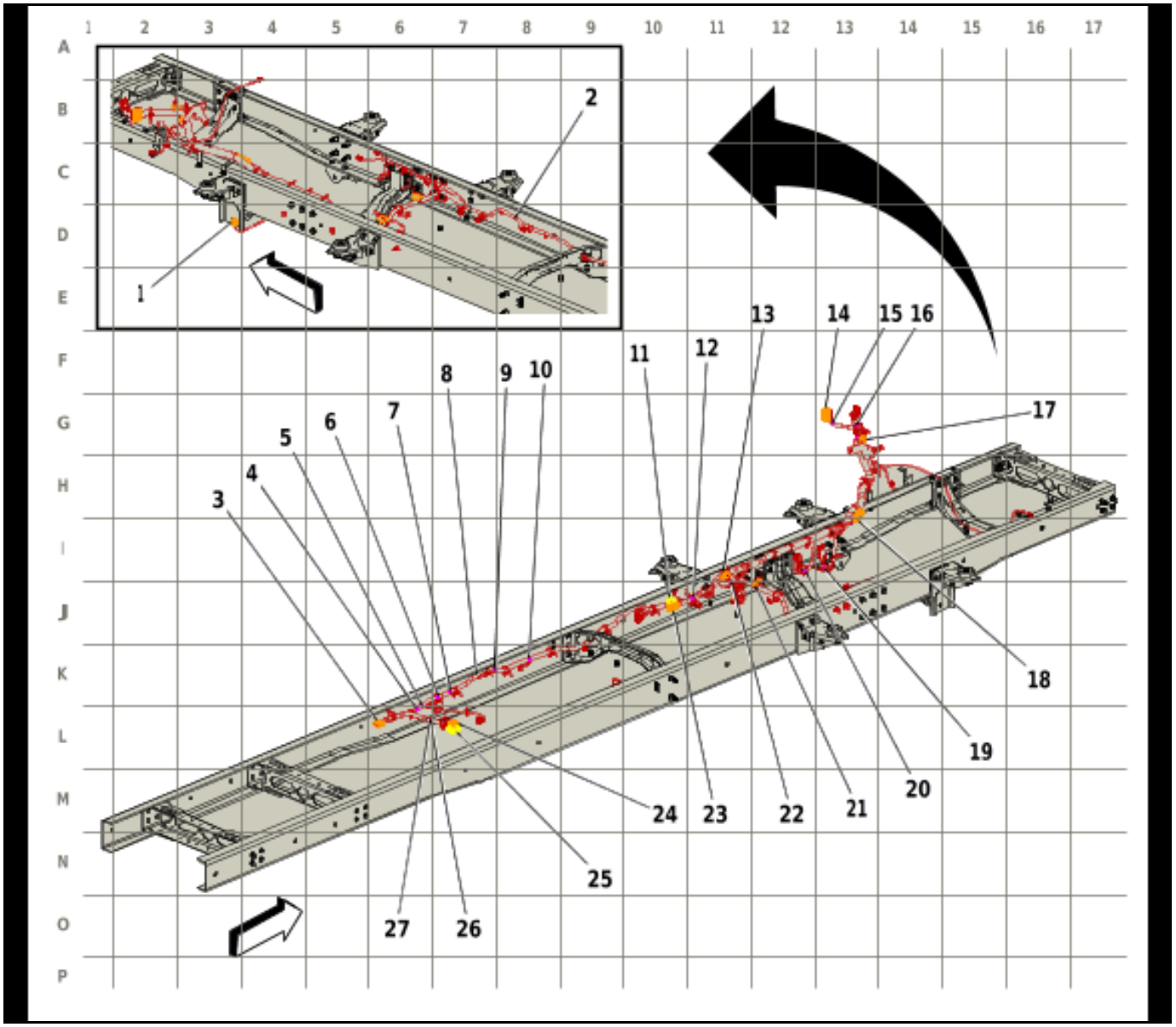
(1) X700 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness (Crew Cab)

(2) J715 Rear Side Door Door Wiring Harness - Left (Crew Cab)

(3) X800 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness (Crew Cab)

(4) J815 Rear Side Door Door Wiring Harness - Right (Crew Cab)

Harness Routing Views (Chassis Front Wiring Harness Routing)



5739167

Items

(1) X330 Chassis Front Wiring Harness to Battery Feed Harness (7Y7/7Y8)

(2) J490 Chassis Front Wiring Harness

(3) X401 Chassis Rear Wiring Harness - Left to Chassis Front Wiring Harness

(4) J417 Chassis Front Wiring Harness (NSQ)

(5) J418 Chassis Front Wiring Harness (N2L)

(6) J420 Chassis Front Wiring Harness (5DX/5DY)

(7) J421 Chassis Front Wiring Harness (5DX/5DY)

(8) J422 Chassis Front Wiring Harness (5DX/5DY/DPN)

(9) J423 Chassis Front Wiring Harness (5DX/5DY)

(10) J400 Chassis Front Wiring Harness

(11) X430 Chassis Front Wiring Harness to Battery Feed Harness (7Y9)

(12) J411 Chassis Front Wiring Harness (5DX/5DY)

(13) JX301 Chassis Front Wiring Harness

(14) X138 Chassis Front Wiring Harness to Body Wiring Harness

(15) J138 Chassis Front Wiring Harness (UVC)

(16) J139 Chassis Front Wiring Harness

(17) X180 Brake Pedal Position Sensor Harness to Chassis Front Wiring Harness

(18) X125 Engine Wiring Harness - Chassis to Chassis Front Wiring Harness

(19) J397 Chassis Front Wiring Harness

(20) J398 Chassis Front Wiring Harness

(21) JX302 Chassis Front Wiring Harness

(22) J399 Chassis Front Wiring Harness

(23) X405 Body Builder Connection Harness to Chassis Front Wiring Harness (5DX)

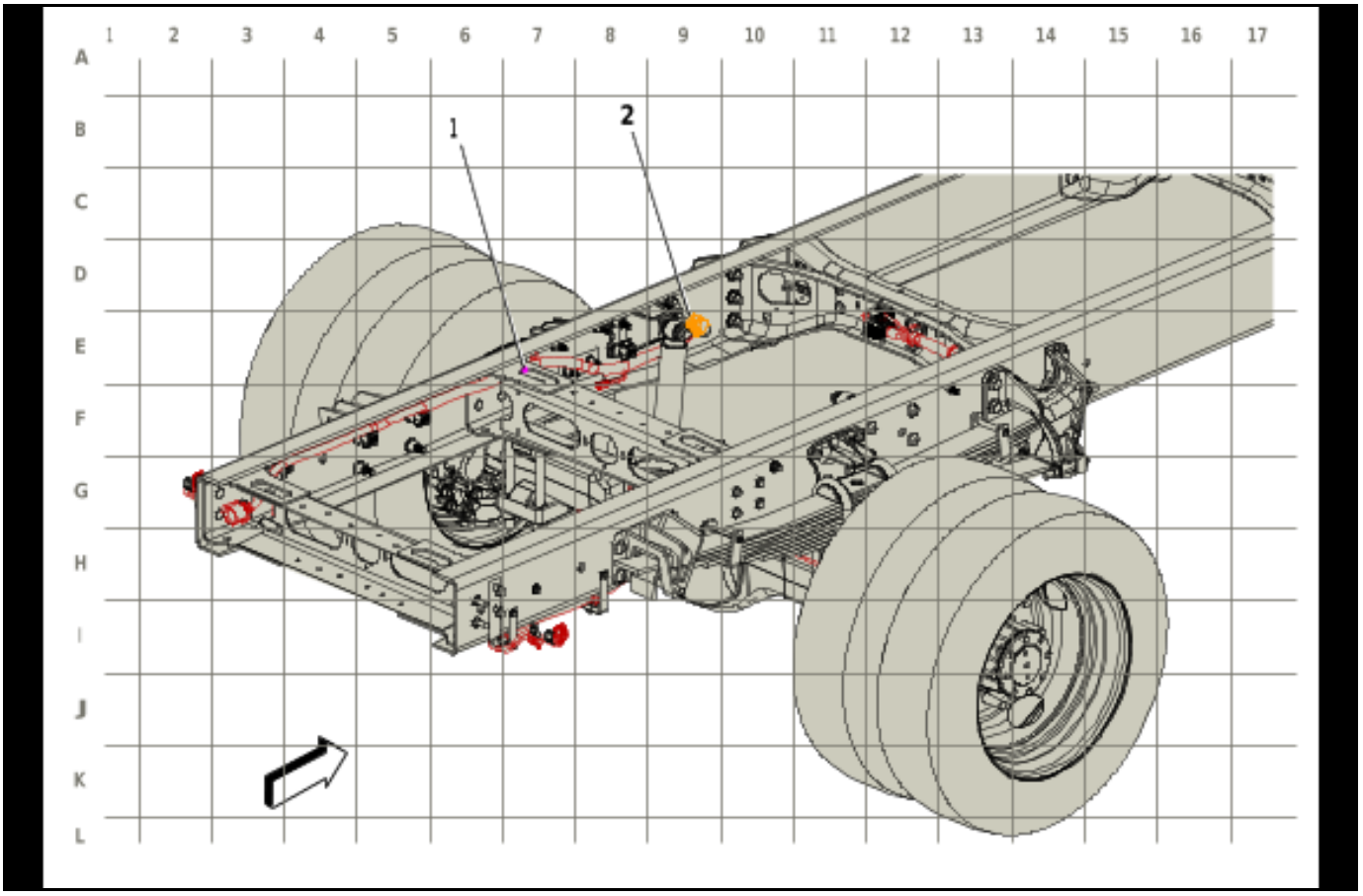
(24) X455 Chassis Front Wiring Harness to Chassis Rear Wiring Harness - Right (5DY)

(25) X402 Chassis Rear Wiring Harness - Right to Chassis Front Wiring Harness

(26) J401 Chassis Front Wiring Harness (NSQ/NVK)

(27) J419 Chassis Front Wiring Harness (UVC)

Harness Routing Views (Chassis Rear Wiring Harness - Left Routing)



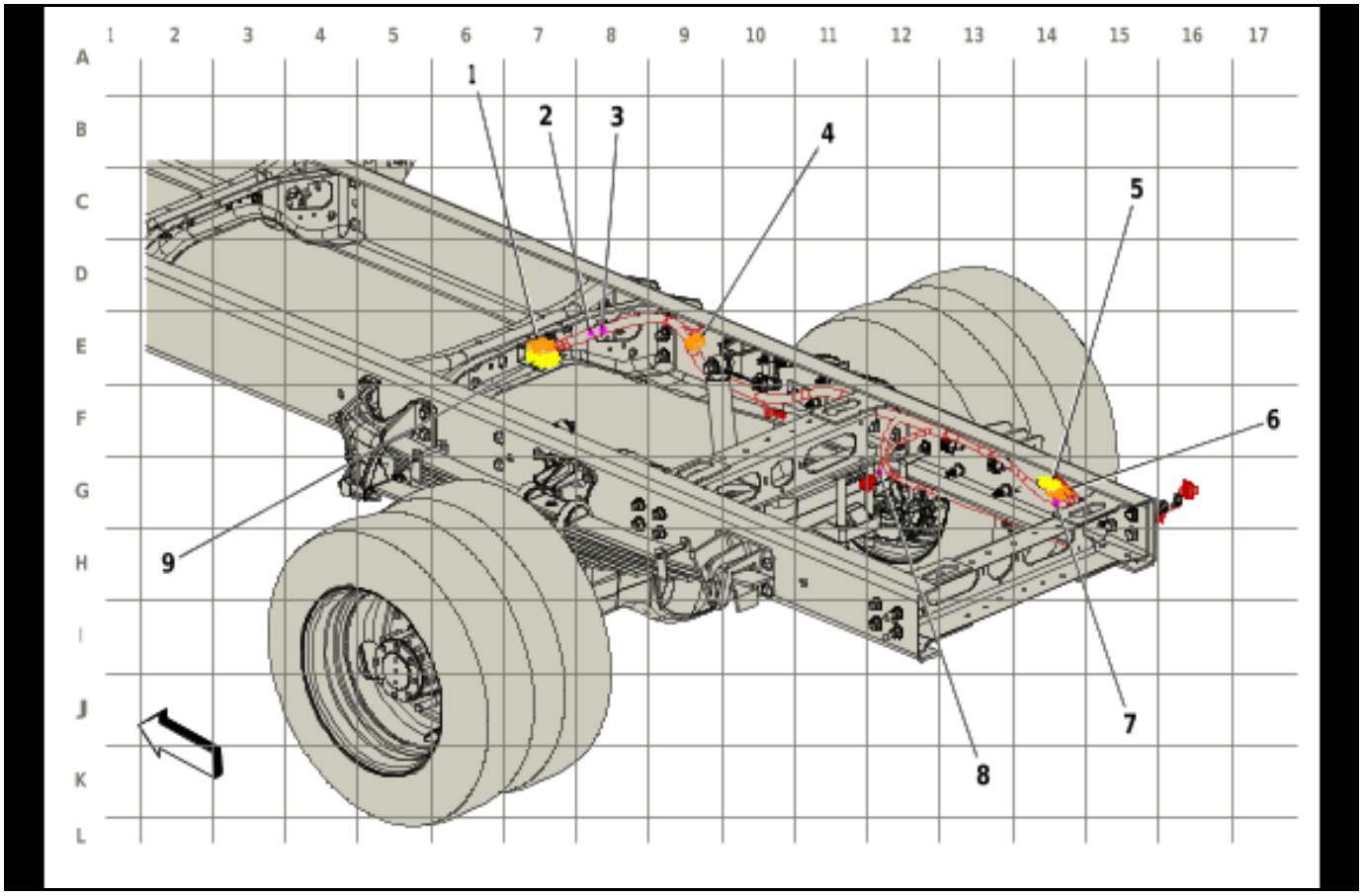
5278610

Items

(1) J450

(2) X401 Chassis Rear Wiring Harness - Left to Chassis Front Wiring Harness

Harness Routing Views (Chassis Rear Wiring Harness - Right Routing)



5278615

Items

(1) X455 Chassis Front Wiring Harness to Chassis Rear Wiring Harness - Right (5DY)

(2) J460 Chassis Rear Wiring Harness - Right (N2L)

(3) J461 Chassis Rear Wiring Harness - Right (UVC)

(4) JX402 Chassis Rear Wiring Harness - Right

(5) X499 Rearview Camera Wiring Harness to Chassis Rear Wiring Harness - Right (RWR/UVC)

(6) X495 Body Builder Connection Harness to Chassis Rear Wiring Harness - Right (5DY)

(7) J462 Chassis Rear Wiring Harness - Right (UVC)

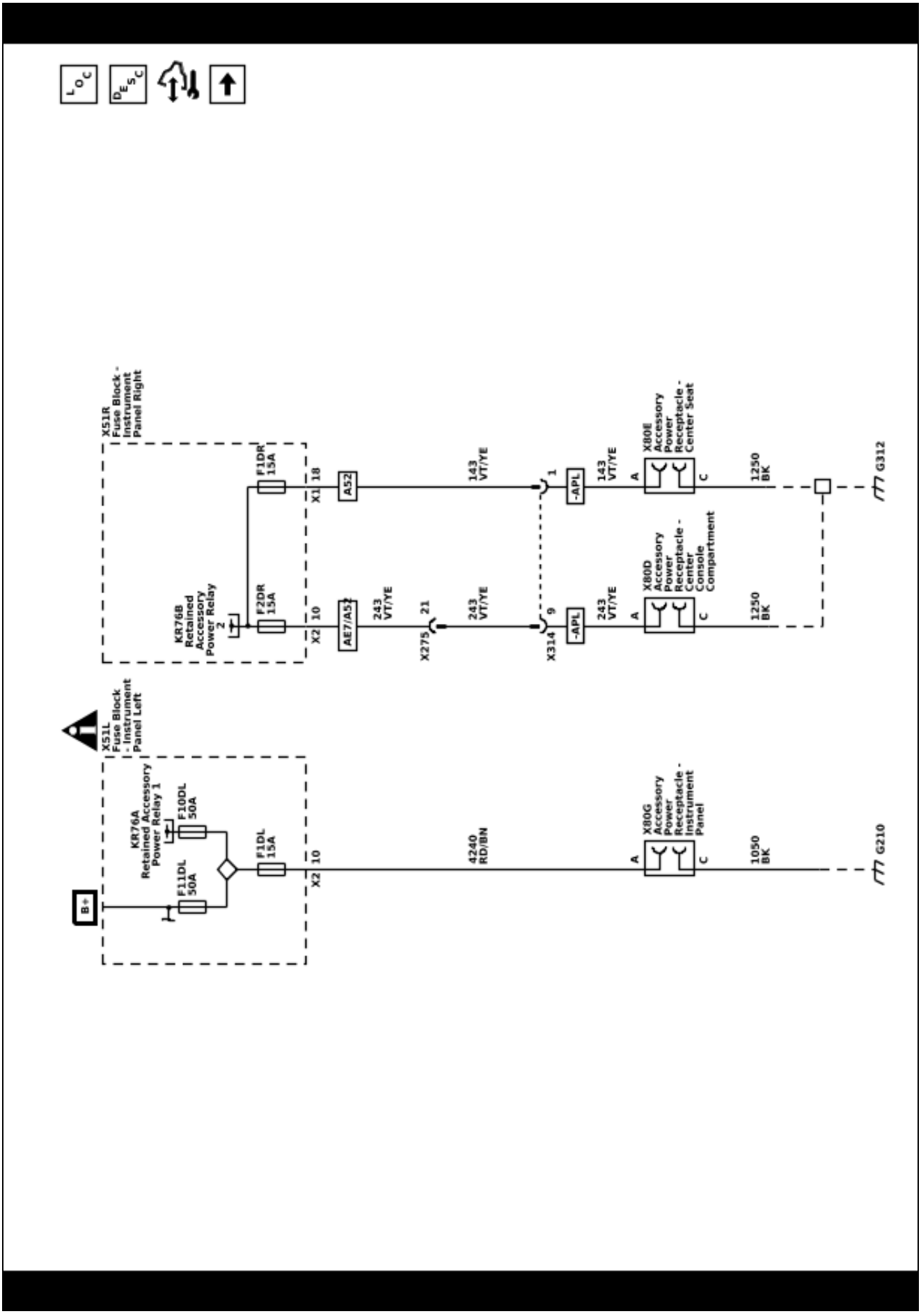
(8) J463 Chassis Rear Wiring Harness - Right (N2L)

(9) X402 Chassis Rear Wiring Harness - Right to Chassis Front Wiring Harness

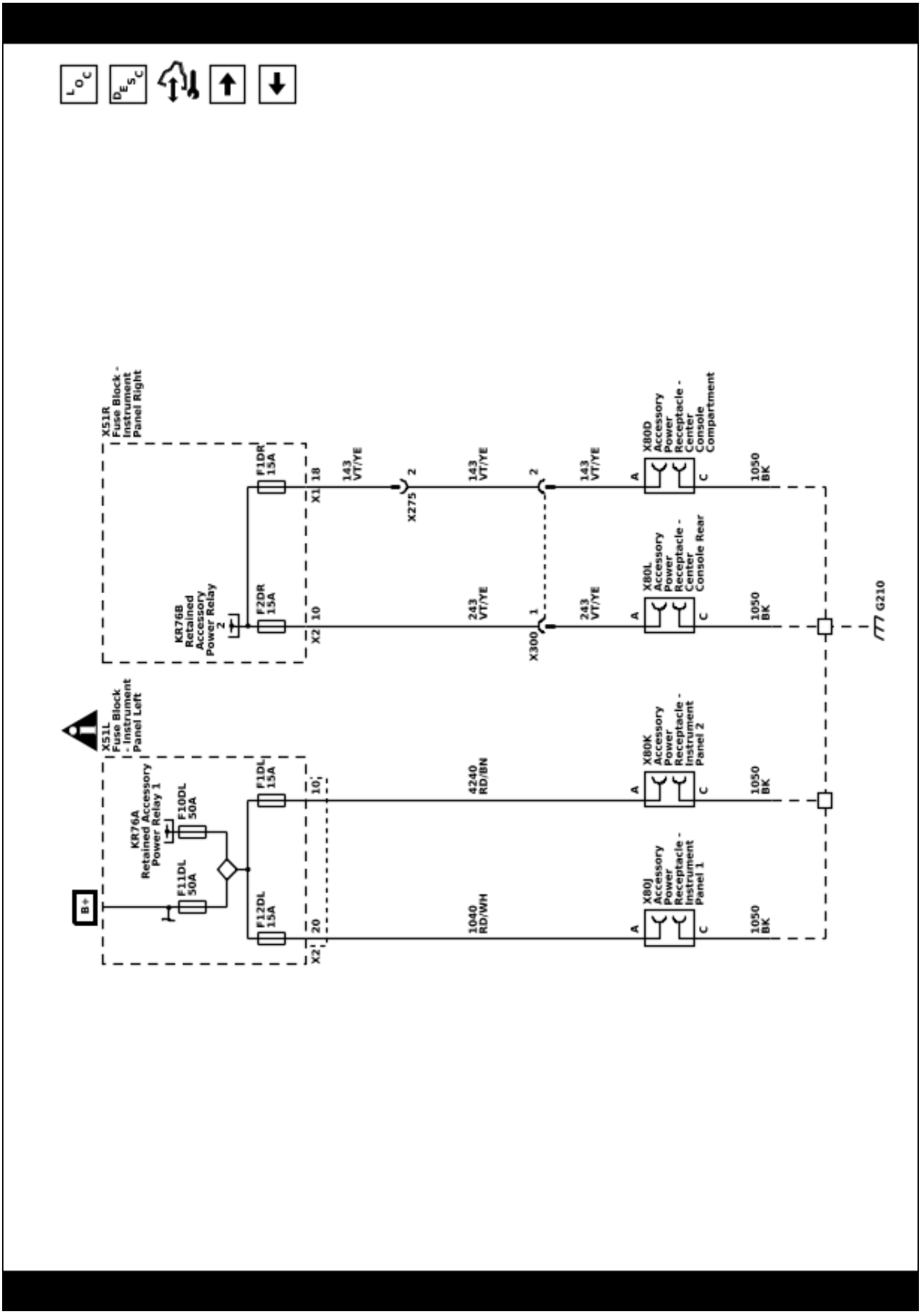
Power Outlets

Schematic and Routing Diagrams

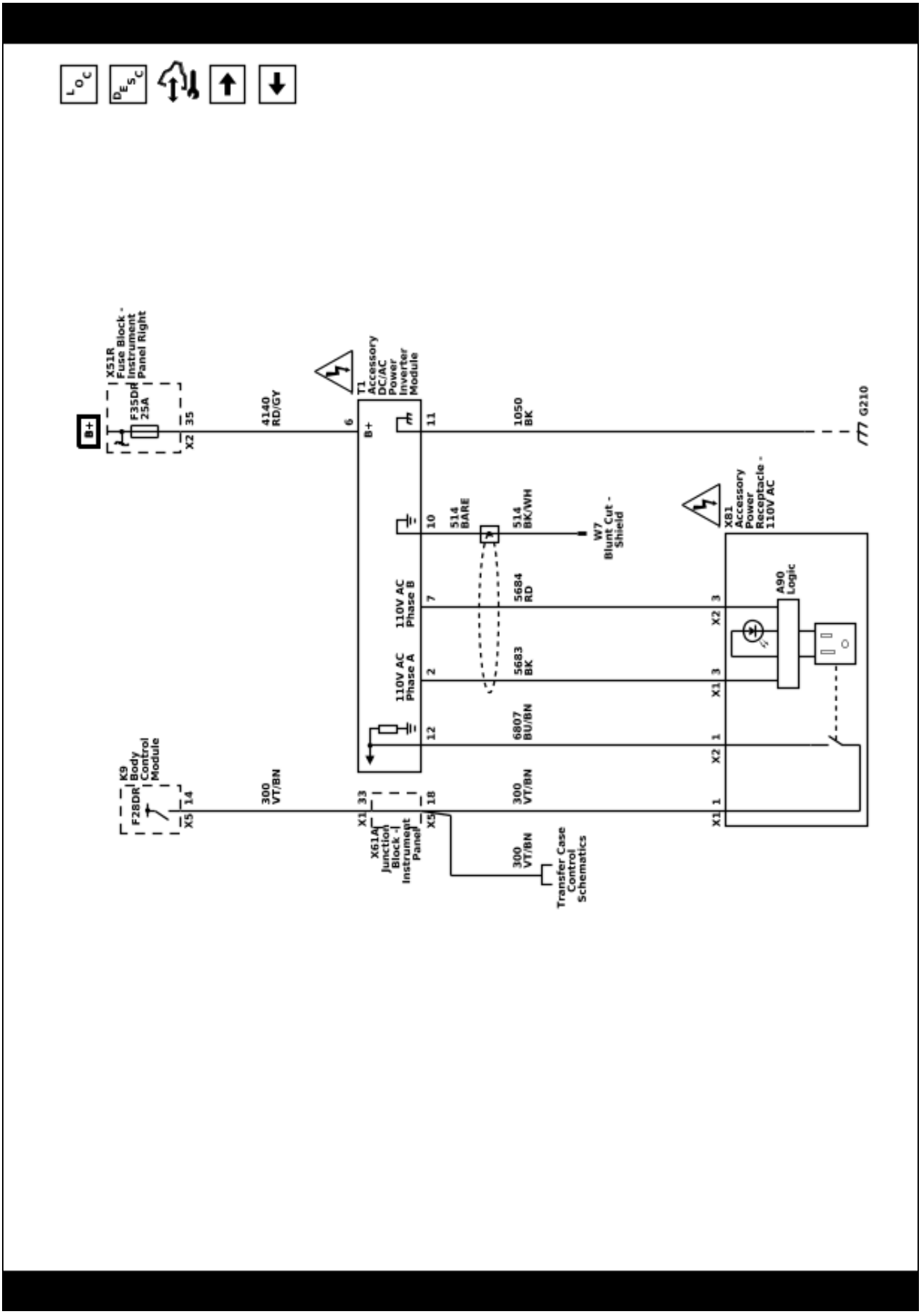
Cigar Lighter/Power Outlet Schematics (12-Volt DC Power Outlets - Bench Seat (-D07))



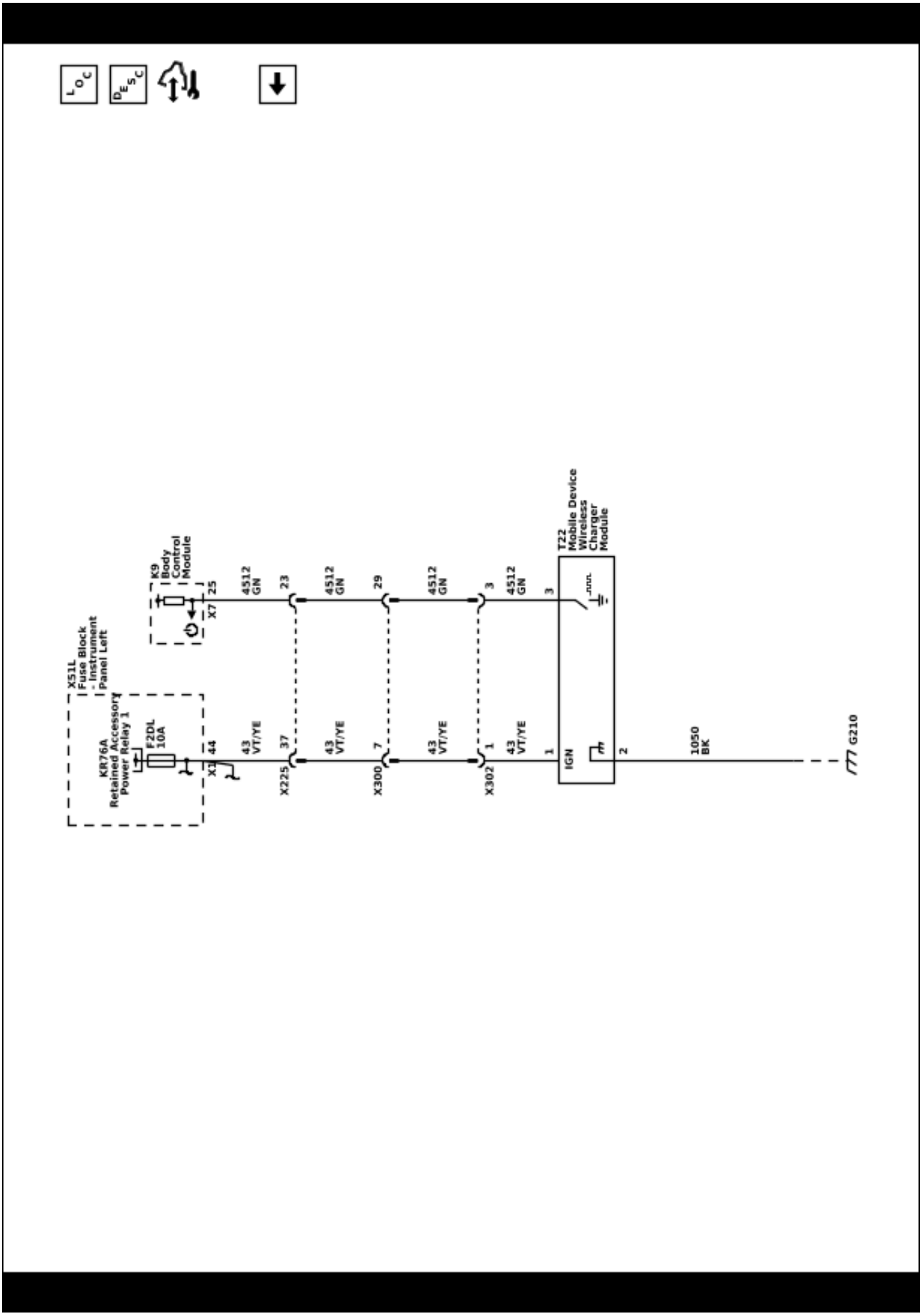
Cigar Lighter/Power Outlet Schematics (12-Volt DC Power Outlets - Floor Console (D07))



Cigar Lighter/Power Outlet Schematics (110-Volt AC Power Outlet (KI4))



Cigar Lighter/Power Outlet Schematics (Wireless Charging (K4C))

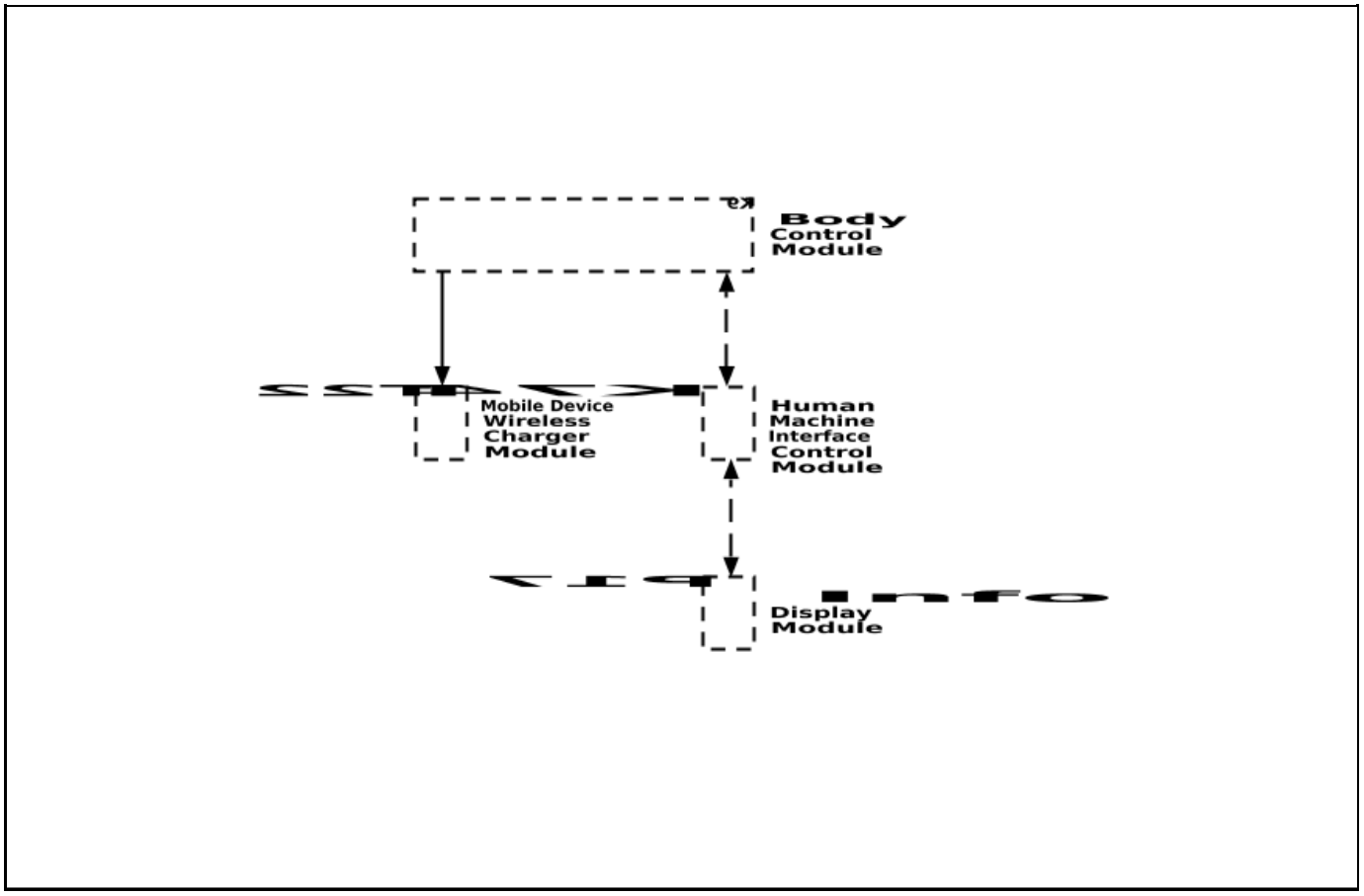


Description and Operation

Mobile Device Wireless Charger Description and Operation

Mobile Device Wireless Charging System

Mobile Device Wireless Charging System Block Diagram



3607745

The Mobile Device Wireless Charging System (WCS) is an system for wirelessly charging mobile devices. It is capable of charging the batteries of compatible mobile devices. A compatible device is one that is compliant with Power Matters Alliance (PMA) or Wireless Power Consortium (WPC) Standard, meaning that it is equipped with a PMA or WPC wireless charge “receiver” that will work with the charge “transmitter” installed in the vehicle. The devices may utilize built-in charging circuitry or an adapter (external plug-in device which contains the charging circuitry). To check for phone or other device compatibility, refer to GM Total Connect.

