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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



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

5028742

### Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Country of Origin	1	United States
2	Manufacturer	G	General Motors
3	Vehicle Brand/Type	С	Chevrolet Truck
	GVWR/Brake System/Body Style	G	5001–6000/Hydraulic – Crew Cab
4		Н	5001-6000/Hydraulic - Extended Cab
4		Р	6001–7000/Hydraulic – CrewCab
		R	6001–7000/Hydraulic – Extended Cab

### 1-4 General Information

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

Position	Definition	Character	Description
		S/B	Chevrolet Colorado, Work Truck 2WD
		S/C	Chevrolet Colorado, LT 2WD
		S/D	Chevrolet Colorado, Z71 2WD
		S/9	Chevrolet Colorado 2WD, (Non-US, Non-Canada)
5–6	Chassis/Series	T/B	Chevrolet Colorado, Work Truck 4WD
5–6	Chassis/Series	T/C	Chevrolet Colorado, LT 4WD
		T/D	Chevrolet Colorado, Z71 4WD
		T/E	Chevrolet Colorado, Trail Boss 4WD
		T/F	Chevrolet Colorado, ZR2 4WD
		T/9	Chevrolet Colorado 4WD, (Non-US, Non-Canada)
7	Restraint System	E	AYH - Active Manual Belts, Airbags-Driver & Passenger-Front (1st 1: United States row), Front Seat Side (1st row), Roof Side (all seating rows)
8	Engine Type	К	L3B - ENGINE GAS, 4CYL, L4, 2.7L, SIDI, VVT, TURBO, DOHC, ALUM
9	Check Digit	_	Check Digit
10	Model Year	Р	2023
11	Plant Location	1	Wentzville, MO
12–17	Plant Sequence Number	_	Plant Sequence Number

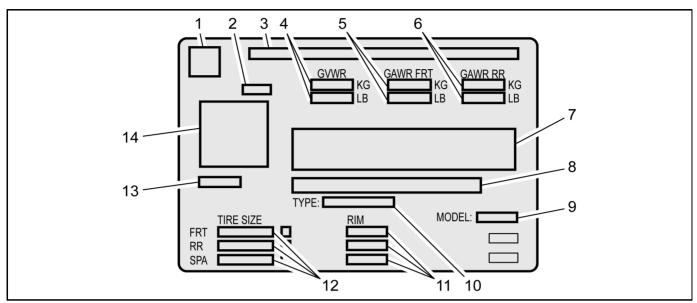
### 2.7L Engine ID and VIN Derivative Location

**Engine Identification** 

# **8L45/8L90 Transmission ID and VIN Derivative Location**

Transmission Identification Information

# Vehicle Certification, Tire Placard, and Anti-Theft Label

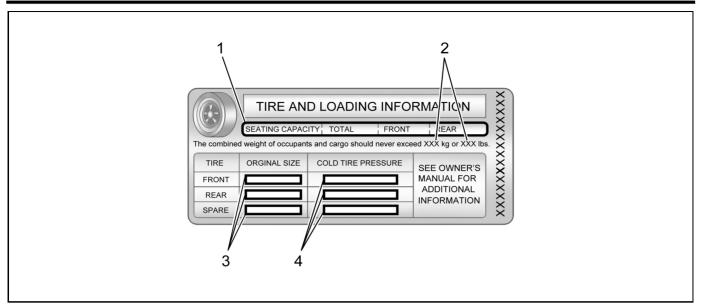


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### **Vehicle Certification Label**

Callout	Description	
A vehicle-spe	A vehicle-specific Certification label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Logo	
2	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.	
3	Name of Manufacturer	
4	Maximum Gross Vehicle Weight Rating (GVWR)	
5	Maximum Gross Axle Weight Rating (GAWR) - Front	
6	Maximum Gross Axle Weight Rating (GAWR) - Rear	
7	Certification Statement	
8	Vehicle Identification Number (VIN)	
9	Engineering Model Number	
10	Vehicle Class Type (Pass Car, etc.)	
11	Original Equipment Rim Size	
12	Original Equipment Tire Size	
13	Paint Code	
14	QR Code Once the QR code is scanned, the information will appear in this order on your smartphone or laptop: VIN, Model Year, Model, Build Month, Year, Engineering Book, Vehicle Order Number, 3 Digit RPO Codes sorted alphanumerically and the Paint Code (same code appears the lower left of the QR code)	

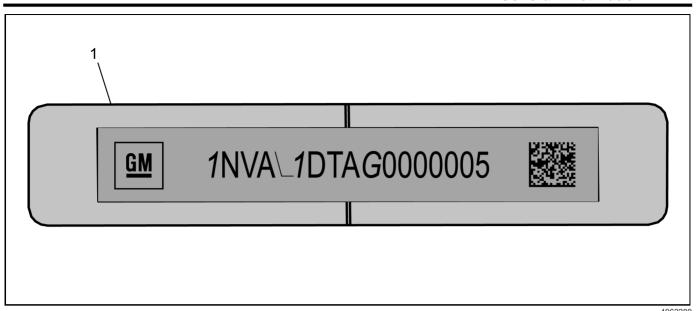
### 1-6 General Information



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### **Tire Placard**

Callout	Description	
A vehicle-specific Tire and Loading Information label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:		
1	pecified Occupant Seating Positions	
2	Maximum Vehicle Capacity Weight	
3	Original Equipment Tire Size	
4	Tire Pressure, Front, Rear, and Spare (Cold)	



4962289

#### **Anti-Theft Label**

Callout	Description
	tifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the moutside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and certificates of title n.
1	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
060	IDENTIFICATION-NOT EQUIPPED WITH FRONT AND/OR REAR PARK ASSIST
0TR	PACKAGE-TRAIL BOSS
2LT	PACKAGE-LT OPTION 2
2WT	PACKAGE-WT OPTION 2
3F9	SEAT BELT COLOR-RED (01)
3M9	SEAT BELT COLOR-YELLOW
4AA	INTERIOR TRIM-JET BLACK
4G2	INTERIOR TRIM-JET BLACK / ADRENALINE RED
4KW	INTERIOR TRIM-JET BLACK / ARTEMIS
4LT	PACKAGE-LT OPTION 4
4WT	PACKAGE-WT OPTION 4
4Z7	PACKAGE-Z71 OPTION 2
4ZR	PACKAGE-ZR OPTION 4
5BO	ACCESSORY-LAMP KIT - OFF ROAD
5GD	CALIBRATION-TURN ON TOW/ HAUL MODE
5K2	ACCESSORY-DECAL PACKAGE - BODY SIDE, DESIGN 1
5K5	ACCESSORY-DECAL PACKAGE - BODYSIDE - DESIGN 3

RPO	Description
5VI	ACCESSORY-TIE DOWN RINGS - CARGO AREA
5VQ	ACCESSORY-PUBX BEDLINER - W/ INTEGRAL STORAGE COMPARTMENTS
5W7	ACCESSORY-AIR FILTER - PERFORMANCE
5XC	ACCESSORY-SNORKEL - AIR INTAKE
65C	LABEL, WARNING-CALIFORNIA, PROP 65 COMPLIANT
6K5	SALES PACKAGE-CONVENIENCE II
719	SEAT BELT COLOR-BLACK (10)
A28	WINDOW RR-FULL WIDTH, SLIDING, MANUAL
A2V	ADJUSTER DRIVER SEAT-6WAY, DISCONT MAN RECLINE, MAN FORE/AFT, MAN HEIGHT
A2X	ADJUSTER DRIVER SEAT-8WAY, PWR RECLINE, PWR FORE/AFT, PWR HEIGHT, PWR TILT
A45	MEMORY-SEAT ADJUSTER, MIRROR, POWER, DRIVER, PERSONALIZATION
A50	SEAT-FRT BKT
A7E	ADJUSTER PASS ST-4WAY, DISCONT MAN RECLINE, MAN FORE/AFT
A91	LOCK CONTROL RR CMPT-TAILGATE, REM CONT ELEC OPEN/CLOSE
ACH	RESTRAINT PROVISIONS-RETRACTOR, AUTOMATIC LOCKING
AEC	WINDOW REG DRVR DR-POWER OPERATED,EXPRESS DOWN

### 1-8 General Information

RPO	Description
	WINDOW REG PASS DR-POWER
AED	OPERATED, EXPRESS DOWN
AEO	RESTRAINT-SEAT BELT 2ND TENSIONER, FRT
AEQ	WINDOW REG REAR DR-POWER OPERATED, EXPRESS DOWN
AGJ	WINDOW SIDE FRT-TEMPERED, SOLAR GLAZING
AKO	WINDOW TYPE-PRIVACY
AKX	WINDSHIELD TYPE-SOLAR ABSORBING
AL0	SENSOR INDICATOR-INFLATABLE RESTRAINT, FRT PASS/CHILD PRESENCE DETECTOR
AL9	LUMBAR DRIVER-SEAT, POWER, 2 WAY
AQP	RESTRAINT-HEAD, RR SEAT, CENTER
ARU	WINDOW SIDE RR-TEMPERED, PRIVACY GLAZING
AT7	RESTRAINT SYSTEM RR-SEAT, SHLDR, RETR, 3 POINT, 3 SHLDR
ATG	LOCK CONTROL, ENTRY-REMOTE ENTRY, STANDARD RANGE
AUW	SEAT REAR-FOLDING, CUSHION 60/40, STORAGE BOX
AVJ	LOCK CONTROL, ENTRY-REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, FRONT DOORS
AVN	RESTRAINT-HEAD, RR SEAT
AXG	WINDOW REG DRVR DR-POWER OPERATED, EXPRESS UP/DOWN
AXK	VEHICLE TYPE-TRUCK
АҮН	RESTRAINT SYSTEM-DRVR (SINGLE, ADAPTIVE) & PASS (DUAL) FRT, SEAT SIDE, ROOF SIDE
B26	SALES PACKAGE-SAFETY PACKAGE VAR. 1
B30	COVERING FLOOR-CARPET
B34	COVERING FRT-FLOOR MATS, CARPETED INSERT
B35	COVERING REAR-FLOOR MATS, CARPETED INSERT
B38	COVERING FLOOR-VINYL, FRT & RR, FULL WIDTH
B96	MOLDING WHL OPENING-
BCP	COVER ENGINE-APPEARANCE
BDR	LOCK CYLINDER-RR COMPT
BIH	INSULATION-ACOUSTICAL PKG, HOOD
BPC	COMPARTMENT-STOWAGE TAILGATE
BS2	INSULATION-ACOUSTICAL PKG, ADDED MATERIAL
BS5	INSULATION-FLR, ACOUSTICAL PKG, VAR. 2
BTM	SWITCH-START, KEYLESS
BTV	REMOTE START-VEHICLE
BW5	MOLDING B/S (OPEL)-EXTR, MLDG, SIDE WINDOW REVEAL, BLACK

BW7 ORNAMENTATION-EXTR, PLR APLQ BWN STEPS-CORNER ASSIST, BUMPER  BZT STEPS, RUNNINGBOARD-PROTECTOR, ROCKER PANEL, BLACK  C49 DEFOGGER-RR WINDOW, ELECTRIC  C59 VENT-AIR, CONSOLE, RR  C67 HVAC SYSTEM-AIR CONDITIONER FRT, ELECTRONIC CONTROLS  C75 LAMP-INTR, FRT HEADER, COURTESY & DUAL READING  C76 HEATER-AIR CONDITIONER DUCT, RR PASS  C91 LAMP-INTR, ROOF, COURTESY  CAC ROOF-SUN, SINGLE GLASS, INR SLIDING, MAN SUNSHADE  CGN LINER-PUBX, SPRAY ON  CJ2 HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT  CTT HITCH ASSIST-GUIDELINES  CWM SALES PACKAGE-TECHNOLOGY  D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM  D31 MIRROR I/S RIV-TILT  D54 CONSOLE-FRT COMPT, FLOOR, WIO LID  D72 HANDLE O/S DOOR-BDAY COLOR  D87 HANDLE O/S DOOR-BDAY COLOR  D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S RIV-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, WIMIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP6 MIRROR PROVISIONS-HOUSING, MOLDED WICOLOR  DRA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVXPASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-SEAT BACK, DRIVER  E90 POCKET-FRONT SEAT BACK, DRIVER  E91 POCKET-FRONT SEAT BACK, DRIVER	RPO	Description
BZT STEPS, RUNNINGBOARD-PROTECTOR, ROCKER PANEL, BLACK  C49 DEFOGGER-RR WINDOW, ELECTRIC  C59 VENT-AIR, CONSOLE, RR  C67 HVAC SYSTEM-AIR CONDITIONER FRT, ELECTRONIC CONTROLS  C75 LAMP-INTR, FRT HEADER, COURTESY & DUAL READING  C7C HEATER-AIR CONDITIONER DUCT, RR PASS  C91 LAMP-INTR, ROOF, COURTESY  CAC ROOF-SUN, SINGLE GLASS, INR SLIDING, MAN SUNSHADE  CGN LINER-PUBX, SPRAY ON  CJ2 HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT  CTT HITCH ASSIST-GUIDELINES  CWM SALES PACKAGE-TECHNOLOGY  D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM  D31 MIRROR I/S R/V-TILT  D54 CONSOLE-FRT COMPT, FLOOR, W/O LID  D72 HANDLE O/S DOOR-BLACK  D75 HANDLE O/S DOOR-BLACK  D75 HANDLE O/S DOOR-BODY COLOR  HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING PASS, WINROR, COVER, ILLUM, SLIDING, PASS, WINROR, COVER,	BW7	ORNAMENTATION-EXTR, PLR APLQ
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COT ELECTRONIC CONTROLS  C75 LAMP-INTR, FRT HEADER, COURTESY & DUAL READING  C7C HEATER-AIR CONDITIONER DUCT, RR PASS  C91 LAMP-INTR, ROOF, COURTESY  CAC ROOF-SUN, SINGLE GLASS, INR SLIDING, MAN SUNSHADE  CGN LINER-PUBX, SPRAY ON  CJ2 HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT  CTT HITCH ASSIST-GUIDELINES  CWM SALES PACKAGE-TECHNOLOGY  D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM  D31 MIRROR I/S R/V-TILT  D54 CONSOLE-FRT COMPT, FLOOR, W/O LID  D72 HANDLE O/S DOOR-BLACK  D75 HANDLE O/S DOOR-BODY COLOR  D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP6 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  D87 MIRROR PROVISIONS-HOUSING, PAINTED  D84 DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  HANDLE-I/S, DR, JET BLACK  BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	C59	VENT-AIR, CONSOLE, RR
C7C HEATER-AIR CONDITIONER DUCT, RR PASS  C91 LAMP-INTR, ROOF, COURTESY  CAC ROOF-SUN, SINGLE GLASS, INR SLIDING, MAN SUNSHADE  CGN LINER-PUBX, SPRAY ON  CJ2 HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT  CTT HITCH ASSIST-GUIDELINES  CWM SALES PACKAGE-TECHNOLOGY  D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM  MIRROR I/S RV-TILT  D54 CONSOLE-FRT COMPT, FLOOR, W/O LID  D72 HANDLE O/S DOOR-BLACK  D75 HANDLE O/S DOOR-BODY COLOR  D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S RV-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  D84 DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	C67	
C7C RR PASS  C91 LAMP-INTR, ROOF, COURTESY  CAC ROOF-SUN, SINGLE GLASS, INR SLIDING, MAN SUNSHADE  CGN LINER-PUBX, SPRAY ON  CJ2 HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT  CTT HITCH ASSIST-GUIDELINES  CWM SALES PACKAGE-TECHNOLOGY  D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM  D31 MIRROR I/S R/V-TILT  D54 CONSOLE-FRT COMPT, FLOOR, W/O LID  D72 HANDLE O/S DOOR-BLACK  D75 HANDLE O/S DOOR-BODY COLOR  D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  MW MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  DWV MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	C75	
CAC ROOF-SUN, SINGLE GLASS, INR SLIDING, MAN SUNSHADE CGN LINER-PUBX, SPRAY ON  CJ2 HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT  CTT HITCH ASSIST-GUIDELINES  CWM SALES PACKAGE-TECHNOLOGY  D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM  D31 MIRROR I/S R/V-TILT  D54 CONSOLE-FRT COMPT, FLOOR, W/O LID  D72 HANDLE O/S DOOR-BLACK  D75 HANDLE O/S DOOR-BODY COLOR  D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	C7C	· · · · · · · · · · · · · · · · · · ·
CGN LINER-PUBX, SPRAY ON  CJ2 HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT  CTT HITCH ASSIST-GUIDELINES  CWM SALES PACKAGE-TECHNOLOGY  D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM  D31 MIRROR I/S R/V-TILT  D54 CONSOLE-FRT COMPT, FLOOR, W/O LID  D72 HANDLE O/S DOOR-BLACK  D75 HANDLE O/S DOOR-BLACK  D75 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MEAT, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	C91	LAMP-INTR, ROOF, COURTESY
CJ2 HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT CTT HITCH ASSIST-GUIDELINES  CWM SALES PACKAGE-TECHNOLOGY  D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM  D31 MIRROR I/S R/V-TILT  D54 CONSOLE-FRT COMPT, FLOOR, W/O LID  D72 HANDLE O/S DOOR-BLACK  D75 HANDLE O/S DOOR-BODY COLOR  D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	CAC	
CJZ AUTO TEMP CONT, AUX TEMP CONT CTT HITCH ASSIST-GUIDELINES CWM SALES PACKAGE-TECHNOLOGY D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM D31 MIRROR I/S R/V-TILT D54 CONSOLE-FRT COMPT, FLOOR, W/O LID D72 HANDLE O/S DOOR-BLACK D75 HANDLE O/S DOOR-BODY COLOR HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK DA5 ARM REST-RR SEAT, CENTER DD8 MIRROR I/S R/V-LT SENSITIVE SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING DIL LENS INFOT DISPLAY-FULL GLASS DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS DLV DRIVER & PASS, W/MIRROR & COVER DNS EQUIPMENT-SUPPLIER INSTALLED DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR DP6 MIRROR PROVISIONS-HOUSING, PAINTED DSA DECAL PACKAGE-BODY SIDE ACCENT DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS E33 HANDLE-I/S, DR, GLOSSY CHROME E49 HANDLE-I/S, DR, JET BLACK BODY EQUIPMENT-FLEETSIDE PICK-UP BOX E90 POCKET-FRONT SEAT BACK, DRIVER	CGN	LINER-PUBX, SPRAY ON
CWM SALES PACKAGE-TECHNOLOGY  D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM  D31 MIRROR I/S R/V-TILT  D54 CONSOLE-FRT COMPT, FLOOR, W/O LID  D72 HANDLE O/S DOOR-BLACK  D75 HANDLE O/S DOOR-BODY COLOR  D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	CJ2	
D07 CONSOLE-FRT COMPT, FLOOR, CUSTOM D31 MIRROR I/S R/V-TILT D54 CONSOLE-FRT COMPT, FLOOR, W/O LID D72 HANDLE O/S DOOR-BLACK D75 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK DA5 ARM REST-RR SEAT, CENTER DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING DIL LENS INFOT DISPLAY-FULL GLASS DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER DNS EQUIPMENT-SUPPLIER INSTALLED  MOP6 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS E33 HANDLE-I/S, DR, GLOSSY CHROME E49 HANDLE-I/S, DR, JET BLACK BODY EQUIPMENT-FLEETSIDE PICK-UP BOX E90 POCKET-FRONT SEAT BACK, DRIVER	CTT	HITCH ASSIST-GUIDELINES
D31 MIRROR I/S R/V-TILT D54 CONSOLE-FRT COMPT, FLOOR, W/O LID D72 HANDLE O/S DOOR-BLACK D75 HANDLE O/S DOOR-BODY COLOR D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK DA5 ARM REST-RR SEAT, CENTER DD8 MIRROR I/S R/V-LT SENSITIVE SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING DIL LENS INFOT DISPLAY-FULL GLASS DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS DLV DRIVER & PASS, W/MIRROR & COVER DNS EQUIPMENT-SUPPLIER INSTALLED DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR DP6 MIRROR PROVISIONS-HOUSING, PAINTED DSA DECAL PACKAGE-BODY SIDE ACCENT DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS E33 HANDLE-I/S, DR, GLOSSY CHROME E49 HANDLE-I/S, DR, JET BLACK BODY EQUIPMENT-FLEETSIDE PICK-UP BOX E90 POCKET-FRONT SEAT BACK, DRIVER	CWM	SALES PACKAGE-TECHNOLOGY
D54 CONSOLE-FRT COMPT, FLOOR, W/O LID D72 HANDLE O/S DOOR-BLACK D75 HANDLE O/S DOOR-BODY COLOR D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK DA5 ARM REST-RR SEAT, CENTER DD8 MIRROR I/S R/V-LT SENSITIVE  BEG SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING DIL LENS INFOT DISPLAY-FULL GLASS DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS E33 HANDLE-I/S, DR, GLOSSY CHROME E49 HANDLE-I/S, DR, JET BLACK BODY EQUIPMENT-FLEETSIDE PICK-UP BOX E90 POCKET-FRONT SEAT BACK, DRIVER	D07	CONSOLE-FRT COMPT, FLOOR, CUSTOM
D72 HANDLE O/S DOOR-BLACK D75 HANDLE O/S DOOR-BODY COLOR  D87 BANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK DA5 ARM REST-RR SEAT, CENTER DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	D31	MIRROR I/S R/V-TILT
D75 HANDLE O/S DOOR-BODY COLOR  D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	D54	CONSOLE-FRT COMPT, FLOOR, W/O LID
D87 HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK  DA5 ARM REST-RR SEAT, CENTER  DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	D72	HANDLE O/S DOOR-BLACK
DA5 ARM REST-RR SEAT, CENTER DD8 MIRROR I/S R/V-LT SENSITIVE  BEG SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	D75	HANDLE O/S DOOR-BODY COLOR
DD8 MIRROR I/S R/V-LT SENSITIVE  SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	D87	HANDLE, REAR CLOSURE-O/S, L/GATE, R/CMPT, BLACK
DEG SUNSHADE-DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DA5	ARM REST-RR SEAT, CENTER
DEG ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING  DIL LENS INFOT DISPLAY-FULL GLASS  DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DD8	MIRROR I/S R/V-LT SENSITIVE
DLF MIRROR O/S-LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DEG	ILLUM, SLIDING, PASS, MIRROR, COVER,
DLF MAN FOLD, FLAT/DRVR, CNVXPASS  DLV MIRROR I/S FRT VAN-SUNSHADE, DRIVER & PASS, W/MIRROR & COVER  DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DIL	LENS INFOT DISPLAY-FULL GLASS
DLV DRIVER & PASS, W/MIRROR & COVÉR DNS EQUIPMENT-SUPPLIER INSTALLED  DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DLF	
DP5 MIRROR PROVISIONS-HOUSING, MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DLV	
DPS MOLDED W/COLOR  DP6 MIRROR PROVISIONS-HOUSING, PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK- UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DNS	EQUIPMENT-SUPPLIER INSTALLED
DP6 PAINTED  DSA DECAL PACKAGE-BODY SIDE ACCENT  DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DP5	
DWV MIRROR O/S-LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DP6	•
MANFOLD, FLAT/DRVR, CNVX/PASS  E33 HANDLE-I/S, DR, GLOSSY CHROME  E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK-UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DSA	DECAL PACKAGE-BODY SIDE ACCENT
E49 HANDLE-I/S, DR, JET BLACK  E63 BODY EQUIPMENT-FLEETSIDE PICK- UP BOX  E90 POCKET-FRONT SEAT BACK, DRIVER	DWV	
E63 BODY EQUIPMENT-FLEETSIDE PICK- UP BOX E90 POCKET-FRONT SEAT BACK, DRIVER	E33	HANDLE-I/S, DR, GLOSSY CHROME
E90 POCKET-FRONT SEAT BACK, DRIVER	E49	HANDLE-I/S, DR, JET BLACK
	E63	
E91 POCKET-FRONT SEAT BACK, PASS	E90	POCKET-FRONT SEAT BACK, DRIVER
	E91	POCKET-FRONT SEAT BACK, PASS