Warning: Remove all objects from the charging pad before charging your mobile device. Objects, such as coins, keys, rings, paper clips, or cards, between the phone and charging pad will become very hot. On the rare occasion that the charging system does not detect an object, and the object gets wedged between the phone and charger, remove the phone and allow the object to cool before removing it from the charging pad, to prevent burns.

Charging

To charge a device, place it on the charging surface in the vehicle. There is a charging coil located in the center of the charging surface. The device has a charging coil typically near the center of the device. These coils must be lined up in order for charging to proceed. When the interruptible retained accessory power (IRAP) relay is closed (this is true typically when vehicle ignition is in Run or Accessory position), the WCS will detect the device, establish communications with the device to confirm it is a compatible device, and then deliver charging power to the device via wireless interface. The WCS will be able to deliver up to 5W of power to compatible devices. It shall only enter a charging state if communication is established and a compatible device is identified.

The WCS shall not enter a charging state if there is no communication established with a compatible device. If a non-compatible device or metallic foreign object is detected, the WCS will not transfer power. The charger monitors its internal temperature and will shut down if the charger temperature exceeds 185F (85C).

Indicator

The body control module will detect the device battery is charging and send a serial data message on the GMLAN bus to the radio display. The radio display will indicate a device is currently charging. When the indicator is toggling on and off this indicates a thermal limit has been reached and the device will not charge. For more information refer to the owners manual.

Cooling

The wireless charger is kept cool using the HVAC system. There is a dedicated HVAC duct that connects to the Wireless Charging Module bracket (which holds the module and the mat).

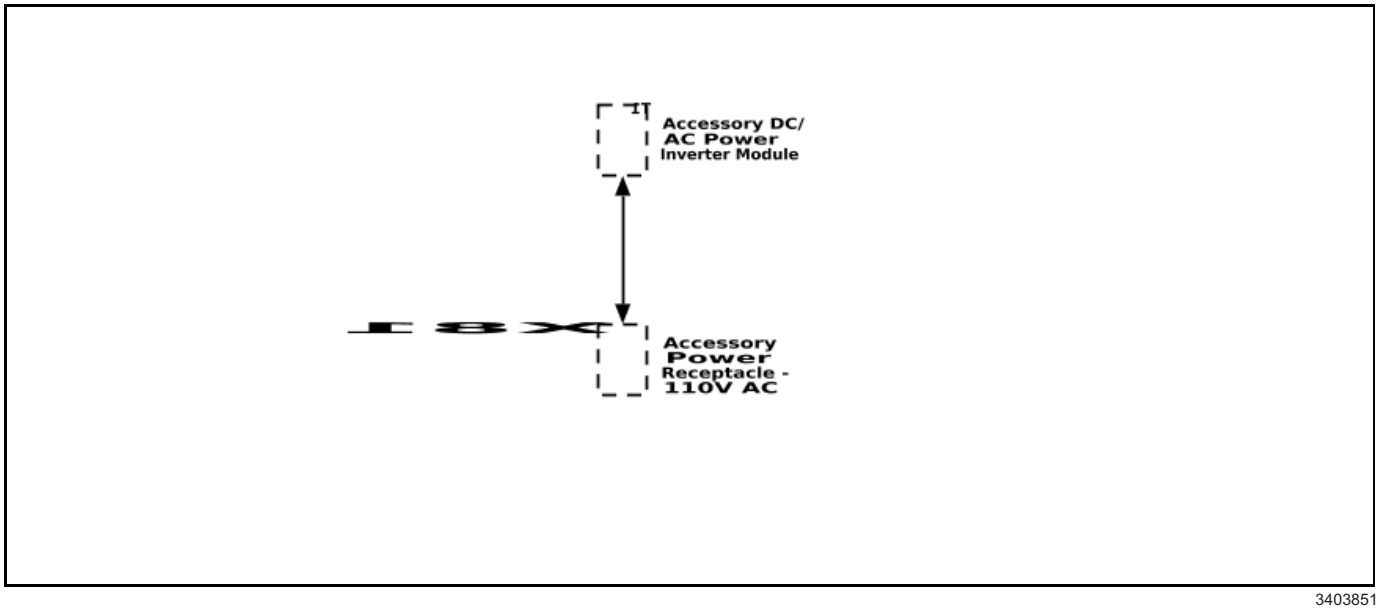
Power Outlets Description and Operation

12 Volt Power Outlet Receptacle Description and Operation

The vehicle is fitted with a 12 V accessory power receptacle. The accessory power receptacles are controlled by an ignition operated relay. The accessory power receptacles are operational when the ignition is turned to either the On or the Accessories positions. The X80J and X80K accessory power receptacles may be configured to be operational when the ignition is Off by changing the position of the 50A fuse from the F10DL position to the F11DL position in the left instrument panel fuse block.

110 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram



3403851

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 110 V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 110 V at 60 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 110 V AC provides the usual connection for AC powered devices.

110 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 110 V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 110 V AC, the normally open switch in the accessory power receptacle – 110 V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 110 V AC switch, the inverter module begins to supply 110 V AC to the accessory power receptacle – 110 V AC after a 1.5 s delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

110 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 110 V circuit for a short to vehicle chassis ground. If a 110 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Overload Shutdown

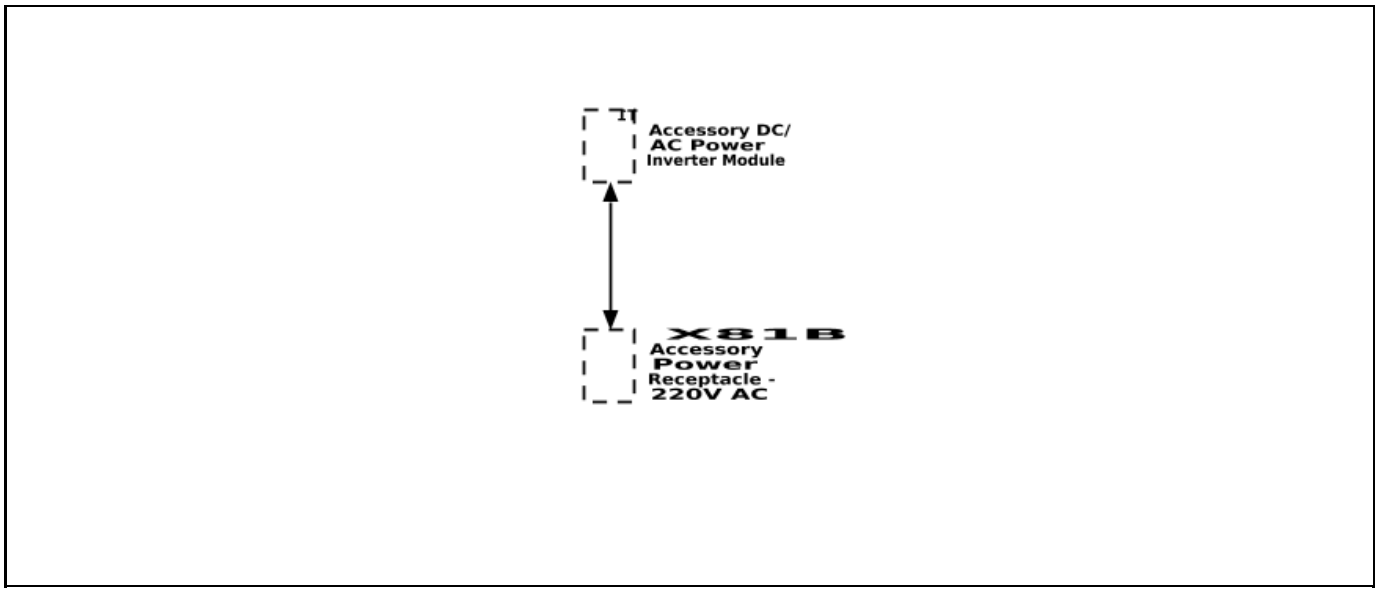
The accessory DC/AC power inverter module will turn OFF if the current in the 110 V circuit is greater than 3.8 A for 1 s , or 2.5 A for 10 s . The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the outlet, and then plugged into the outlet.

230 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram



3403853

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 220V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 220–230 V at 50 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 220V AC provides the usual connection for AC powered devices.

230 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 220V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 220V AC, the normally open switch in the accessory power receptacle – 220V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 220V AC switch, the inverter module begins to supply 220–230 V AC to the accessory power receptacle – 220V AC after a 1.5 second delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

230 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 230 V circuit for a short to vehicle chassis ground. If a 230 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

230 Volt Power Outlet Receptacle Overload Shutdown

The accessory AC/DC power control module will turn OFF if the current in the 230 V circuit is greater than 3.8 A for 1 second, or 2.5 A for 10 seconds. The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

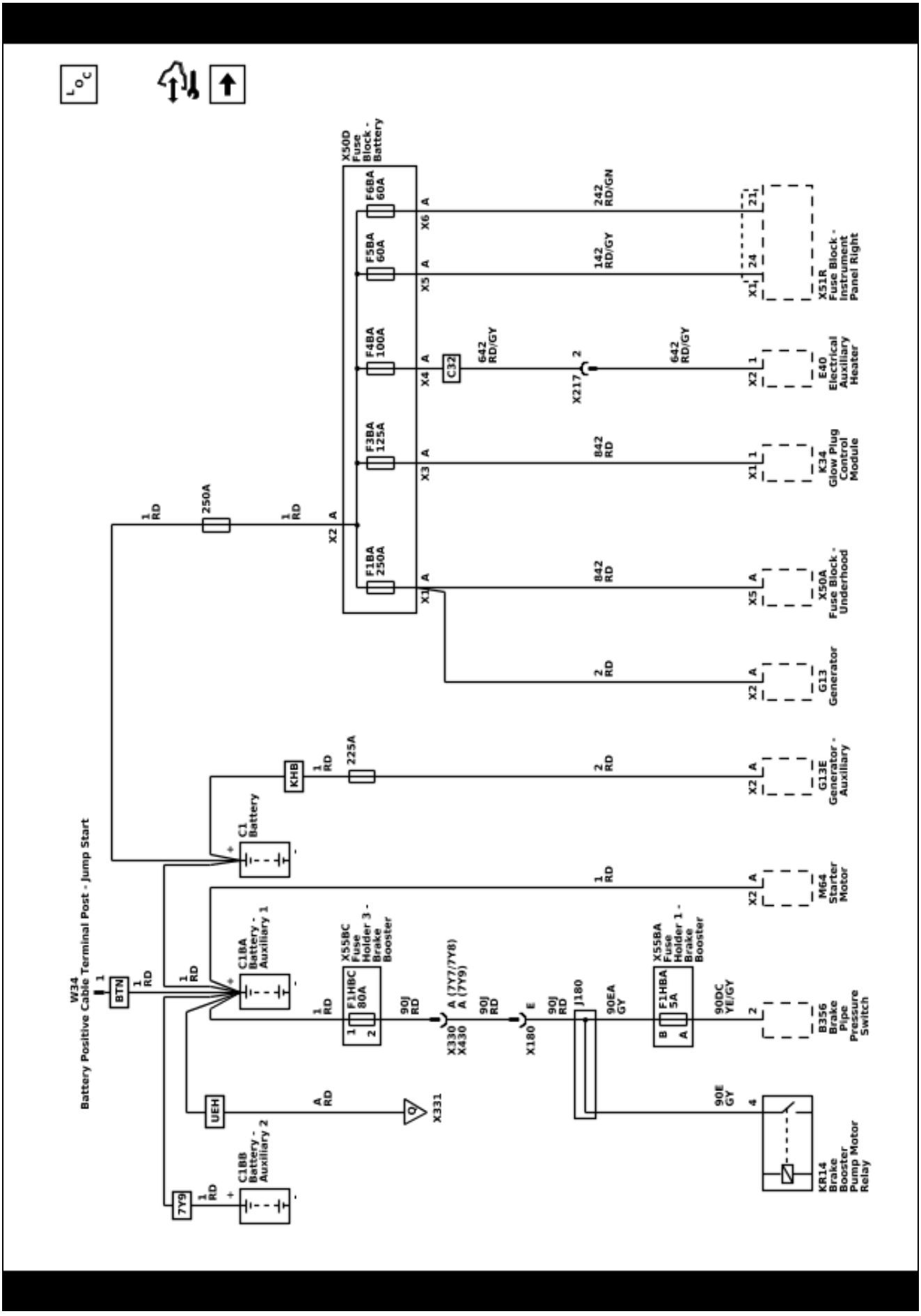
230 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the accessory power receptacle – 220V AC, and then plugged into the accessory power receptacle – 220V AC.

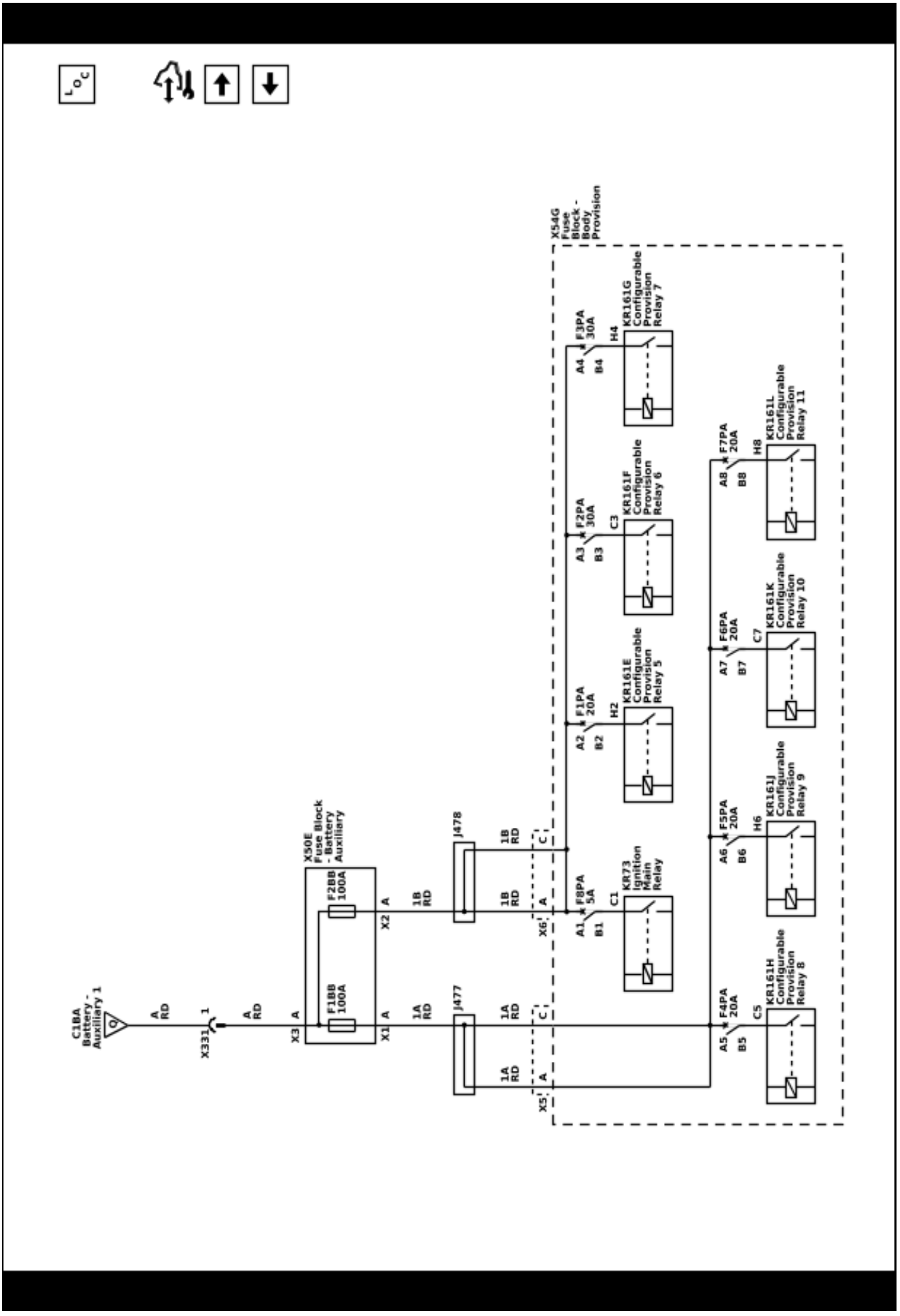
Wiring Systems and Power Management

Schematic and Routing Diagrams

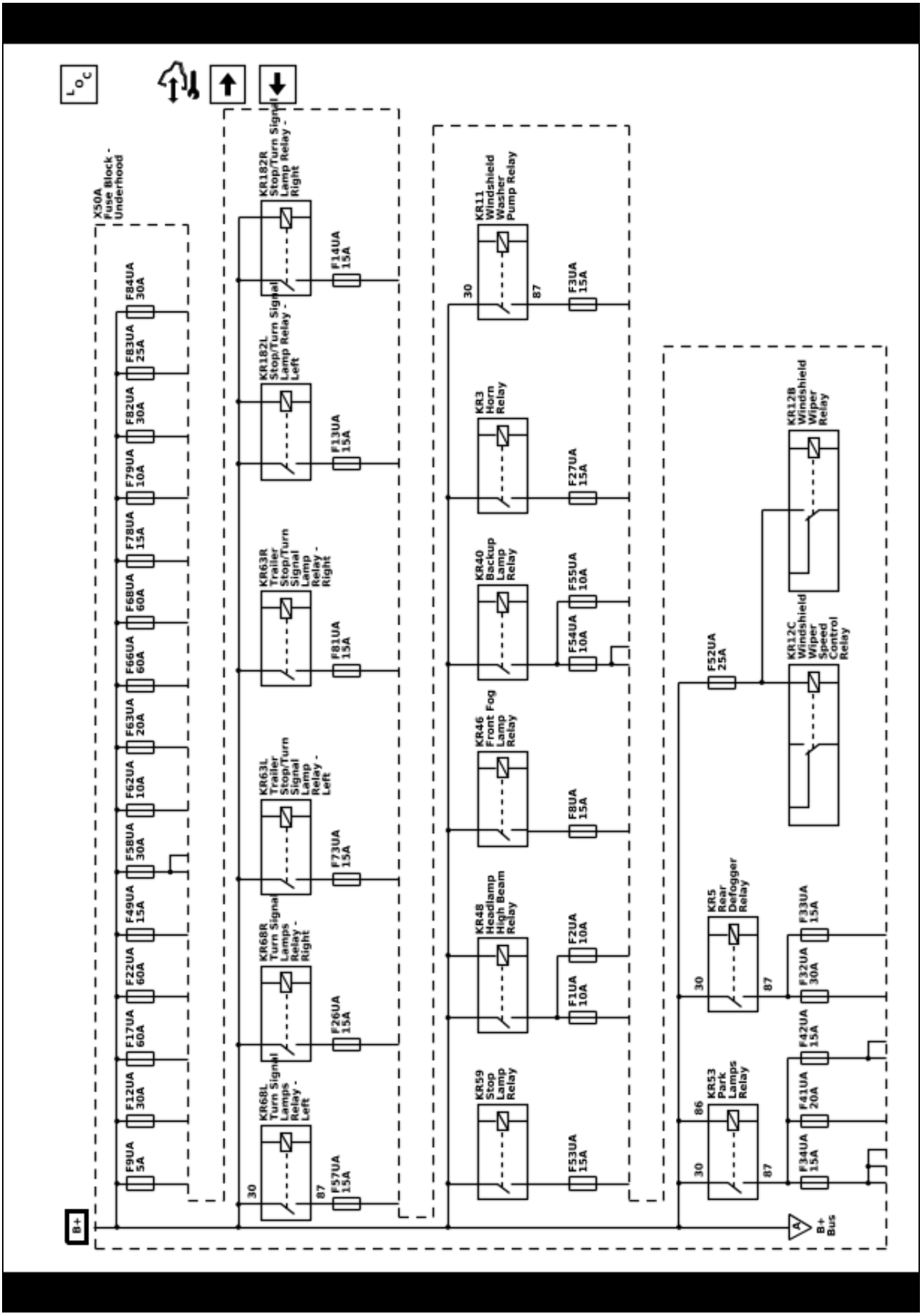
Power Distribution Schematics (X50D Fuse Block - Battery)



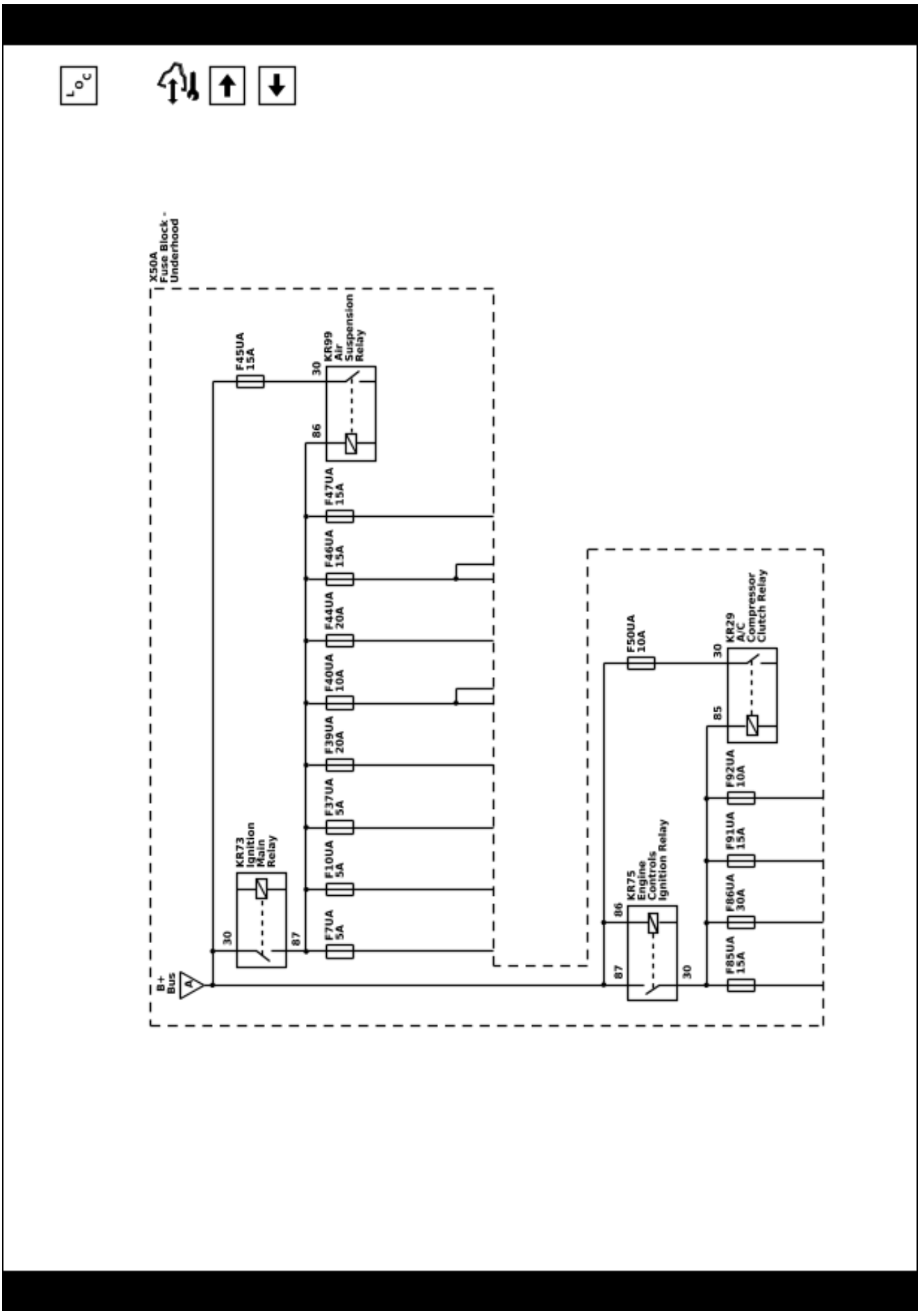
Power Distribution Schematics (B+ Bus X50E Fuse Block - Battery Auxiliary and X54G Fuse Block - Body Provision (UEH))



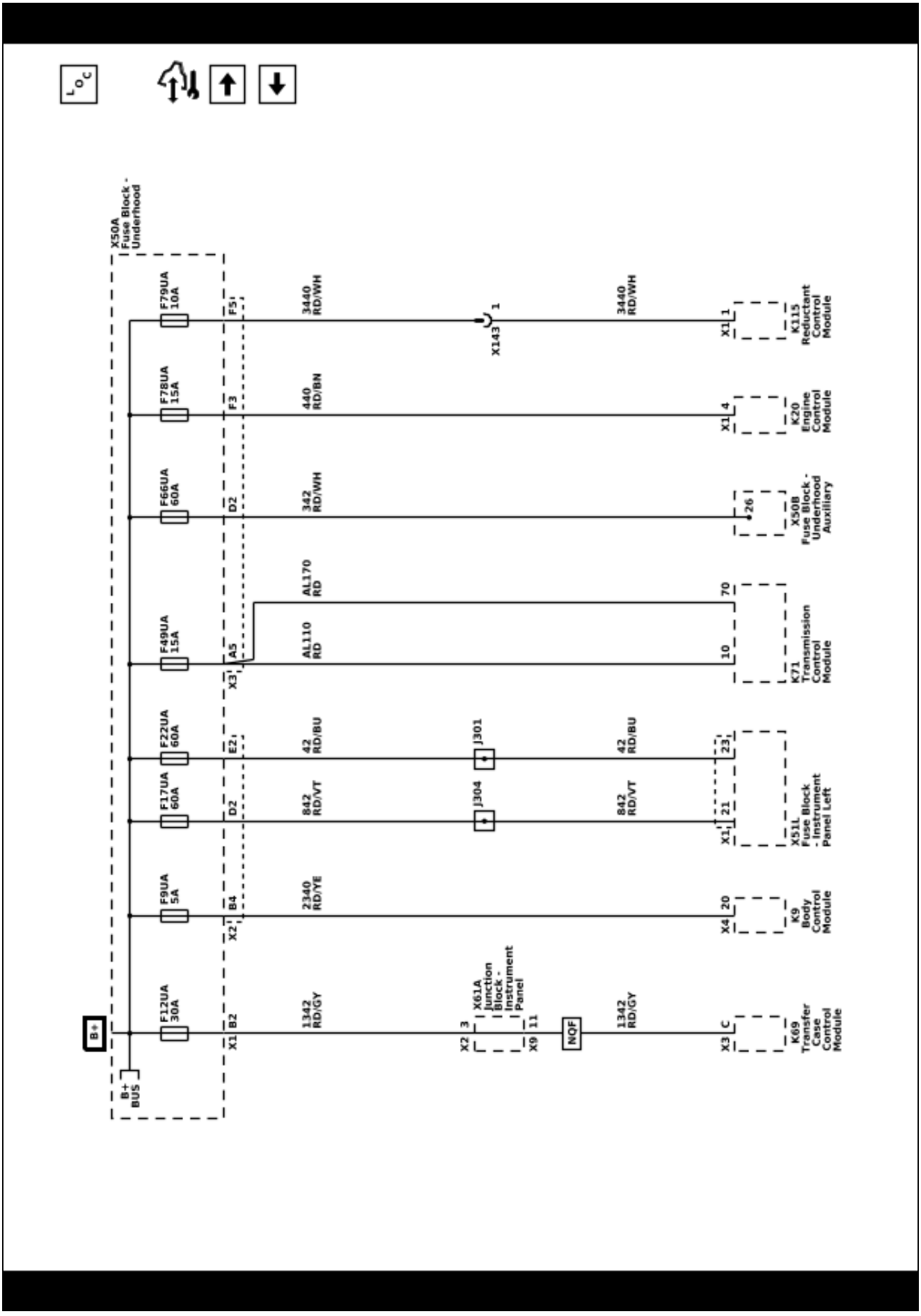
Power Distribution Schematics (B+ Bus X50A Fuse Block - Underhood 1 of 2)



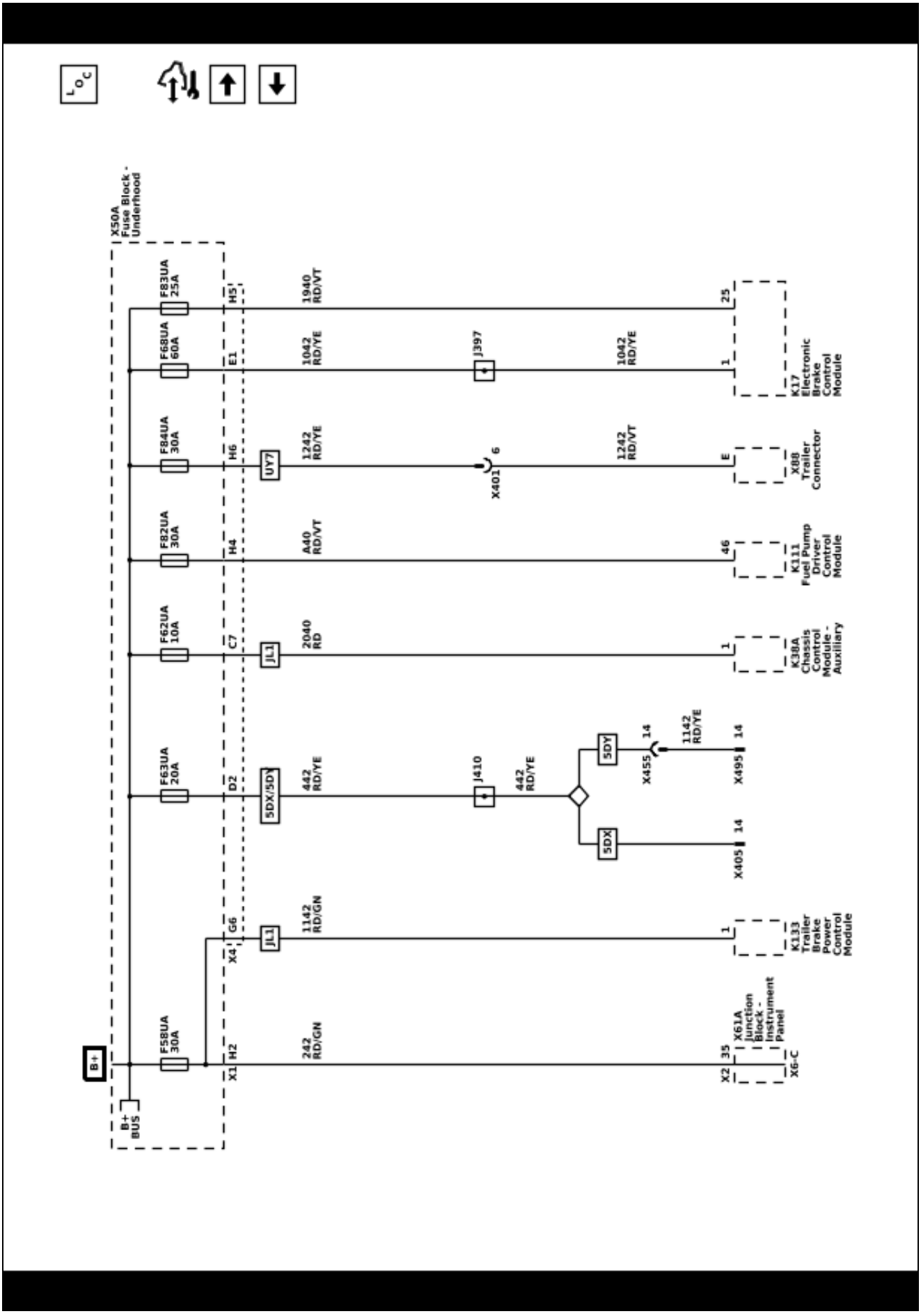
Power Distribution Schematics (B+ Bus X50A Fuse Block - Underhood 2 of 2)



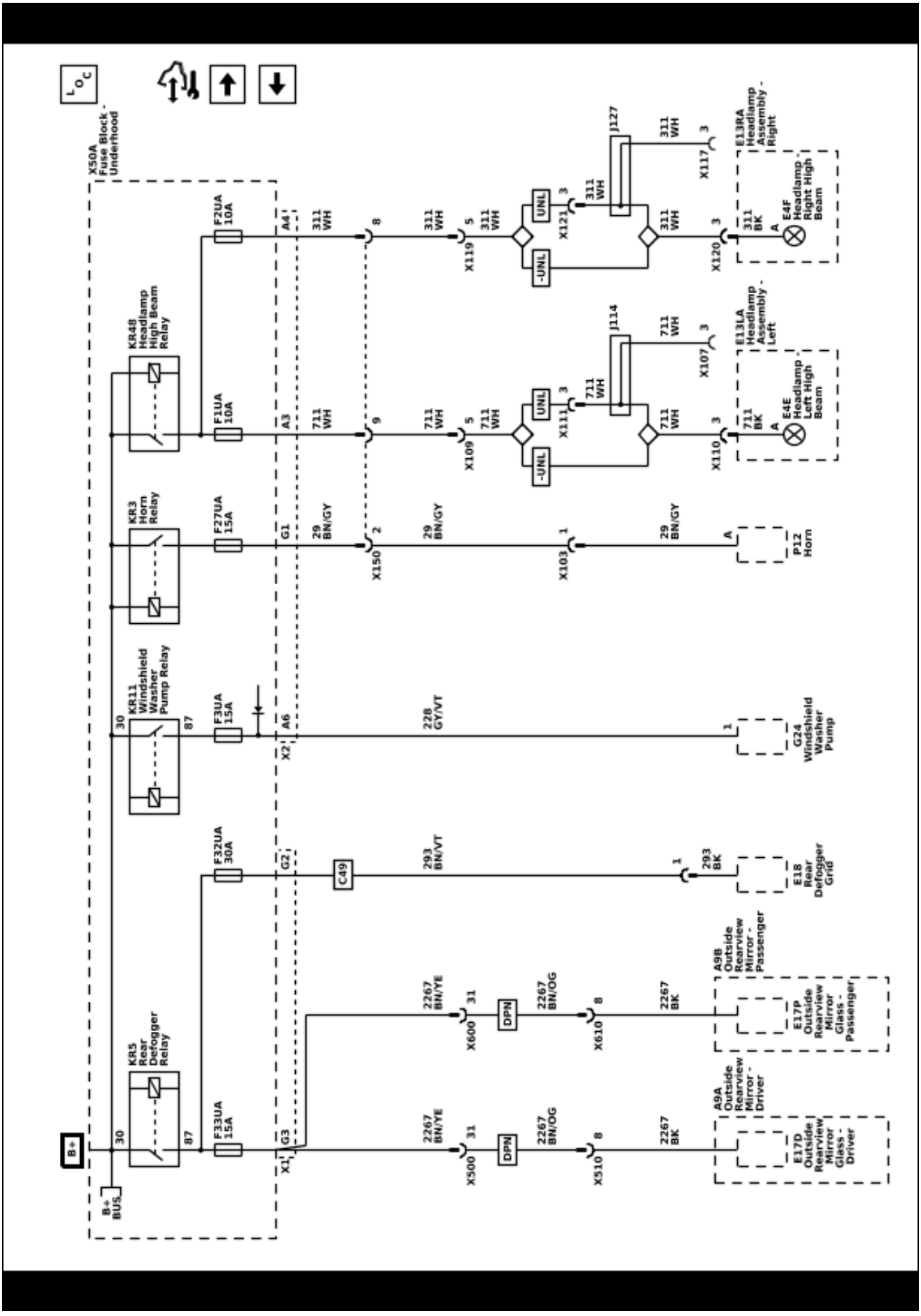
Power Distribution Schematics (F9UA, F12UA, F17UA, F22UA, F49UA, F66UA, F78UA, and F79UA Fuses)



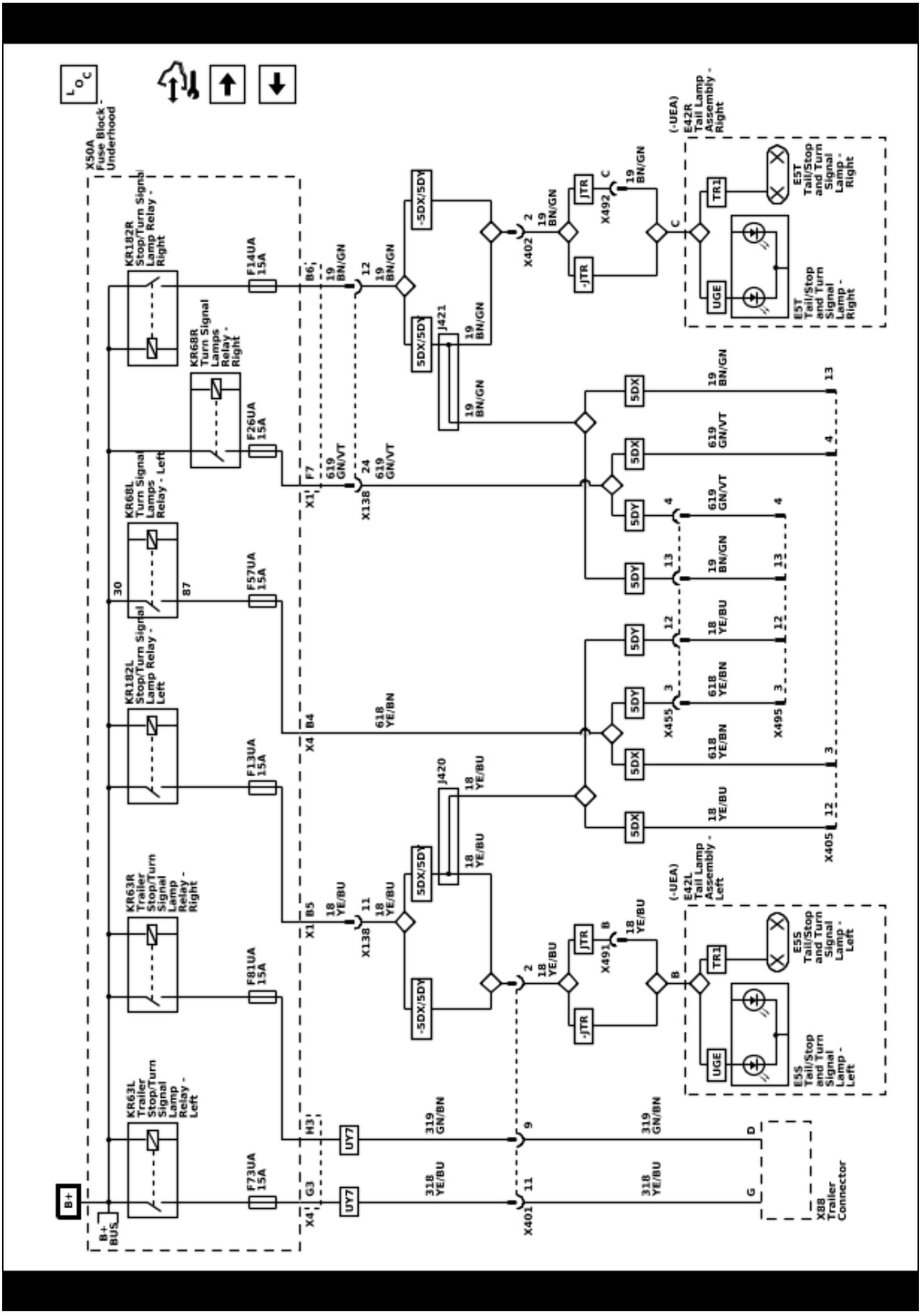
Power Distribution Schematics (F58UA, F62UA, F63UA, F68UA, F82UA F83UA and F84UA Fuses)



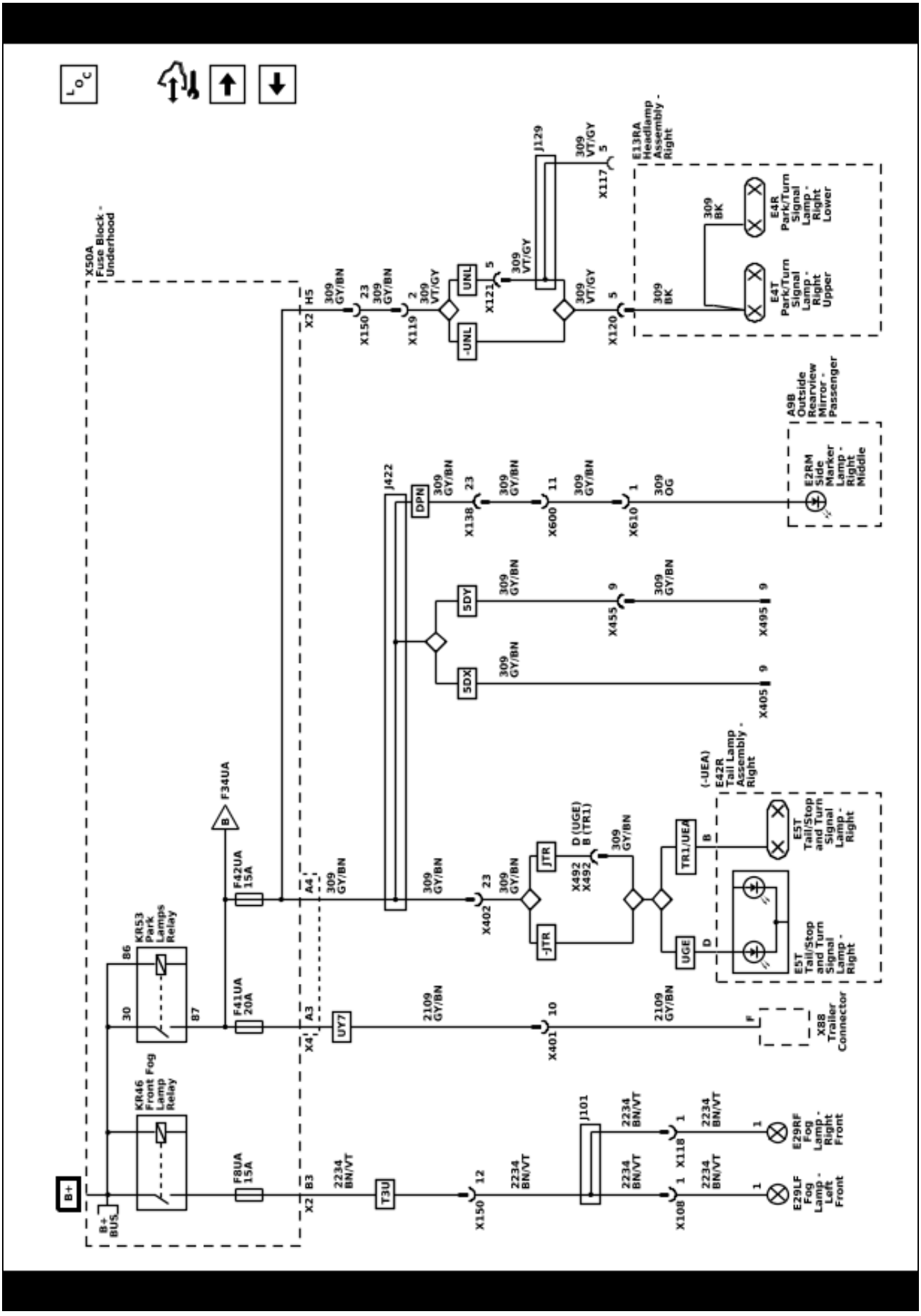
Power Distribution Schematics (F1UA, F2UA, F3UA, F27UA, F32UA and F33UA Fuses)



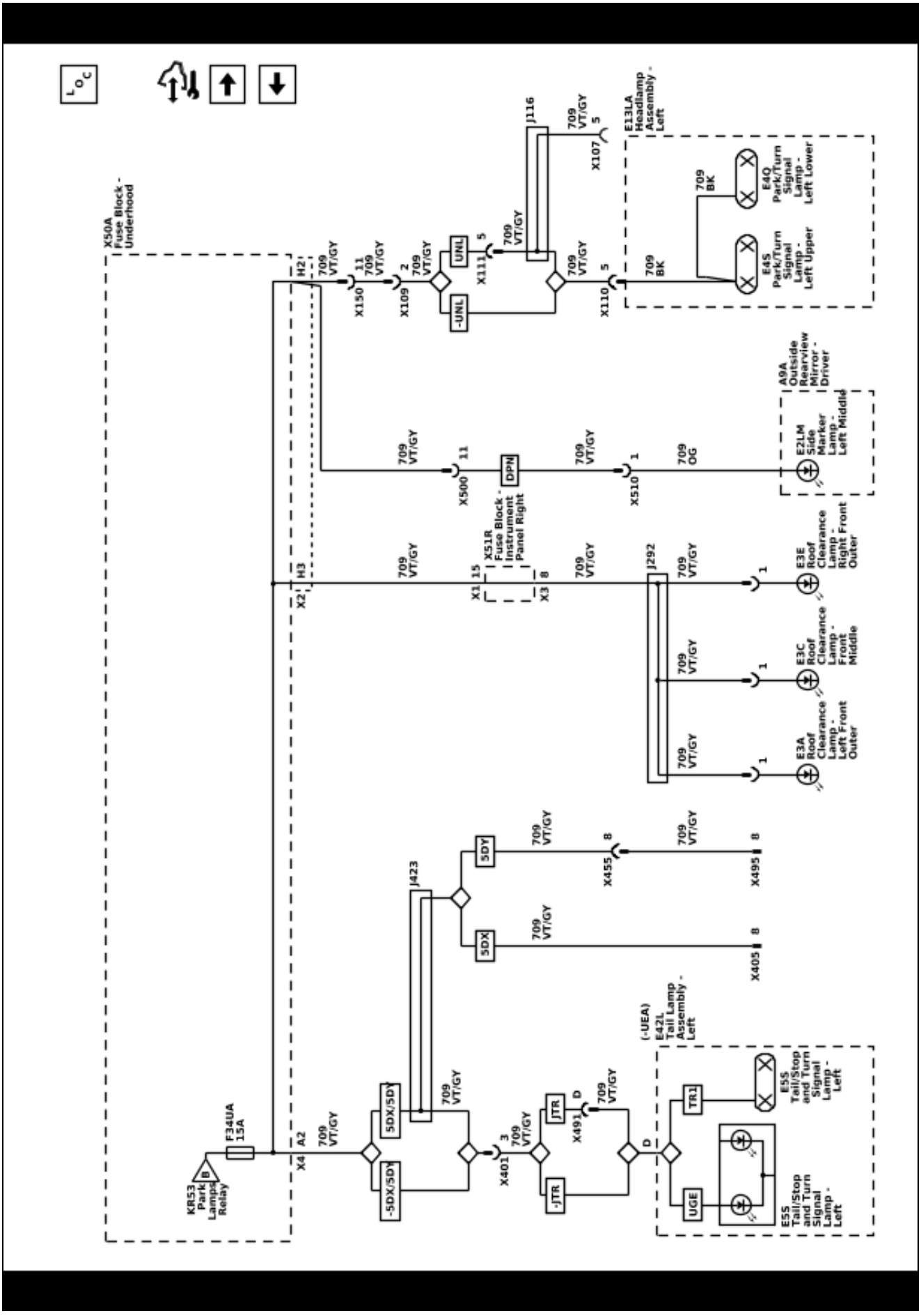
Power Distribution Schematics (F13UA, F14UA, F26UA, F57UA, F73UA and F81UA Fuses)



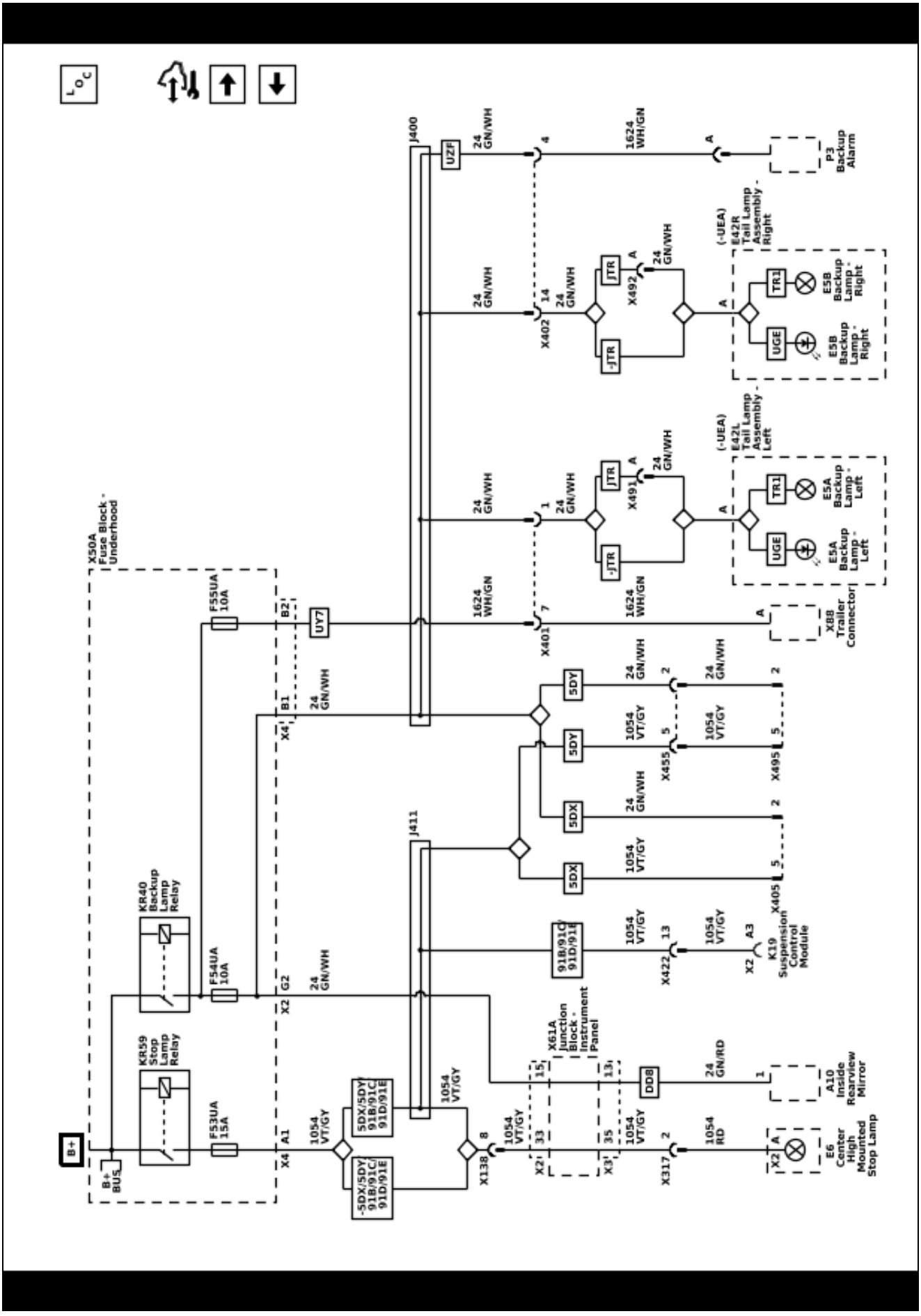
Power Distribution Schematics (F8UA, F41UA and F42UA Fuses)



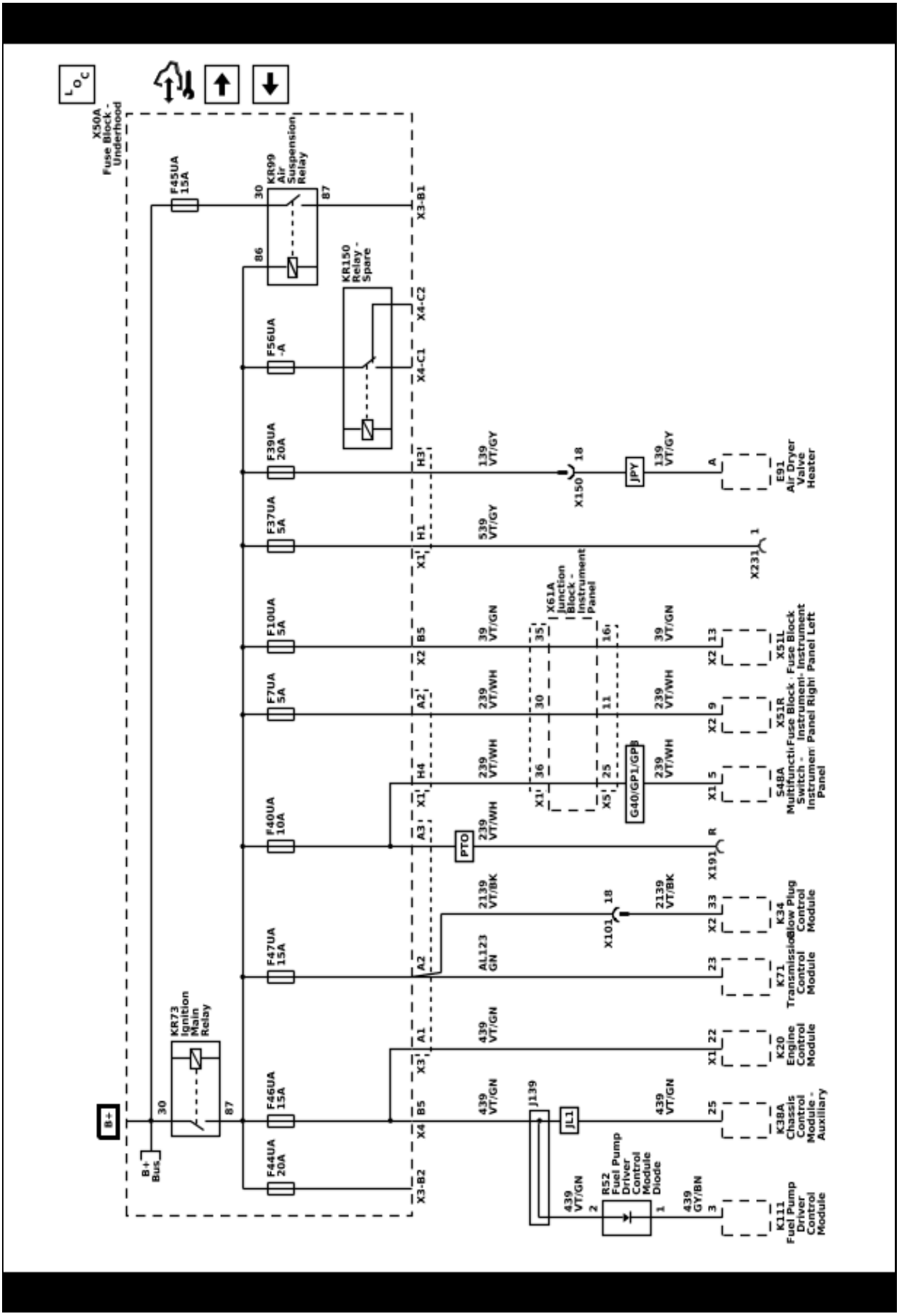
Power Distribution Schematics (F34UA Fuse)



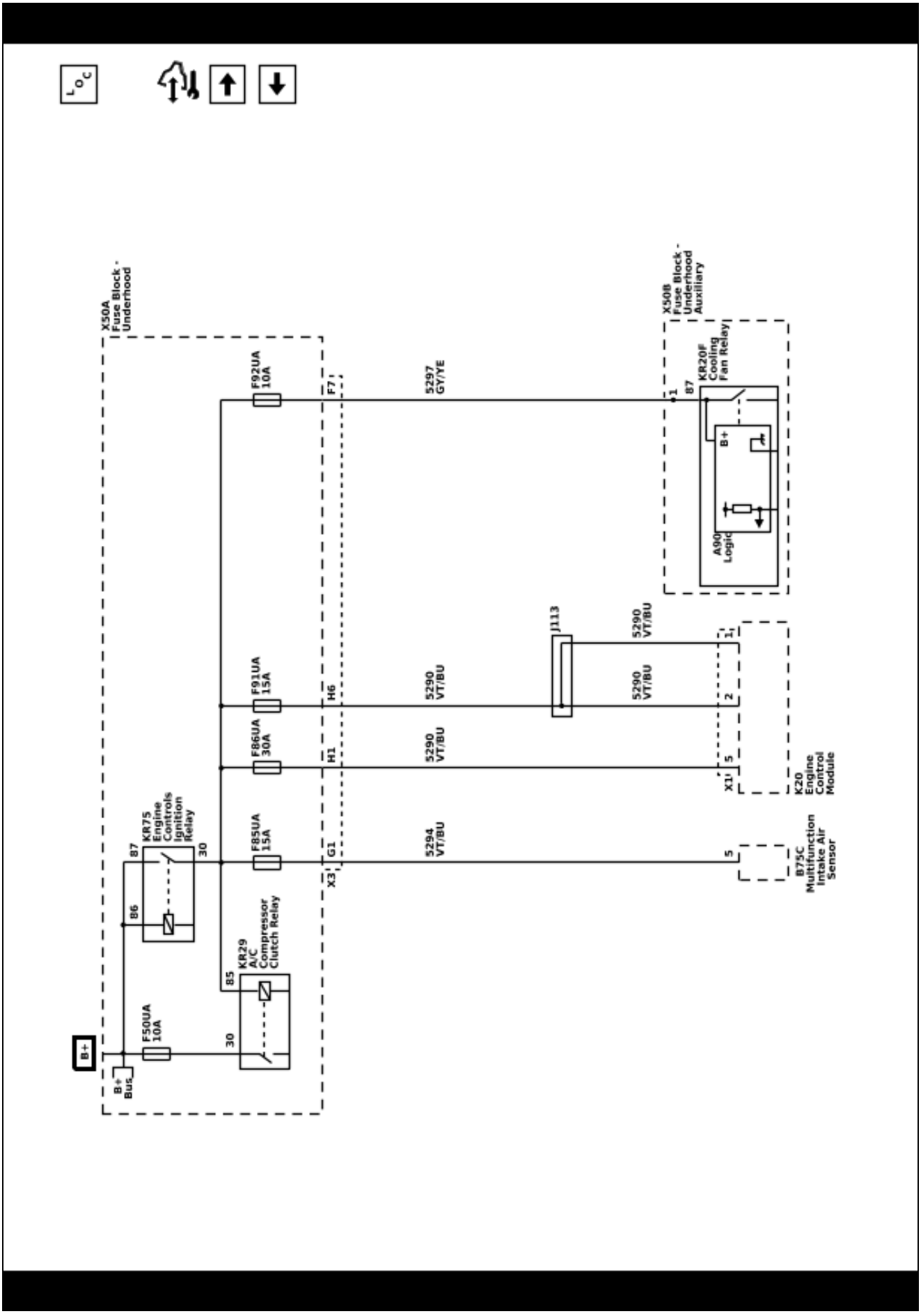
Power Distribution Schematics (F53UA, F54UA and F55UA Fuses)



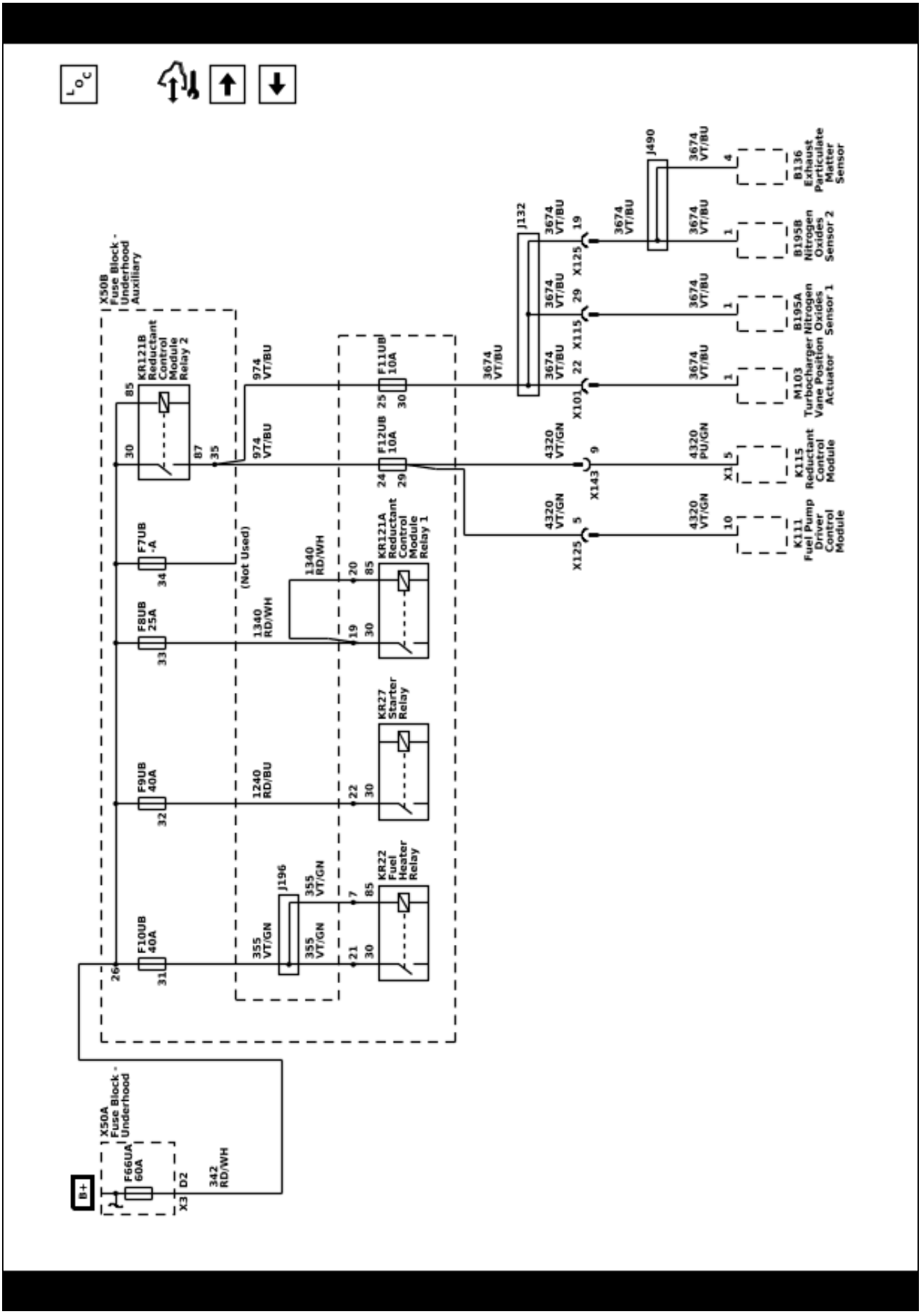
Power Distribution Schematics (F7UA, F10UA, F37UA, F39UA, F40UA, F44UA, F45UA, F46UA, F47UA and F56UA Fuses)



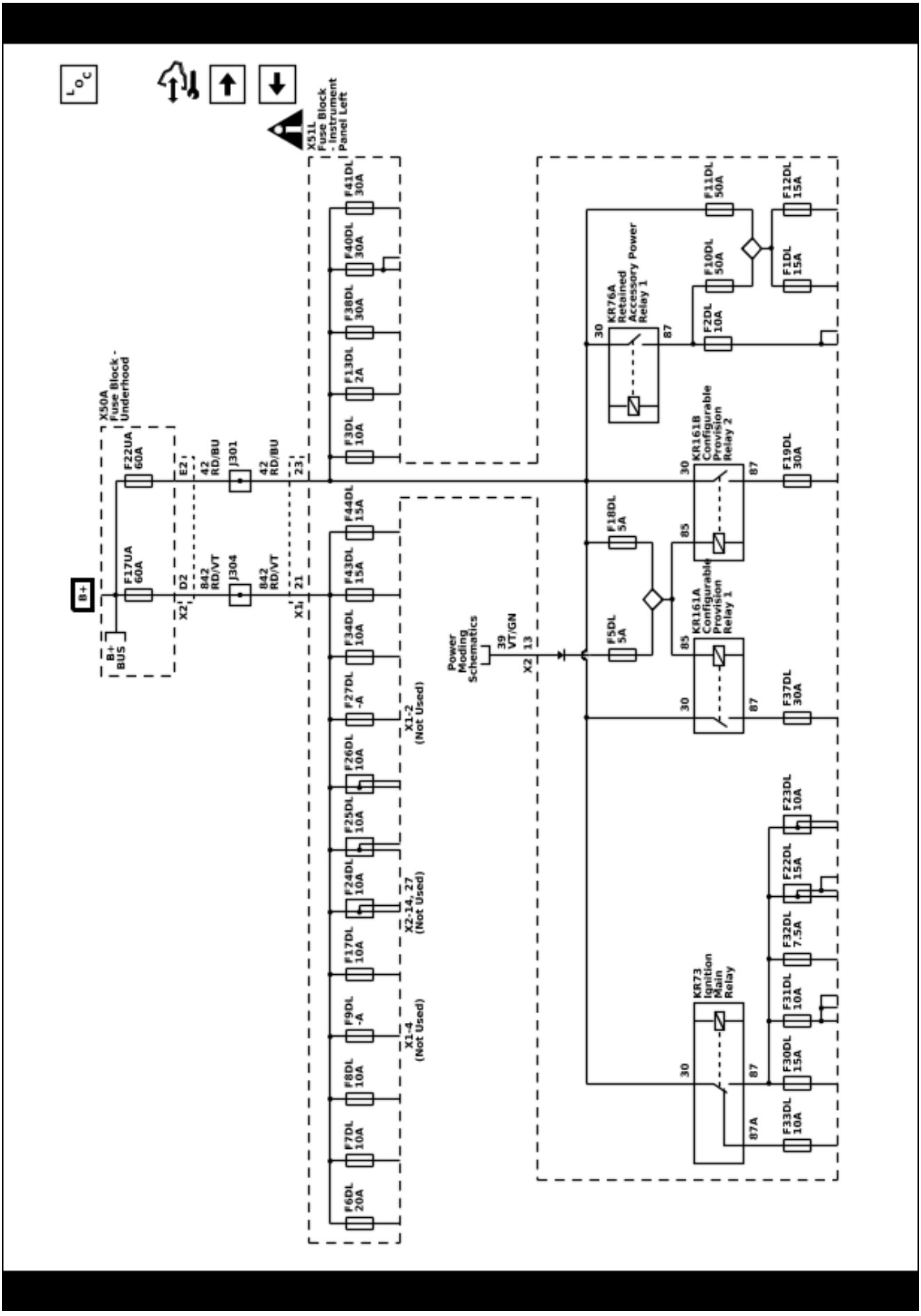
Power Distribution Schematics (F85UA, F86UA, F91UA and F92UA Fuses)