RPO	Description
EF7	COUNTRY-UNITED STATES OF AMERICA (USA)
ENL	ENG CONTROL DISABLE-STOP/START, NON-LATCHING
F46	CHASSIS DRIVE LINE-ALL WHEEL DRIVE (AWD)/FOUR WHEEL DRIVE(4WD)
FE9	CERTIFICATION-EMISSION, FEDERAL
FJW	VEHICLE FUEL-GASOLINE E15
G80	AXLE POSITRACTION-LIMITED SLIP
G93	AXLE-FRT ELECTRONIC LOCKING DIFFERENTIAL, DRIVER SELECT
G94	AXLE-RR ELECTRONIC LOCKING DIFFERENTIAL, DRIVER SELECT
GAZ	PRIMARY COLOR-EXTERIOR, SUMMIT WHITE (G) 8624
GBA	PRIMARY COLOR-EXTERIOR, BLACK (G) 8555
GCP	PRIMARY COLOR-EXTERIOR, TRIPP MET- 1 (628G)
GLT	PRIMARY COLOR-EXTERIOR, POW ZINGA MET-1 (327E)
GNT	PRIMARY COLOR-EXTERIOR, RADIANT RED TINT MET-1 (170H)
GTL	PRIMARY COLOR-EXTERIOR, SAND DUNE MET-1 (661G)
GU6	AXLE REAR-3.42 RATIO
GXD	PRIMARY COLOR-EXTERIOR, SHARKSKIN MET-1 (130H)
GXN	PRIMARY COLOR-EXTERIOR, RETROGRADE MET-1 (135H)
H1T	INTERIOR TRIM CONFIG-CLOTH, LEVEL 1, JET BLACK
H2G	INTERIOR TRIM CONFIG-VINYL, LEVEL 1, JET BLACK
H2Z	INTERIOR TRIM CONFIG-CLOTH, LEVEL 2, VAR1, JET BLACK
HFD	INTERIOR TRIM CONFIG-LEATHER, LEVEL 1, JET BLACK / ARTEMIS
HUQ	INTERIOR TRIM CONFIG-LEATHER, LEVEL 1.0, JET BLACK / ADRENALINE RED
HV3	INTERIOR TRIM CONFIG-CLOTH/VINYL, LEVEL 1, JET BLACK / ARTEMIS
HXR	INTERIOR TRIM CONFIG-VINYL, LEVEL 2, JET BLACK
HZY	INTERIOR TRIM CONFIG-CLOTH/VINYL, LEVEL 1, JET BLACK / ADRENALINE RED
IKP	VEH CONTENT BASIS-US
IVD	INFOTAINMENT-VIRTUAL COCKPIT SYS - MID
J23	ENGINEERING YEAR-2023
JCF	BRAKE ROTOR-FNC
JGU	BRAKE SYSTEM-17" FRT FIXED CALIPER DISC, 17" RR SLIDING CALIPER DISC
JHE	CONTROL-HILL DESCENT CONTROL (HDC)

RPO	Description
JL1	BRK APL CTRL FEATURE-INTEGRATED TRAILER BRAKE
K05	HEATER ENG-BLOCK
K10	FILTER MONITOR-ENGINE AIR
K34	CRUISE CONTROL-AUTOMATIC, ELECTRONIC
K4C	CHARGER-INDUCTIVE PORTABLE WIRELESS DEVICE
K4F	BATTERY-LN4, AGM, 12V, 80AH, 800 ENCCA
KA1	HEATER SEAT FRT-DRVR & PASS
KC9	RECEPTACLE PUBX-ELECTRICAL, 110 VOLT
KI3	STEERING WHEEL HEAT-AUTOMATIC
KI6	RECEPTCL FRT CNSL RR-ELECTRICAL, 110 VOLT
KL9	ENG CONTROL-STOP/START SYS, CONVENTIONAL AT, CONVENTIONAL MT OR BRAKE RELEASE LATE RESTART
KPA	RECEPTACLE-ELECTRICAL, FRT CONSOLE RR, 12 VOLT
KQX	CAP-FUEL FILL, CAPLESS SYSTEM
KRV	REFRIGERANT-LOW GWP
KSG	CRUISE CONTROL-AUTOMATIC, ADAPTIVE, WITH STOP/GO
KU9	VENTILATED SEAT FRT-DRVR & PASS
KW5	GENERATOR-220 AMP
KW7	GENERATOR-170 AMP
L2R	ENGINE-GAS, 4 CYL, L4, 2.7L, DI, TURBO, DOHC, ALUM
L3B	ENGINE-GAS, 4 CYL, L4, 2.7L, SIDI, VVT, TURBO, DOHC, ALUM
LHD	VEHICLE DRIVE-LEFTHAND DRIVE
MFC	TRANSMISSION-AUTO 8 SPD, 8L80, GEN 2, ATSS, CPA
N33	STEERING COLUMN-TILT TYPE
N37	STEERING COLUMN-TILT, TELESCOPING
N5G	STEERING WHEEL-SYNTHETIC, 4 SPOKE, SPORT, ROUND
N8R	TRANSMISSION-AUTO 8 SPD, 8L45, GEN 2, CPA, ATSS
NAM	NAVIGATION-APPS
NCH	LOCK-MANUAL CHILD LOCK SYSTEM (REAR DOOR LATCH)
NE1	CERTIFICATION-EMISSION, GEOGRAPHICALLY RESTRICTED REGISTRATION
NE8	EVAPORATIVE SYSTEM-LEVEL 3 EMISSIONS
NK5	STEERING WHEEL-STANDARD
NKD	NOISE CONTROL-ENGINE SOUND ENHANCEMENT, ADDED
NP0	TRANSFER CASE-ACTIVE, SINGLE SPEED,SWITCH ACTIVATED,ALUM

### 1-10 General Information

RPO	Description
NQH	TRANSFER CASE-ACTIVE, TWO SPEED, SWITCH ACTIVATED, ALUM
NTB	EMISSION SYSTEM-FEDERAL, TIER 3
NUG	EMISSION SYSTEM-CALIFORNIA, SULEV30
NZS	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 17
NZT	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 18
PAN	PHONE PROJ TECH-VAR 1
PAP	PHONE PROJ TECH-VAR 2
PPA	EQUIPMENT-ASSIST, OPEN & CLOSE, TAILGATE
PPW	PHONE PROJECTION-PHONE PROJECTION WIRELESS
PZ8	IMAGE ADJUSTMENT-HITCH VIEW
PZI	WHEEL-18 X 8.5, J, ALUMINUM, DESIGN 9
PZX	WHEEL-18 X 8.5, J, ALUMINUM, DESIGN 2
Q2P	TIRE ALL-265/65R18 SL 114T AT VAR 2
Q5W	WHEEL-17 X 8.0, J, ALUMINUM, DESIGN 1
QAE	TIRE ALL-275/60R20 SL 115S BW AT
QAF	TIRE ALL-LT285/70R17 C 116/113Q BW OOR
QDC	TIRE SPARE-T175/90D18 LL 111M BW SPR
QHR	TIRE ALL-255/65R17 SL 110T BW ALS
QIA	TIRE ALL-265/60R18 SL 110T BW AL2
QKF	ACCESSORY TIRE-TIRE ALL-255/65R17 SL 110T BW ALS
QXP	TIRE ALL-255/55R20 SL 107S BW AT
R1U	WHEEL-17 X 8.0, J, ALUMINUM, DESIGN 3
R30	TIRE ALL-LT275/65R18 C 113/110Q BW OOR, VAR1
R5C	TIRE BRAND ALL-BRIDGESTONE
R88	ACCESSORY-ILLUMINATED EMBLEM - EXTERIOR - DESIGN 2
RD6	WHEEL-17 X 8.0, J, STEEL, DESIGN 2
RDI	ACCESSORY-KEYLESS ENTRY
RIA	ACCESSORY-FLOOR LINER - CONTOURED
RIK	ACCESSORY-BADGE - EXTERIOR, PACKAGE, DESIGN 1
RM7	WHEEL SPARE-17 X 8.0, J, STEEL, DESIGN 1
RMR	TIRE SPARE-LT285/70R17 C 116/113Q BW OOR
RPP	WHEEL-17 X 8.0, J, STEEL, DESIGN 4
RPS	WHEEL-20 X 9.0, J, ALUMINUM, DESIGN 13
RSR	OCCUPANT DETECT SYS-REAR SEAT, DOOR ACTIVATED
RTI	WHEEL SPARE-18 X 4.5, B, STEEL, DESIGN 1

RPO	Description
RVP	ACCESSORY-ASSIST STEPS - REMOVABLE
RW2	ACCESSORY-BED RAILS - BLACK
RWL	CHASSIS DRIVE LINE-REAR WHEEL DRIVE (RWD)
RWQ	ACCESSORY-CALIBRATIONS - POWERTRAIN
RX9	ACCESSORY TIRE-255/55R20 SL 107S BW AT
RXC	ACCESSORY-AIR, POLLUTANT, ODOR, FINE DUST, ALLERGEN
RXH	ACCESSORY-CENTER CAP - WHEEL - DESIGN 1
RXJ	ACCESSORY-CENTER CAP - WHEEL - DESIGN 2
RYT	ACCESSORY-FIRST AID KIT
RZU	ACCESSORY-LAMPS-AUX OFF ROAD
RZW	ACCESSORY-HARNESS - TRAILER HITCH
RZY	ACCESSORY-HARNESS - WIRING
S08	ACCESSORY-HIGHWAY SAFETY KIT
S0Y	ACCESSORY-LAMPS - CARGO AREA
S1H	ACCESSORY-OFF-ROAD RECOVERY KIT
S3W	ACCESSORY-LAMPS - FRONT GRILLE MOUNTED - OFF-ROAD
S3X	ACCESSORY-LAMPS - FRONT ROOF MOUNTED - OFF-ROAD
S47	ACCESSORY-LUG NUTS
S6L	ACCESSORY-PROTECTOR - ROCKER PANEL
S6P	ACCESSORY-REMOTE START KIT
SA5	ACCESSORY-SHIELD - UNDERBODY
SAX	ACCESSORY-SPEAKER KIT - LEVEL 1
SB1	ACCESSORY-SPLASH GUARDS - FLAT
SB7	ACCESSORY-DECAL PACKAGE - DESIGN 1
SBY	ACCESSORY-SPORT BAR - BED MOUNTED - DESIGN 1
SD0	ACCESSORY-OFF ROAD FRONT BUMPER FASCIA
SD5	ACCESSORY-TIRE PRESSURE MONITOR
SDE	ACCESSORY-TRAILER HITCH - REMOVABLE
SFE	ACCESSORY-WHEEL LOCKS
SFZ	ACCESSORY-EMBLEM - EXTERIOR - DESIGN 1
SIQ	ACCESSORY-SKID PLATES - FRONT DESIGN 1
SIR	ACCESSORY-SKID PLATES - REAR DESIGN 1
SJ8	ACCESSORY-ILLUMINATION PACKAGE - INTERIOR AMBIENT
SMY	ACCESSORY-WHEEL - 17 X 8.0 - J - ALUMINUM - DESIGN 1

RPO	Description
SMZ	Description  ACCESSORY-OFF ROAD DRIVE SHAFT
SIVIZ	ACCESSORY-WHEEL - 20 X 9 - J -
SNU	ALUMINUM - DESIGN 4
SNX	ACCESSORY-WHEEL - 20 X 9 - J - ALUMINUM - DESIGN 1
SPY	ACCESSORY-LUG NUTS - ALT FINISH
SPZ	ACCESSORY-WHEEL LOCKS - ALT FINISH
SQI	ACCESSORY-SUSPENSION LIFT KIT
SRH	ACCESSORY-WHEEL - 17 X 8.0 - J - ALUMINUM - DESIGN 3
T3V	LAMP-CHMSL - CENTER HIGH MOUNT STOP LIGHT (SEE BFO BEFORE USING)
T40	LAMP FRT FOG-FRT FOG, LED
T4A	HEADLAMPS-HALOGEN
T4L	HEADLAMPS-LED
T4Z	SEAT BELT SAFETY SYS-SHIFTER INTERLOCK, GEN 1, NON- CUSTOMIZABLE
T7E	LAMP SYSTEM-DAYTIME RUNNING, LED
T7Q	LAMP SYSTEM-DAYTIME RUNNING, HALOGEN
Т83	CONTROL, HEADLAMPS-AUTOMATIC ON-OFF
T8Z	SEAT BELT SAFETY SYS-SHIFTER INTERLOCK, GEN 3, INFOTAINMENT CUSTOMIZABLE
T93	LAMP-TAIL & STOP, SPECIAL
TCA	LAMP-DOME, CENTER
TCK	DEFLECTOR-RR TIRE, AIR
TDM	MODE DRIVER SETTINGS-TEEN DRIVER, INFOTAINMENT
TGZ	ACCESSORY-TAILGATE ORGANIZER DESIGN 3
TQ5	HEADLAMP HIGH BEAM-AUTO CONTROL
U1D	INDICATOR-TRAILER INFORMATION
U2K	DIGITAL AUDIO SYSTEM-S-BAND
U91	ANTENNA-SHORT, ROOF, RADIO
UBD	RECPT USB FLR CNSL F-DUAL, CHARGE, DATA
UBI	RECPT USB FLR CNSL R-DUAL, CHARGE
UBP	RECPT USB FLR CNSL R-SINGLE, CHARGE
UD7	PARK ASSIST-REAR
UE1	COMMUNICATION SYSTEM-VEHICLE, ONSTAR
UE4	SENSOR INDICATOR-FOLLOWING DISTANCE
UEU	SENSOR INDICATOR-FORWARD COLLISION ALERT
UF2	LAMP-CARGO
UFB	REAR CROSS TRAFFIC-ALERT, BRAKING
UGA	HOOK-TOW, RED
UHX	LANE ACTIVE SAFETY-KEEP ASSIST
	1

RPO	Description	
UHY	COLL IMMINENT BRK-LOW SPEED, VEH FWD MOVEMENT, BRAKE PREFILL, INTEGRATED BRAKE ASSIST	
UIT	ALERT DISPLAY-REFLECTED, SINGLE COLOR	
UJN	TIRE PRESS INDICATOR-AUTO LEARN	
UKI	SIDE ACTIVE SAFETY-OBSTACLE DETECTION ENHANCED, STEERING ASSIST	
UKK	SENSOR INDICATOR-PEDESTRIAN DETECTION - REAR	
UKT	PED DETECTION FRT-ENHANCED, PEDESTRIANS AND BICYLISTS	
ULK	ACCESSORY-TOW HOOKS - RED	
UMN	SPEEDOMETER-INST, MILES & KILO, MILES ODOMETER	
UQ3	SPEAKER SYSTEM-ENHANCED AUDIO	
UQA	SPEAKER SYSTEM-PREMIUM AUDIO, BRANDED AMPLIFIER	
URC	SWITCH-FLEXRIDE MODE SYSTEM	
URF	DISPLAY INSTRUMENT-DRIVER INFO, DISPLAY ONLY, FAMILY C, 11", 2000 X 810	
URL	INFOTAINMENT DISPLAY-FAMILY C, 11"+, 2000X970	
URO	DISPLAY INSTRUMENT-DRIVER INFO, DISPLAY ONLY, FAMILY C, 8", 1350 X 810	
UTJ	THEFT DETERENT-ELECTRICAL, UNAUTHORIZED ENTRY	
UUT	ALARM, HORN-TIRE FILL ALERT	
UV2	VISION-360 VIEW, MONO, HD DIGITAL	
UVB	VISION-REAR VIEW, MONO, HD DIGITAL	
UXA	VISION UNDERBODY-FORWARD AND REARWARD FACING	
V8D	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - U.S. FMVSS	
VAV	ACCESSORY-FLOOR MATS - ALL WEATHER	
VBP	ACCESSORY-POWER DISTRIBUTION BOX	
VBR	ACCESSORY-PUBX RUBBER MAT	
VHM	PROGNOSTIC SYSTEM-VEHICLE HEALTH MANAGEMENT	
VJQ	HOOK-TOW, FRT	
VK3	LICENSE PLATE FRONT-FRT MOUNTING PKG	
VOZ	ACCESSORY-TONNEAU - RR COMPT - HARD FOLDING - ALT DESIGN	
VPB	ACCESSORY-TONNEAU - RR COMPT - VINYL W/ INTEGRAL CROSSBOW SUPPORTS	
VQK	ACCESSORY-SPLASH GUARDS - CUSTOM MOLDED	
VQM	ACCESSORY-ASSIST STEPS - CHROME	
VQO	ACCESSORY-ASSIST STEPS - BLACK	
VQZ	ACCESSORY-EXHAUST TIP - DESIGN 1	

### 1-12 General Information

RPO	Description
VST	ACCESSORY-SILL PLATES - ALTERNATE DESIGN 1
VTA	ACCESSORY-EXHAUST TIP - DESIGN 2
VV4	COMMUNICATION EQUIP-MOBILE INTERNET CONNECTIVITY
VW1	ACCESSORY-WINCH
VW9	ACCESSORY-CENTER CAP - WHEEL - DESIGN 3
VWD	ACCESSORY-CENTER CAP - WHEEL - DESIGN 4
VZJ	ACCESSORY-SWITCH PLATE - INTERIOR
VZT	ACCESSORY-ASSIST STEPS - OFF ROAD
W0H	ACCESSORY-TOW HOOKS - ALT FINISH
W1Y	CONTROL-STEERING WHEEL, RADIO, REDUNDANT CONTROLS
W7X	PERFORMANCE PACKAGE-INCREASED ENGINE HORSE POWER
WEN	PLANT CODE-WENTZVILLE, MO, USA
WLD	WINDOW CONTROL-REMOTE EXPRESS DOWN, ALL WINDOWS
WMI	SHUTTERS-FRONT GRILLE, ACTIVE, UPR AND LWR
WMX	VIN MODEL YEAR-2023
XCQ	TIRE SPARE-265/70R17 SL 115S BW SPR VAR1
YF5	CERTIFICATION-EMISSION, CALIFORNIA
Z2I	CHASSIS PACKAGE-2 INCH LIFT
Z82	TRAILER PROVISIONS-SPECIAL EQUIPMENT, H.D.
ZAO	TIRE SPARE-255/65R17 SL 110T BW ALS VAR1
ZDB	SALES PACKAGE-DESERT BOSS
ZL3	SALES PACKAGE-CONVENIENCE
ZL4	SALES PACKAGE-CONVENIENCE III
ZL6	SALES PACKAGE-TRAILER INTEGRATION
ZR2	CHASSIS PACKAGE-HIGH WIDER PERFORMANCE, 4 X 4 SPORT

### Section 2

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### **BLANK**

### **Fixed and Moveable Windows**

### Description and Operation Power Windows Description and Operation

#### **Power Windows System Components**

The power window system consists of the following components:

- Driver front side door window control switch
- · Passenger front side door window control switch
- · Left rear side door window switch
- · Right rear side door window switch
- Global window down switch
- Window motors in each of the doors
- Body control module (BCM)

# **Driver Express Up and Express Down Power Window Motors**

The driver door contains a smart window 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 front side door window control switch, the contacts close causing a voltage drop within the appropriate signal circuit. The window motor will detect the voltage drop and will command the window to move in the direction requested.

The driver front side door window control switch communicates to the BCM by a serial data circuit. When the driver wishes to control the passenger windows, the driver will use the appropriate switch on the driver front side door window control switch. When this switch is used, a serial data message is sent to the BCM requesting the passenger window motor command, the BCM will then send a serial data message to the passenger window motor which will then move in the direction requested.

# Passenger, Left Rear, Right Rear Express Down Window Motors

For the passenger, and 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 of the passenger window switches communicates to the BCM by a serial data circuit. When the driver wishes to control the left rear or right rear window, the driver will use the appropriate switch on the driver front side door window control 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 rear side door window switch which will then command that window to move in the direction requested.

#### **Lockout Switch Feature**

The driver front side door window control 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 side door window switches, deactivating them. The rear windows will still function normally from the switches on the driver front side door window control switch.

# Rear Window Defogger Description and Operation

# Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- Body Control Module
- Front Heater and Air Conditioning User Interface Control
- Engine Wiring Harness Junction Block (Contains PCB Rear Defogger Relay)
- Rear Defogger Grid
- 40A Fuse

#### **Rear Window Defogger Operation**

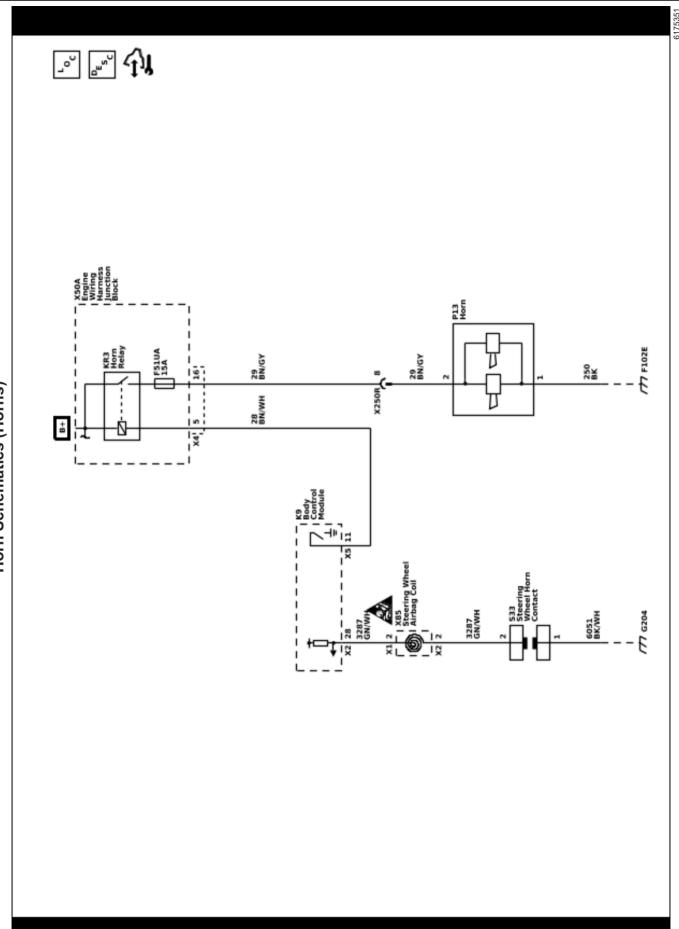
The rear defog control system utilizes a single zone backlight design, driven with a single relay configuration. A switch for the customer to control the system is provided within the front heater and air conditioning user interface control. Also included in the front heater and air conditioning user interface control 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 front heater and air conditioning user interface control to send a serial data message to the body control module requesting rear window defog operation. The body 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)

### **Horns and Pedestrian Alerts**

### **Schematic and Routing Diagrams**



# **Description and Operation Horns System Description and Operation**

#### **System Description**

The horn system consists of the following components:

- HORN fuse
- Engine wiring harness junction block (contains horn PCB relay
- Steering wheel horn contact
- Horn
- Body control module (BCM)

#### **System Operation**

The vehicle horn system is activated under the following conditions:

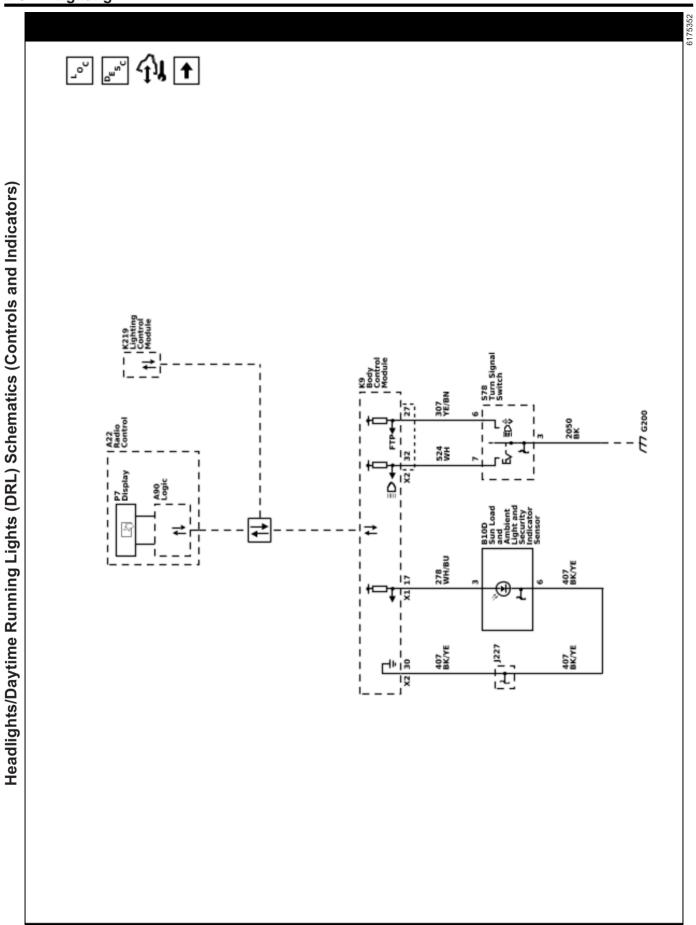
- When the horn switch is depressed
- The BCM commands the horns ON under any of the following conditions:
  - When the content theft deterrent system detects a vehicle intrusion—For further information refer to Theft Systems Description and Operation.
  - When the panic button is depressed on the remote 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<sup>®</sup> system is used to sound the horns if equipped—For further information, refer to OnStar Description and Operation.

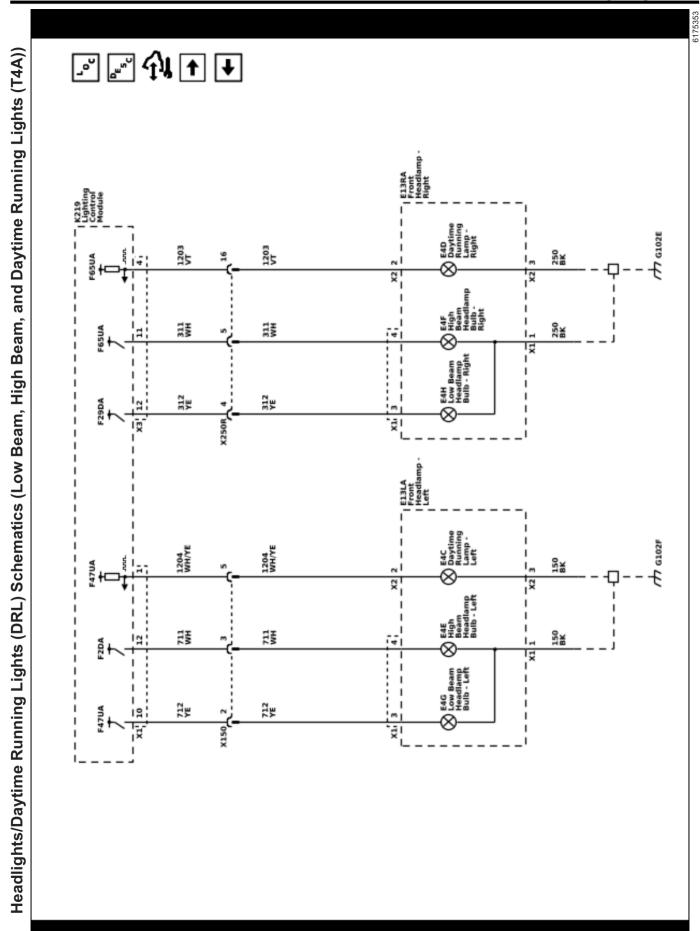
### Circuit Operation

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.