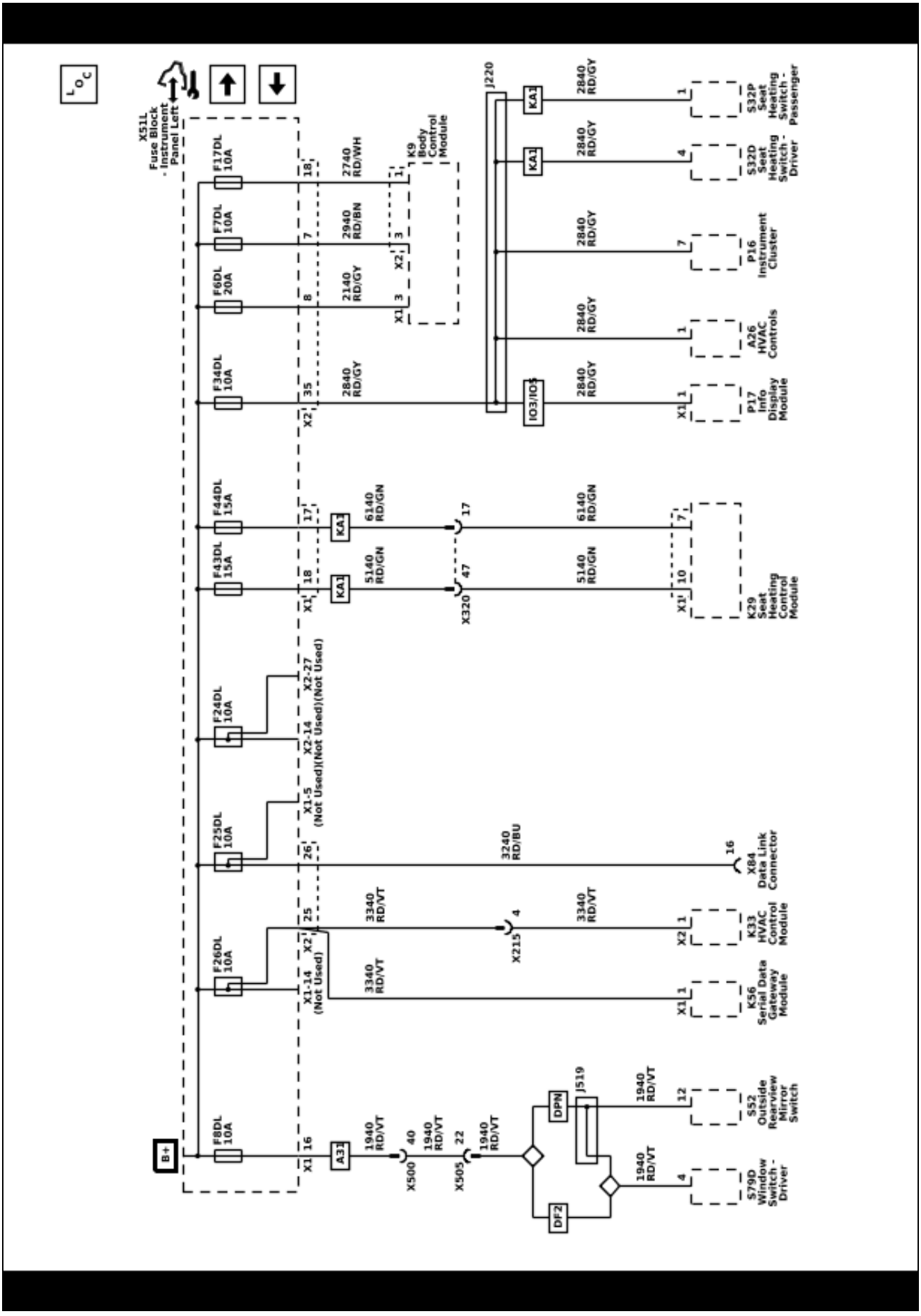
Power Distribution Schematics (F7UB, F8UB, F9UB, F10UB, F11UB and F12UB Fuses)



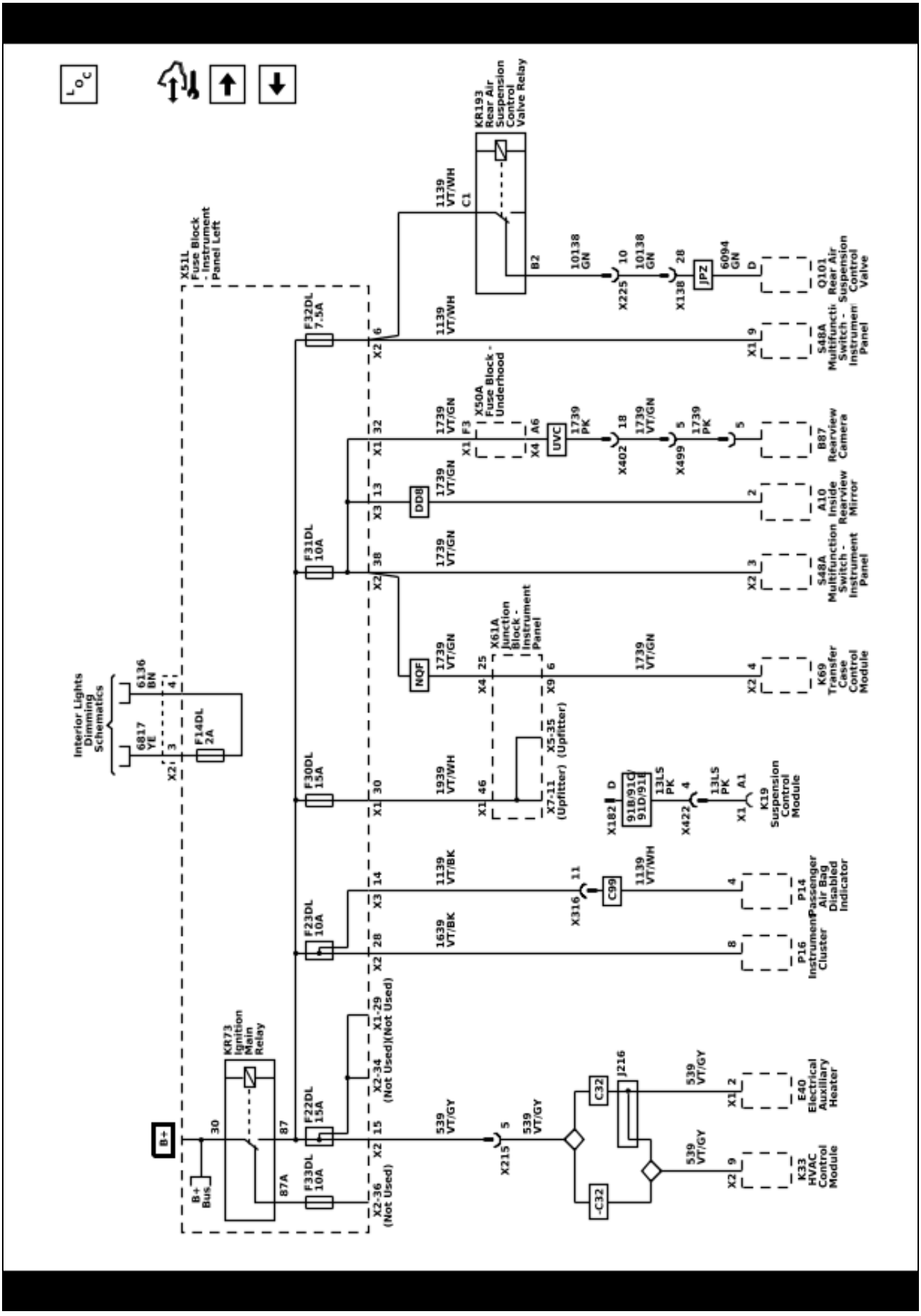
Power Distribution Schematics (B+ Bus X51L Fuse Block - Instrument Panel Left)



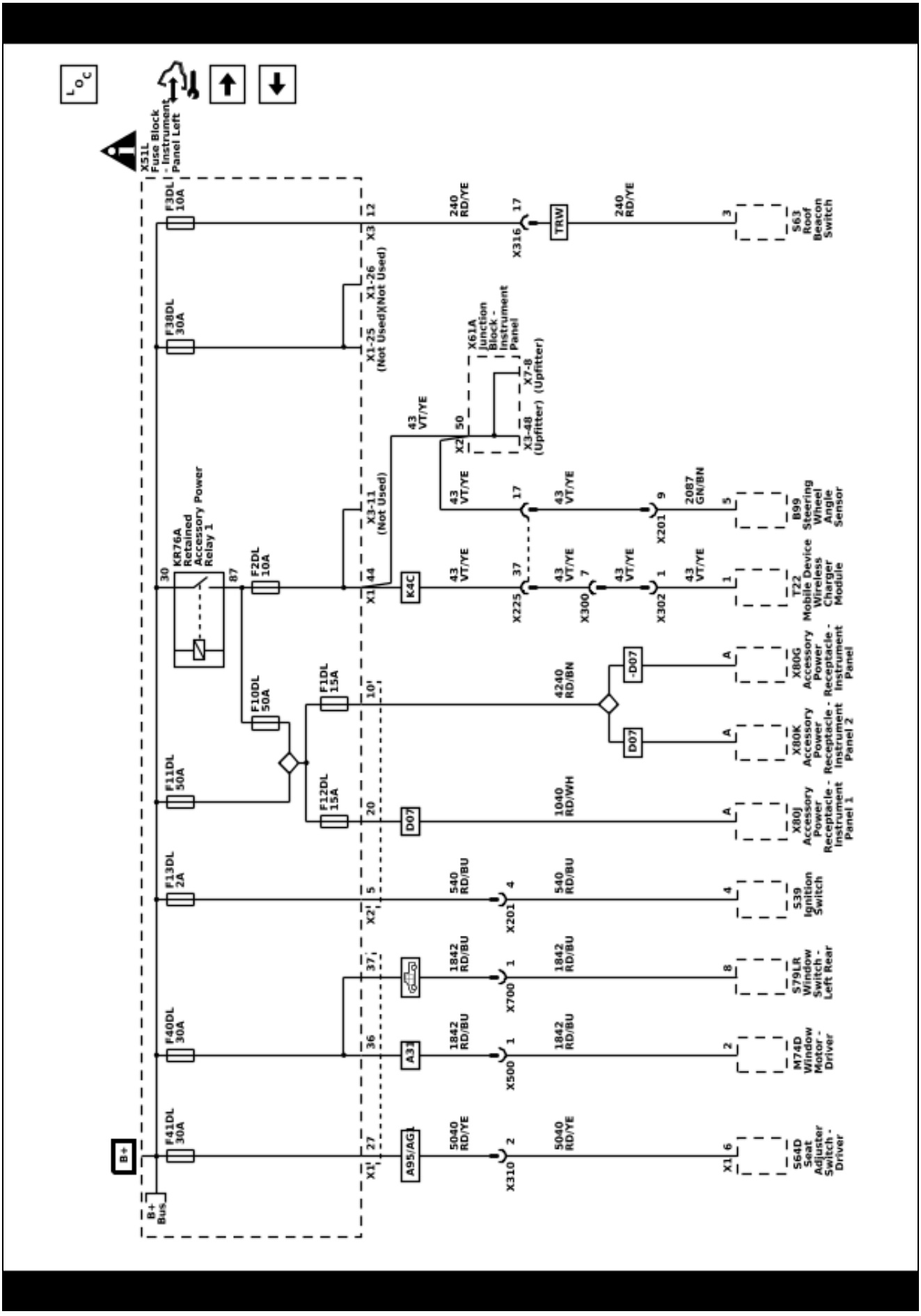
Power Distribution Schematics (F6DL, F7DL, F8DL, F17DL, F24DL, F25DL, F26DL, F34DL, F43DL and F44DL Fuses)



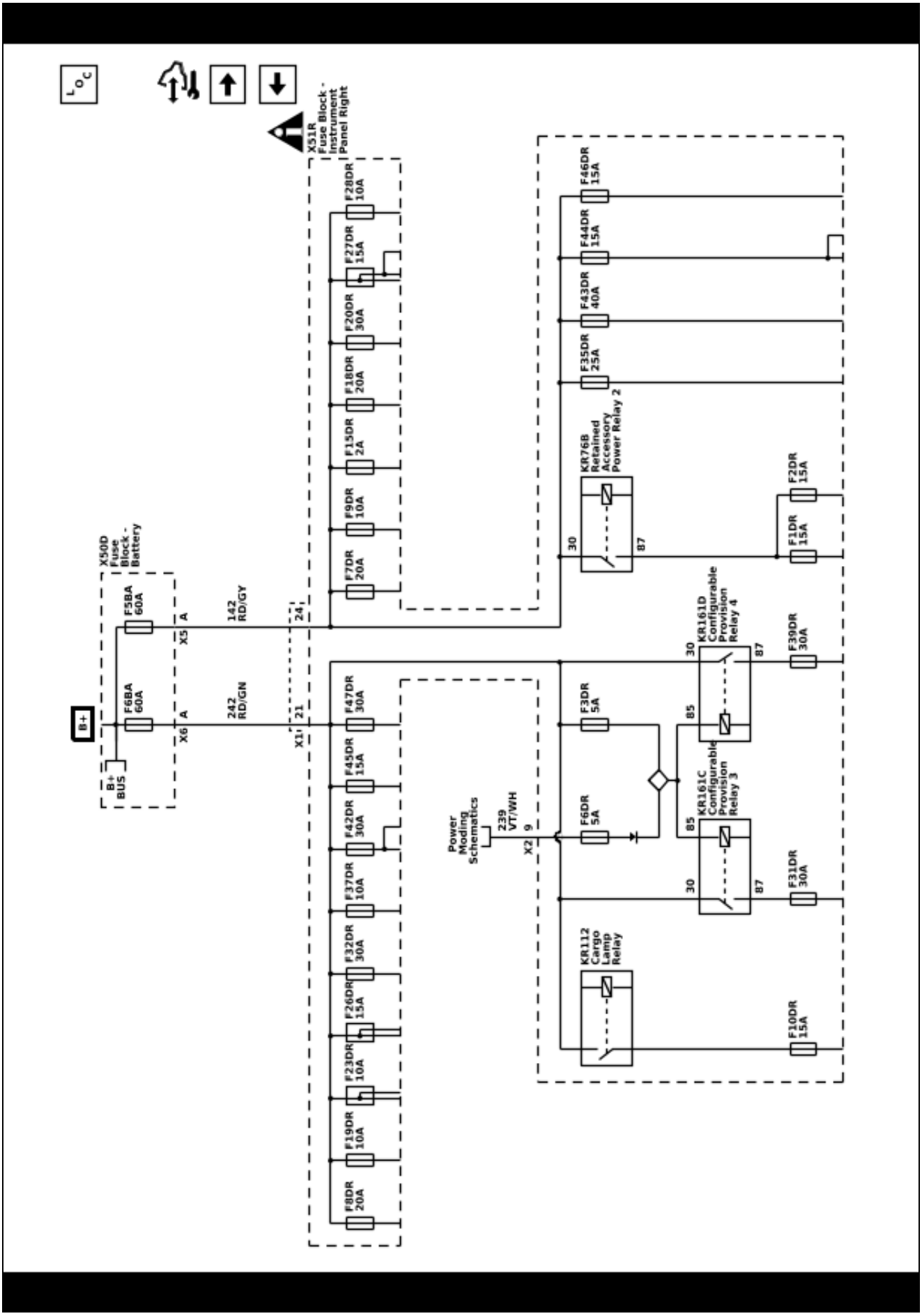
Power Distribution Schematics (F14DL, F22DL, F23DL, F30DL, F31DL, F32DL and F33DL Fuses)



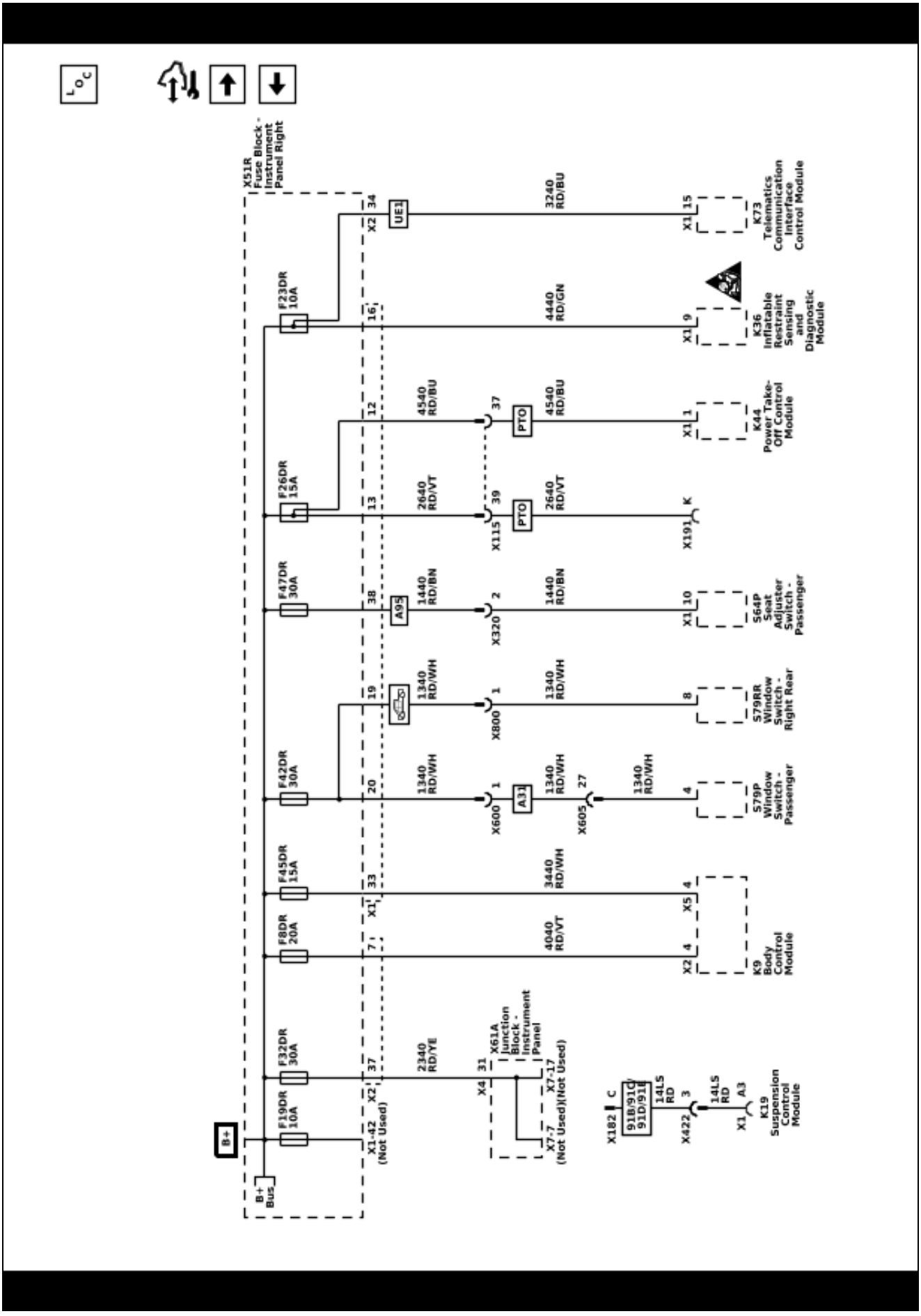
Power Distribution Schematics (F1DL, F2DL, F3DL, F10DL, F11DL, F12DL, F13DL, F38DL, F40DL and F41DL Fuses)



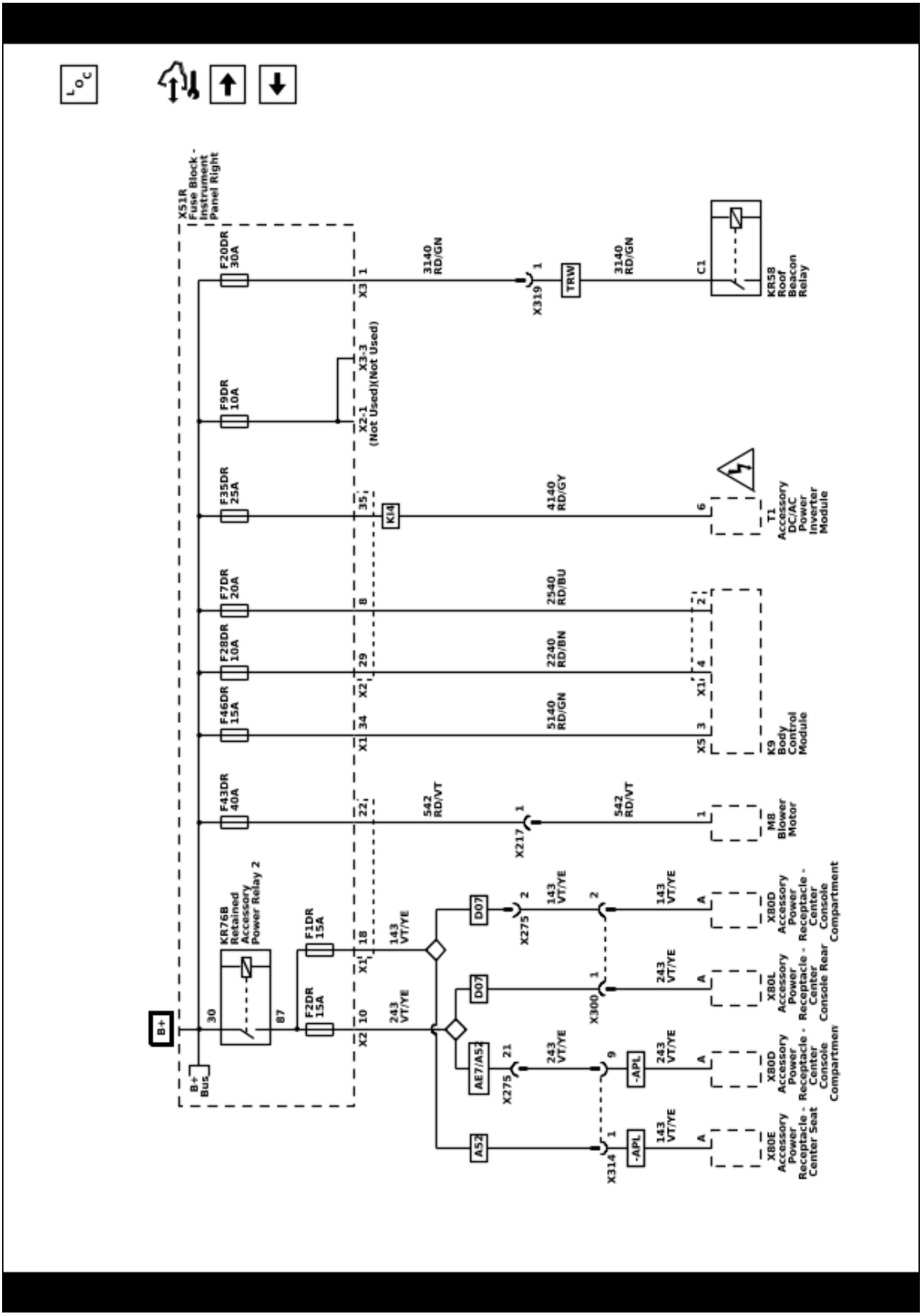
Power Distribution Schematics (B+ Bus X51R Fuse Block - Instrument Panel Right)



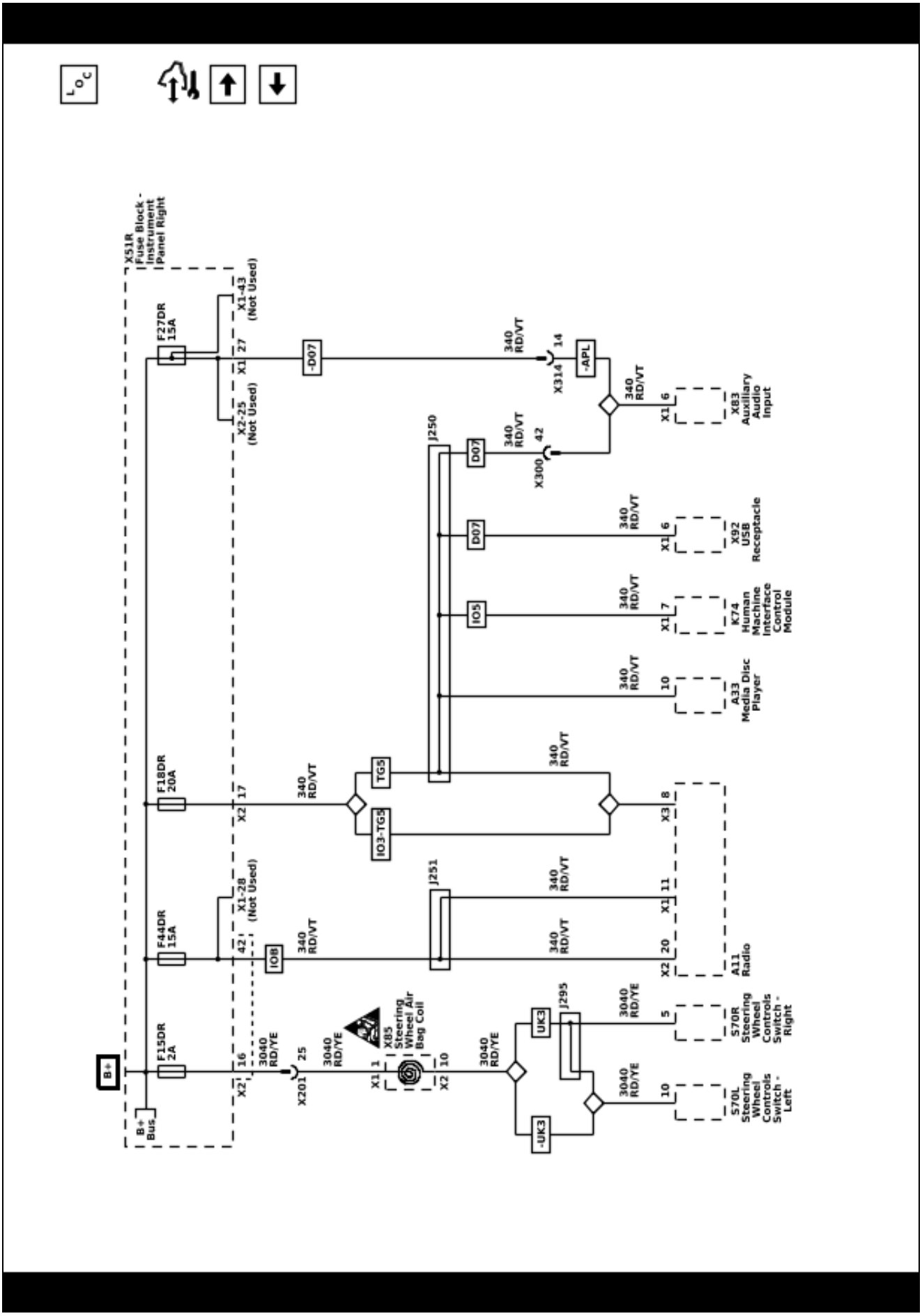
Power Distribution Schematics (F8DR, F23DR, F26DR, F32DR, F42DR, F45DR and F47DR Fuses)



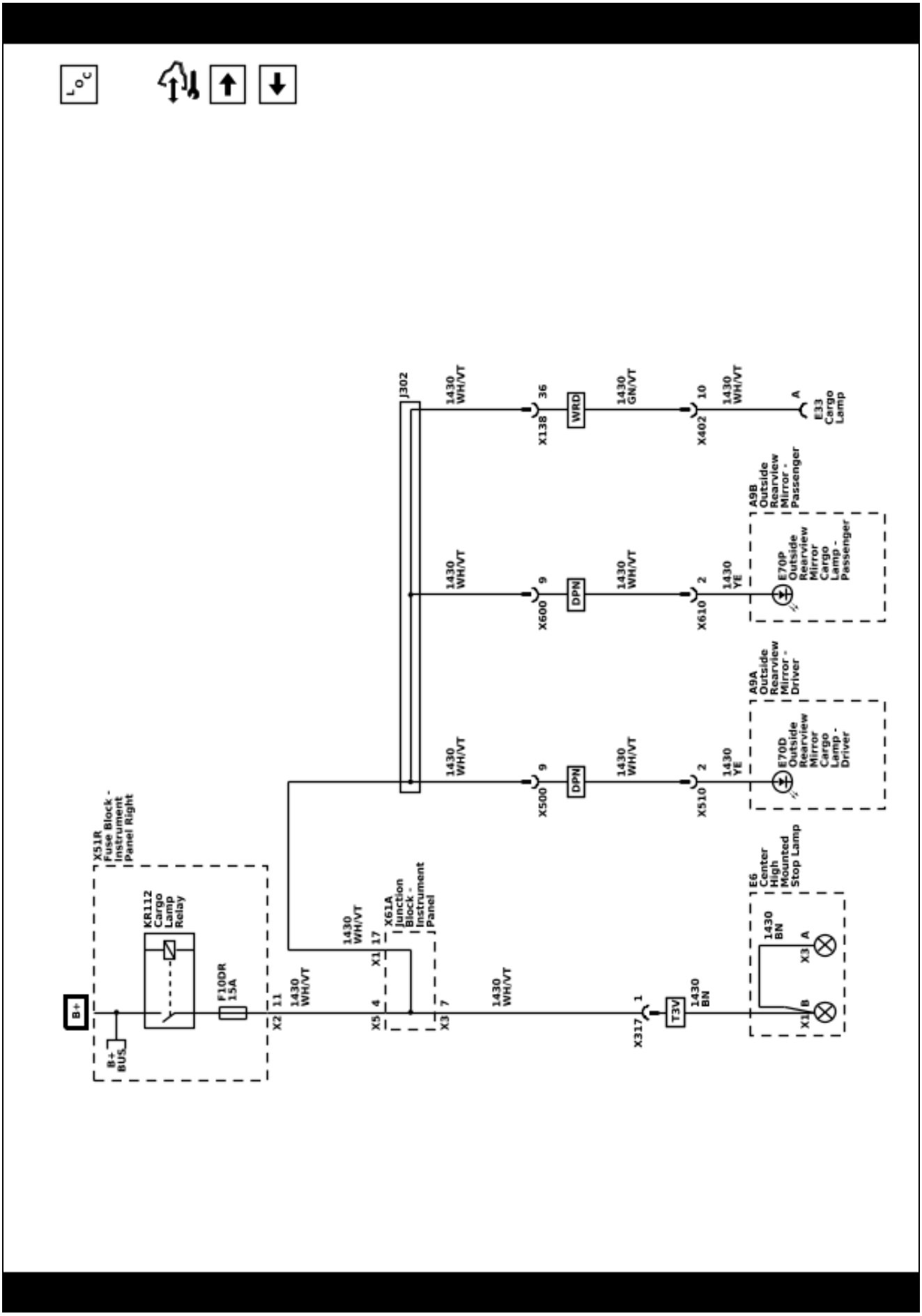
Power Distribution Schematics (F1DR, F2DR, F7DR, F9DR, F20DR, F28DR, F35DR, F43DR, F44DR and F46DR Fuses)



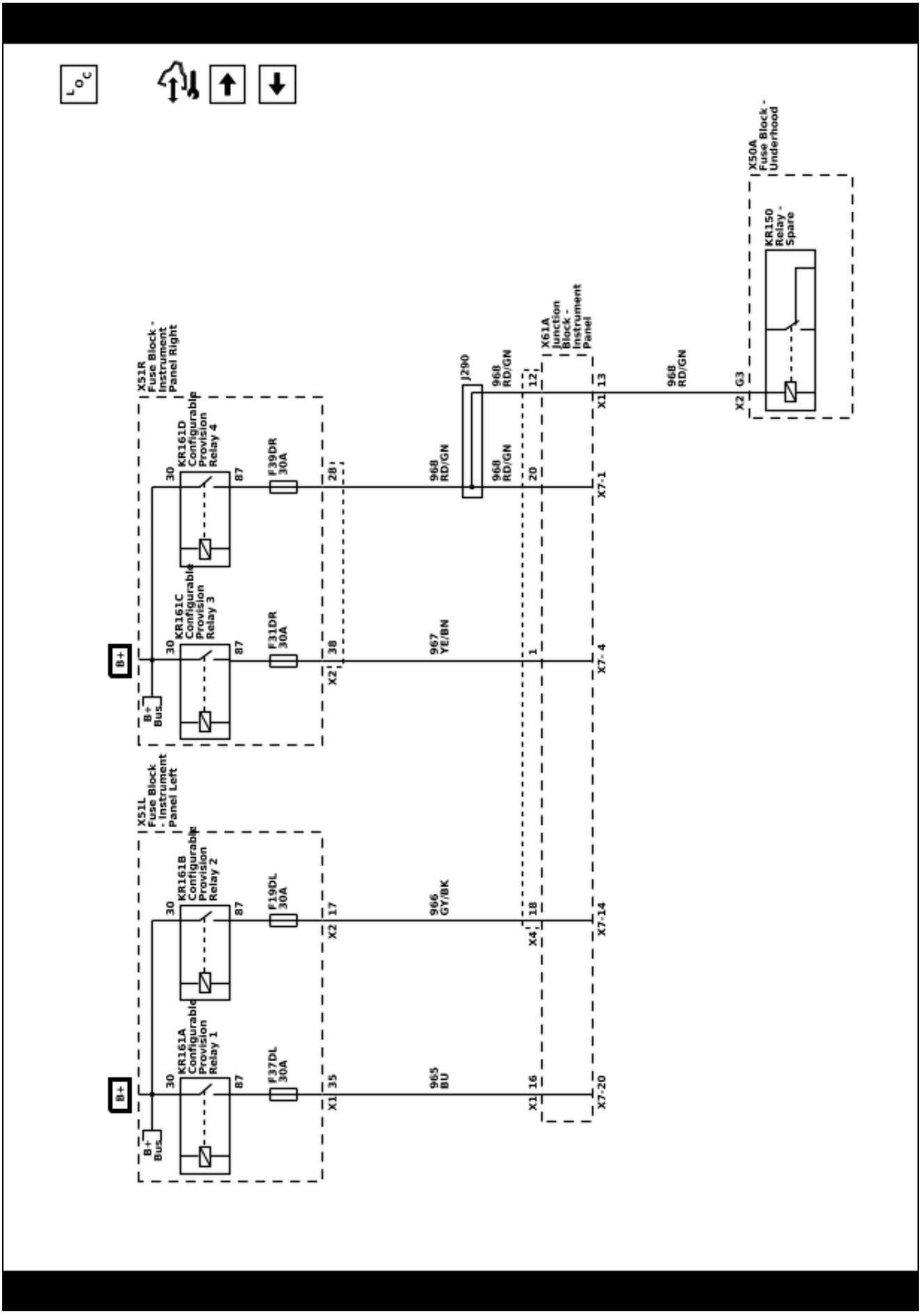
Power Distribution Schematics (F15DR, F18DR, F27DR and F44DR Fuses)



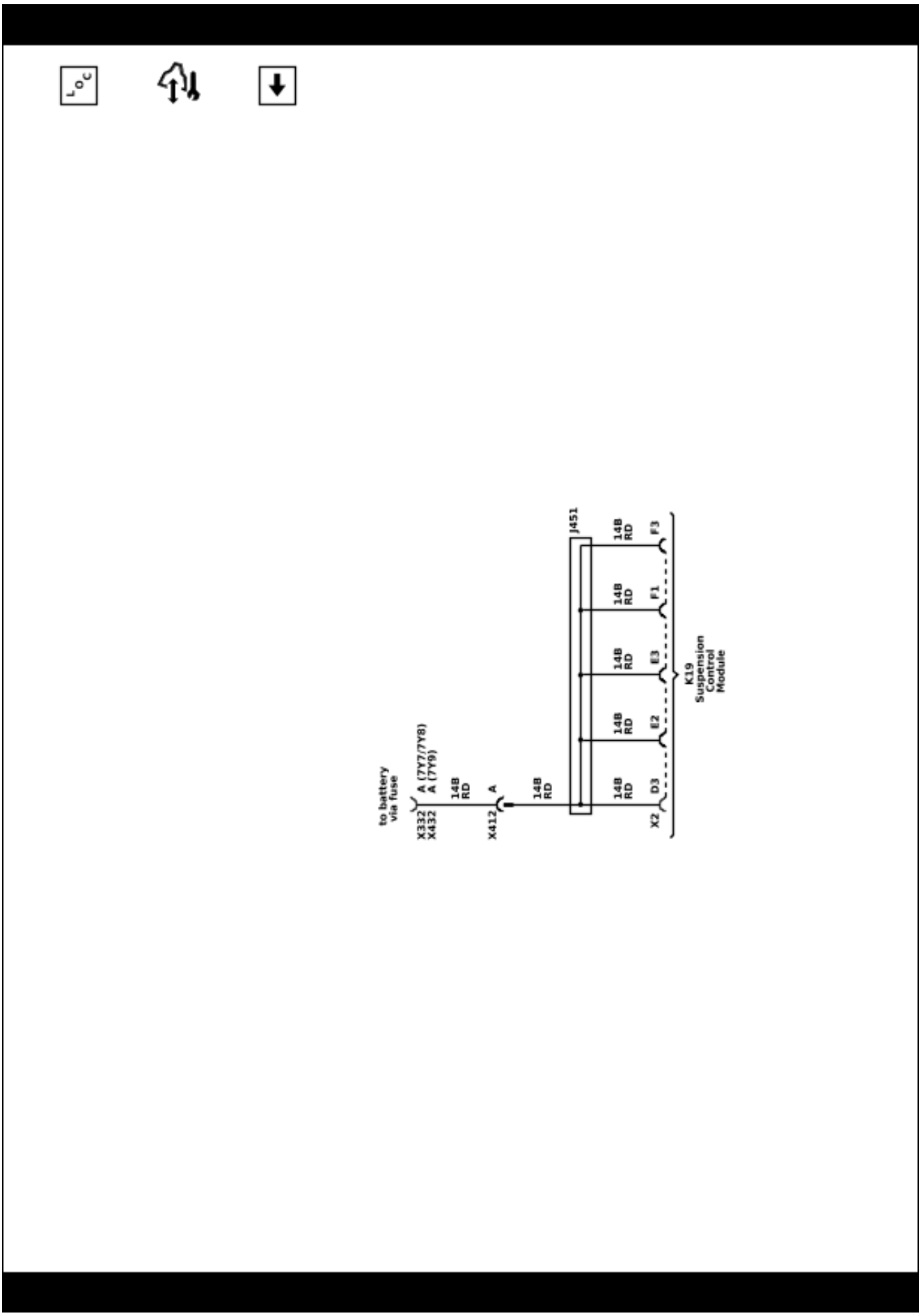
Power Distribution Schematics (F10DR Fuse)



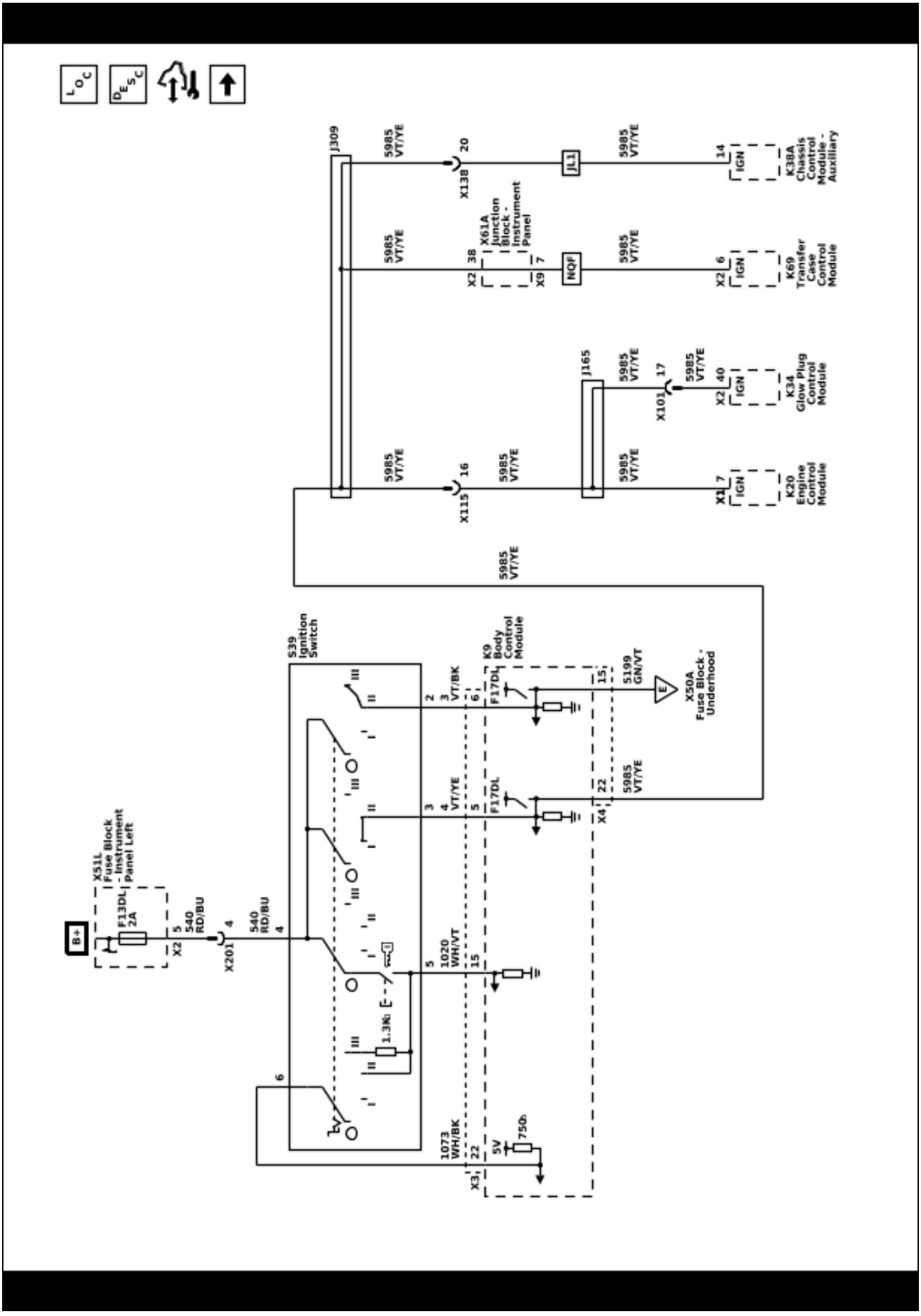
Power Distribution Schematics (F19DL, F31DR, F37DL and F39DR Fuses)



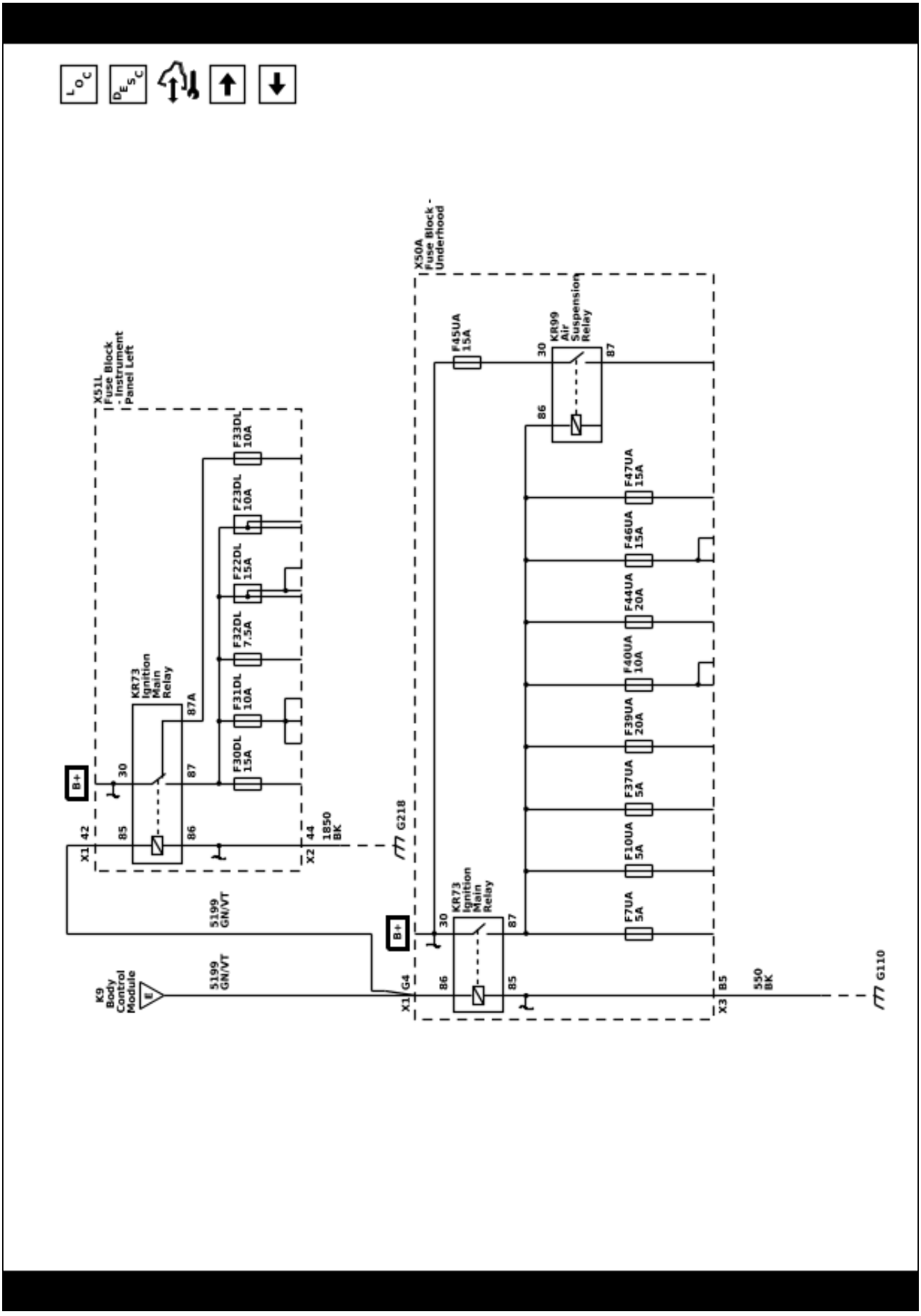
Power Distribution Schematics (B+ feed - K19 Suspension Control Module (91B/91C/91D/91E))



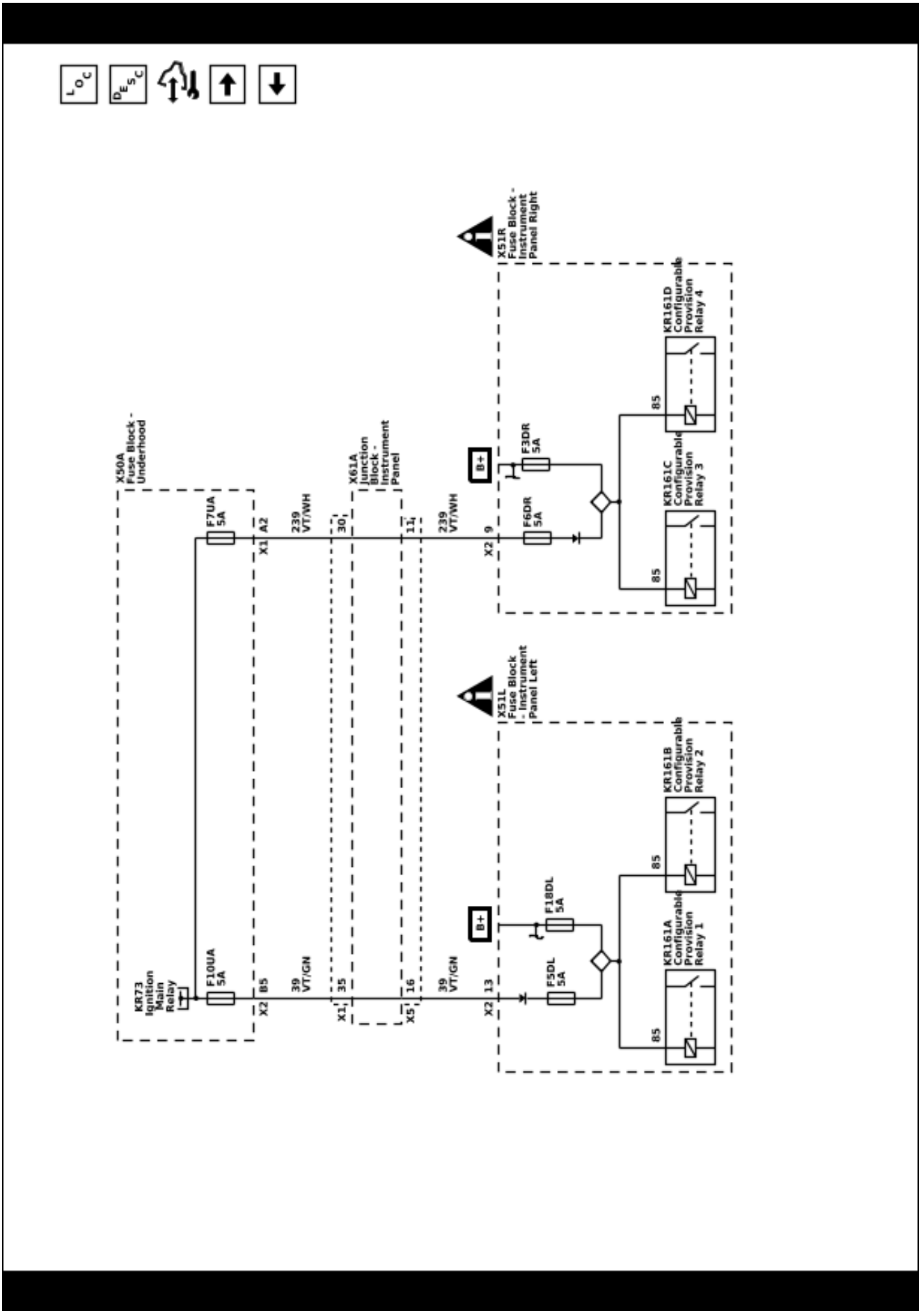
Power Moding Schematics (Ignition Switch and Ignition Power)



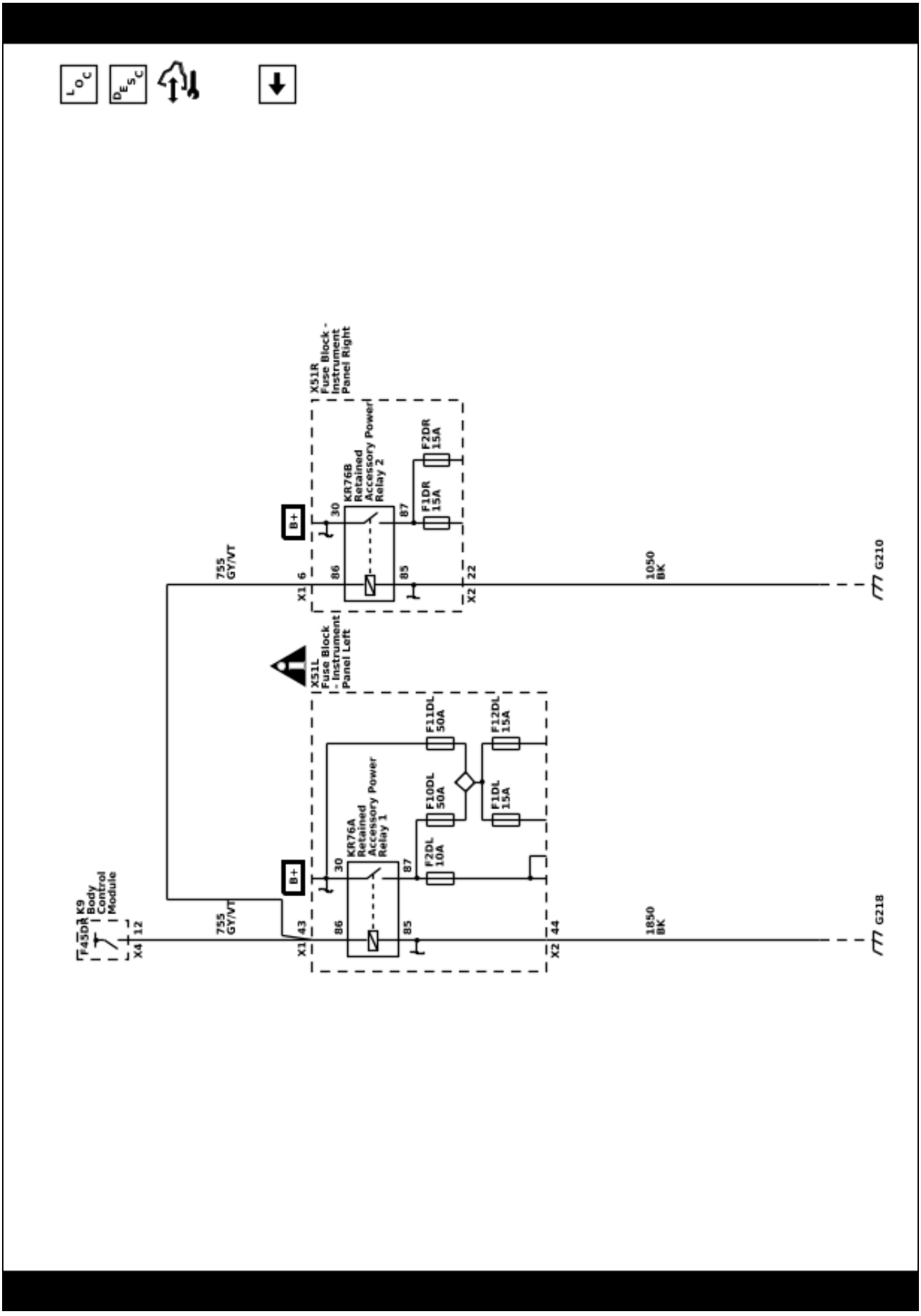
Power Moding Schematics (Ignition Main Relays)



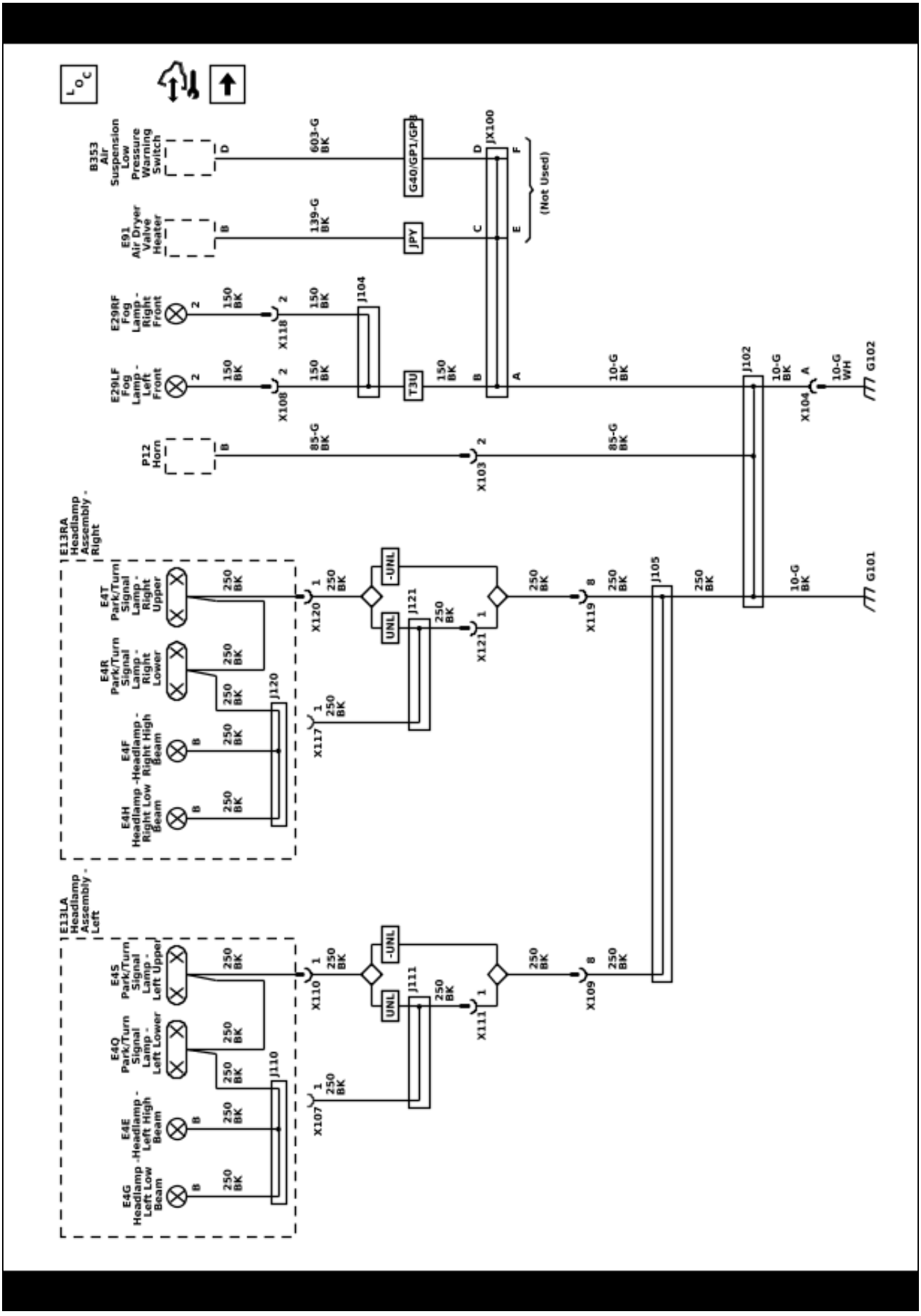
Power Moding Schematics (Ignition Power to Provisional Relays (9L7))



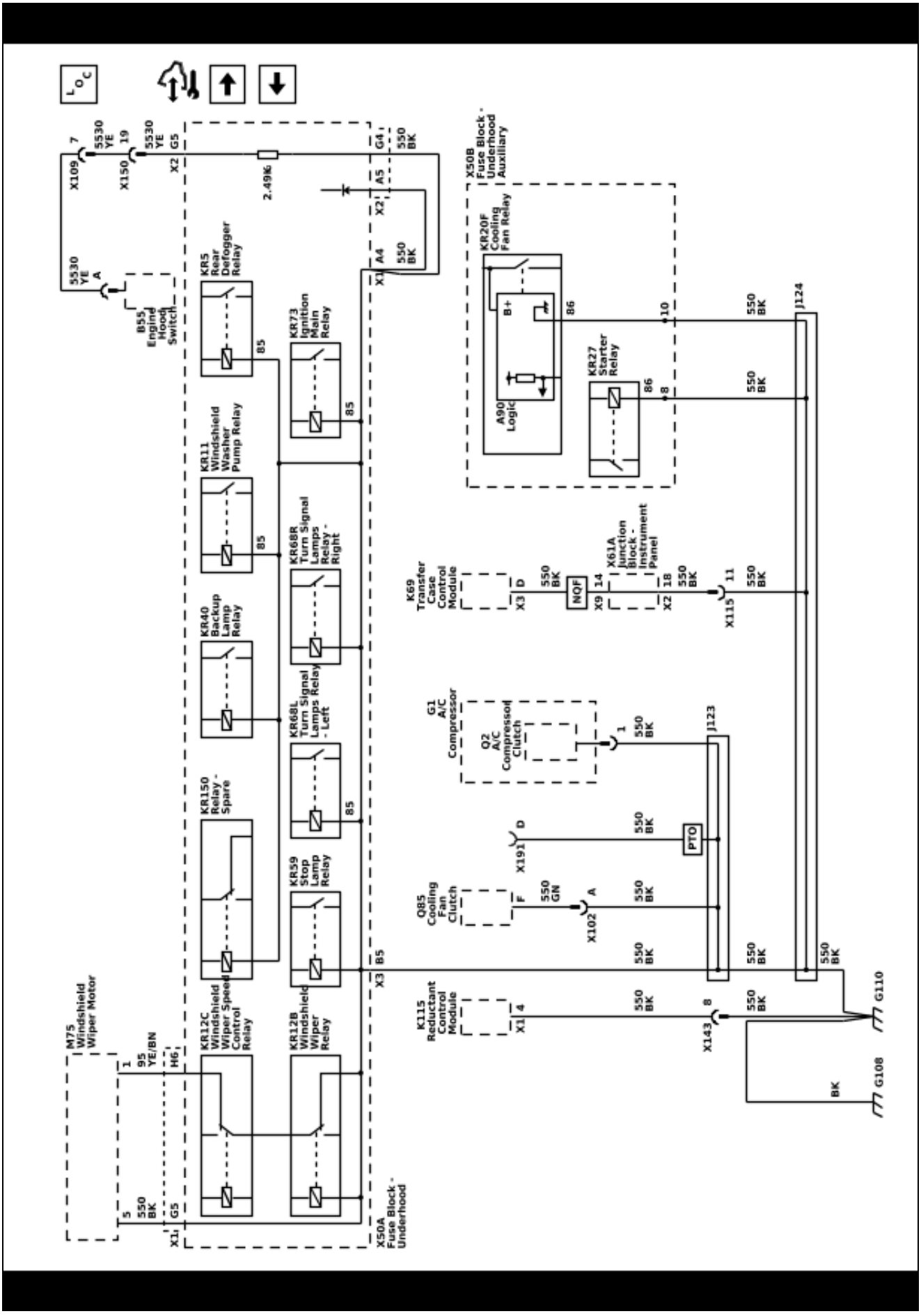
Power Moding Schematics (Retained Accessory Power Relays)



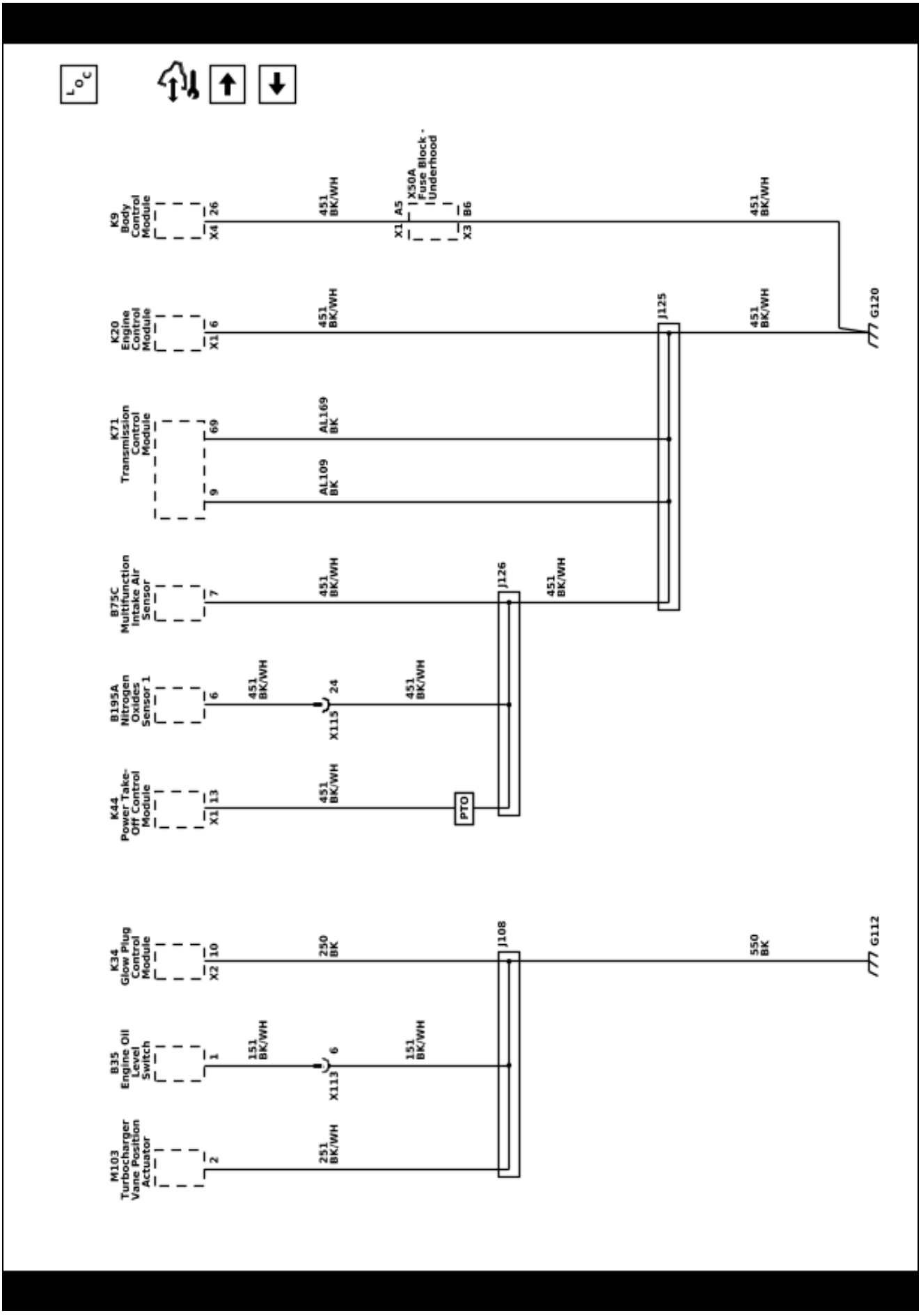
Ground Distribution Schematics (G101 and G102)