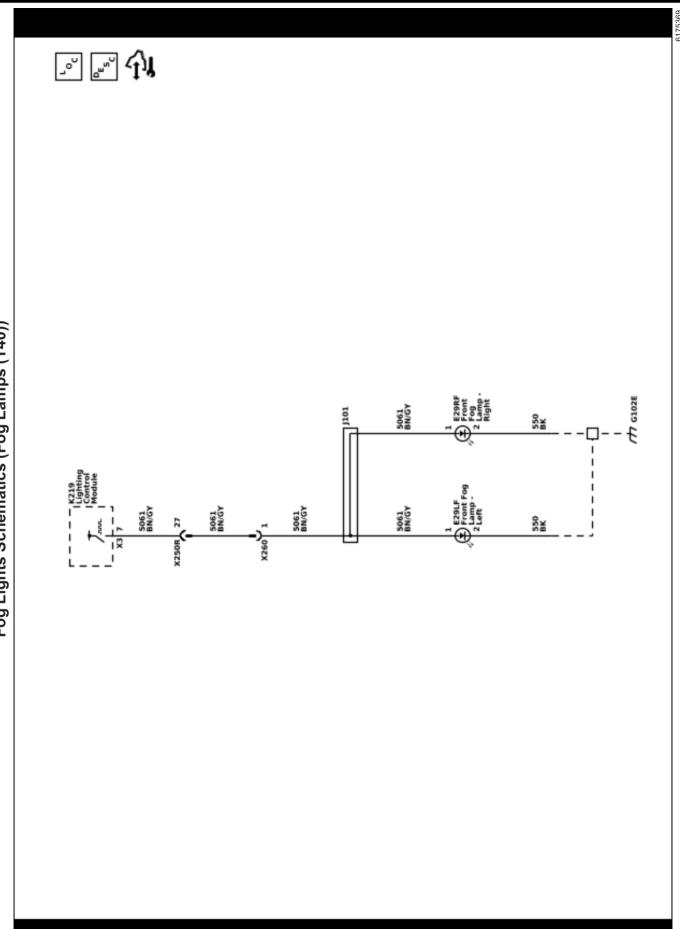
# Lighting

# **Schematic and Routing Diagrams**

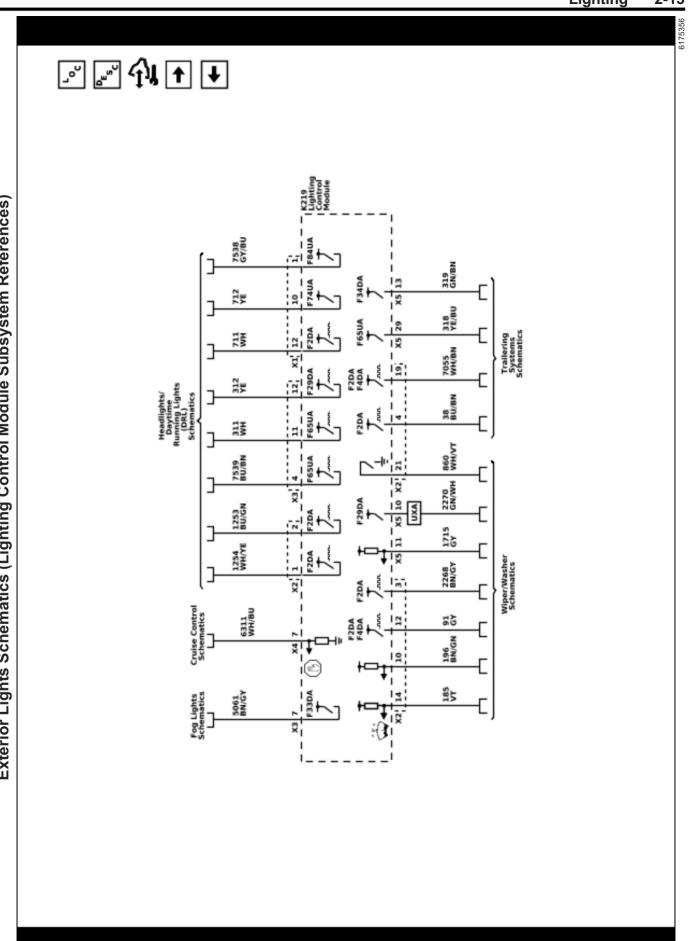


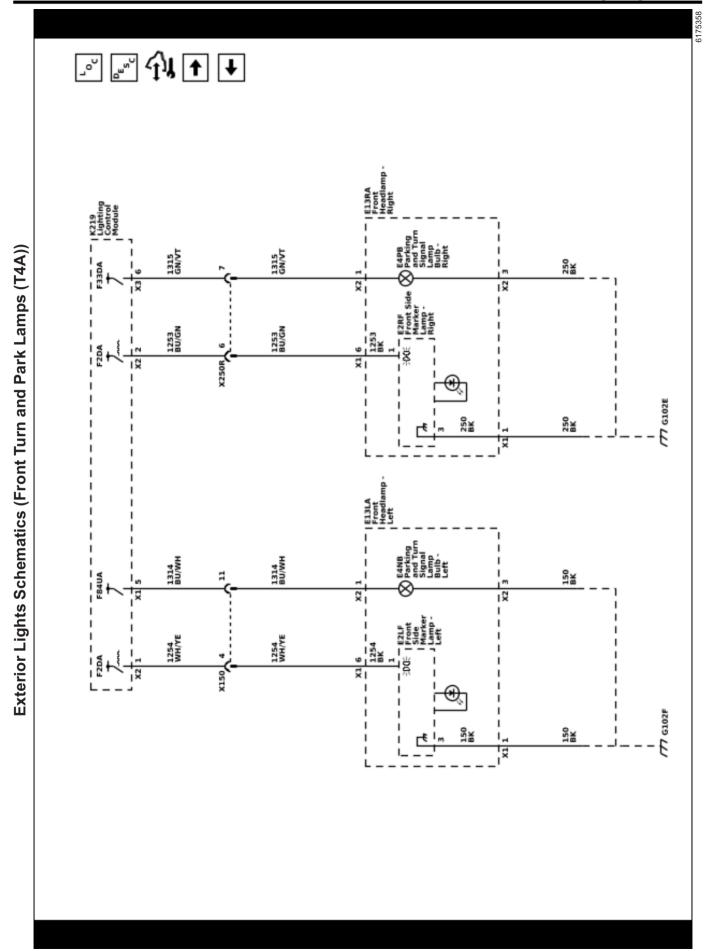


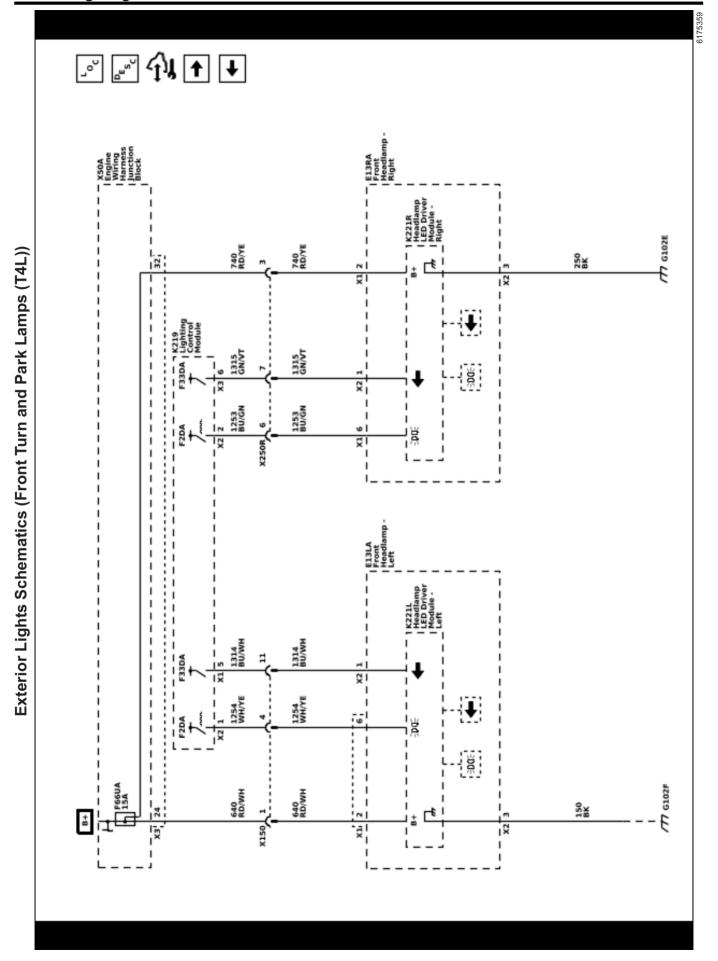


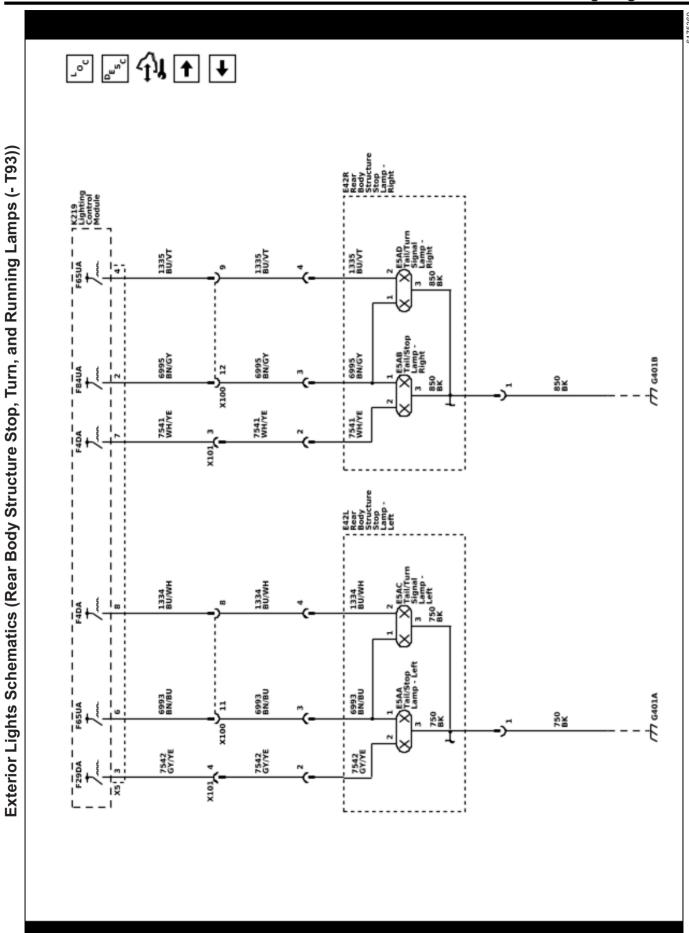




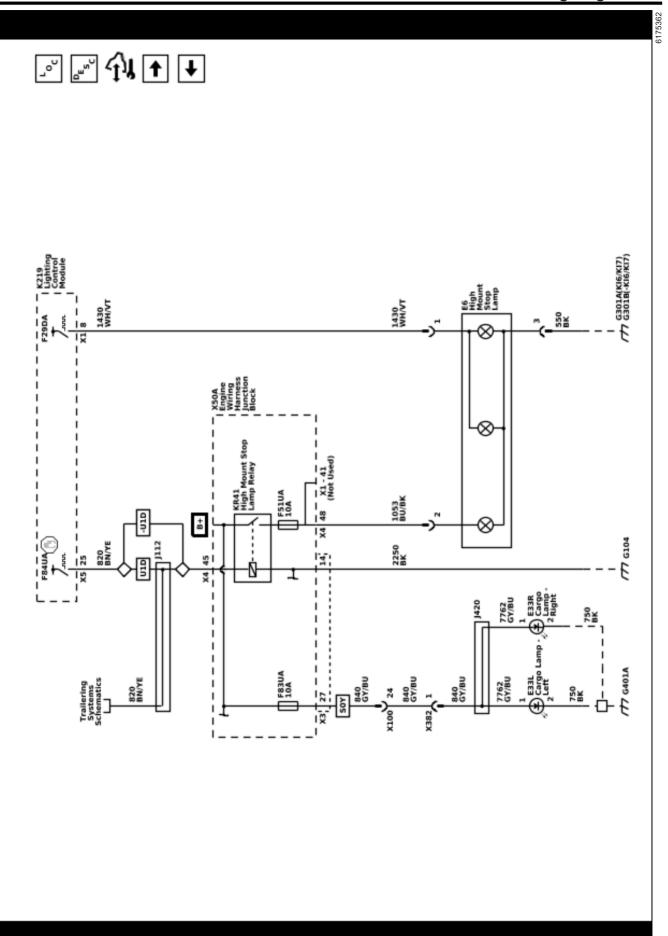


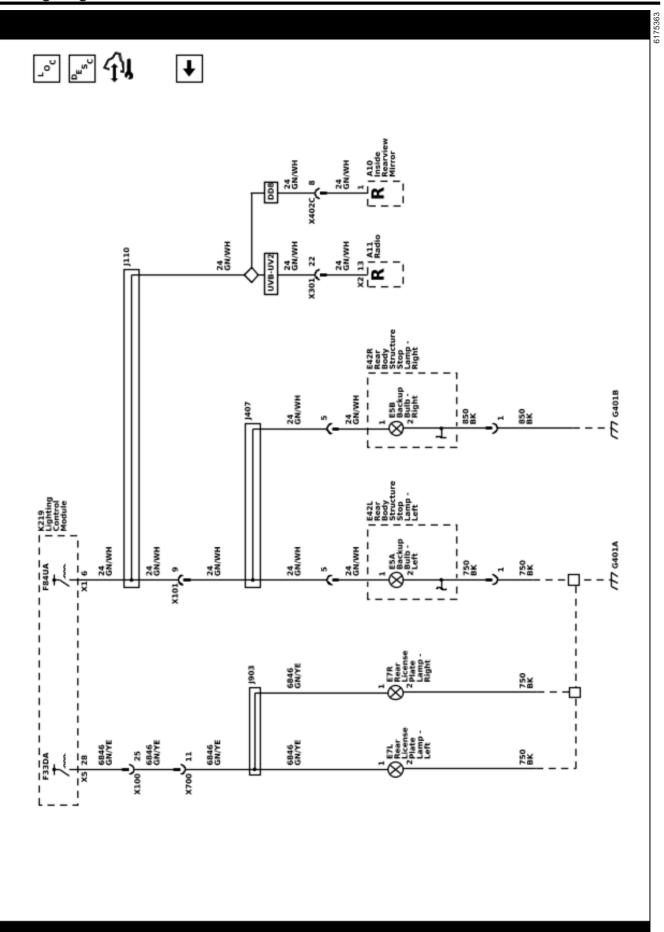


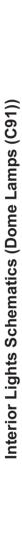


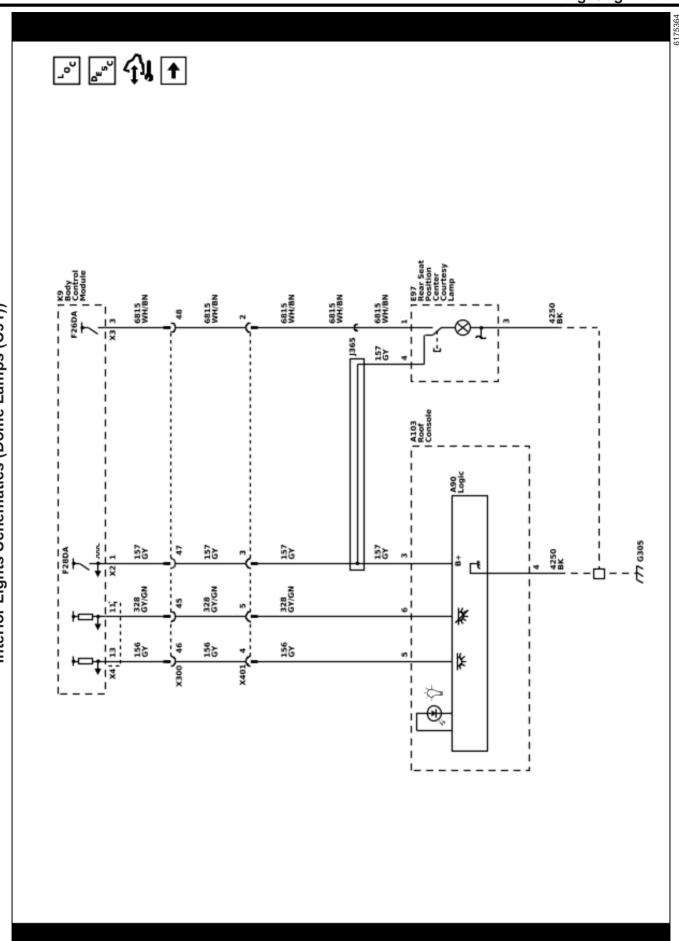


Exterior Lights Schematics (Center High Mount Stop and Cargo Lamps)

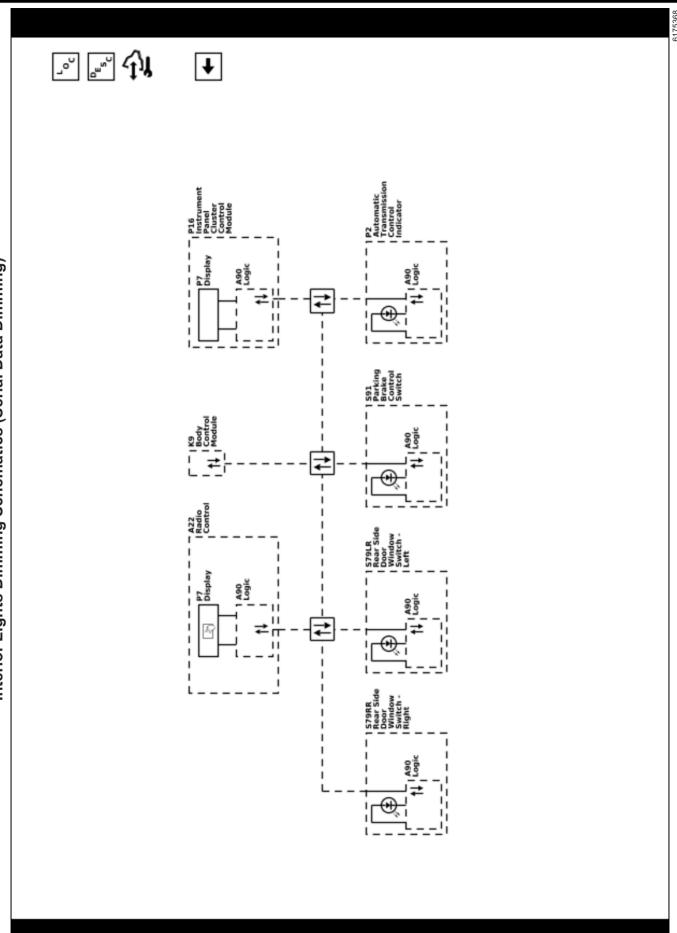








\_~ (jų 🕈 Interior Lights Dimming Schematics (Dimming Control, Instrument Panel, and Sunroof Lights) 6817 YE 6817 YE 6817 YE 6817 YE ×401 2151 BK/WH 6817 YE 77 6202 77 6200 2050 BK 2151 BK/WH 6817 YE 2050 BK ÇĀC ·cAc



## Description and Operation Exterior Lighting Systems Description and Operation

The exterior lighting system consist of the following lamps:

- Backup lamps
- Cargo lamps
- · Daytime running lamps (DRL)
- · Exterior courtesy lamps
- · Hazard warning lamps
- Headlamps
- Park, tail, license, and marker lamps
- · Front fog lamps (T3U)
- Stop lamps
- Task lamps
- Turn signal lamps
- Trailer lighting, refer to <u>Trailering Description and Operation on page 2-42</u> for more information.

## **Headlamp Controls**

The A11 Radio is used to determine headlamp mode between AUTO, ON, Park, and OFF. When the user selects the desired headlamp mode, the Radio sends out a serial data message to multiple modules containing headlamp mode status information. The modules that receive the serial data message respond accordingly. The headlamps may be turned ON in 3 different ways utilizing the A11 Radio controls:

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

## Low Beam Headlamps

The K219 Lighting Control Module responds to low beam requests by applying pulse width modulated (PWM) voltage to both headlamp low beam control circuits, illuminating the low beam headlamps. When the Lighting Control Module commands the low beam headlamps ON, the operator will notice the interior backlighting for the instrument cluster and the various other switches dim to the level of brightness selected by the instrument panel dimmer switch.

## **High Beam Headlamps**

The high beam and flash to pass (FTP) functions are contained within the S78 Turn Signal Switch. The K9 Body Control Module (BCM) provides the turn signal/multifunction switch with two signal circuits, the high beam signal circuit and the FTP signal circuit. When the low beam headlamps are ON, and the turn signal/multifunction switch is placed in either the high beam position or FTP position, ground is applied to the BCM through the high beam/FTP signal circuit. The BCM responds to the high beam request by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by

applying pulse width modulated (PWM) voltage to both headlamp high beam control circuits, illuminating the high beam headlamps. The status of the high beam lamps is shown by a blue indicator located on the instrument cluster. When high beams are commanded on, the indicator will be illuminated continuously. If the driver turns the high beams off, the indicator will also turn off.

### Flash to Pass

When the S78 Turn Signal 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 K9 Body Control Module (BCM) through the flash to pass switch signal circuit. The BCM responds to the flash to pass request by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by applying pulse width modulated (PWM) voltage to both headlamp high beam control circuits, illuminating the high beam headlamps. This causes the high beam headlamps to illuminate at full brightness until the turn signal/multifunction switch is returned to the at rest position.

### **Automatic Headlamp Control**

When the headlamp mode is in the AUTO position, the BCM relies on the B10D Sun Load and Ambient Light and Security Indicator Sensor input to determine if headlamps are required or if daytime running lamps will be activated based on outside lighting conditions. During automatic lamp control, the headlamps will be off during daylight conditions but will turn on when the ambient light sensor detects low ambient light conditions. The ambient light sensor is a light sensitive transistor that varies the voltage signal to the BCM. The BCM provides a 5 volt reference signal and a low reference ground to the ambient light sensor. During low light conditions the BCM will request the low beam headlamps ON by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by applying pulse width modulated (PWM) voltage to both headlamp low beam control circuits, illuminating the low beam headlamps.

# Intellibeam – Automatic High Beam Assist (TQ5)

The IntelliBeam system is activated by selecting the automatic high beam assist with the A11 Radio controls while the exterior lamp control is in AUTO mode and the engine running. The AHBA system consists of a front camera module that detects light, and is able to identify approaching vehicles on an even, straight road at a distance of greater than 0.4 km (0.25 mi). The front camera module analyzes light color, intensity, and movement. The AHBA system will turn OFF the high beam headlamps when approaching vehicle headlamps or preceding vehicle taillights are detected by the front camera module. The AHBA system is turned off anytime the headlamp mode is out of the AUTO position.

### **AHBA System Activation**

- Vehicle ON
- Headlamp mode placed in the AUTO position

- Outside lighting conditions must be dark
- Vehicle speed greater than 25 mph (40 km/h)

### **AHBA System Operation**

The following are conditions that the AHBA system will turn the high beam headlamps off during operation:

- The system detects approaching traffic headlamps
- The system detects preceding traffic tail lamps
- Ambient light level too high due to towns or twilight situations
- The vehicle's speed drops below 13 mph (22 km/h)
- Delay

**Note:** AHBA may not operate properly if any of the following conditions exist:

- Approaching and preceding vehicles lamps are undetectable due to dirt, snow, road spray, smoke, fog, or any other airborne conditions.
- The front camera module is covered with ice, dirt, snow, haze, or is obstructed.
- The vehicle is being driven on winding or hilly road conditions which would make any on coming vehicle headlamps undetectable by the AHBA.

### **AHBA System Deactivation**

- Manually operating the high beam headlamp mode from neutral to high beam position
- AHBA is deactivated automatically when the front or rear fog lamps are turned ON

#### **AHBA System Indicator**

The status of the AHBA system is shown by a green indicator located on the instrument panel cluster. When AHBA is active, the indicator will be illuminated continuously. If the operator deactivates the AHBA system, the indicator will turn off.

## **Daytime Running Lamps**

The daytime running lamps (DRL) will illuminate continuously when the following conditions are met:

- Engine running
- The headlamp mode is in the AUTO position
- · Ambient light conditions are daytime conditions

The B10D Sun Load and Ambient Light and Security Indicator Sensor is used to monitor outside lighting conditions. The ambient light sensor provides a voltage signal that will vary between 0.2 and 4.9 volts depending on outside lighting conditions. The K9 Body Control Module (BCM) provides a 5 volt reference signal and a low reference ground to the ambient light sensor. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either daytime running lamps (DRL) or automatic lamp control when the headlamp mode is in the AUTO position. In daylight conditions the BCM will send a serial data message to the K219 Lighting Control Module to command the DRLs ON, the Lighting Control Module responds by applying pulse width modulated (PWM) voltage to both DRL control circuits, illuminating the DRLs. During low light conditions the Lighting Control Module will command the low beam headlamps ON.

### **Hazard Lamps**

The hazard flashers may be activated in any power mode. The Hazard Warning Switch signal circuit is momentarily grounded when the hazard switch is pressed. The K9 Body Control Module (BCM) responds to the hazard switch signal input by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by supplying battery voltage to all turn signal lamps in an ON and OFF duty cycle. When the hazard switch is activated, the BCM also sends a serial data message to the instrument cluster requesting both turn signal indicators to be cycled ON and OFF.

### Park, Tail, and License Lamps

When the headlamp mode is placed in the HEAD or PARK position, the K219 Lighting Control Module responds by applying battery voltage to the park lamps, tail lamps, and license lamps control circuits illuminating the park, tail, and license lamps.

### **Stop Lamps**

The B22 Brake Pedal Position Sensor is used to sense the action of the driver application of the brake pedal. The K9 Body Control Module (BCM) provides the brake pedal position sensor with low reference, signal, and 5 volt reference circuits. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will respond by sending a serial data message to the K219 Lighting Control Module requesting the stop lamps to be turned ON. The Lighting Control Module responds by applying 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. If serial data communication is lost between the BCM and the Lighting Control Module, the Lighting Control Module will receive a serial data message from the Electronic Brake Control Module indicating that the brakes have been applied. If serial data communication is lost between all three modules, the Lighting Control Module also receives a hard wired voltage signal from the BCM to signal the brake lamps ON.

## **Turn Signal Lamps**

#### **Turn Signals**

The K9 Body Control Module (BCM) provides the S78 Turn Signal Switch with left and right turn signal switch signal circuits. 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 BCM through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by applying a pulsating voltage to the turn signal lamps through there respective control circuits. When a turn signal request is received by the BCM, a serial data message is also sent to the instrument cluster requesting the respective turn signal indicator be pulsed ON and OFF.

### **Turn Signal Outage Detection**

Vehicles with LED turn signals require additional turn signal outage detection circuits that provide turn signal feedback to the K219 Lighting Control Module. The Lighting Control Module uses the feedback information to send a serial data message to the instrument cluster to alert the driver anytime a turn signal fault is detected. If a fault is detected on a turn signal circuit or a turn signal feedback circuit, the turn signals will flash in a rapid manner to alert the driver of the fault.

### **Backup Lamps**

With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the multiple control modules. The message indicates that the gear selector is in the reverse position. The K9 Body Control Module (BCM) responds to the reverse position message by sending a serial data message to the K219 Lighting Control Module to request the backup lamps on. The Lighting Control Module responds by applying battery voltage to the backup lamps control circuit(s) illuminating the backup lamps. The applied voltage is also sent to the A11 Radio and A10 Inside Rearview Mirror for rearview camera purposes. Once the driver moves the gear selector out of the reverse position, a serial data message is sent by the TCM that the transmission is no longer in the reverse position. The BCM responds to the reverse position message by sending a serial data message to the Lighting Control Module to request the backup lamps off. The Lighting Control Module responds by removing battery voltage from the backup lamp circuits. The engine must be running for the backup lamps to operate.

## **Cargo Lamps**

When the K219 Lighting Control Module receives a cargo lamp request from the A11 Radio controls, the lighting control module responds by applying pulse width modulated (PWM) voltage to the cargo lamp control circuits illuminating the cargo lamps. In the event that the cargo lamps were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position, the lighting control module will deactivate the cargo lamp control circuits to prevent total battery discharge.

## **Approach Lighting**

Approach lighting is commanded ON when the unlock button is pressed on the keyless entry transmitter during dark ambient light conditions. When the keyless entry transmitter unlock button is pressed, a serial data message is sent by the K9 Body Control Module (BCM) that the vehicle is being unlocked. The K219 Lighting Control Module responds to the serial data message by applying voltage to the approach lamp control circuit illuminating the LED lighting located under each outside rearview mirror as part of approach lighting.

## Battery Run Down Protection/ Inadvertent Power

To provide battery run down protection, the exterior lamps will be deactivated automatically under certain conditions. The K9 Body Control Module (BCM) monitors the state of the S30 Headlamp Switch. If the headlamp switch is in the park or headlamp position

when the ignition switch is ON and then the ignition switch is placed in the OFF position, the BCM initiates a 10 minutes timer. At the end of the 10 minutes, the BCM will send a serial data message to the K219 Lighting Control Module to deactivate the exterior lamps to prevent total battery discharge. 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 changed from 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**

### **Dome Lamps**

The dome lamps are controlled by door ajar inputs to the K9 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 responds by sending a serial data message to the A103 Roof Console. The Roof Console responds by applying battery voltage to the dome lamps illuminating the dome lamps. The BCM will also send a serial data message to request the dome lamps on when 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. In the event that the dome lamp were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position, 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.

#### **Keyless Entry Interior Illumination**

When the operator uses the keyless entry transmitter in order to unlock the doors, the K9 Body Control Module (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.

#### **Reading Lamps**

When a reading lamp button is pressed, the switch contacts close providing a path to ground for the signal circuit from the A103 Roof Console. The roof console responds by applying battery voltage to the appropriate reading lamp control circuit illuminating the reading lamp. If the operator inadvertently leaves a reading

lamp ON, the BCM will send a serial data message to turn all interior lighting off after 10 minutes has passed to prevent total battery discharge.

### Sunshade Mirror Lamp

The inadvertent power supply voltage circuit from the K9 Body Control Module (BCM) provides battery voltage to the passenger side sunshade mirror lamp. When the sunshade mirror cover is opened, a switch closes providing ground and the sunshade lamp illuminates. If the operator inadvertently leaves the sunshade mirror cover open with the lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed to prevent total battery discharge.

### **Interior Lamps Dimming**

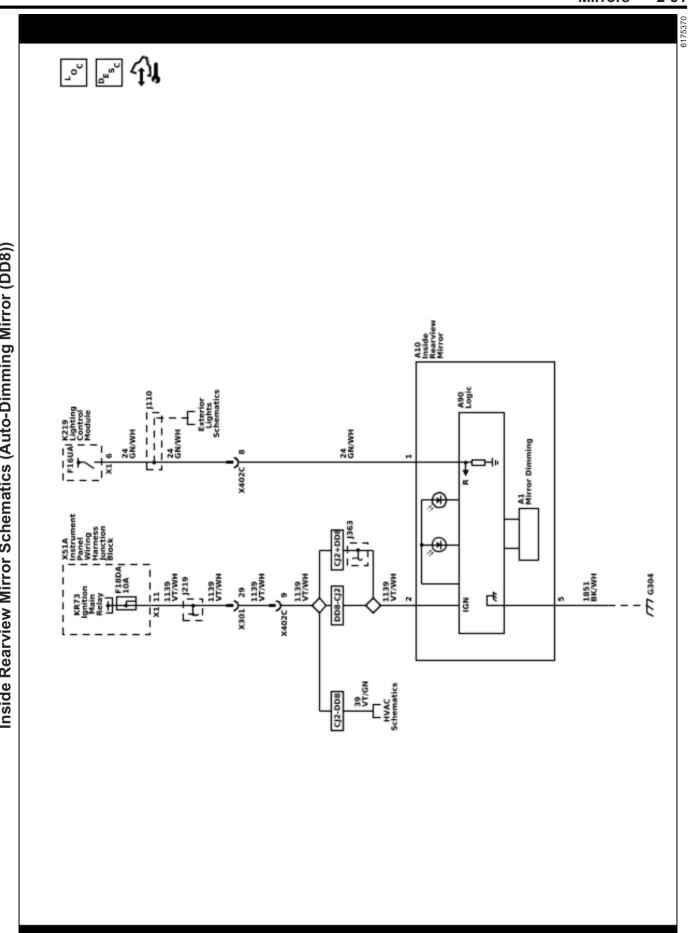
With the headlamp mode in the PARK or HEAD position, the K9 Body Control Module (BCM) responds by applying voltage to the backlight dimming control circuits illuminating all components with interior backlighting. All interior backlighting turns on at the dimming level set by the dimmer switch. The dimmer switch is used to increase and decrease the brightness of the interior backlighting components. The BCM provides a signal circuit and a low reference circuit to the dimmer switch for backlight dimming. When a dimming setting is selected, the signal circuit becomes grounded through the variable resistor internal to the dimmer switch and voltage from the BCM will decrease accordingly. The BCM interprets the signal and responds in two ways. The BCM applies a pulse width modulated (PWM) voltage through the LED dimming control circuits illuminating the interior backlighting to the requested level of brightness. The BCM also sends a serial data message to the appropriate control modules requesting all dimming components to be illuminated to the same level of brightness.

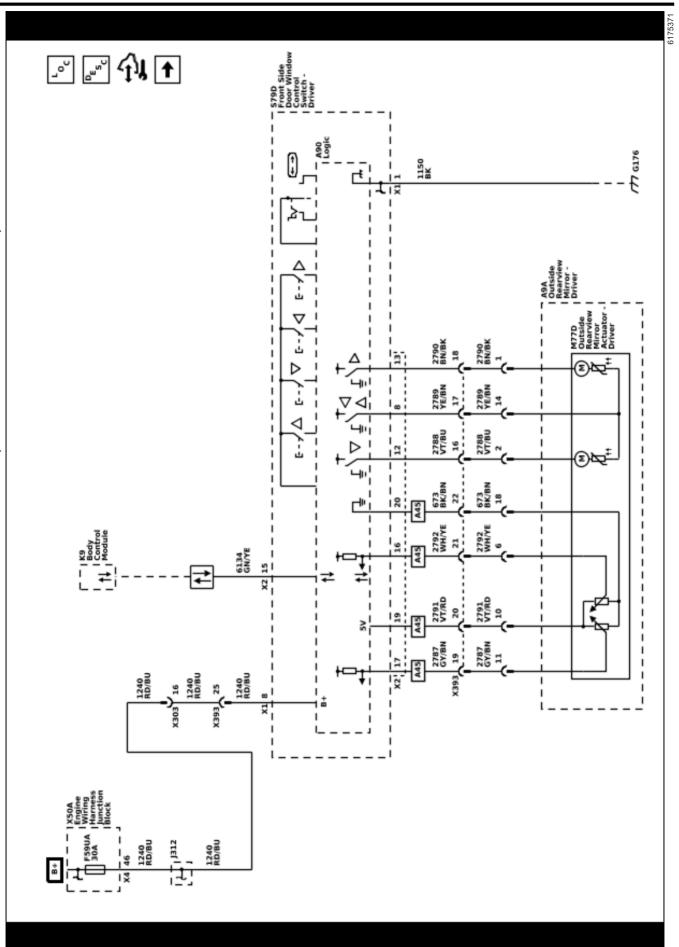
### Battery Rundown Protection/ Inadvertent Power

The K9 Body Control Module (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.

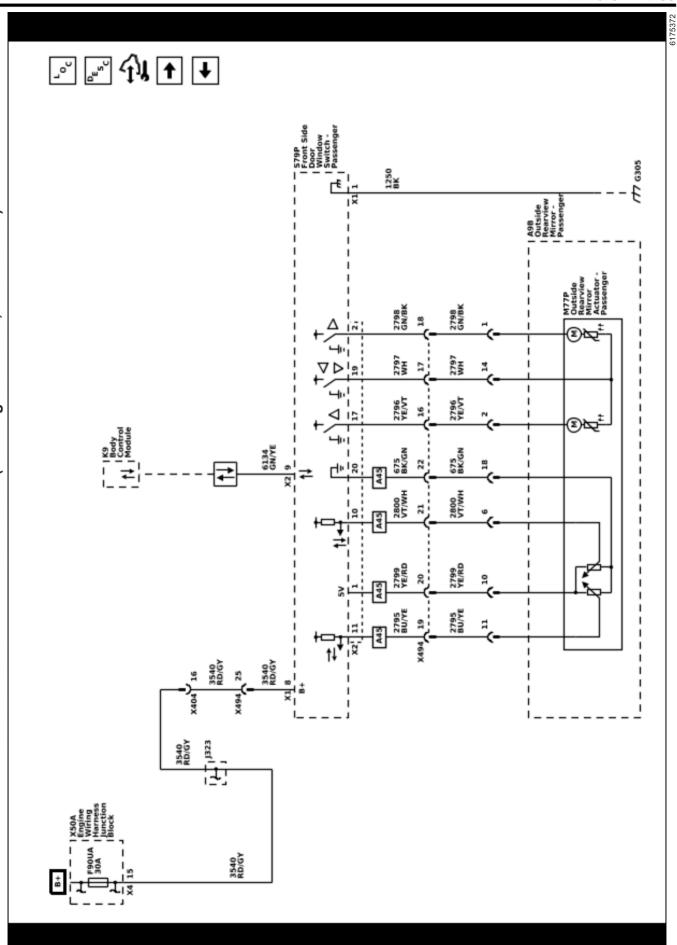
## **Mirrors**

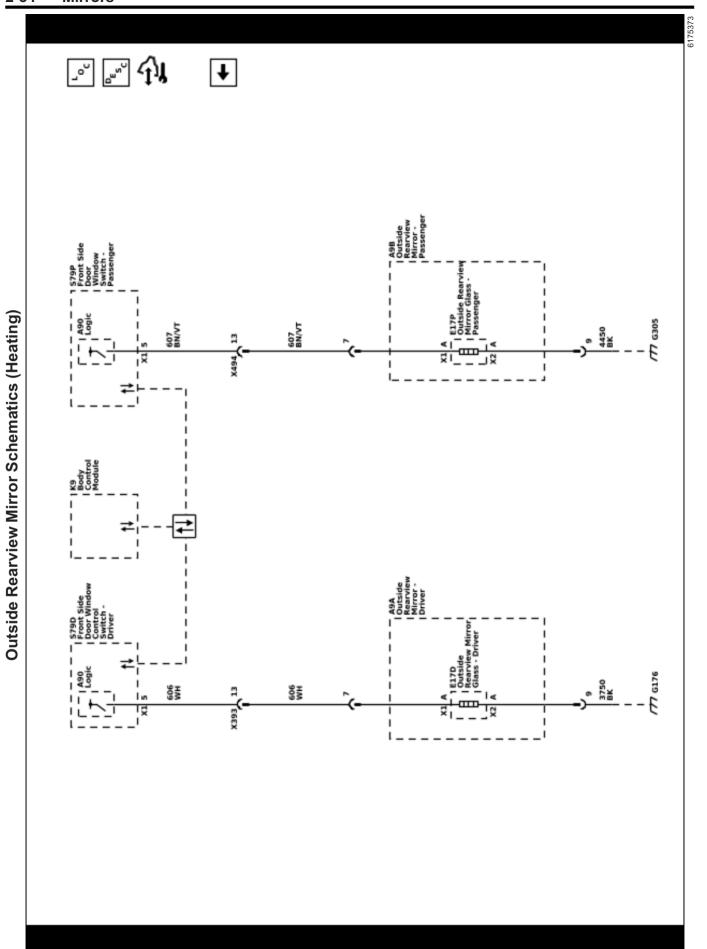












## Description and Operation Automatic Day-Night Mirror Description and Operation

## 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 Ignition ON/Vehicle in Service Mode, 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:

- · Body Control Module
- Driver Seat Adjuster Memory Module
- Outside Mirror Switch
- Passenger Window Switch
- · Left Outside Rearview Mirror
- · Right Outside Rearview Mirror

### **Power Mirror System Controls**

The outside rearview mirror switch is part of the S79D Driver Front Side Door Window Control Switch and uses serial data to control the passenger mirror through the S79P Passenger Front Side Door Window Control Switch. Each S79 Side Door Window Control Switch

has it own 12V, ground and data communications circuit along with mirror directional control and mirror fold circuits.

### **Driver Mirror Controls**

The S79D Driver Front Side Door Window Control Switch has internal connections for the driver mirror. When the mirror position switch is active the driver mirror is commanded to move through bi-directional motor control circuits. The motor control circuits are floating while in an inactive state and the switches will apply power and ground to the control circuits as necessary to move the mirror in the commanded direction.

### **Passenger Mirror Controls**

The S79D Driver Front Side Door Window Control Switch uses serial data circuits to communicate the active states for the passenger mirror switch to the S79P Passenger Front Side Door Window Control Switch. The S79P Passenger Front Side Door Window Control Switch has internal connections for the passenger mirror. When the mirror position switch is active the passenger mirror is commanded to move through bi-directional motor control circuits. The motor control circuits are floating while in an inactive state and the switches will apply power and ground to the control circuits as necessary to move the mirror in the commanded direction.

### **Mirror Position**

Mirror position is determined by both horizontal and vertical position sensors in each of the power mirrors. Each S79 Front Side Door Window Control Switch supplies a 5 V reference, low reference, and horizontal and vertical position signal circuits to these sensors. The signal circuits are referenced from 5 V by the S79 Front Side Door Window Control Switch and the signal circuit voltage levels represent the mirror positions. The mirror positions are stored in each S79 Front Side Door Window Control Switch for memory mirror operation. When the memory seat module receives a memory recall command, the memory seat control module will send the go to position to the \$79 Front Side Door Window Control Switch. The S79 Front Side Door Window Control Switches will then drive the appropriate mirror motors to the commanded position sensor settings.

#### Mirror Select

The S79D Driver Front Side Door Window Control Switch has internal connections for the mirror select switch. When the mirror select switch is active the S79 Front Side Door Window Control Switch will either control the driver mirror or send a serial data message to control the passenger mirror.

## **Folding Mirrors**

The S79D Driver Front Side Door Window Control Switch sends the mirror fold/unfold inputs to the K9 Body Control Module (BCM) through serial data. When the BCM receives a fold/unfold signal it will send a fold/unfold command to the S79 Driver Front Side Door Window Control Switch which will send a serial data message to the S79P Passenger Front Side Door Window Control Switch. The outside mirrors will fold or

### 2-36 Mirrors

unfold depending on their current state. The BCM will also send a serial data message to unfold the mirrors when the vehicle reaches 20 km/h (12 mph). The S79 Front Side Door Window Control Switches control the fold/unfold motors through bi-directional control circuits

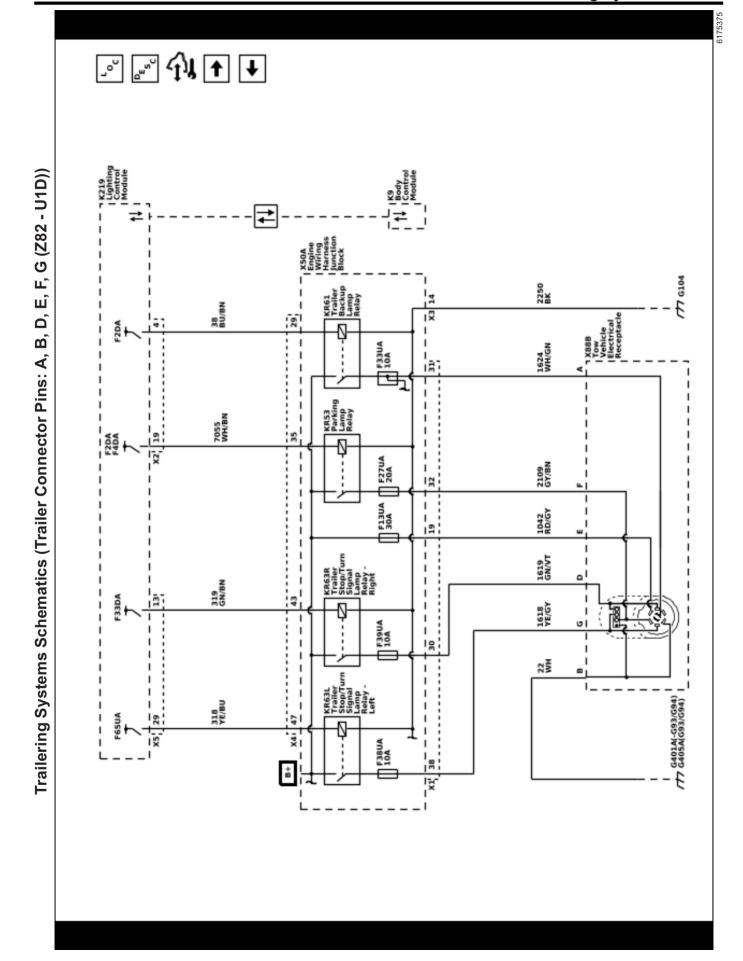
### **Heated Mirrors**

The heated mirrors are controlled through each S79 Front Side Door Window Control Switch. When the vehicle is running and the HVAC control module receives a rear window defog request from the radio/ HVAC controls, the HVAC control module will send a serial data message to the S79D Driver Front Side Door Window Control Switch and S79P Passenger Front Side Door Window Control Switch. Each S79 Front Side Door Window Control Switch provide B + voltage to the driver and passenger outside rearview mirror heating elements.

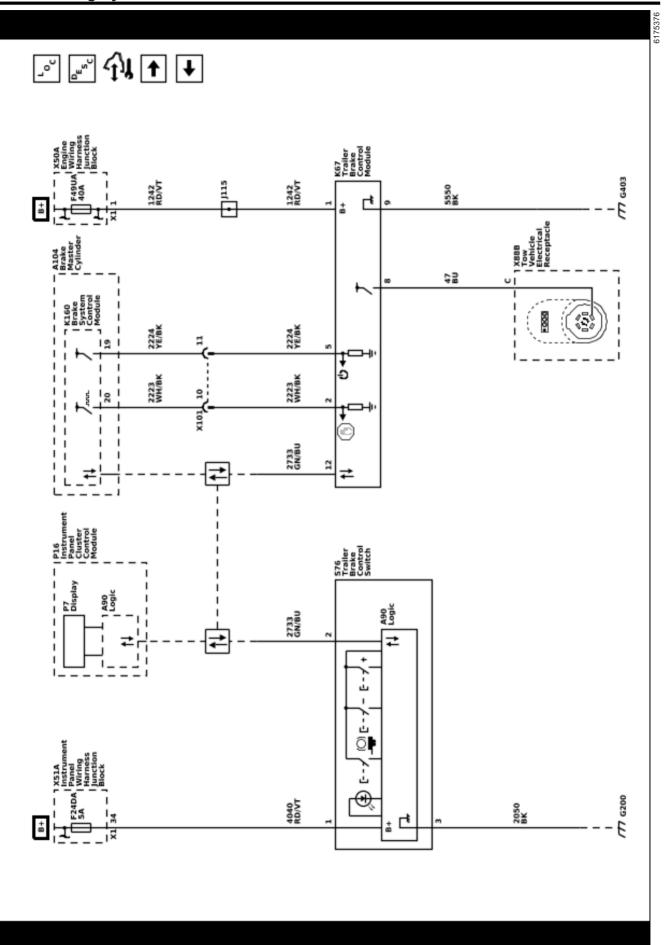
## **Trailering Systems**

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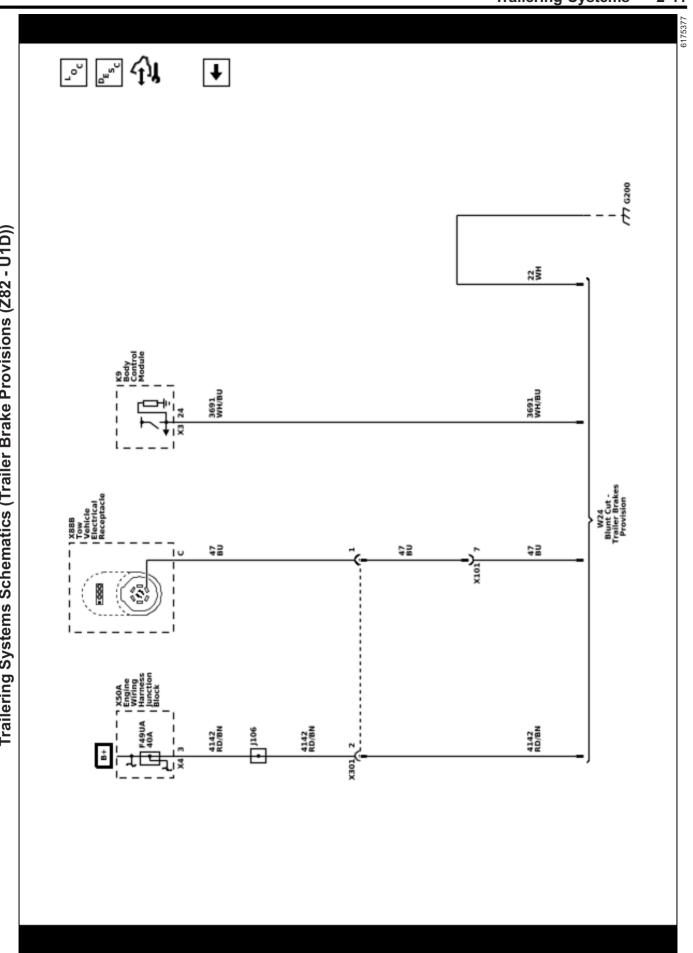
Trailering Systems Schematics (Trailer Lamp Control Module and Trailer Connector Pins: A, B, D, E, F, G (Z82 & U1D))



Trailering Systems Schematics (Trailer Brake and Trailer Connector Pin: C (JL1))







# **Description and Operation Trailering Description and Operation**

## **Trailering System Overview**

Begin the trailering system diagnosis with Diagnostic System Check - Trailering. The Diagnostic System Check - Trailering will provide a complete strategy to locate and repair a vehicle trailering electrical fault. Not following this strategy may cause additional diagnostic time and/or misdiagnosis.

The trailering system consists of the following:

- Trailer Lighting, refer to Trailer Lamps Malfunction for additional diagnostic information.
- {JL1} Trailer Brakes, refer to Trailer Brake Malfunction for additional diagnostic information.
- Trailer Battery Charging System, refer to Trailer Battery Charging Malfunction for additional diagnostic information.
- Trailer Detection, refer to Trailer Detection Malfunction for additional diagnostic information.
- Trailer Tire Pressure Monitoring System, refer to Trailer Tire Pressure Monitoring Malfunction for additional diagnostic information.
- Trailer Theft Detection.

### 7-Terminal Tow Vehicle Electrical Receptacle Pinout

- Terminal A Trailer Backup Lamp Control
- Terminal B Ground
- Terminal C Trailer Brake Control
- Terminal D Right Trailer Stop/Turn Signal Lamp Control
- Terminal E B+
- Terminal F Trailer Park Lamp Control
- Terminal G Left Trailer Stop/Turn Signal Lamp Control

## **Connecting Aftermarket Accessories**

- Some aftermarket accessories that connect to the X88 Tow Vehicle Electrical Receptacle will be recognized by the vehicle as a trailer connected, even if the accessory is not a trailer. As a result, side blind zone detection, rear park assist, and/or rear cross traffic alert will be turned off anytime the vehicle detects a trailer/accessory is connected.
- Vehicles equipped with U1D/UET have trailer theft detection that constantly monitors trailer connected status when enabled. This is done by randomly pulsing the lighting circuits of the trailer when the vehicle is parked. As a result, some aftermarket accessories may be turned ON/OFF when connected to the vehicle with theft detection enabled.
- Vehicles equipped with U1D/UET use pulse width modulation voltage (PWM) for trailer lighting functions. Some aftermarket accessories are incompatible with PWM and may not function correctly when connected to the trailer lighting circuits of the vehicle.

### **Trailer Battery Charging System**

Trailer battery charging is accomplished through constant battery voltage from the X50A Engine Wiring Harness Junction Block to the X88 Tow Vehicle Electrical Receptacle. Battery voltage is supplied to terminal E at the X88 Tow Vehicle Electrical Receptacle 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 Tow Vehicle Electrical Receptacle for the trailer brakes to function.

## Trailer Lighting and Detection With U1D/UET

#### Note:

- Some trailers utilize a trailer mounted control module to operate some or all of the trailer lights. These trailers may use the B+ circuit from the trailer connector to power the trailer lighting circuits. These trailers may not always be detected by the Trailer Lighting Control Module and may set faults.
- When a trailer is detected on a vehicle equipped with side blind zone detection, rear park assist, and/or rear cross traffic alert, the vehicle will automatically turn these features off. These features are turned off to prevent false detections due to the trailer obstructing the view of the sensors.
- Vehicles equipped with IOR/1FL do not come equipped with the trailering APP however may still be equipped with a K68 trailer Lamp Control Module.