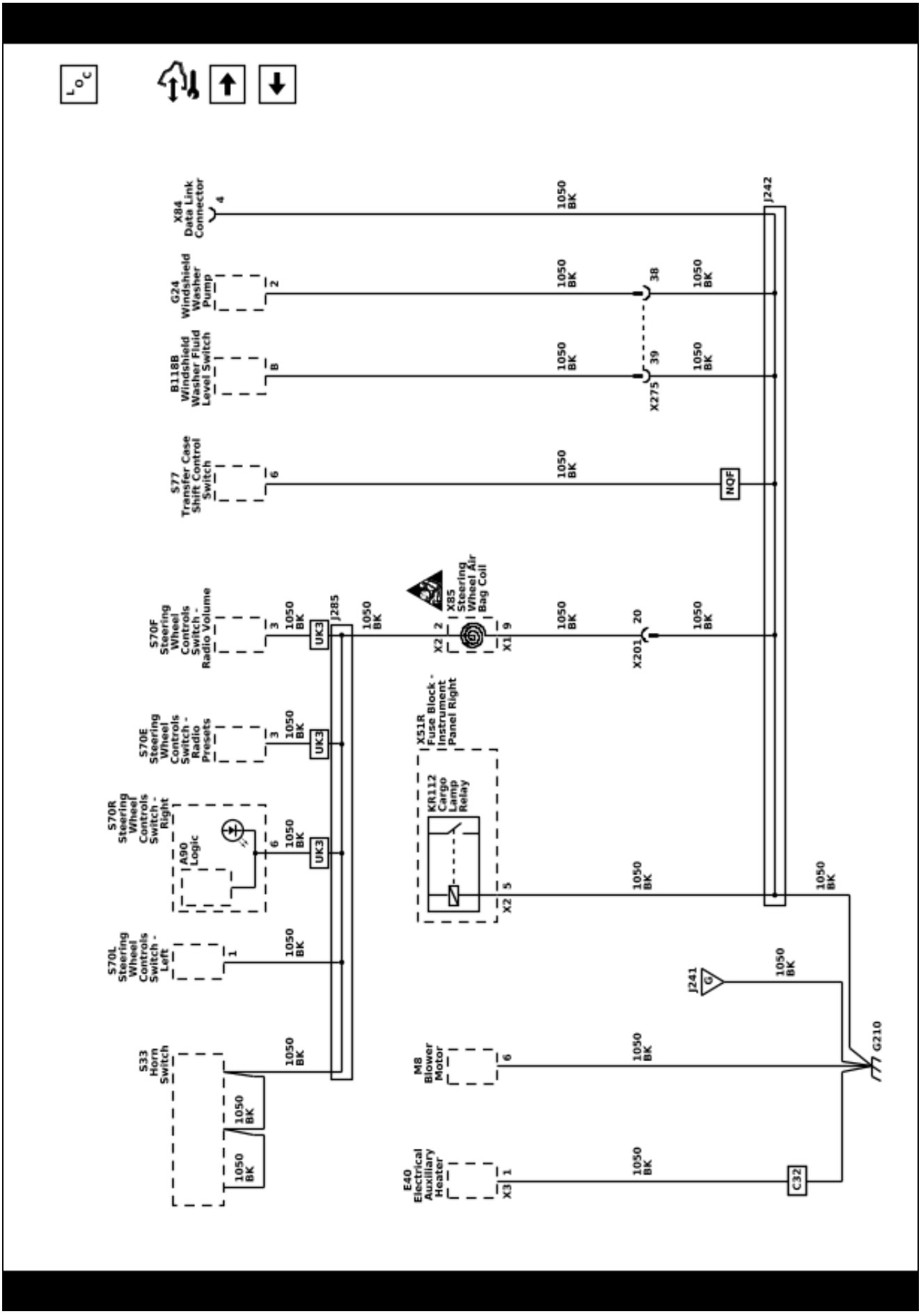
Ground Distribution Schematics (G108 and G110)



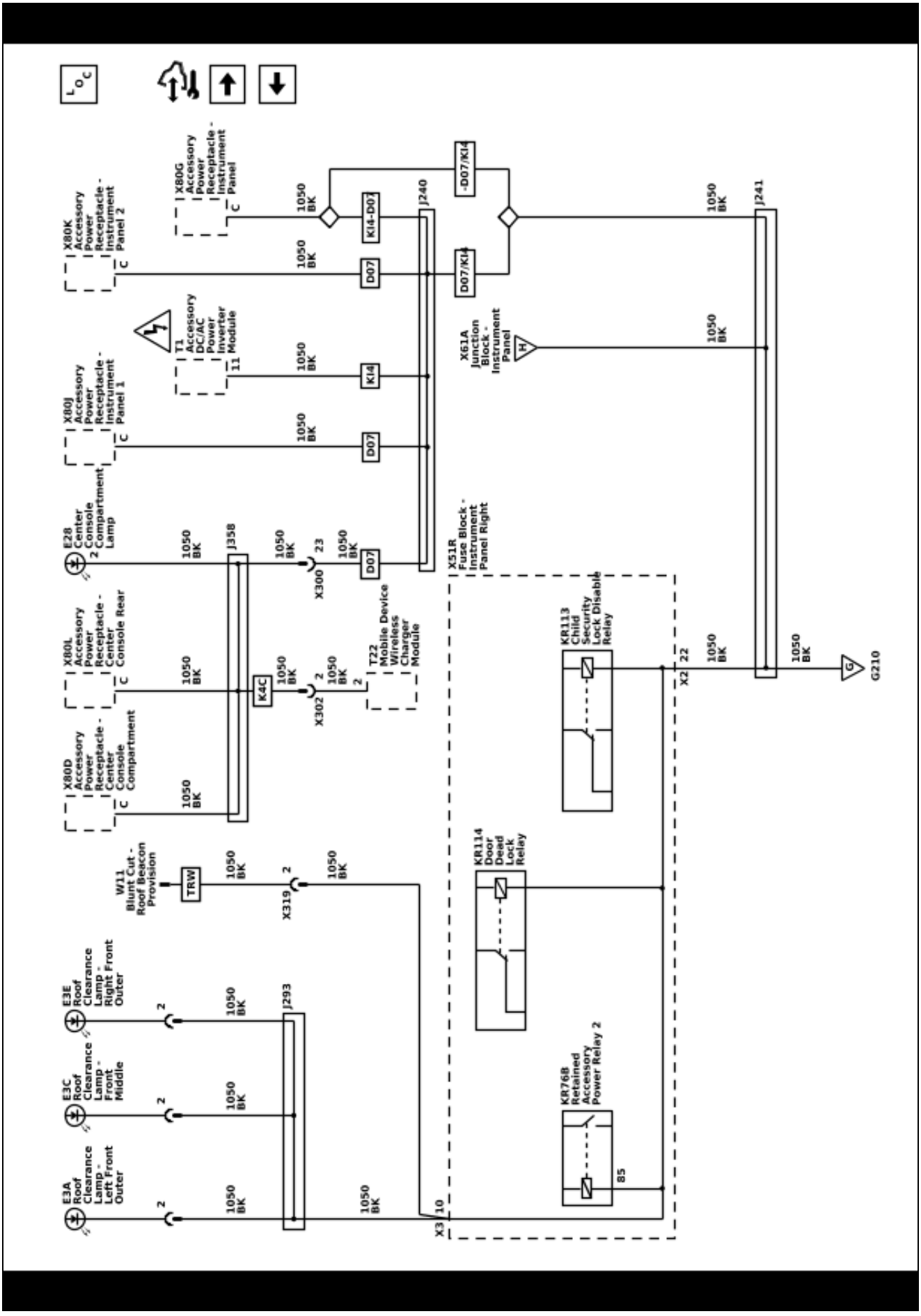
Ground Distribution Schematics (G112 and G120)



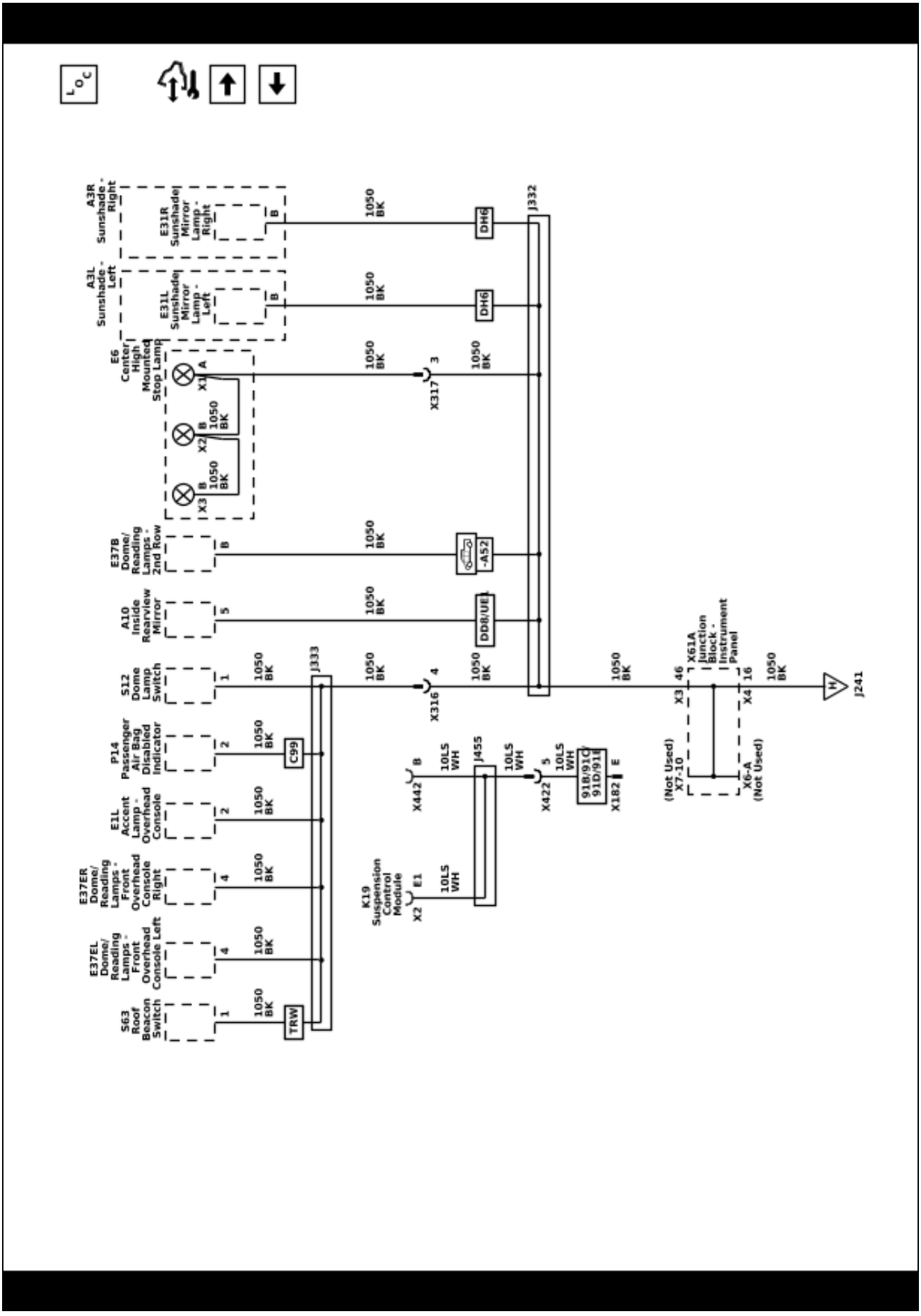
Ground Distribution Schematics (G210 (1 of 3))



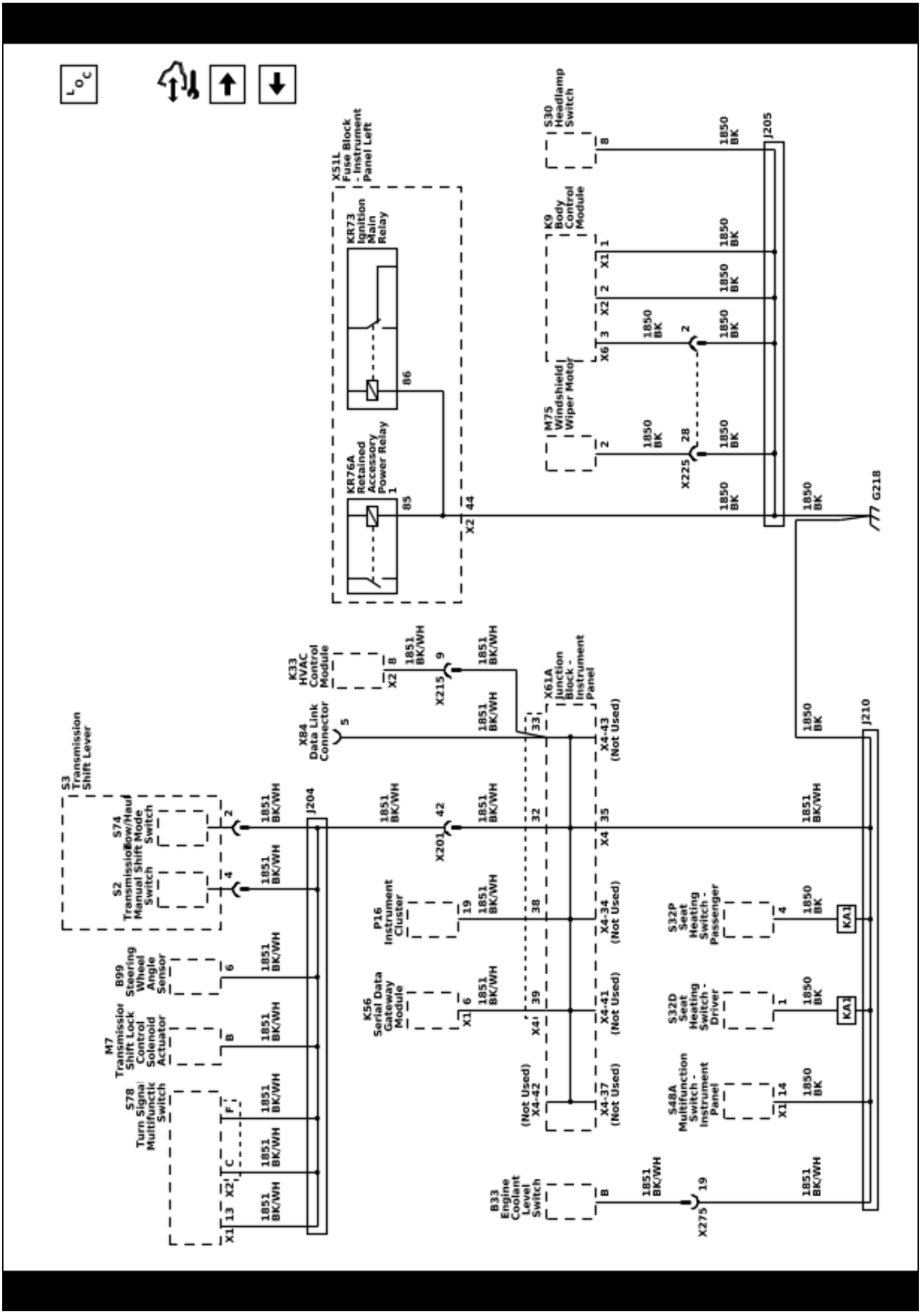
Ground Distribution Schematics (G210 (2 of 3))



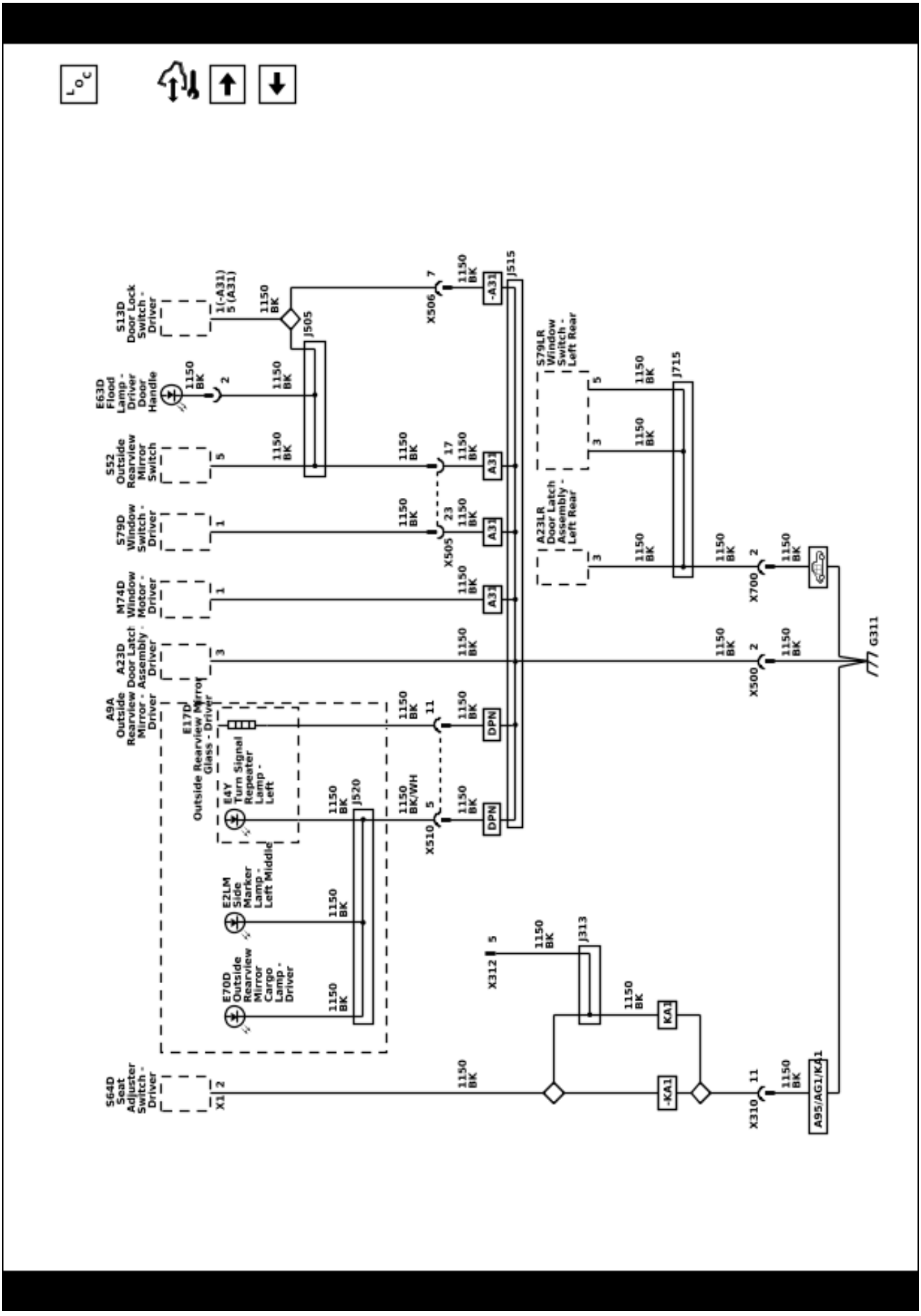
Ground Distribution Schematics (G210 (3 of 3))



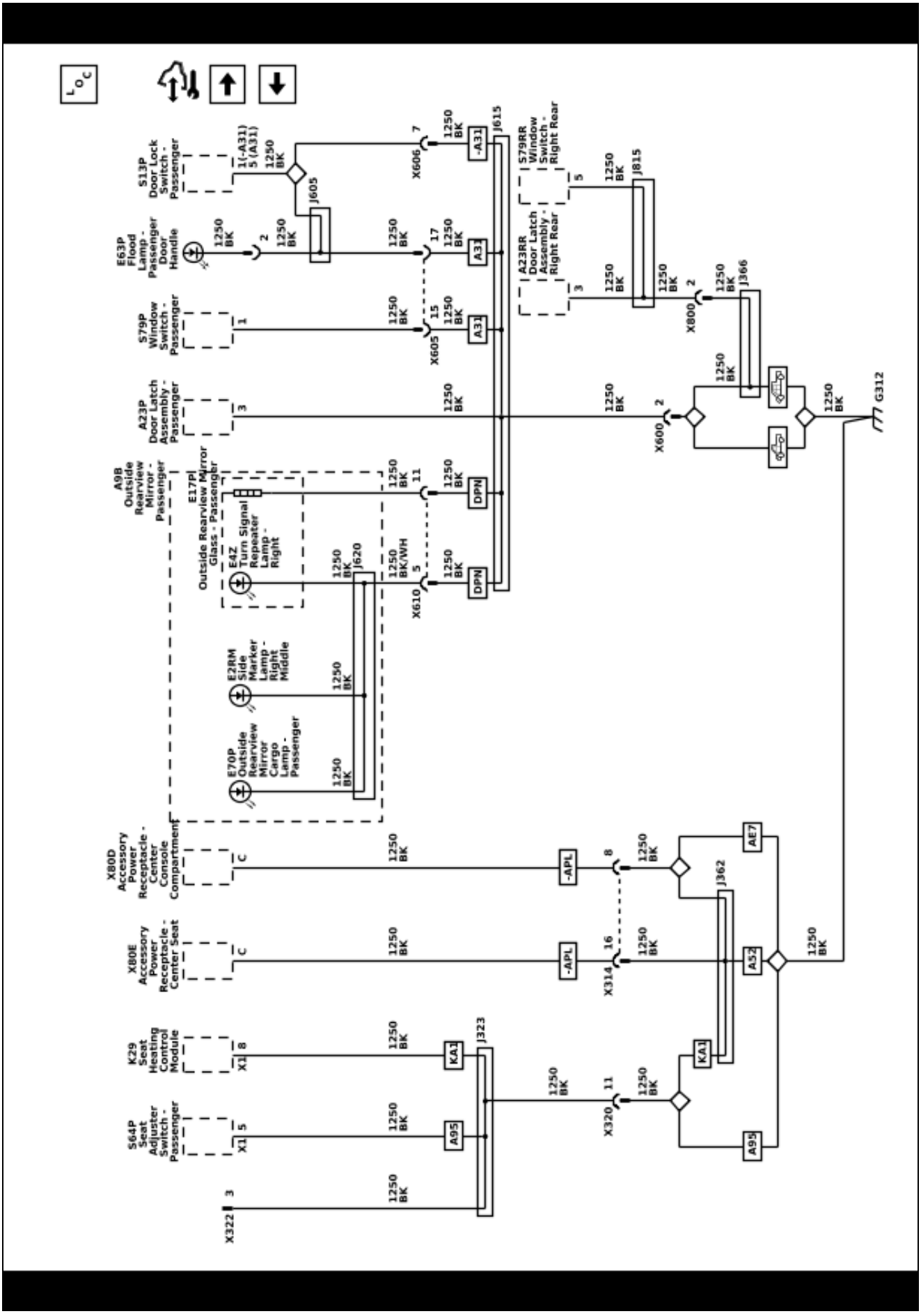
Ground Distribution Schematics (G218)



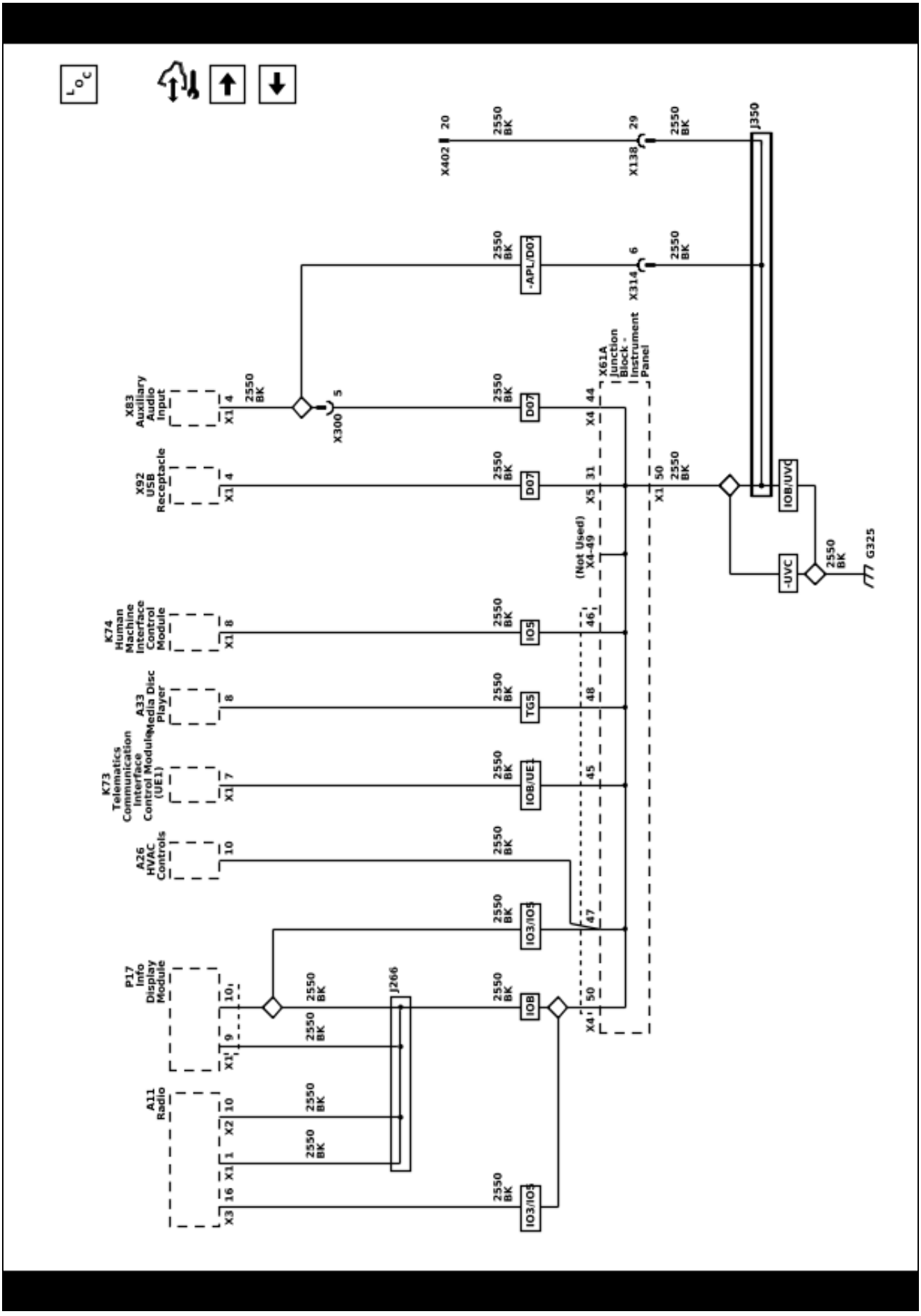
Ground Distribution Schematics (G311)



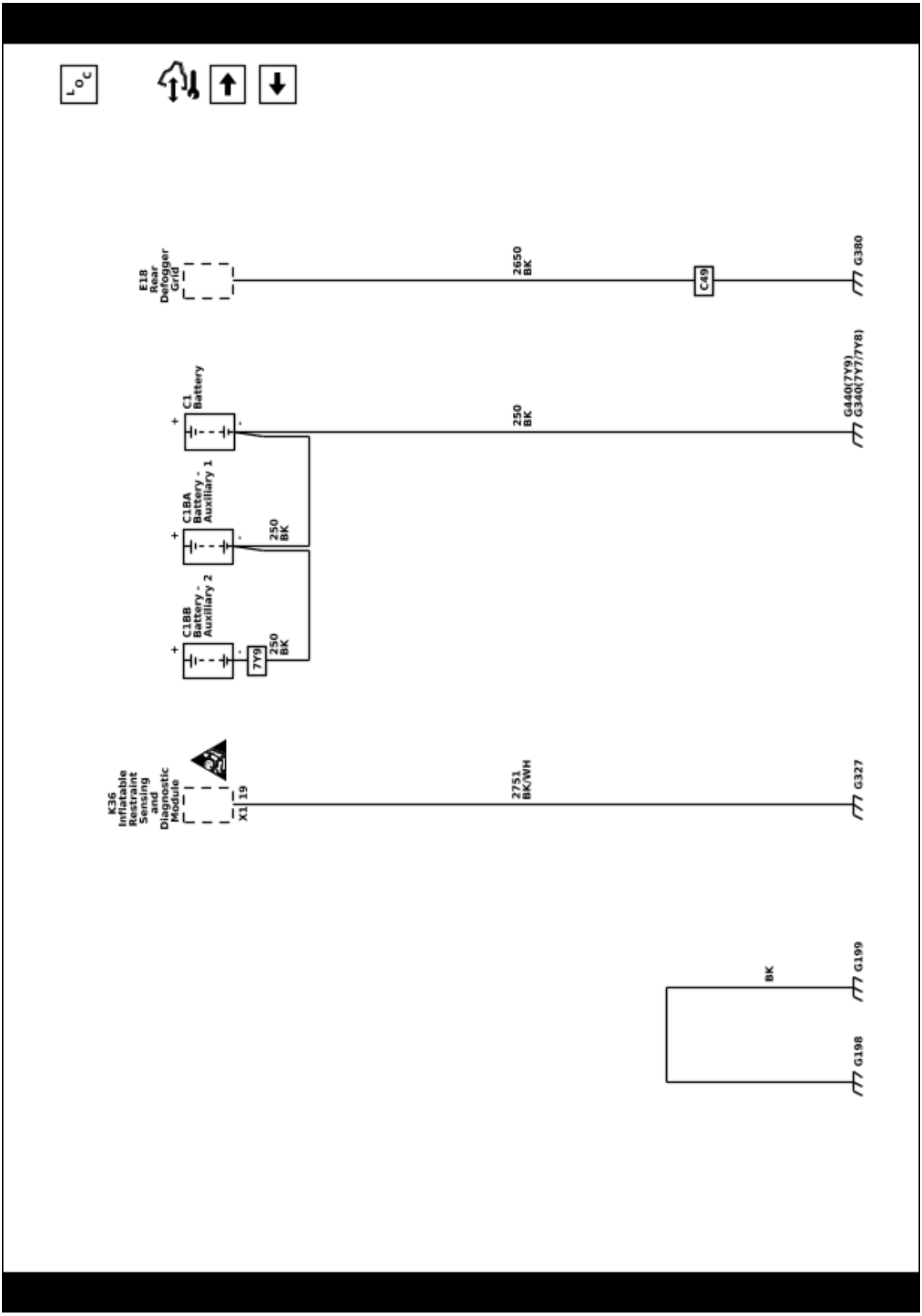
Ground Distribution Schematics (G312)



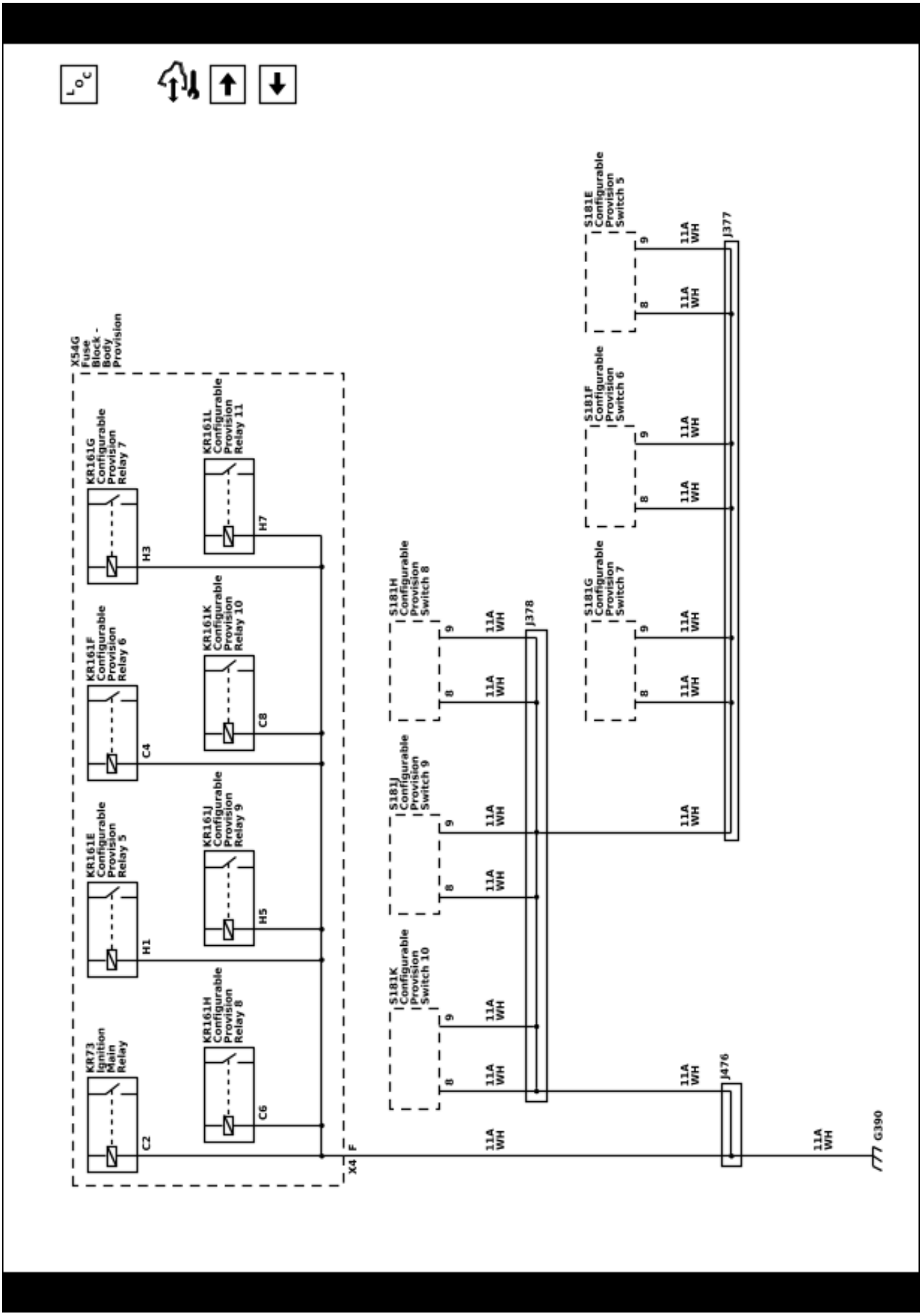
Ground Distribution Schematics (G325)