The K68 Trailer Lamp Control Module is responsible for controlling the trailer lighting on vehicles with U1D/UET. The combined trailer stop/turn signal lamps of the trailer must draw at least 55mA of total current to be detected as a trailer or the Trailer Lamp Control Module will not control the lighting circuits. The Trailer Lamp Control Module receives serial data messages from the K9 Body Control Module (BCM) indicating what lamps have been activated on the vehicle. The Trailer Lamp Control Module responds by applying pulse width modulated voltage (PWM) to the appropriate control circuits for the requested lamps illuminating the lamps on the attached trailer. The Trailer Lamp Control Module constantly monitors for trailer connection status, trailer lighting faults, and trailer theft deterrent purposes. This is accomplished through the lighting circuits of the trailer to determine if a trailer is connected. When a trailer is connected, the Trailer Lamp Control Module senses the trailer connection and alerts the driver by requesting a trailer profile setup through the Trailering App, which is displayed on the infotainment screen. If a trailer is disconnected with the ignition ON, the vehicle will display multiple trailer lighting messages until a trailer is reconnected or the message is dismissed by the user. With the key OFF, the Trailer Lamp Control Module will periodically pulse the lighting circuits of the trailer to verify it is still connected. The lights on the trailer may flash at different intervals with the key OFF depending on which type of lights the trailer is built with. If a trailer is

disconnected with the key ON, the vehicle will display a trailer disconnected message until a trailer is reconnected or the ignition is cycled.

## **Trailer Lighting Without U1D/UET**

The K219 Lighting Control Module is responsible for controlling the trailer lighting on vehicles without U1D/UET. The lighting control module receives serial data messages from the K9 Body Control Module (BCM) indicating what lamps have been activated on the vehicle. The lighting control module responds by applying voltage to the appropriate relay control circuits for the requested lamps anytime the vehicle lamps are commanded ON. With the relay coil energized, the relay contacts close and allow voltage to flow through the relay illuminating the appropriate lamps on the attached trailer.

### **Trailer Messages**

The driver information center (P16 Instrument Cluster) or infotainment screen (P17 Info Display Module) may display one or more of the following messages to the user related to trailering:

### ERROR - table Title is missing for titlesource=author-entry

Trailering Message	Description
Check Trailer Left Turn Signal Lamp	The K68 Trailer Lighting Control Module detects a fault on the left trailer stop/turn lamp control circuit
Check Trailer Right Turn Signal Lamp	The K68 Trailer Lighting Control Module detects a fault on the right trailer stop/turn lamp control circuit
Check Trailer Rear Lamp	The K68 Trailer Lighting Control Module detects a fault on the trailer park lamp control circuit.
Check Trailer Reversing Lamp	The K68 Trailer Lighting Control Module detects a fault on the trailer backup lamp control circuit.
Check Trailer Brake Lamps	The K68 Trailer Lighting Control Module detects a fault on the left and/or right trailer stop/turn lamp control circuits
{JL1} Check Trailer Wiring	The K67 Trailer Brake Power Control Module detects a fault on the trailer brake control circuit or the trailer was disconnected.
Lane Change Alert Off	Reminder to the user that lane change alerts are turned off anytime a trailer is detected.
Rear Cross Traffic Alert Off	Reminder to the user that rear cross traffic alerts are turned off anytime a trailer is detected.
Rear Park Assist Off	Reminder to the user that rear park assist is turned off anytime a trailer is detected.
Remember to turn On Tow/Haul Mode	Reminder to the user to turn ON Tow/Haul Mode when towing.
{JL1} Service Trailer Brake System	The K67 Trailer Brake Power Control Module detects a fault on the trailer brake control circuit.
Service Trailer Tire Monitor System	The K214 Trailer Tire Pressure Indicator Module detects one or more issues with the trailer tire pressure monitoring system.
Trailer Detected	The K68 Trailer Lighting Control Module detects a trailer has been connected to the X88 Trailer Connector.
{JL1} Trailer Brakes Detected	The K67 Trailer Brake Power Control Module detects a trailer with trailer brakes has been connected to the X88 Trailer Connector.
Trailer Disconnected Check Connection	The K68 Trailer Lighting Control Module detects a trailer has been disconnected from the X88 Trailer Connector.
Trailer Tire Pressure High	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire pressures is high.
Trailer Tire Pressure Low	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire pressures is low.

### **ERROR - table Title is missing for titlesource=author-entry (NO TRANSLATION)**

Trailering Message	Description
Trailer Tire Sensor Fault	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire pressure sensors has a fault.
Trailer Tire Temperature High	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire temperatures is too high.

# Trailer Theft Detection (With U1D/ UET Only)

Trailer theft monitoring can be turned ON and OFF through the vehicle Trailer App. When enabled, any time the trailer theft deterrent system is armed, the trailer lighting circuits are constantly monitored to determine if a trailer is connected for trailer theft deterrent purposes. With the key OFF, the K68 Trailer Lamp Control Module will randomly pulse the lighting circuits of the trailer to verify it is still connected by monitoring the voltage drop of the circuit. Depending on the configuration of the trailer lights, the trailer lights may randomly flash as part of the trailer theft deterrent function. These flashes correspond to when the K68 Trailer Lamp Control Module pulses the lighting circuits to ensure the trailer is still connected and is considered normal. If the trailer is disconnected while the trailer theft deterrent system is armed, the vehicle will flash the exterior lights and cycle the horn to alert of a trailer theft event.

### **Trailer Brakes (JL1)**

## The vehicle is equipped with the following trailer braking components:

- K160 Brake System Control Module
- K67 Trailer Brake 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:

- 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".
- 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 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 K67 Trailer Brake Control Module (TBPM). The K67 Trailer Brake 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.

### **Trailer Brake Control Panel**

The S76 Trailer Brake Control Switch contains the trailer gain and manual apply switches. It is located in the vehicle center stack. Refer to the owner's manual 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 is 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 brake control 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 Brake 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 panel 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 panel 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.

### **Trailer Brake 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 Driver Information Center Indicators and Messages**

#### **Trailer Brake Detection**

The K67 Trailer Brake Control Module constantly monitors the trailer auxiliary control circuit from Terminal C at the X88 Trailer connector. When a trailer is connected with trailer brakes, the K67 Trailer Brake Control Module senses the connection and alerts the driver with a Trailer Connected message. If the K67 Trailer Brake Control Module senses a fault, or the trailer becomes disconnected, the vehicle will alert the driver with a Check Trailer Wiring message.

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 selects to turn 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 selects to turn 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.

## **Trailer Tire Pressure Monitoring**

### **Special Tools**

- EL-46079/J-46079 Tire Pressure Monitor Diagnostic Tool
- EL-50448 Tire Pressure Monitor Sensor Activation Tool
- EL-52641 Trailer Presence Simulator Tool

For equivalent regional tools, refer to Special Tools.

The Trailer Tire Pressure Monitor System is designed to monitor the pressure of the trailer tires, and warn the driver when a low pressure condition exists. Four Trailer Tire Pressure Monitor System sensors may be provided in the vehicle's glove box as an accessory when equipped. The system can accommodate a trailer with up to (6) tires if additional sensors are purchased from the dealership. Also, the system can be paired with up to (5) individual trailers. The sensors must be mounted onto each tire and wheel assembly, and the sensors must be learned by the vehicle by following the learning procedure as shown in the Trailering App section of this manual. For sensor installation assistance, please contact your trailer service center or tire service center. The Trailer Tire Pressure Monitor System sensors monitor the air pressure in the trailer tires and transmit the trailer tire pressure readings to a receiver located in the vehicle. The trailer tire pressure sensors can transmit up to 23 feet (7 meters) from the hitch receiver of the vehicle. The tire pressure values can be viewed in the trailering app in the vehicle's center stack.

## **Trailering Diagnostic Tools**

In some situations when diagnosing trailer tire pressure monitoring, 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 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 Lamp Control Module (U1D/UET), the module monitors the current on the lighting circuits to determine a trailer has been connected. The Trailer Lamp Control Module pulses current on the trailer lighting circuits every 42 minutes to monitor for a connected trailer. If a current draw greater than 55mA is detected, the Trailer Lamp Control Module recognizes this as a connected trailer. This will enable any trailer lighting controlled by the Trailer Lamp Control Module. The Center Stack Module will also use this trailer detection as a cue to enable the Trailering App and trailer tire pressure monitoring functions.

### **Creating a Simulated Trailer Lighting Tool**

Parts needed:

- · 7-way RV trailer connector Qty: 1
  - **Note:** The combination trailer stop/turn, and backup lamps must draw at least 55mA of total current to be detected as a trailer. Some LED combination lamps will not draw enough current. If an LED combination lamp is used, make sure it draws at least 55mA. A load resistor can be added to the circuit if necessary to obtain the correct load.
- 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
- 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.
- 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.
- 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.
- 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.
- 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 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 Control Module determines which type of braking system the trailer is equipped with.

Even after the system detects the trailer, Trailer Brake 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 Qtv: 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.

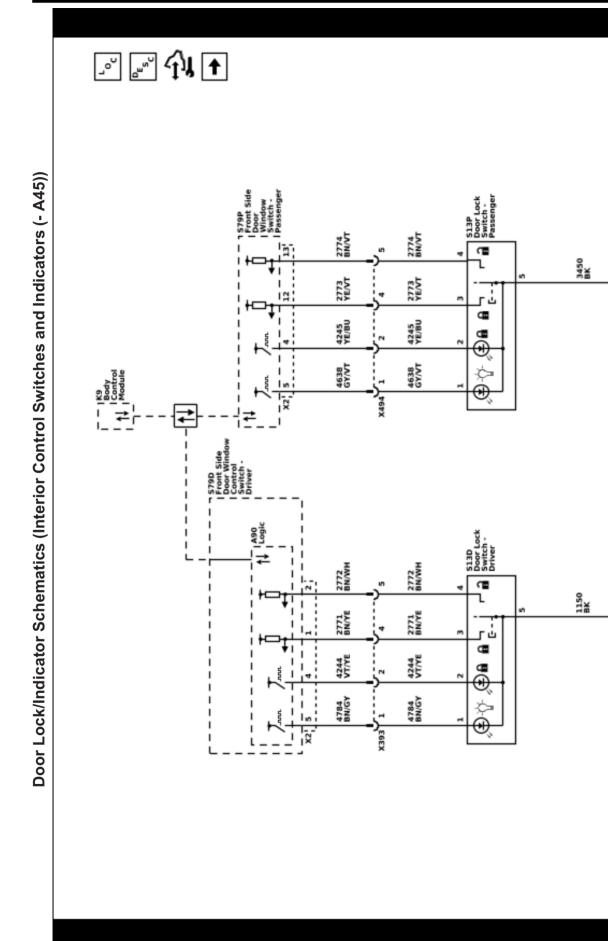
- Mount the trailer brake magnets to the mounting board.
- Plug the 7-way RV trailer connector to the vehicle and verify functionality.

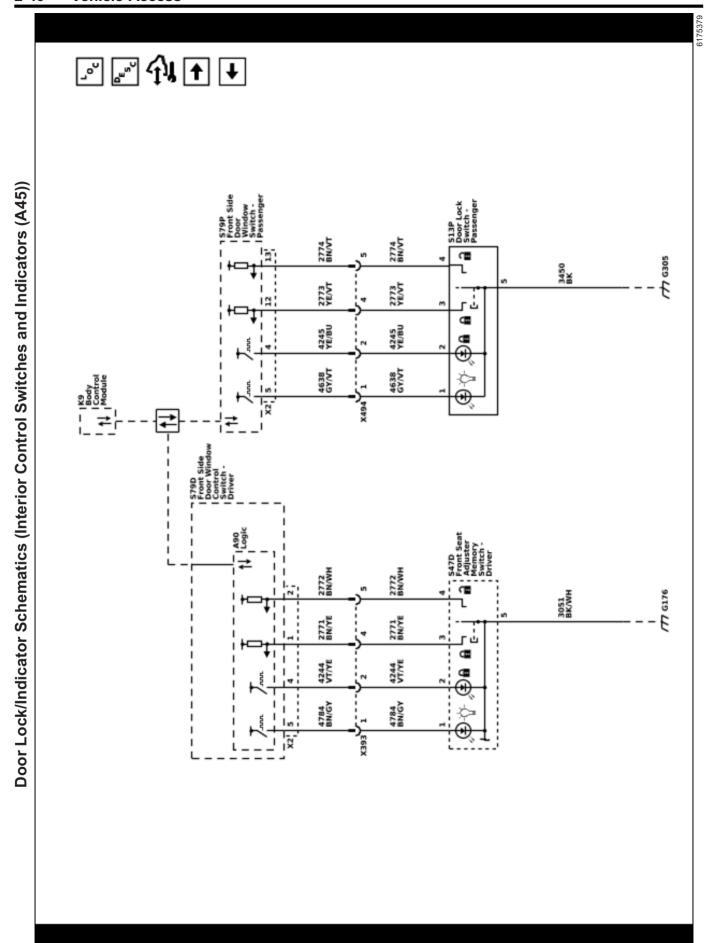
## **Vehicle Access**

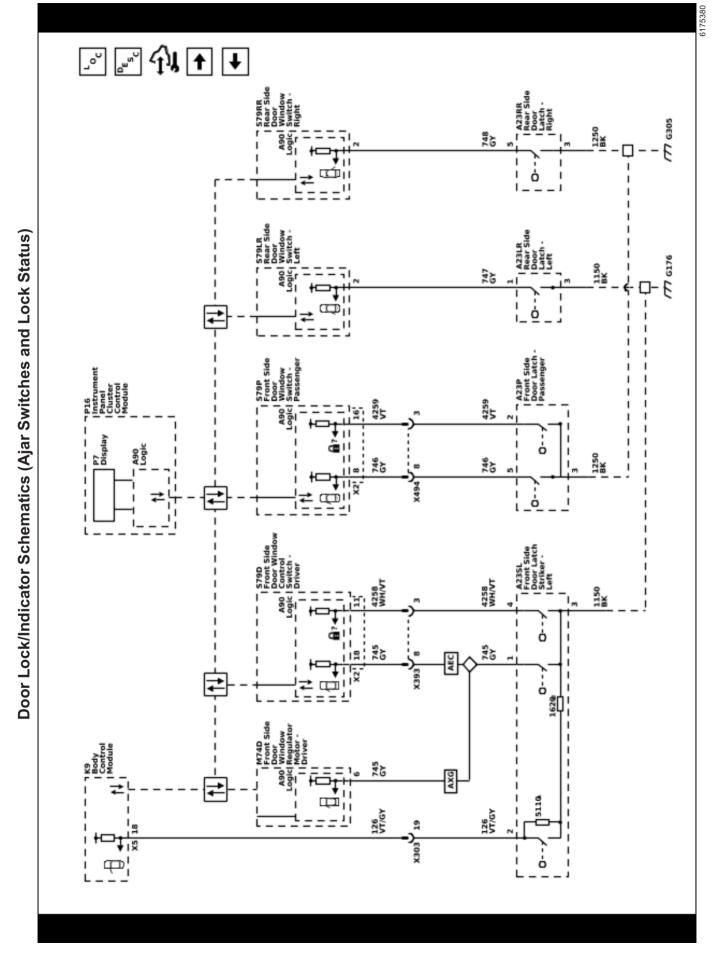
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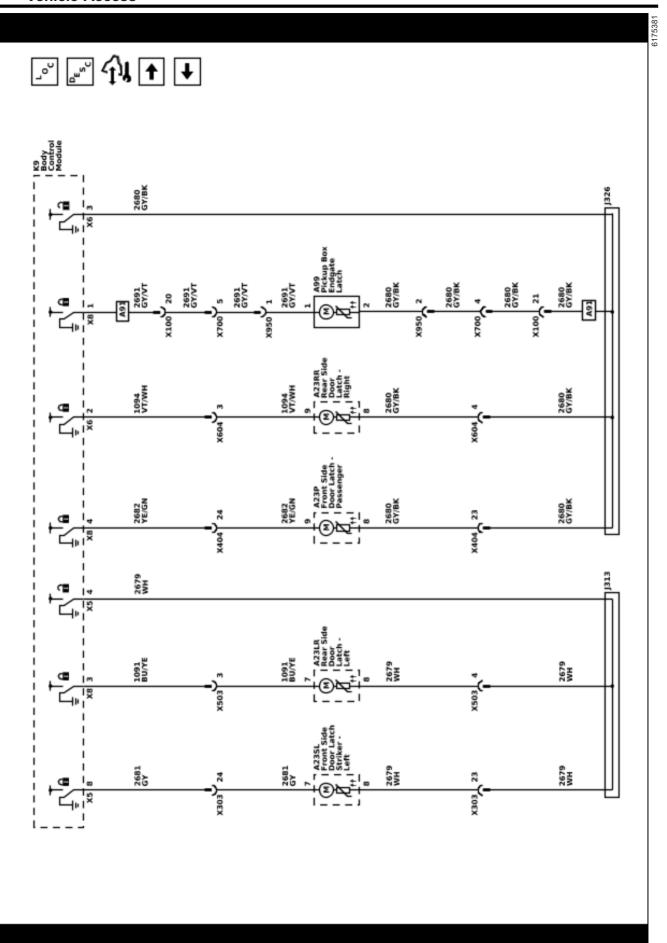
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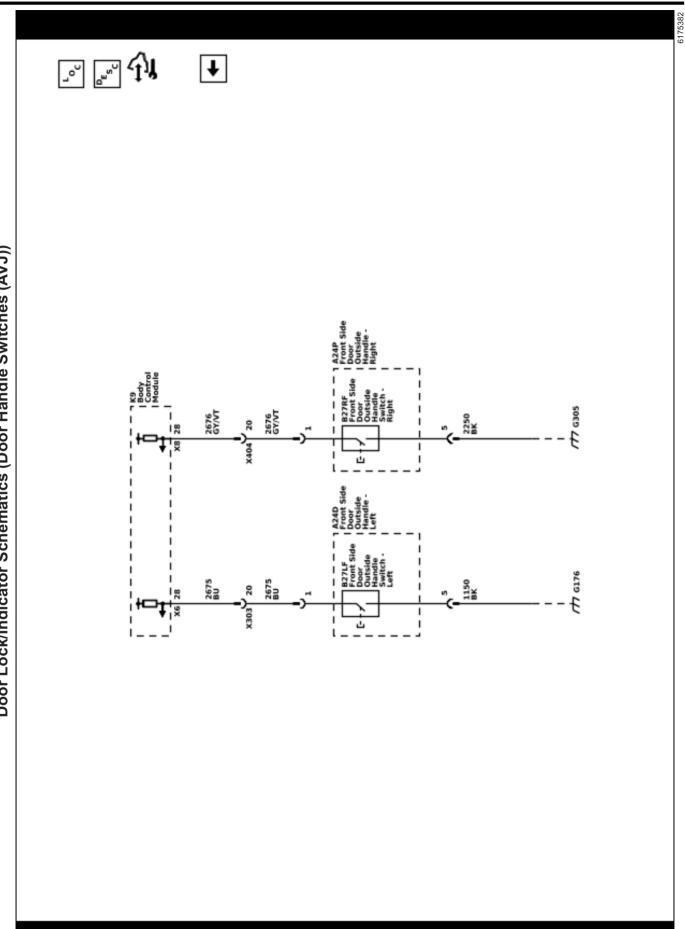


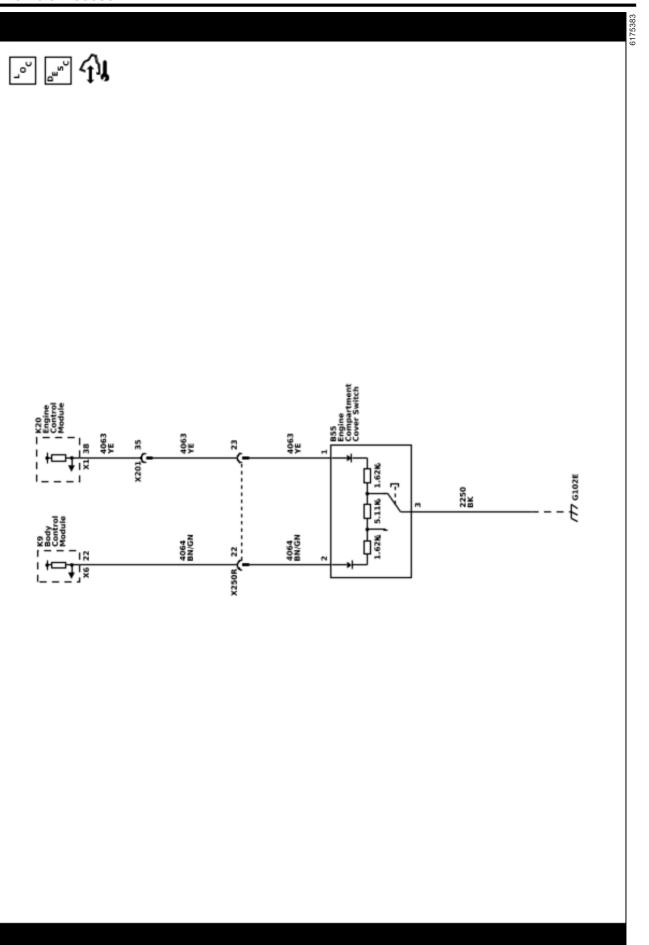












# **Description and Operation Endgate Description and Operation**

## **Endgate Lock System Components**

- · Body control module (BCM)
- · Pickup box endgate latch

If equipped, the locking and unlocking of the endgate is a function of the power door lock system. The pickup box endgate latch unlock control is supplied by the passenger door unlock control circuit and the rear closure actuator lock control circuit. The BCM, upon receipt of a lock switch lock or unlock signal, will supply battery voltage to the passenger door lock actuator unlock or rear closure actuator lock control circuits. Since the opposite side of the lock actuator is connected to ground through the other lock actuator control circuit, the passenger door and endgate will then lock or unlock as commanded.

# 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 open, the switch is open and voltage remains high. When the hood is closed, 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
- Passenger door lock switch
- · Driver front side door window control switch
- · Passenger front side door window switch
- · Driver front side door latch
- Passenger front side door latch
- Left rear side door latch
- Right rear side door latch
- Pickup box endgate latch (A91)
- Exterior door handle switches (AVJ)
- · Body control module

## **Door Lock System Controls**

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

- Power door lock switch activation
- Keyless entry lock or unlock command
- · Delayed locking command

- Automatic door lock command
- When the OnStar<sup>®</sup> system is used to unlock the driver door

### **Door Lock and Unlock Operation**

The driver or passenger front side door window control switch will monitor the voltage of their respective door lock switches, when the driver or passenger door lock switch is activated in the lock or unlock position the signal voltage will be pulled low, the corresponding front side door window control switch will detect the voltage drop in the signal circuit and will send a serial data message to the body control module requesting the door lock or unlock command.

The body control module upon receipt of a lock or unlock request, will supply battery voltage to the door lock actuator and if equipped the endgate latch 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, and fuel filler door will then lock or unlock as commanded.

The following control circuits are used to operate the door lock actuators:

- · Driver door unlock only
- · Passenger and rear door unlock
- All door lock

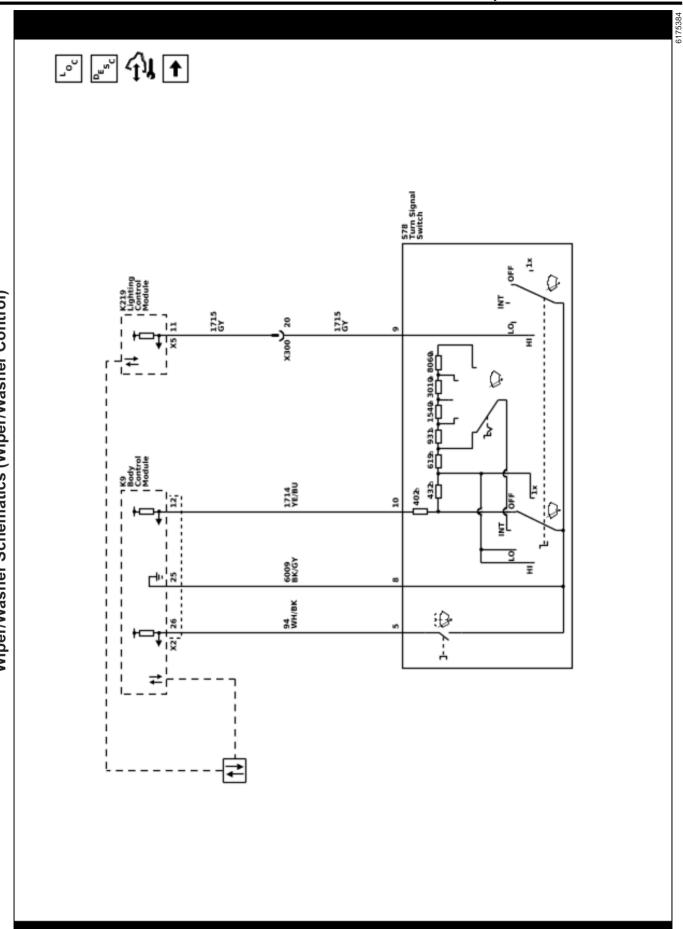
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# Passive Door Lock/Unlock Operation (AVJ)

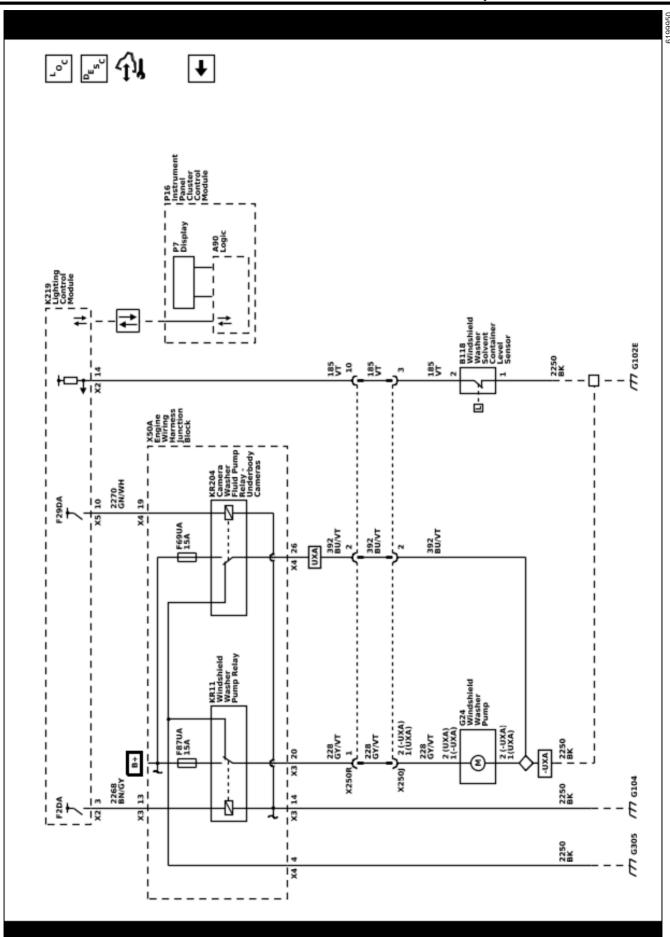
The exterior door handle switch signal circuits provide inputs to the body control module when the exterior door handle switches are activated. These inputs allow the body control module to detect a door lock or a door unlock request. The body control module provides a 7 V signal to each exterior door handle switch via the door handle switch signal circuits. When a door handle switch is pressed, the switch closes and the voltage signal within the signal circuit is pulled to ground. The body control module will detect the voltage drop and a low frequency antenna will transmit a challenge to the keyless entry transmitter. If the challenge is met, the keyless entry transmitter will respond, and the body control module will command the door(s) to be locked or unlocked

## **Wipers and Washers**









# **Description and Operation Wiper/Washer System Description and Operation**

#### Windshield Wiper Operation

The windshield wipers system allows the driver to clear the vehicle's windshield using a discrete switch or through an automatic rain sensing system. The windshield wiper system functions through a primary control, but also allows redundant high speed-only operation in the event of a system fault. The wiper systems uses the S82 Windshield Wiper/Washer Switch as the primary means of driver control, along with the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor to modulate intermittent wiper operation. The S82 Windshield Wiper/Washer Switch is a discrete input to the K9 Body Control Module. The K9 Body Control Module communicates with the K219 Lighting Control Module over CAN, and with the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor over LIN, to control wiper activation.

#### **Low Speed Wiper Operation**

With the S82 Windshield Wiper/Washer Switch in the low speed position, the discrete signal circuit to the K9 Body Control Module is pulled down through two resistors in a resistor ladder to a low reference provided by the K9 Body Control Module. The K9 Body Control Module communicates with the K219 Lighting Control Module over CAN, requesting consistent low speed wiping operation. To initiate low speed operation, the K219 Lighting Control Module energizes the KR12B Windshield Wiper Relay. This allows battery voltage from the wiper fuse to be applied through the switched contacts of the KR12B Windshield Wiper Relay, through the normally closed contacts of the KR12C Windshield Wiper Speed Control Relay, to the windshield wiper low speed control circuit of the M75 Windshield Wiper Motor.

#### **Intermittent Wiper Operation**

With the S82 Windshield Wiper/Washer Switch in the intermittent position, the discrete signal circuit to the K9 Body Control Module is pulled down through a number of resistors within a resistor ladder to a low reference provided by the K9 Body Control Module. The number of resistors the signal travels through is dependent on the intermittent selection made on the S82 Windshield Wiper/Washer Switch. The K9 Body Control Module interprets this range of voltage pull-down as a request for intermittent wiper activation, with each pull-down voltage value equating an intermittent delay (sensitivity) level. If the rain sense is enabled the K9 Body Control Module communicates with the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor via LIN. The B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor utilizes windshield optics to determine the amount of water on the windshield and will communicate this info to the K9 Body Control Module, which will vary wiping cadence based on the intermittent sensitivity selection on the S82 Windshield Wiper/Washer Switch and the amount of water on the windshield. If the rain sense is disabled the K9 Body

Control will vary the wiping cadence based on a preset amount of time determined by the intermittent delay selection on the S82 Windshield Wiper/Washer Switch. To initiate wiper operation, the K219 Lighting Control Module energizes the KR12B Windshield Wiper Relay. This allows battery voltage from the wiper fuse to be applied through the switched contacts of the KR12B Windshield Wiper Relay, through the normally closed contacts of the KR12C Windshield Wiper Speed Control Relay, to the low speed control circuit of the M75 Windshield Wiper Motor.

#### **High Speed Wiper Operation**

With the S82 Windshield Wiper/Washer Switch in the high speed position, the discrete signal circuit to the K9 Body Control Module is pulled down through two resistors in a resistor ladder to a low reference provided by the K9 Body Control Module. The K9 Body Control Module interprets this specific voltage pull-down as a request for wiper activation. In addition to this pull-down signal, a second switch in the S82 Windshield Wiper/ Washer Switch is also pulled down to low reference. This signal is a discrete input to the K219 Lighting Control Module. The K219 Lighting Control Module requests wiping operation. To initiate high speed operation, the K219 Lighting Control Module energizes the KR12B Windshield Wiper Relay and grounds the KR12C Windshield Wiper Speed Control Relay. This allows battery voltage from the wiper fuse to be applied through the switched contacts of the KR12B Windshield Wiper Relay, through the switched contacts of the KR12C Windshield Wiper Speed Control Relay, to the windshield wiper motor high speed control circuit of the M75 Windshield Wiper Motor.

#### Mist (Single Wipe) Operation

The mist (single wipe) position is a momentary switch position that will return the S82 Windshield Wiper/ Washer Switch to the off position as soon as the switch is released. With the S82 Windshield Wiper/Washer Switch in the mist (single wipe) position, the discrete signal circuit to the K9 Body Control Module is pulled down through two resistors in a resistor ladder to a low reference provided by the K9 Body Control Module. The K9 Body Control Module interprets this specific voltage pull-down as a request for wiper activation. The K9 Body Control Module communicates with the K219 Lighting Control Module via CAN, requesting consistent low speed wiping operation as long as the S82 Windshield Wiper/Washer Switch is held in the mist (single wipe) position. If the mist (single wipe) position is only briefly selected, the K9 Body Control Module will request only a single wipe.

#### Wiper Park Operation

With the S82 Windshield Wiper/Washer Switch in the off position, the discrete signal circuit to the K9 Body Control Module is pulled down through one resistor in a resistor ladder to a low reference provided by the K9 Body Control Module. The K9 Body Control Module interprets this specific voltage pull-down as a request to stop wiper activation. The K9 Body Control Module communicates with the K219 Lighting Control Module via CAN, requesting wiper operation stop. At this time, the K219 Lighting Control Module will deactivate the KR12B Windshield Wiper Relay and KR12C Windshield Wiper Speed Control 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 relays. 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 K219 Lighting Control Module will continue to operate the motor until the wipers reach the park position. If the ignition is turned OFF while the wipers are in mid-cycle, the wipers will stop immediately, regardless of position. The K219 Lighting Control Module will park the wipers next time the ignition is turned ON.

The windshield wiper system consists of the following electrical components:

- S82 Windshield Wiper/Washer Switch
- · K9 Body Control Module
- K219 Lighting Control Module
- KR12B Windshield Wiper Relay
- KR12C Windshield Wiper Speed Control Relay
- B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor
- M75 Windshield Wiper Motor

#### **Windshield Wiper Components**

#### S82 Windshield Wiper/Washer Switch

The S82 Windshield Wiper/Washer Switch is the primary input to the K9 Body Control Module for the driver to control windshield wiper operation. The S82 Windshield Wiper/Washer Switch also provides discrete input to the K219 Lighting Control Module during high speed wiper operation.

The S82 Windshield Wiper/Washer Switch contains three individual internal switch. One switch changes between mist (single wipe), off, intermittent, low speed, and high speed selection. The second switch changes with differing intermittent sensitivity selection. The third switch is only active when high speed wiper operation is selected. A resistor ladder is also used to determine switch selection and intermittent sensitivity selection. The high speed switch does not utilize the resistor ladder.

The K9 Body Control Module provides the S82 Windshield Wiper/Washer Switch with ground through a single low reference circuit and monitors the switch position through a single signal circuit. Voltage is applied by the K9 Body Control Module to this signal circuit and voltage drop is monitored to determine switch selection. This voltage drop will vary depending on the number of resistors in the resistor ladder, which changes depending on switch position. In the off position, current flows through a single resistor. In the mist (single wipe), low speed, and high speed position, current flows through two resistors. In the intermittent position, current flows through three or more resistors, depending on the intermittent sensitivity selected.

The S82 Windshield Wiper/Washer Switch provides a discrete switch input to the K219 Lighting Control Module during high speed wiper operation. Voltage is applied by the K219 Lighting Control Module to this signal circuit and voltage drop is monitored to

determine switch selection. When high speed operation is selected, the signal circuit is pulled to ground (low reference).

#### **K9 Body Control Module**

The K9 Body Control Module will send a CAN message to the K219 Lighting Control Module to request wiper operation. The K9 Body Control Module responds to input requests from the S82 Windshield Wiper/Washer Switch. The K9 Body Control Module provides a constant ground for the S82 Windshield Wiper/Washer Switch and monitors a signal circuit to determine the requested windshield wiper position.

The K9 Body Control Module communicates with the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor via LIN. Messages are received from the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor to indicate the amount of water on the windshield.

#### **K219 Lighting Control Module**

The K219 Lighting Control Module controls the wiper motor via two PCB relays (KR12B Windshield Wiper Relay and KR12C Windshield Wiper Speed Control Relay). The K219 Lighting Control Module receives a message from K9 Body Control Module over CAN to determine what type of wiper operation is requested.

#### **KR12B Windshield Wiper Relay**

The KR12B Windshield Wiper Relay supplies B+ to the M75 Windshield Wiper Motor and is controlled by the K219 Lighting Control Module. The coil side of the relay receives a constant chassis ground and the switch side receives a constant B+. When wiper operation is requested, the K219 Lighting Control Module will provide voltage to the coil side of the relay. This will energize the relay, closing the high current contact, and supply B+ to the M75 Windshield Wiper Motor through the KR12C Windshield Wiper Speed Control Relay, enabling wiper operation.

#### KR12C Windshield Wiper Speed Control Relay

The KR12C Windshield Wiper Speed Control Relay controls B+ to the M75 Windshield Wiper Motor and is controlled by the K219 Lighting Control Module. The coil side of the relay receives a ground controlled by the K219 Lighting Control Module. The switch side of the relay receives B+ through the KR12B Windshield Wiper Relay. When high speed wiper operation is requested, the K219 Lighting Control Module will provide ground to the coil side of the relay. This will energize the relay, closing the high current contact, and supply the B+ to the M75 Windshield Wiper Motor high speed control, enabling high speed wiper operation.

## B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor

**Note:** Due to the sensitivity of the sensor, the wipers may swipe once upon start up or rapid lighting changes.

The B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor utilizes an internal infrared LED and an optic sensor to determine the amount of water on the windshield. The infrared LED bounces infrared light against the inside of the windshield. The optic sensor measures the amount of light returned after

bouncing off the windshield. With a dry windshield, all light bounced off the windshield is returned to the optic sensor. As water accumulates on the windshield, the light input to the optic sensor is diffused and reduced. The amount of light reduction corresponds directly to the amount of water on the windshield. The B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor interprets the amount of light returned and communicates this info to the K9 Body Control Module, which will control intermittent wiper operation based on the sensitivity selection of the S82 Windshield Wiper/Washer Switch and the amount of water on the windshield.

#### M75 Windshield Wiper Motor

The M75 Windshield Wiper Motor receives a constant chassis ground. B+ is controlled by the KR12B Windshield Wiper Relay and KR12C Windshield Wiper Speed Control Relay being operated by the K219 Lighting Control Module.

The M75 Windshield Wiper Motor includes a DC motor and an internal position switch to indicate the wiper park position. When wiper operation is requested, the DC motor spins. The spinning motor is directed to a wiping motion through the windshield wiper transmission. When wiper operation is no longer required, the M75 Windshield Wiper Motor will continue spinning until the internal position switch indicates it is in the park position.

#### **Windshield Washer Operation**

The windshield washer system allows the driver to clean the vehicle's windshield using a discrete switch. The washer system uses the S82 Windshield Wiper/ Washer Switch as the primary means of driver control. The S82 Windshield Wiper/Washer Switch is a discrete input to the K9 Body Control Module. The K9 Body Control Module communicates with the K219 Lighting Control Module over CAN to control G24 Windshield Washer Pump activation. The K9 Body Control Module also communicates with the K219 Lighting Control Module to control B+ to the M75 Windshield Wiper Motor during operation.

The windshield wiper system consists of the following electrical components:

- · S82 Windshield Wiper/Washer Switch
- K9 Body Control Module
- K219 Lighting Control Module
- · KR12B Windshield Wiper Relay
- · KR11 Windshield Washer Pump Relay
- G24 Windshield Washer Pump
- M75 Windshield Wiper Motor
- B118B Windshield Washer Fluid Level Switch

#### Windshield Washer Components

#### S82 Windshield Wiper/Washer Switch

The S82 Windshield Wiper/Washer Switch is the primary input to the K9 Body Control Module for the driver to control windshield washer operation.

The K9 Body Control Module provides the S82 Windshield Wiper/Washer Switch with ground through a single low reference circuit and monitors the switch position through a single signal circuit. Voltage is

applied by the K9 Body Control Module to this signal circuit and voltage drop is monitored to determine switch selection. The S82 Windshield Wiper/Washer Switch contains an internal switch dedicated to windshield washer operation. When the switch is closed, the signal circuit is pulled to ground, indicating washer operation is requested.

#### **K9 Body Control Module**

The K9 Body Control Module responds to input requests from the S82 Windshield Wiper/Washer Switch. The K9 Body Control Module provides a constant ground for the S82 Windshield Wiper/Washer Switch and monitors a signal circuit to determine the requested windshield wiper position.

When washer operation is requested, the K9 Body Control Module will send a CAN message to the K219 Lighting Control Module to enable the G24 Windshield Washer Pump, as well as supply B+ to the M75 Windshield Wiper Motor for low speed wiper operation.

#### **K219 Lighting Control Module**

The K219 Lighting Control Module controls B+ to the G24 Windshield Washer Pump. When washer operation is requested from a CAN message from the K9 Body Control Module, the K219 Lighting Control Module will apply voltage via a high side driver to the KR11 Windshield Washer Pump Relay. The K219 Lighting Control Module also controls B+ to the M75 Windshield Wiper Motor. When washer operation is requested, the K219 Lighting Control Module will apply voltage via a high side driver to the KR12B Windshield Wiper Relay.

The K219 Lighting Control Module also monitors the B118B Windshield Washer Fluid Level Switch through a discrete signal circuit.

#### **KR12B Windshield Wiper Relay**

The KR12B Windshield Wiper Relay supplies B+ to the M75 Windshield Wiper Motor and is controlled by the K219 Lighting Control Module. The coil side of the relay receives a constant chassis ground and the switch side receives a constant B+. When wiper operation is requested, the K219 Lighting Control Module will provide voltage to the coil side of the relay. This will energize the relay, closing the high current contact, and supply B+ to the M75 Windshield Wiper Motor through the KR12C Windshield Wiper Speed Control Relay, enabling wiper operation.

#### **KR11 Windshield Washer Pump Relay**

The KR11 Windshield Washer Pump Relay supplies B+ to the G24 Windshield Washer Pump and is controlled by the K219 Lighting Control Module. The coil side of the relay receives a constant chassis ground and the switch side receives a constant B+. When wiper operation is requested, the K219 Lighting Control Module will provide voltage to the coil side of the relay. This will energize the relay, closing the high current contact, and supply B+ to the G24 Windshield Washer Pump, enabling washer pump operation.

#### **G24 Windshield Washer Pump**

The G24 Windshield Washer Pump receives a constant chassis ground. B+ is controlled by the KR11 Windshield Washer Pump Relay. With voltage applied, a DC motor spins, connecting and pressurizing washer fluid from the washer fluid reservoir. The pressurized washer fluid is deposited on the windshield through a series of lines and nozzles.