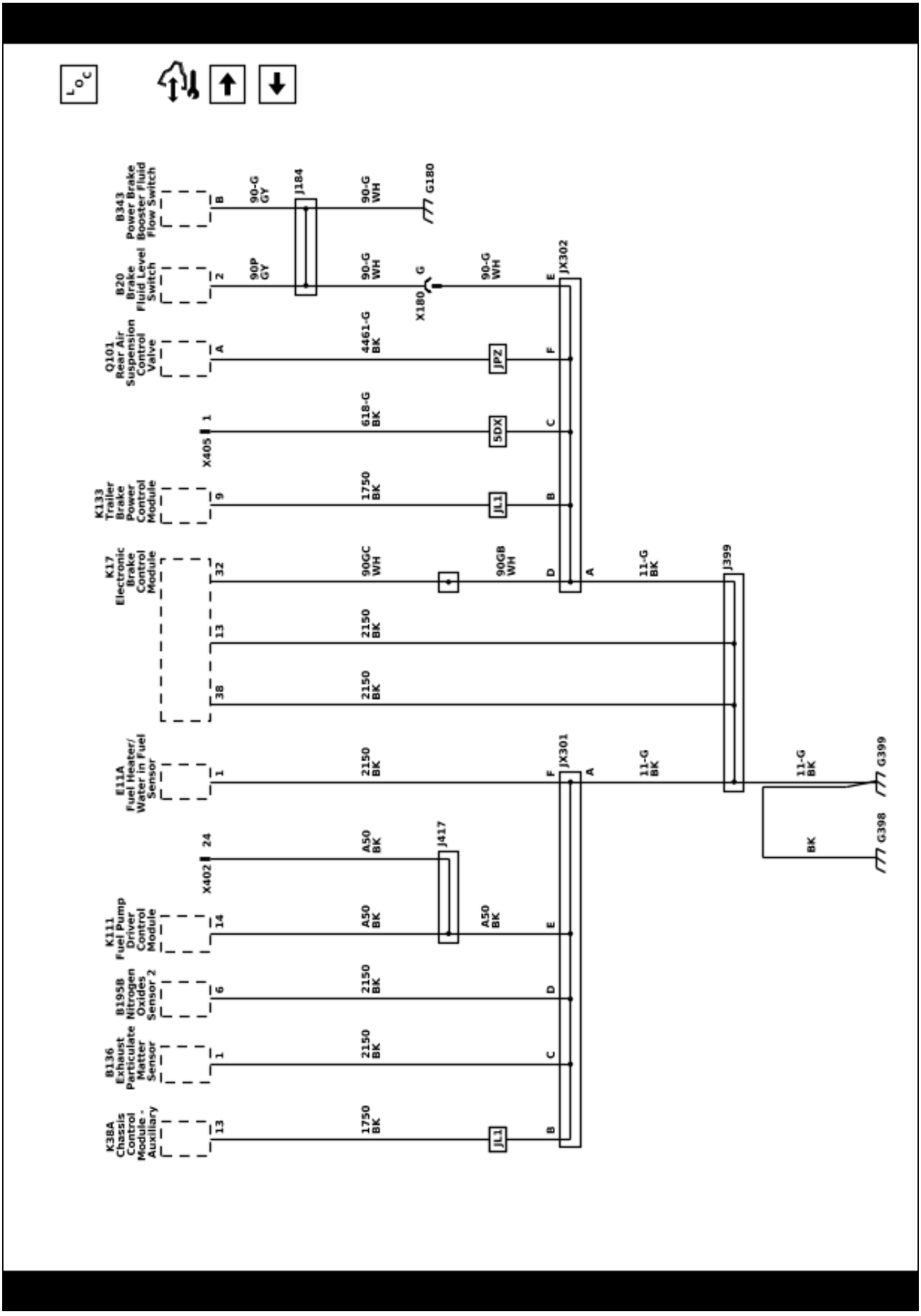
Ground Distribution Schematics (G198, G199, G327, G340, G380 and G440)



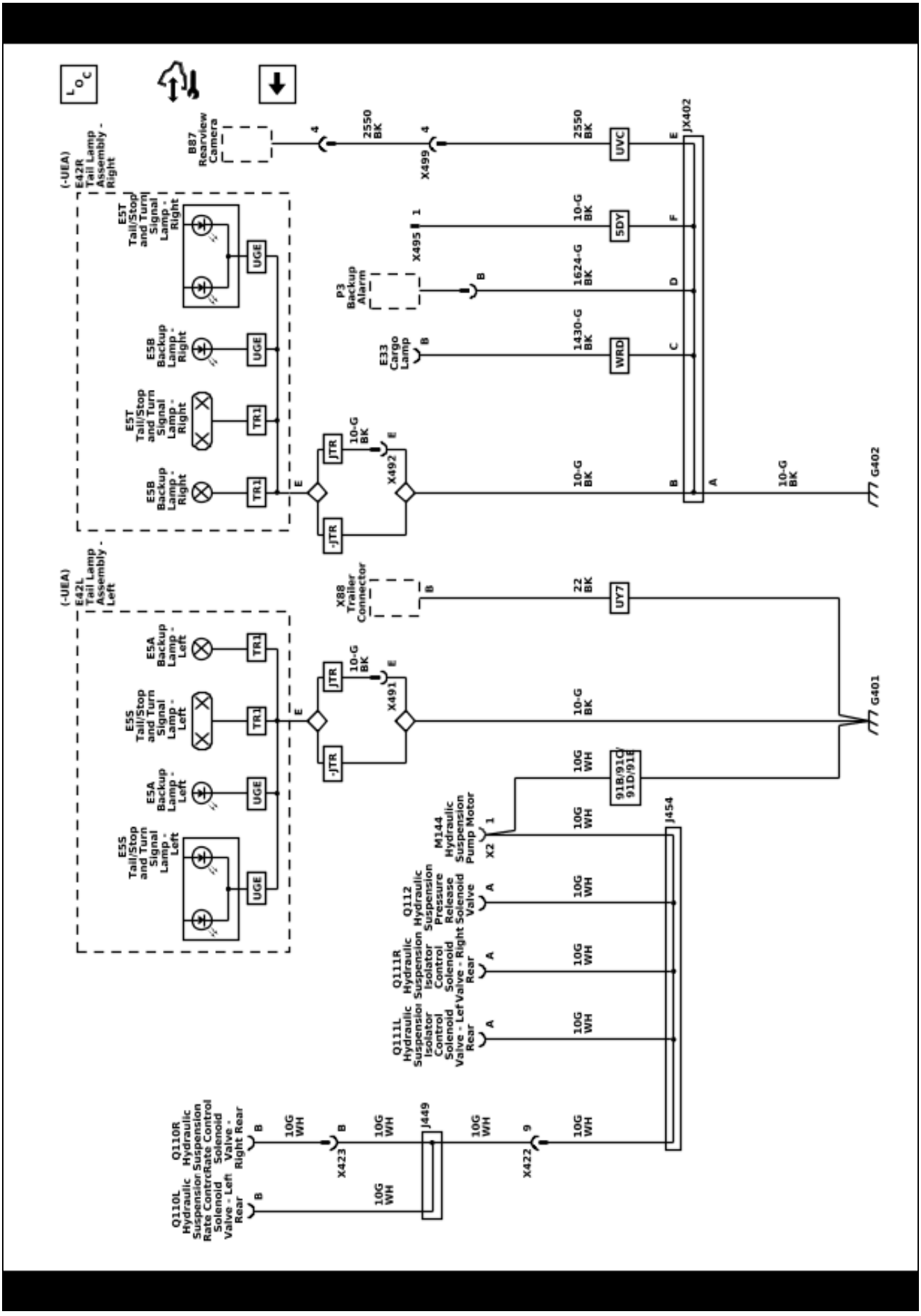
Ground Distribution Schematics (G390 (UEH))



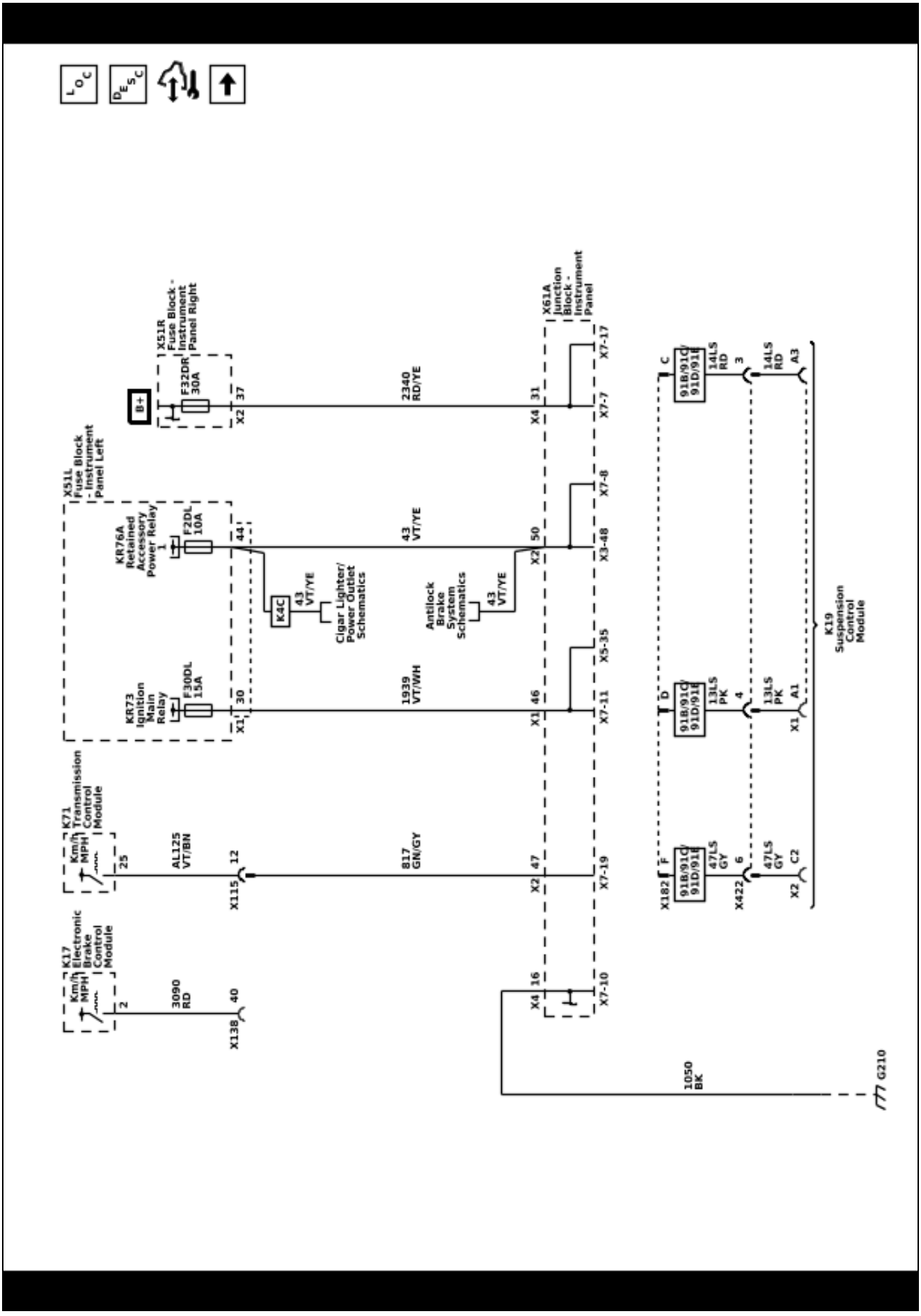
Ground Distribution Schematics (G180, G398 and G399)



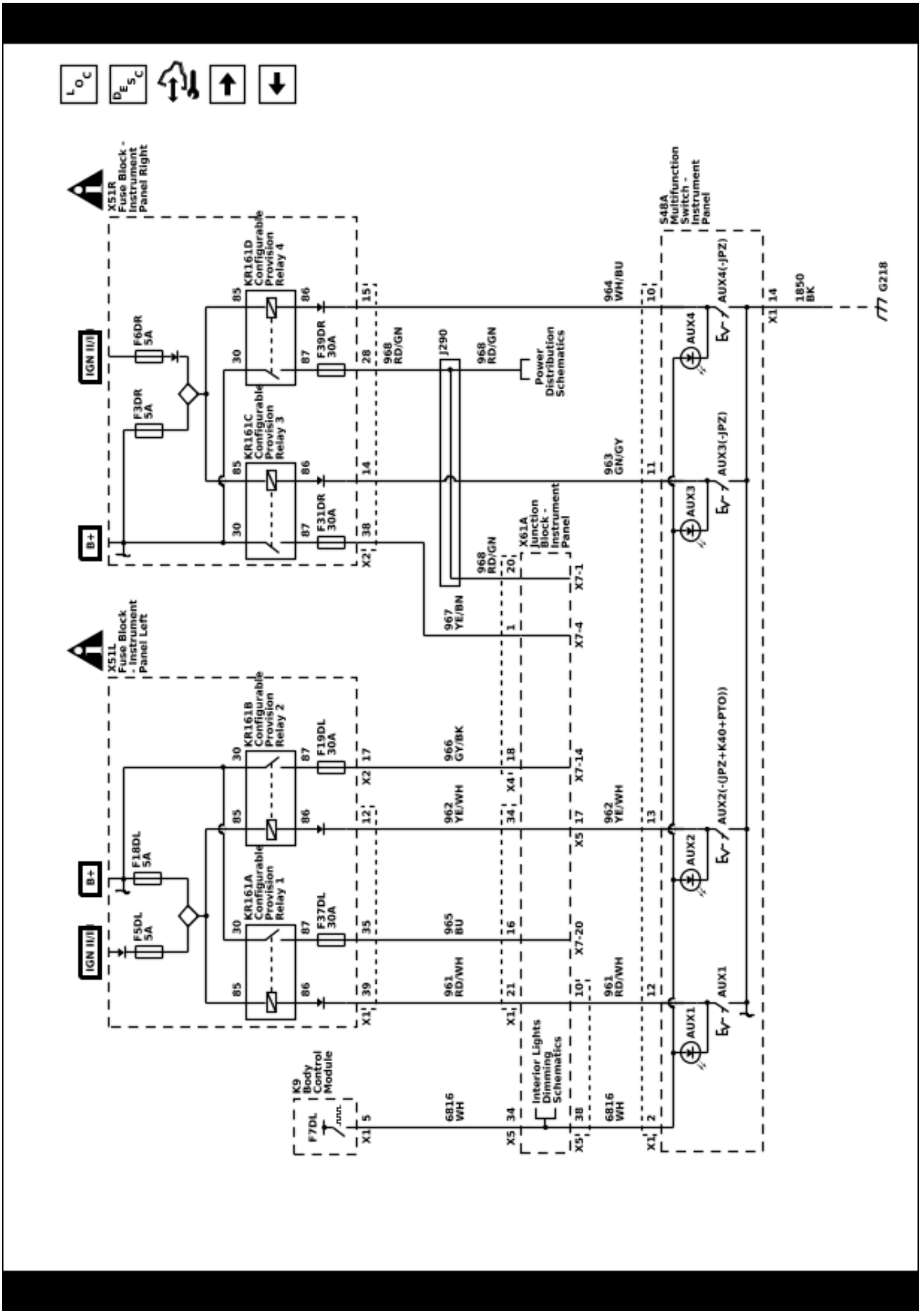
Ground Distribution Schematics (G401 and G402)



Upfitter Provision Schematics (Upfitter Provisions at Junction Block - Instrument Panel)

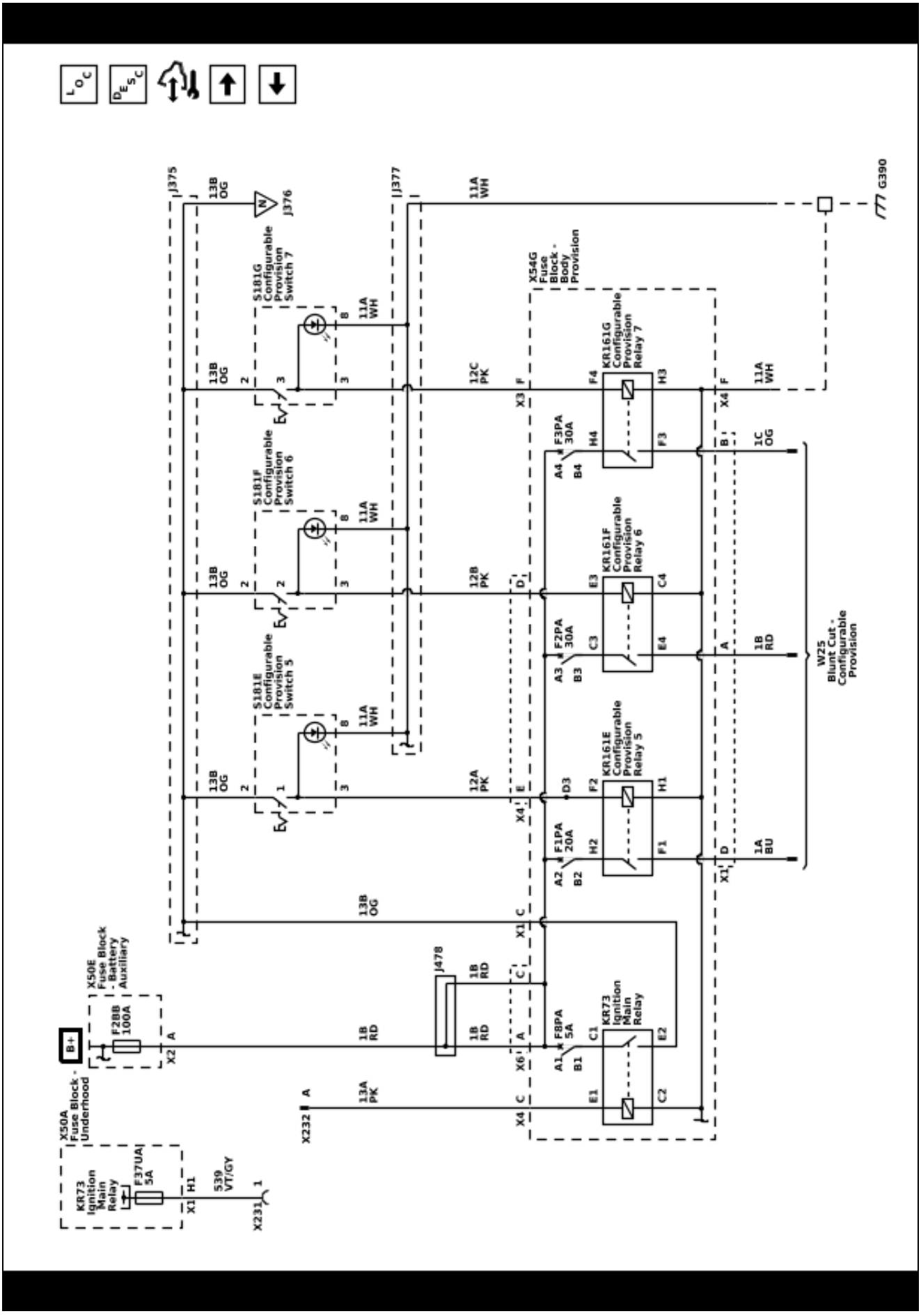


Upfitter Provision Schematics (Upfitter Provisions at Junction Block - Instrument Panel (9L7))

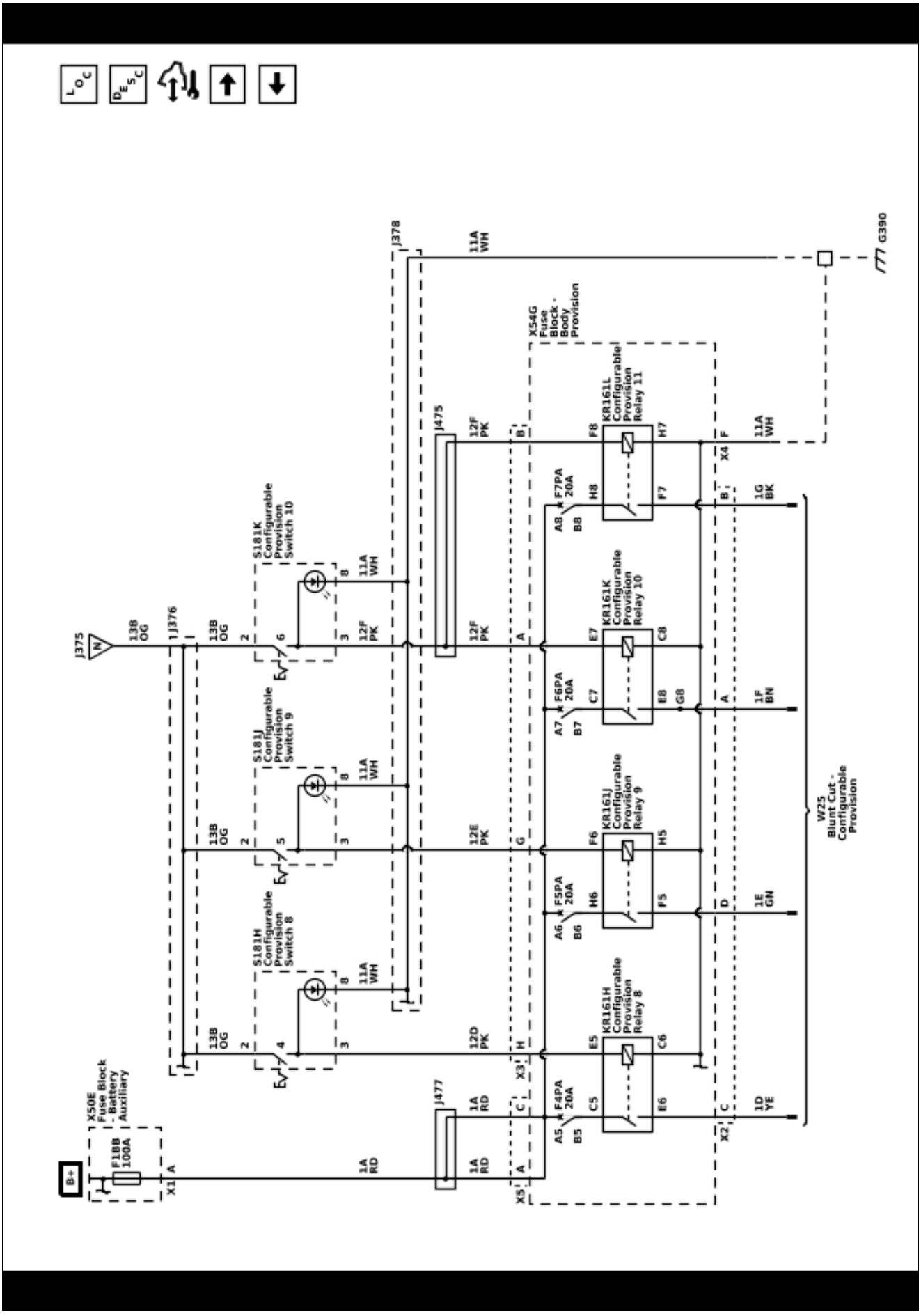


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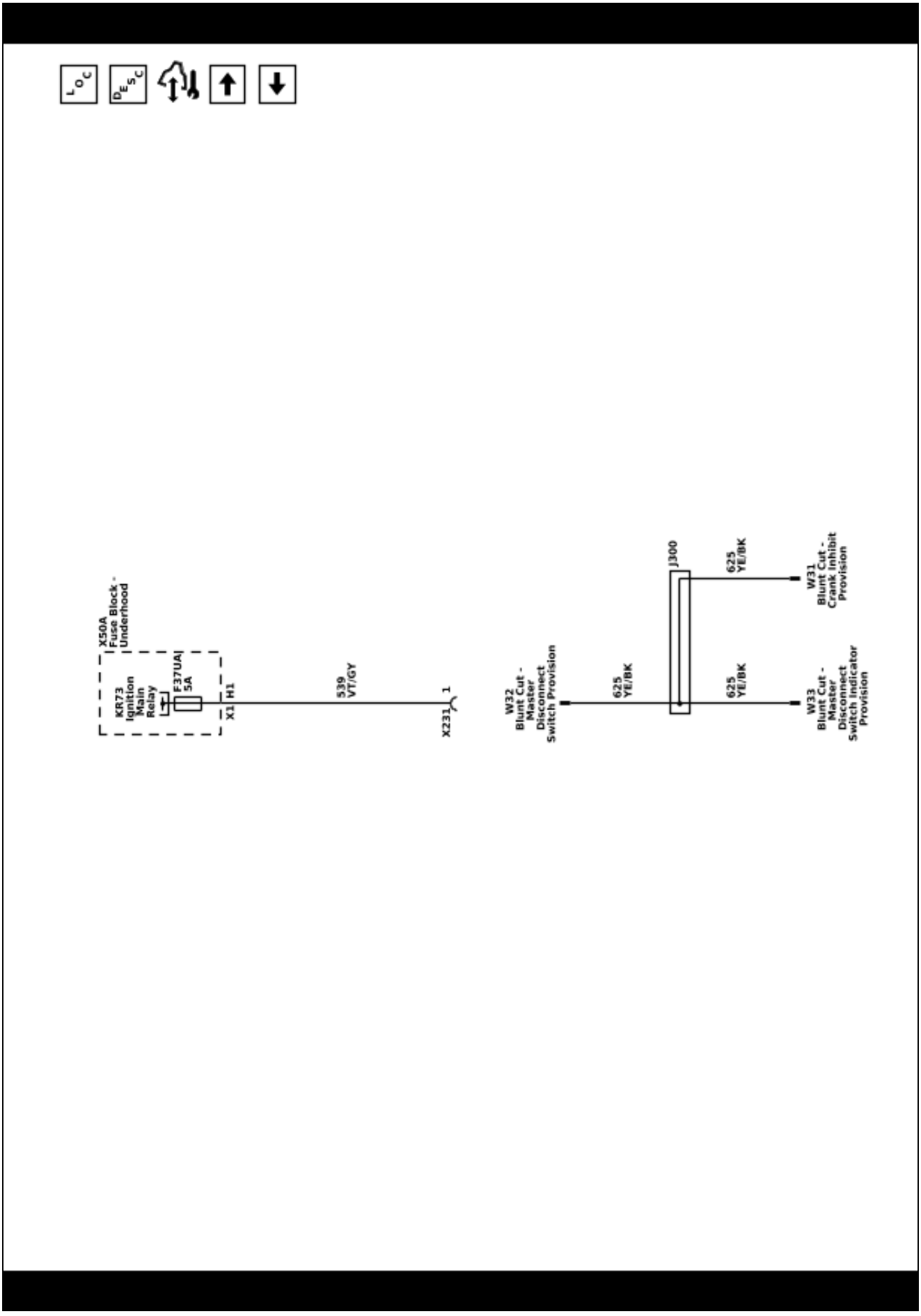
Upfitter Provision Schematics (Upfitter Provisions at Rear of Cabin (UEH) (1 of 2))



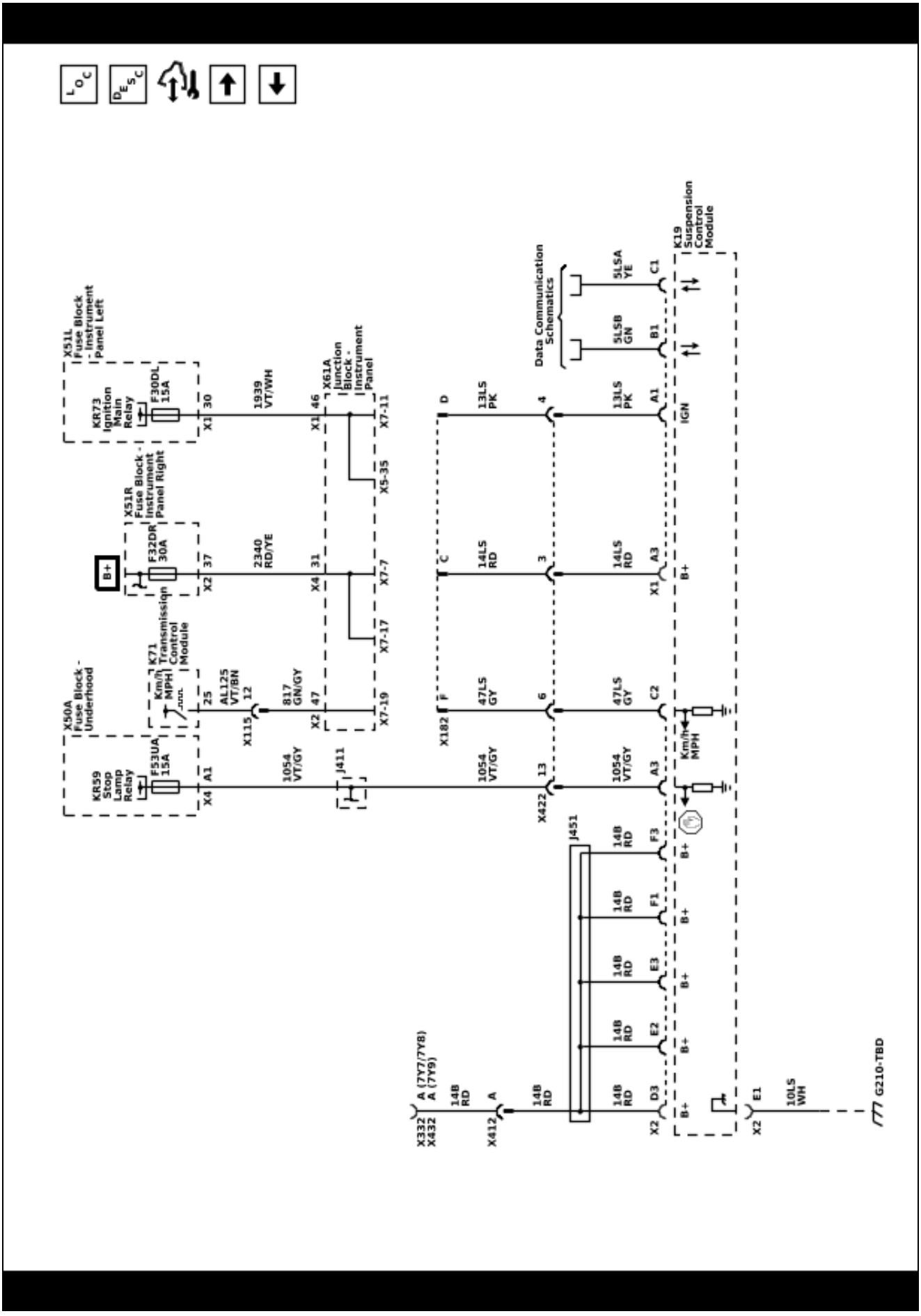
Upfitter Provision Schematics (Upfitter Provisions at Rear of Cabin (UEH) (2 of 2))



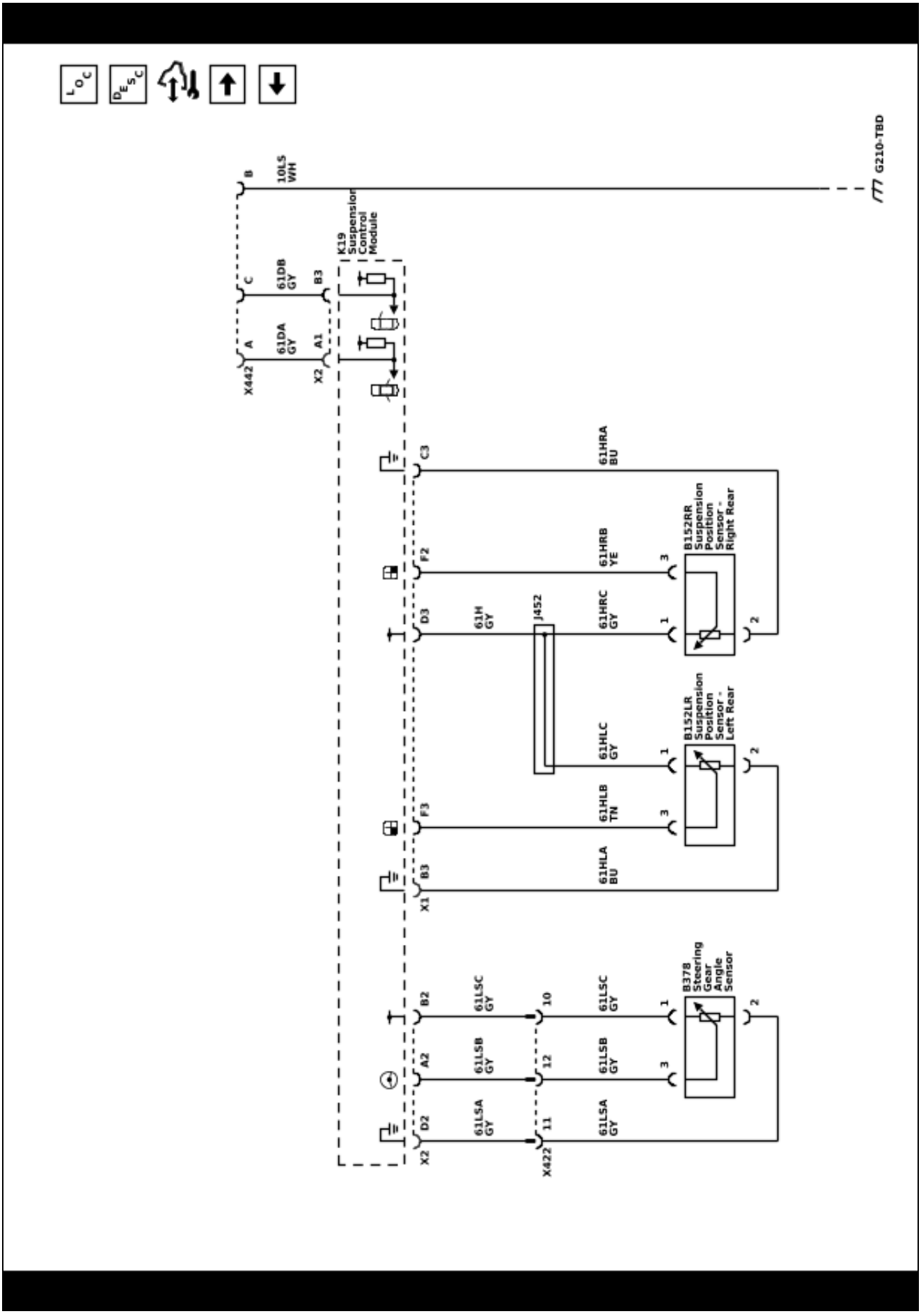
Upfitter Provision Schematics (Starter Interrupt Provisions)



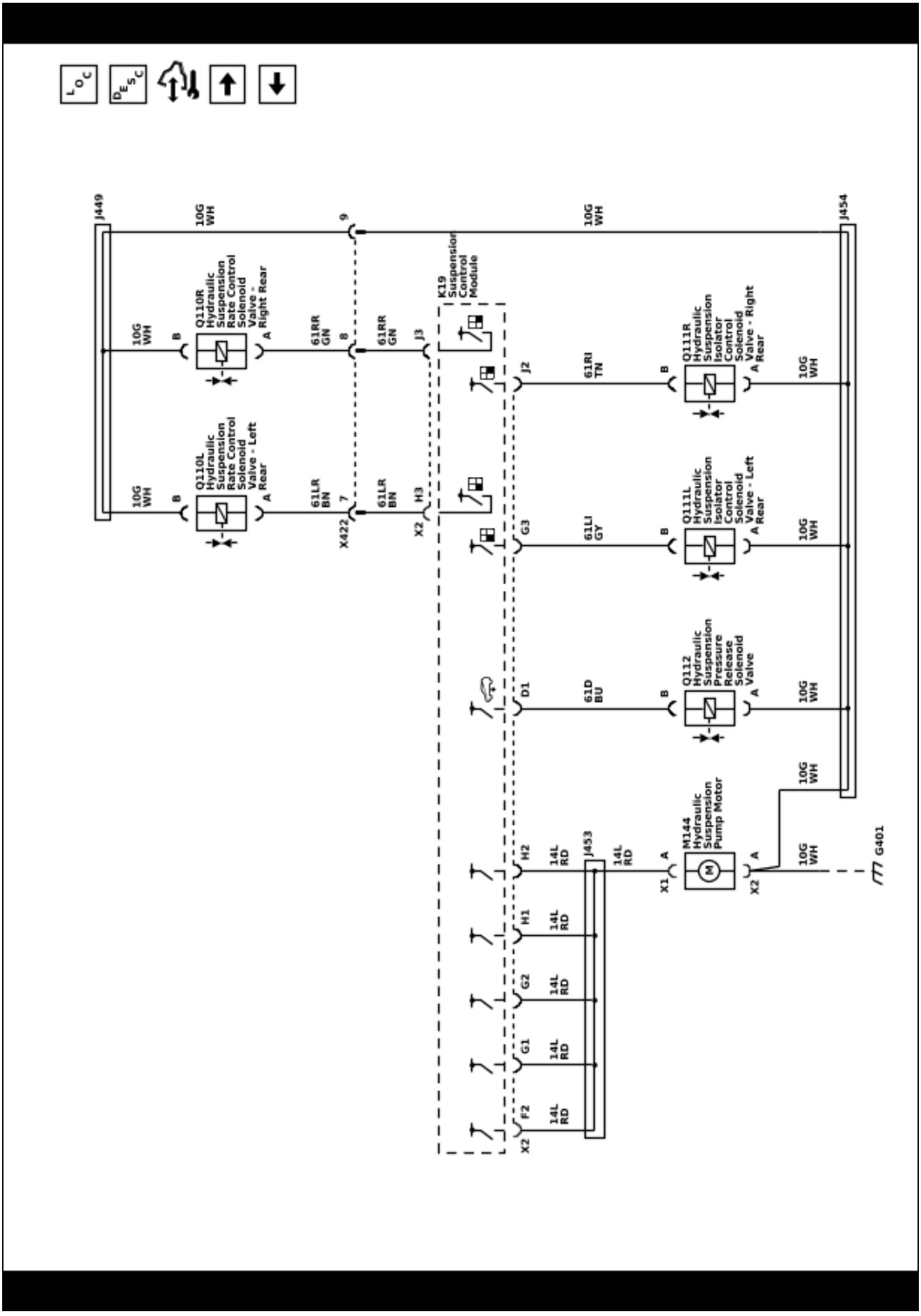
Upfitter Provision Schematics (Power, Ground, Serial Data and Signals (91B/91C/91D/91E))



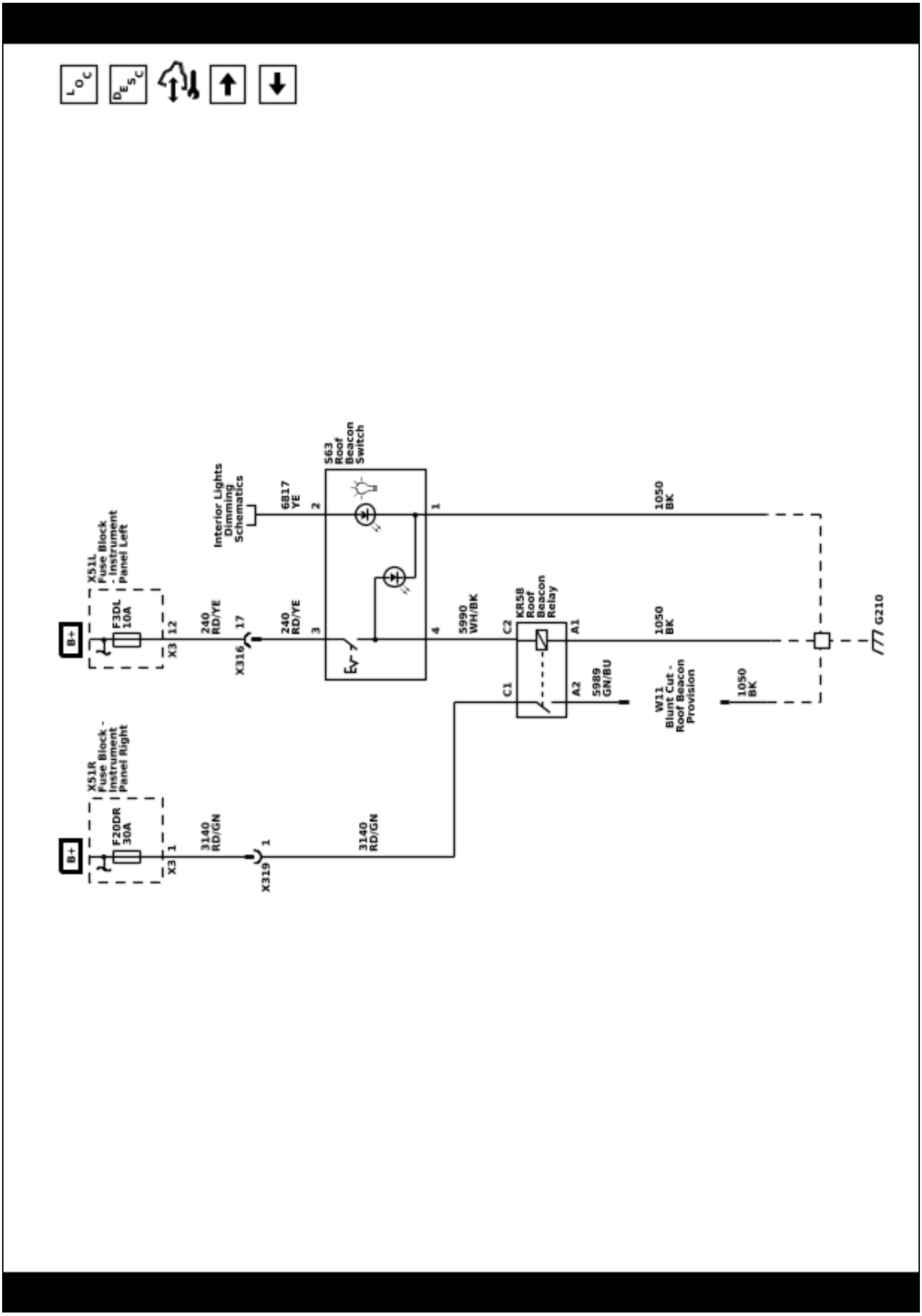
Upfitter Provision Schematics (Sensors and Door Status (91B/91C/91D/91E))



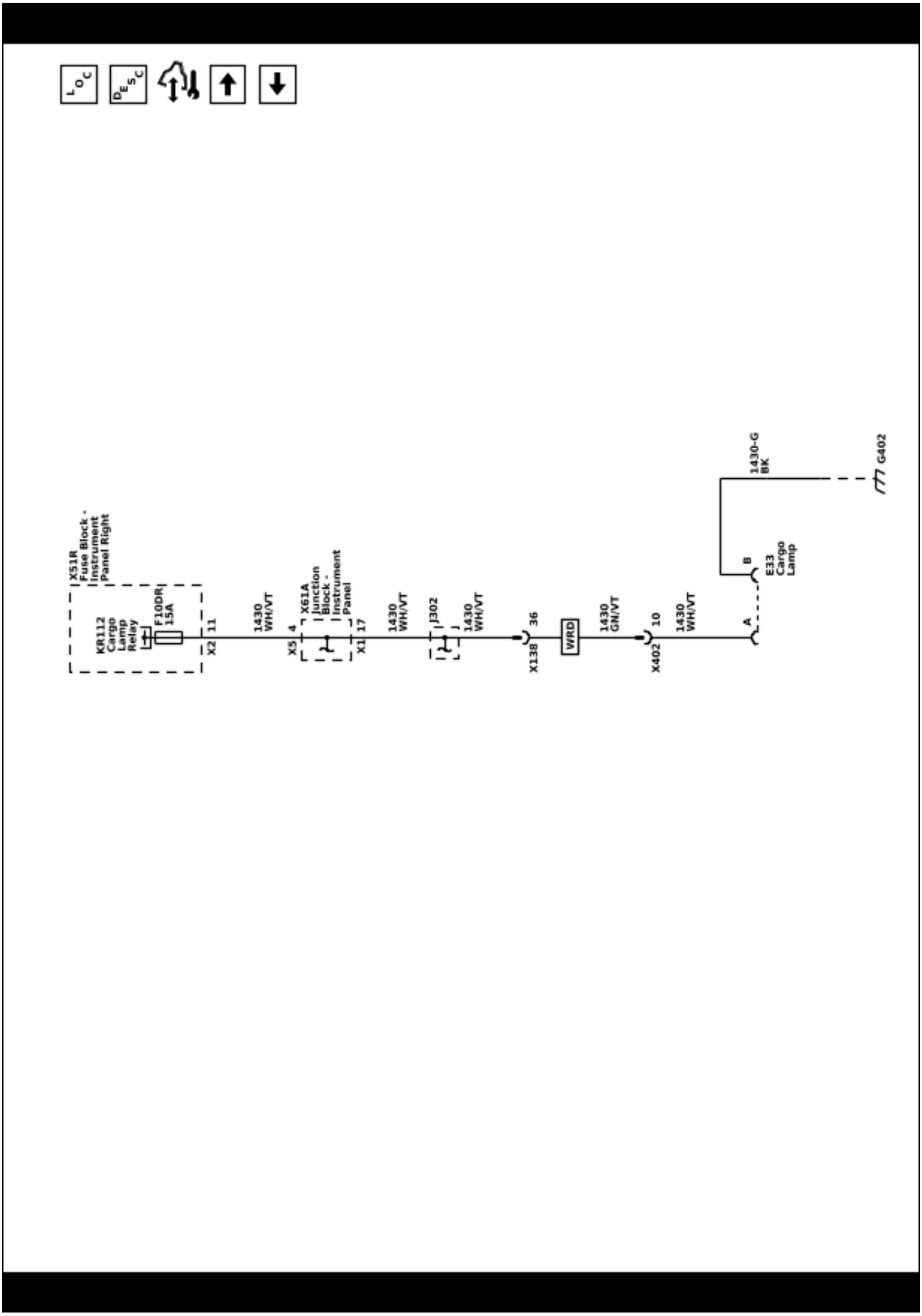
Upfitter Provision Schematics (Hydraulic Controls (91B/91C/91D/91E))



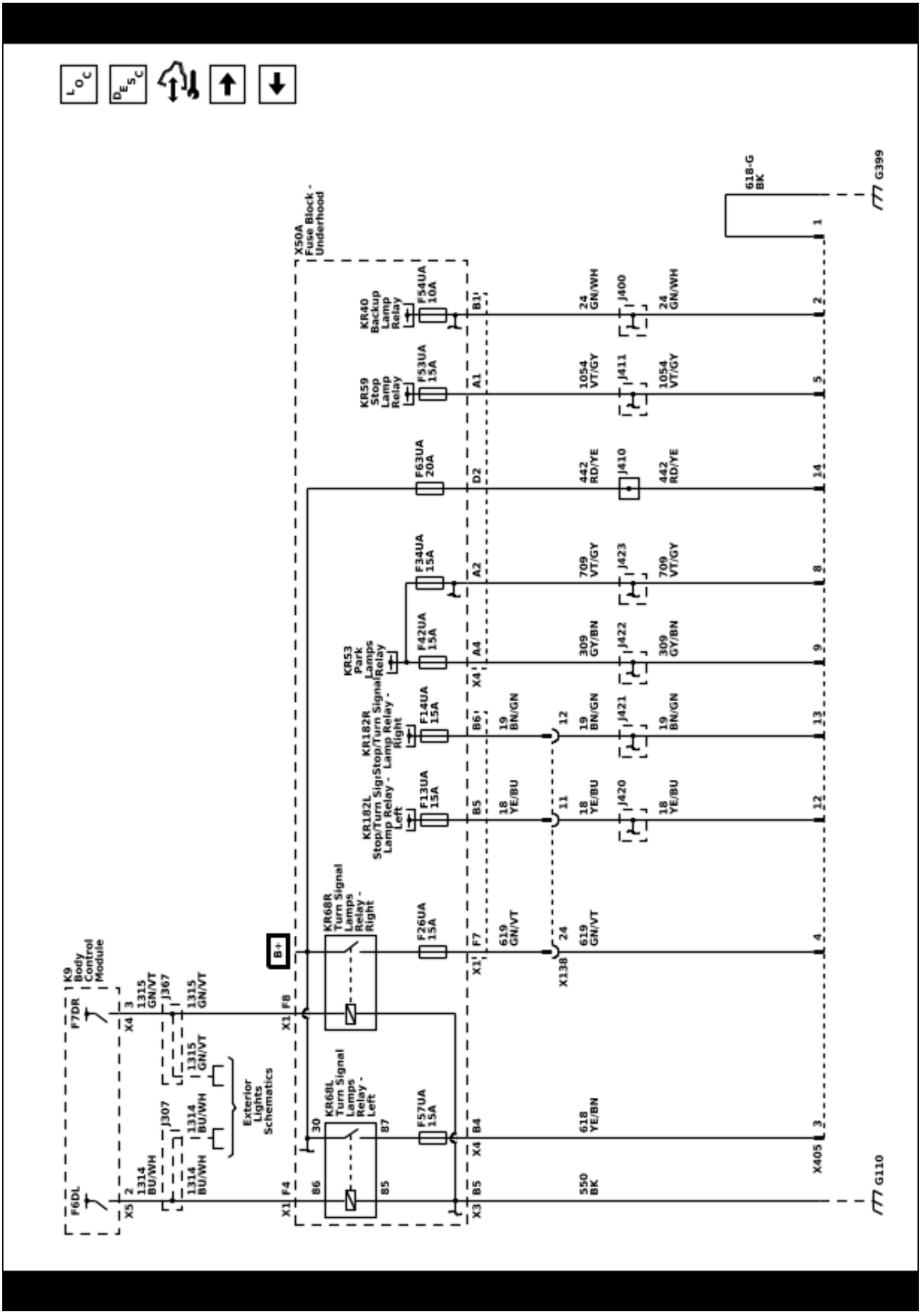
Upfitter Provision Schematics (Roof Beacon Provisions (TRW))



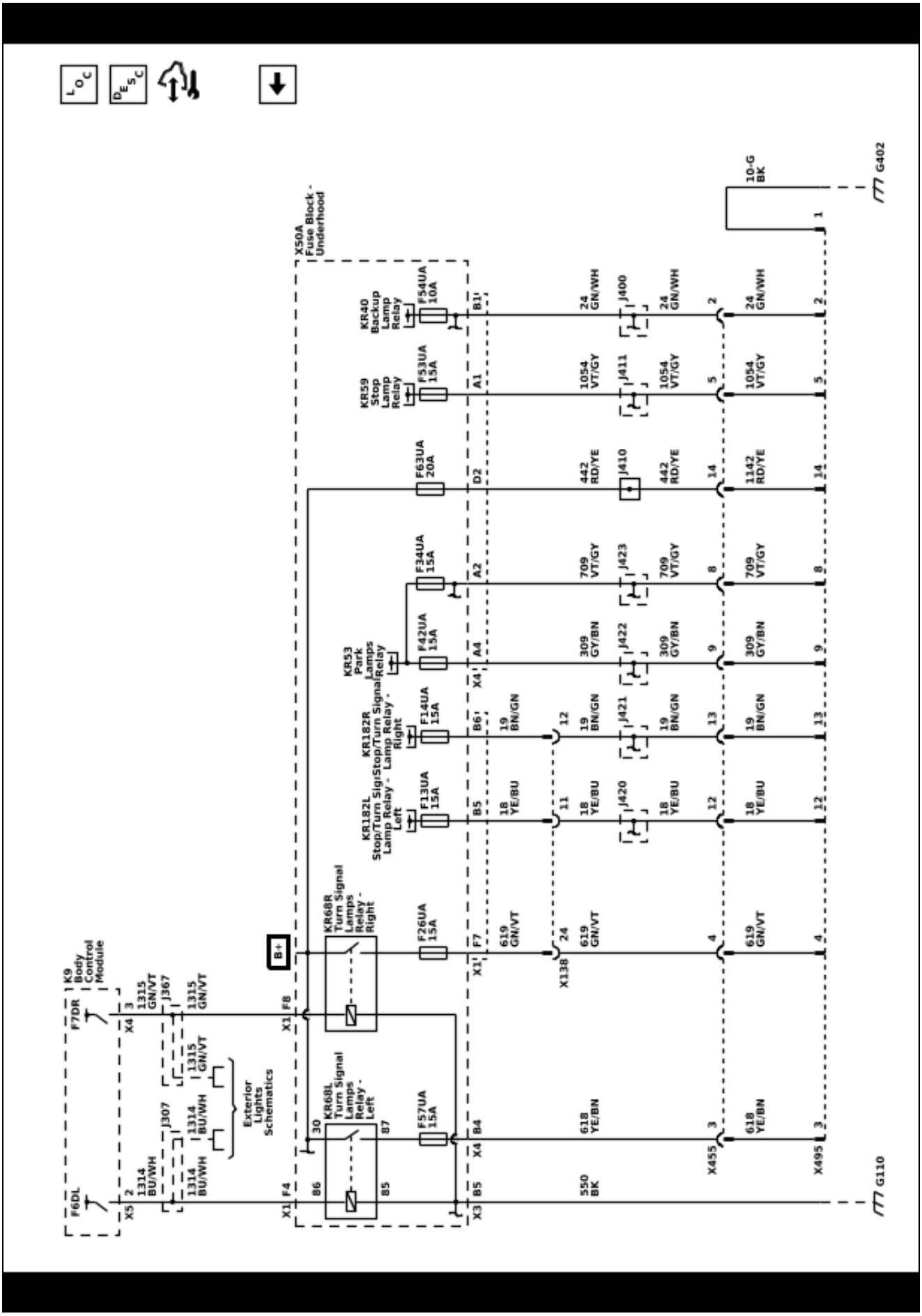
Upfitter Provision Schematics (Cargo Lamp Provision)



Upfitter Provision Schematics (Rear of Cab Provisions (5DX))



Upfitter Provision Schematics (Rear of Frame Provisions (5DY))



Description and Operation

Power Mode Description and Operation

Power to many of this vehicles circuits is controlled by the module that is designated the power mode master. This vehicles power mode master is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is useful to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the power mode master for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The power mode master will also activate relays and other direct outputs of the power mode master as needed. The power mode master determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the power mode serial data message does not match what the individual module can see from its own connections.

The power mode master receives ignition switch signals to identify the operators desired power mode. The Power Mode Parameter tables below illustrate the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

Power Mode Parameters

Ignition Switch Position	Power Mode Transmitted	Ign. Off/Run/Crank (Off/Run Crank Voltage Circuit)	Ignition Accessory/Run (Accessory Voltage Circuit)	Ignition Run/Crank (Ignition 1 Voltage Circuit)
Off Key Out	Off	Key Out / ACC	Inactive	Inactive
Off Key IN	Off	Key In / Off	Inactive	Inactive
Accessory	Accessory	Key Out / ACC	Active	Inactive
Run	Run	Run	Active	Active
Start	Crank Request	Crank	Inactive	Active

Relay Controlled Power Mode

The BCM uses the discrete ignition switch inputs Off/Run/Crank Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay 1 and retained accessory power relay 2 remain on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation on page 7-695* for more information on the retained accessory power function.

Transport Mode

Transport mode reduces the parasitic load of some modules during vehicle shipping and/or during vehicle storage conditions. This improves the drain time on the battery (up to 70 days without the battery going dead). When a vehicle is in transport/storage, some features may be disabled or have reduced functionality while enabled, such as keyless entry, afterblow, and content theft features.

Transport mode is initiated by turning on the hazard flashers, applying the brake pedal, and then turning and holding the ignition key to the start position with the brake pedal applied for greater than 15 s. The mode is disengaged by repeating the previous process. The driver information center (if equipped) will temporarily display Transport Mode is On when it enables and Transport Mode is OFF when it disables. For vehicles not equipped with a driver information center, the battery indicator light will constantly flash on the Instrument Cluster when enabled. This feature can be used as many times as necessary if the vehicle is to be stored for an extended period of time.

BCM Awake/Sleep States

The BCM is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

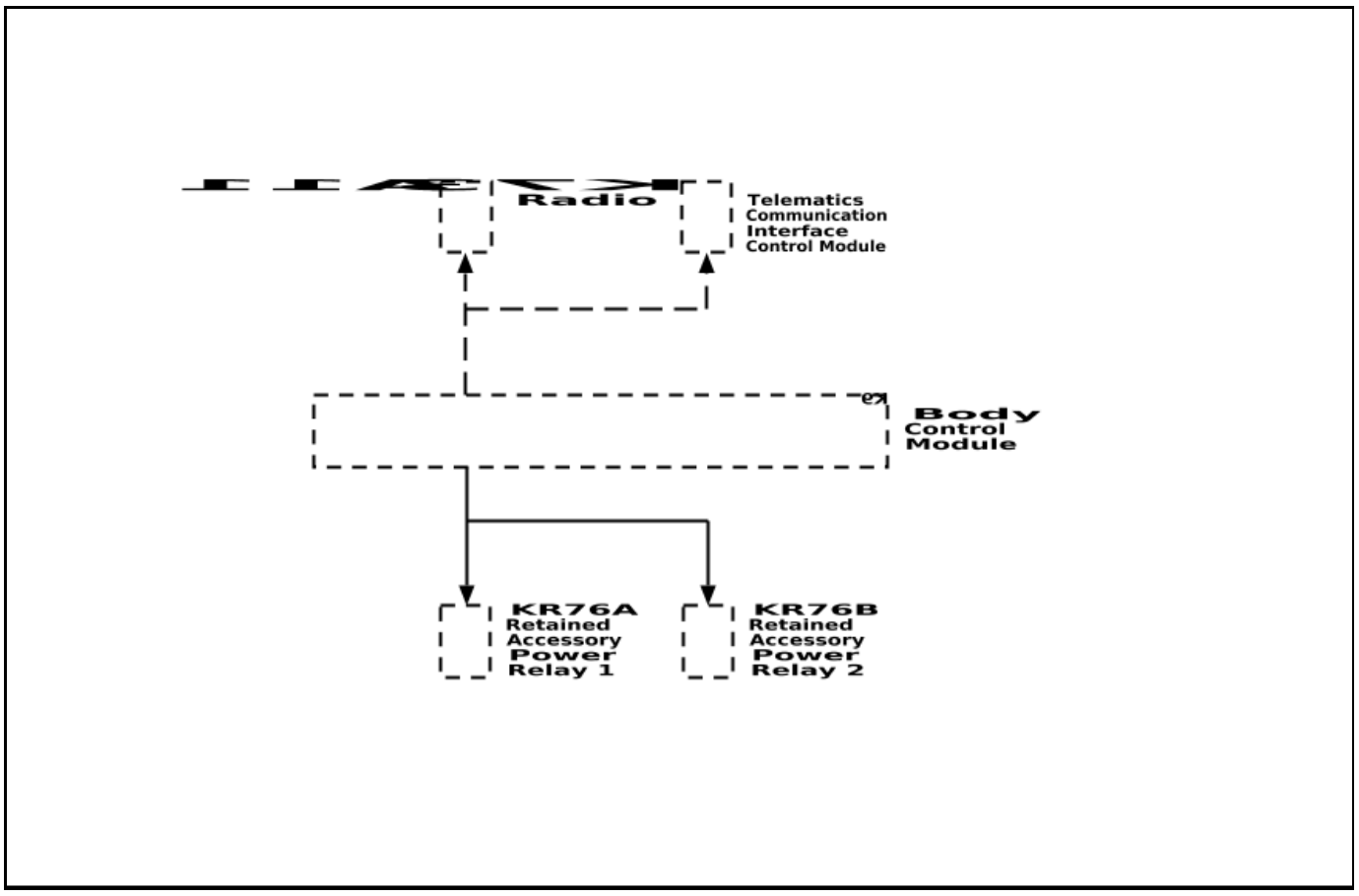
- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

- The ignition switch is OFF, key out.
- Ignition OFF, transmitter is out of range
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Retained Accessory Power Description and Operation



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The body control module (BCM) monitors the ignition switch position, battery condition, and each door ajar/ open switch status to determine whether the retained accessory power should be initiated or terminated. Retained accessory power is controlled by two different methods; relay control and serial data. Some modules receive a retained accessory power message from the BCM over the serial data circuits. Serial data controlled retained accessory power is deactivated as required by their modules retained accessory power mode operation. Other subsystems are activated directly by the BCM through a relay. Components and systems that are active in retained accessory power are also activated anytime the ignition is any position other than OFF regardless of the door switch signals.

Relay Controlled Retained Accessory Power

The BCM keeps the retained accessory power relay 1 and retained accessory power relay 2 energized during all power modes, except Off-Awake and Crank. The retained accessory power relay 1 and retained accessory power relay 2 are also energized for approximately 10 minutes after shutting the ignition OFF and removing the key, providing no door is opened.

Relay controlled retained accessory power will end when one of the following conditions is met:

- The BCM receives an input from any door ajar or open switch indicating the opening of any door after the ignition key is out of the ignition.

  Note: If the BCM is receiving any door ajar or open signal from those switches when the ignition key is turned OFF, retained accessory power will not initiate.

- The BCM internal timer for the retained accessory power expires after approximately 10 minutes.
- The BCM detects a decrease in battery capacity below a prescribed limit.

Systems powered by the retained accessory power relay 1 and retained accessory power relay 2 during the retained accessory power mode are as follows:

Note: The vehicle may not be equipped with all components as listed below.

- Accessory Power Receptacle
- Cigarette Lighter Receptacle
- Sunroof Control Module
- Sunroof Switch
- Sliding Rear Window Switch
- Mobile Device Wireless Charger Module

Serial Data Controlled Retained Accessory Power

Retained accessory power systems controlled by serial data are as follows:

Radio

Radio retained accessory power activation / termination is the same as relay operation with one exception; the only door switch that will turn off the radio during retained accessory power is the driver door open switch.

Vehicle Communication Interface Module (VCIM) (Onstar®) (If Equipped)

VCIM RAP activation/termination is the same as radio operation with 1 exception; if there is an active call when the ignition key is turned off the VCIM will remain in RAP mode, and keep the radio in RAP mode until the call is terminated.

Section 8

Transmission

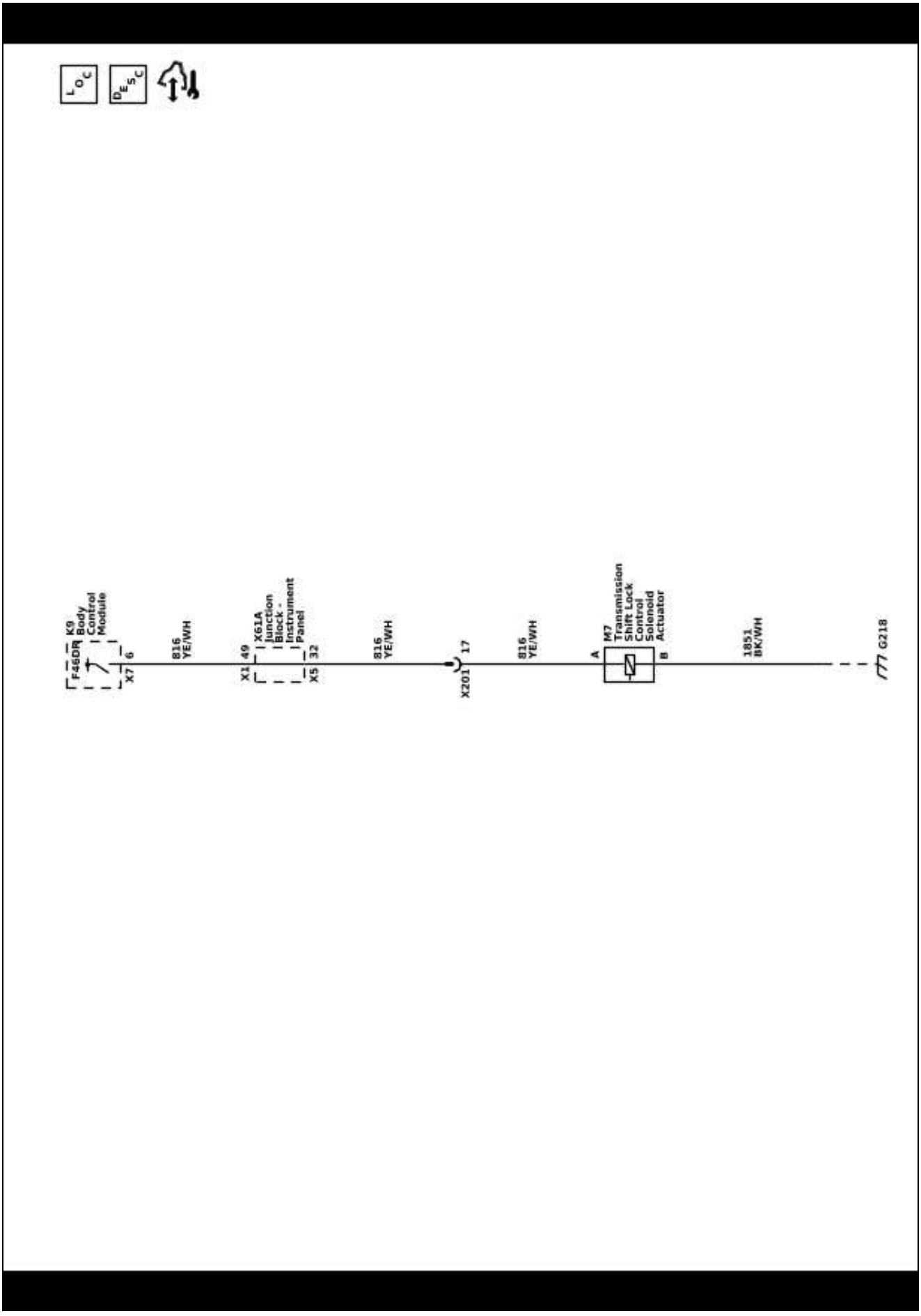
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BLANK

Shift Lock Control

Schematic and Routing Diagrams

Shift Lock Control Schematics (Shift Lock Control)



Description and Operation

Automatic Transmission Shift Lock Control Description and Operation

The Automatic Transmission Shift Lock Control System is a safety device that prevents an inadvertent shift out of PARK when the engine is running. The driver must press the brake pedal before moving the shift lever out of the PARK position. The system consists of the following components:

- The Automatic Transmission Shift Lock Solenoid (serviced as the Automatic Transmission Shift Lock Actuator)
- The Body Control Module (BCM)
- The Engine Control Module (ECM)

The BCM controls the voltage to the shift lock control solenoid though the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will supply voltage to the shift lock control solenoid:

- The ignition is in the ON position.
- The ECM sends an input via GMLAN serial data to the BCM when the Transmission Control Module (TCM) indicates the transmission is in the PARK position.
- The BCM receives a brake applied input from the stop lamp switch.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, releasing the mechanical lock on the shift lever as the solenoid energizes. The energized solenoid allows the driver to move the shift lever out of the PARK position. When the brake pedal is not applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. When the transmission is in the PARK position, the de-energized shift lock control solenoid will prevent shifting as the lever is mechanically locked in the PARK position.

During remote start operation the BCM will de-energize the automatic transmission shift lock control circuit, locking the shift lever in the PARK position

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