#### M75 Windshield Wiper Motor

The M75 Windshield Wiper Motor receives a constant chassis ground. B+ is controlled by the KR12B Windshield Wiper Relay and KR12C Windshield Wiper Speed Control Relay being operated by the K219 Lighting Control Module. The M75 Windshield Wiper Motor will wiper at low speed when washer operation is requested.

The M75 Windshield Wiper Motor includes a DC motor and an internal position switch to indicate the wiper park position. When wiper operation is requested, the DC motor spins. The spinning motor is directed to a wiping motion through the windshield wiper transmission. When wiper operation is no longer required, the M75 Windshield Wiper Motor will continue spinning until the internal position switch indicates it is in the park position.

#### B118B Windshield Washer Fluid Level Switch

The B118B Windshield Washer Fluid Level Switch receives a constant chassis ground. A signal circuit is monitored by the K219 Lighting Control Module. The K219 Lighting Control Module applies voltage to the signal circuit. When the B118B Windshield Washer Fluid Level Switch is closed, voltage on the signal circuit is pulled to ground, indicating fluid in the washer fluid reservoir.

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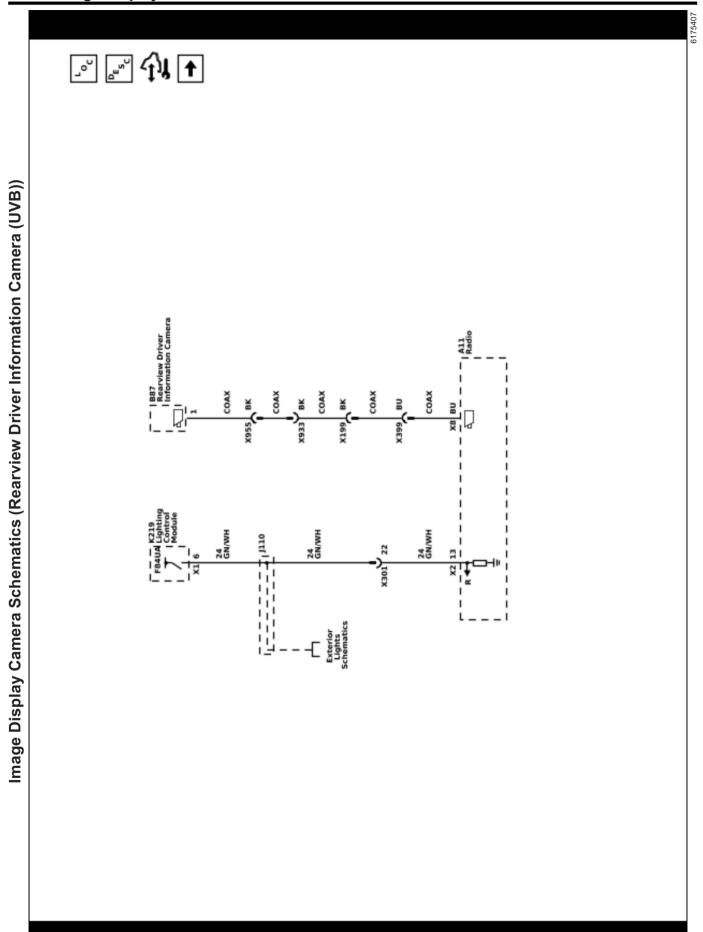
### **Section 3**

## **Driver Information and Entertainment**

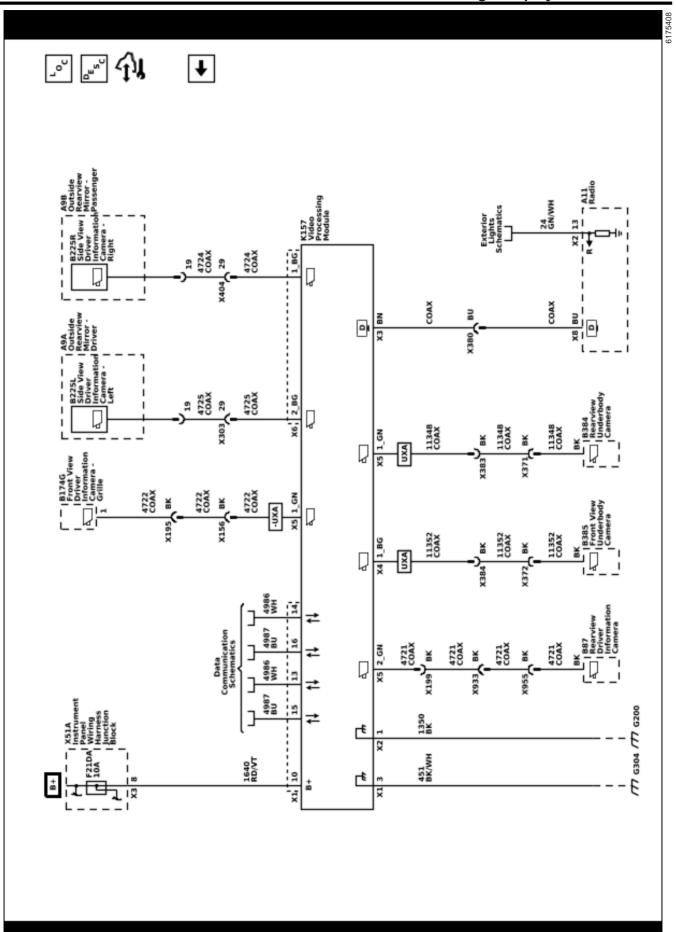
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# Image Display Cameras Schematic and Routing Diagrams







### 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

#### **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 is sent to the Radio indicating that camera operation is requested. The rearview camera sends video information to the radio through a coax cable. The coax cable also provides power from the Radio to the rearview camera.

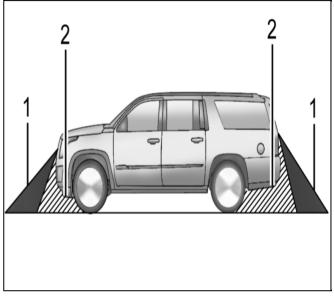
The following conditions may cause a degraded rear vision camera image:

- 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.

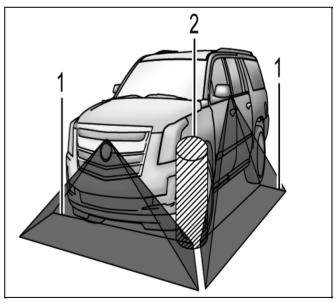
## **Surround Vision Camera Description and Operation**

Warning: The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding outside mirrors that are out of position may not display surround view correctly. Always check around the vehicle when parking or backing.



4291164

- 1. View Displayed by the Surround Vision Camera
- 2. Area Not Shown



4291749

- 1. View Displayed by the Surround Vision Camera
- 2. Area Not Shown

The surround vision camera system consists of the following components:

- K124 Image Processing Module
- A11 Radio
- P53 Driver Information Display

- B87 Rearview Camera
- B174G Frontview Camera Grille
- B225L Sideview Camera Left
- B225R Sideview Camera Right
- X20 Memory Card Receptacle (with XVR)

The following conditions may cause a degraded surround 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 vehicle near camera locations
- Extreme high temperatures or extreme temperature changes

Surround Vision displays an overhead view of the area surrounding the vehicle, along with the front or rear camera views in the center stack. The front camera is in the grille or near the front emblem, the side cameras are on the bottom of the outside rearview mirrors, and the rear vision camera is above the license plate.

**Note:** Images from the Sideview Cameras are only displayed when both front doors are properly closed.

#### Features of the Surround Vision System

- Rear camera (B87 Rearview Camera) view alongside overhead view is displayed in reverse
- Front camera (B174G Frontview Camera Grille) view alongside overhead view is displayed after shifting out of reverse to Neutral or Drive
- Will display front view when front park assist object is within trigger range calibration value (30 cm (12 in) in a forward gear
- Image is removed from display when vehicle speed exceeds speed calibration (10kph/6 mph) or button press / screen touch

#### **System Operation**

The K124 Image Processing Module is connected to each camera via a shielded coaxial cable. The coaxial cable provides power for the camera and also carries the video image from the cameras to the K124 Image Processing Module for processing. The K124 Image Processing Module will then send the processed image output to infotainment system via another coaxial cable.

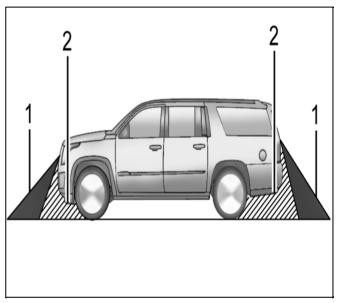
The K124 Image Processing Module receives various vehicle information (such as steering wheel angle, object detection, etc) from other sources such as parking assist modules and the Body Control Module via serial data. This information is used to produce the enhanced surround vision system images that include a warning triangle that may display if an object is detected nearby. This triangle changes from amber to red and increases in size as the object gets closer to the vehicle. Also, dynamic guidelines are displayed in Reverse to show the projected path of the vehicle based on steering wheel angle. Due to this use of vehicle information, any faults or DTCs in these related systems can prohibit proper surround vision operation.

If equipped, the surround vision system may have a memory card receptacle (with XVR). The memory card receptacle interfaces with the K124 Image Processing

Module via a USB cable. The K124 Image Processing Module uses the memory card as a mass storage device, similar to a USB storage device.

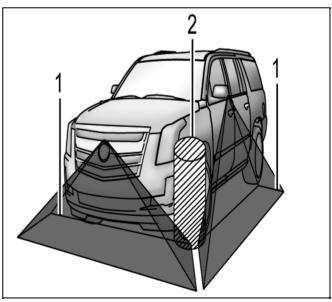
## **Surround Vision Camera Description and Operation**

Warning: The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding outside mirrors that are out of position may not display surround view correctly. Always check around the vehicle when parking or backing.



4291164

- 1. View Displayed by the Surround Vision Camera
- 2. Area Not Shown



4291749

- 1. View Displayed by the Surround Vision Camera
- 2. Area Not Shown

#### 3-8 Image Display Cameras

The surround vision camera system consists of the following components:

- A11 Radio
- P53 Driver Information Display
- B87 Rearview Camera
- B174G Frontview Camera Grille
- B225L Sideview Camera Left
- B225R Sideview Camera Right
- X20 Memory Card Receptacle (with XVR)

The following conditions may cause a degraded surround 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 vehicle near camera locations
- Extreme high temperatures or extreme temperature changes

Surround Vision displays an overhead view of the area surrounding the vehicle, along with the front or rear camera views in the center stack. The front camera is in the grille or near the front emblem, the side cameras are on the bottom of the outside rearview mirrors, and the rear vision camera is above the license plate.

**Note:** Images from the Sideview Cameras are only displayed when both front doors are properly closed.

#### **Features of the Surround Vision System**

- Rear camera (B87 Rearview Camera) view alongside overhead view is displayed in reverse
- Front camera (B174G Frontview Camera Grille) view alongside overhead view is displayed after shifting out of reverse to Neutral or Drive
- Will display front view when front park assist object is within trigger range calibration value (30 cm (12 in) in a forward gear
- Image is removed from display when vehicle speed exceeds speed calibration (10kph/6 mph) or button press / screen touch

#### **System Operation**

The A11 Radio is connected to each camera via a shielded coaxial cable. The coaxial cable provides power for the camera and also carries the video image from the cameras to the A11 Radio for processing. The A11 Radio will then send the processed image output to infotainment system via another coaxial cable.

The A11 Radio receives various vehicle information (such as steering wheel angle, object detection, etc) from other sources such as parking assist modules and the Body Control Module via serial data. This information is used to produce the enhanced surround vision system images that include a warning triangle that may display if an object is detected nearby. This triangle changes from amber to red and increases in size as the object gets closer to the vehicle. Also, dynamic guidelines are displayed in Reverse to show the projected path of the vehicle based on steering wheel angle. Due to this use of vehicle information, any faults or DTCs in these related systems can prohibit proper surround vision operation.

If equipped, the surround vision system may have a memory card receptacle (with XVR). The memory card receptacle interfaces with the A11 Radio via a USB cable. The A11 Radio uses the memory card as a mass storage device, similar to a USB storage device.

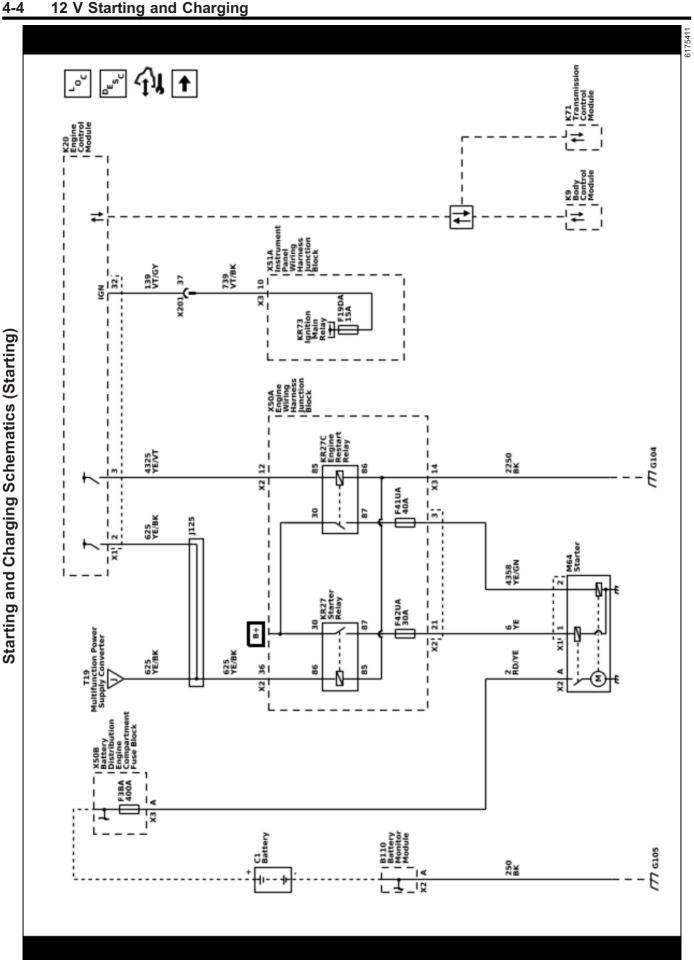
### Section 4

## **Engine/Propulsion**

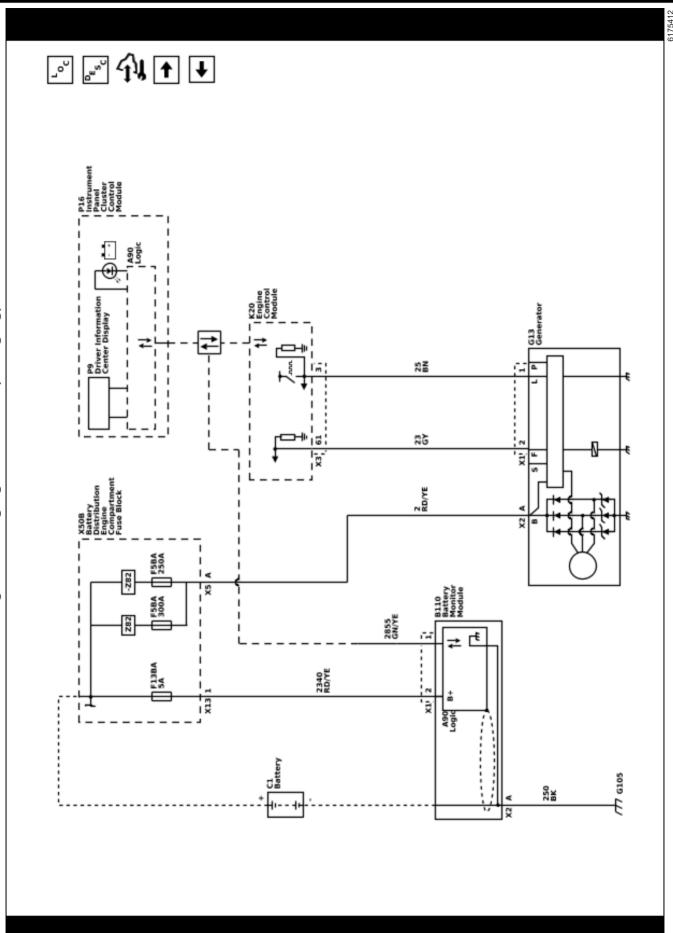
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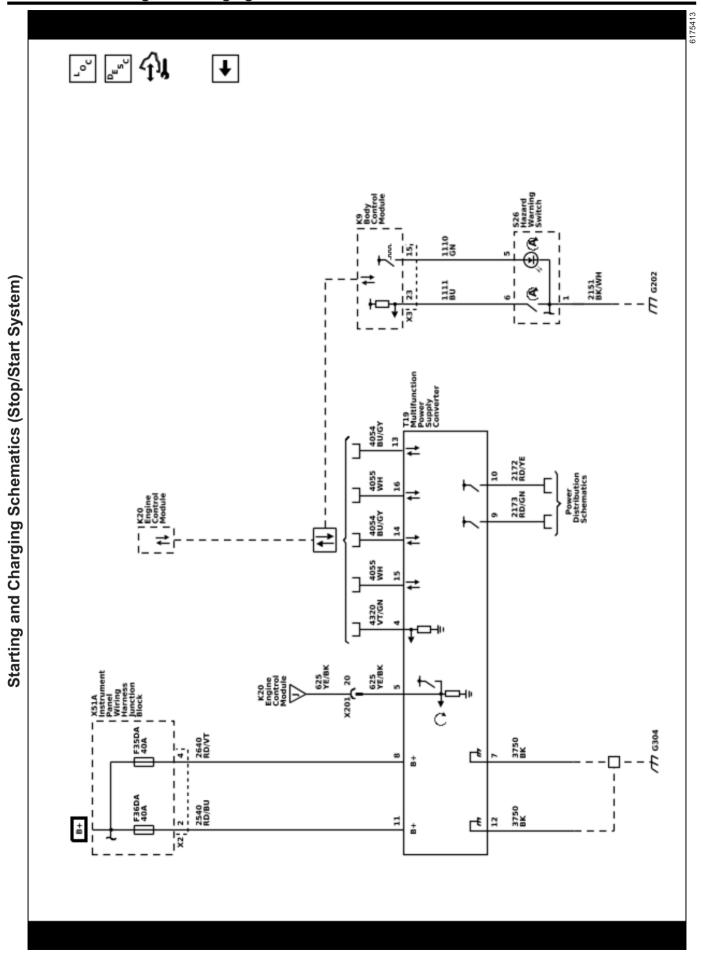
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## 12 V Starting and Charging Schematic and Routing Diagrams









## **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**

#### **G13 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.

#### **K9 Body Control Module (BCM)**

The K9 Body Control Module communicates with the K20 Engine Control Module 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.

#### **B110 Battery Monitor Module**

The Battery Monitor Module communicates to the BCM via LIN. The BCM shares this information with the ECM. The purpose of the battery sensor module is to transmit battery information that the BCM/ECM can use to make decisions regarding stop/start, battery saver mode, and load shedding.

#### **K20 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.

#### **P16 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.

#### **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

Commanded Duty Cycle	Generator Output Voltage (+/25 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**

#### **Electrical Power Management**

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 activated in incremental steps. For example, 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:

#### Idle Boost and Load Shed With Current Sensor

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 11 V	_	First level Idle boost requested
Idle Boost 1 End	Greater Than −10°C (14°F)	Greater Than 12 V	Battery has a net loss less than 0.2 Ah	First level Idle boost request cancelled
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 11 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
Load Shed 1 Start	_	_	Battery has a net loss of 4 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 Start	_	Less Than 11 V	_	Rear Defrost, Heated Mirrors, Heated Seats, HVAC 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 3 Start	_	_	Battery has a net loss of 10 Ah	Third level Idle boost requested
Idle Boost 3 Start	_	Less Than 11 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

### Idle Boost and Load Shed With Current Sensor (cont'd)

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 2 Start	_	_	Battery has a net loss greater than 12 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	_	Less Than 11 V	_	Rear Defrost, Heated Mirrors, Heated Seats, HVAC 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 V	Battery has a net loss of less than 8 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, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 Start	_	Less Than 11 V	_	Rear Defrost, Heated Mirrors, Heated Seats, HVAC 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 13 Ah	Clear Load Shed 3

### Idle Boost and Load Shed Without Current Sensor (based on battery voltage)

Function	Battery Temperature Calculation	Battery Voltage 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	_	Less Than 12.6 V	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	_	First level Idle boost request cancelled
Idle Boost 1 End	_	Greater Than 13 V	First level Idle boost request cancelled
Idle Boost 2 Start	_	Less Than 12.4 V	Second level Idle boost requested
Idle Boost 2 End	_	Greater Than 12.5 V	Second level Idle boost request cancelled
Load Shed 1 Start	_	Less Than 12.3 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 End	_	Greater Than 12.4 V	Clear Load Shed 1
Idle Boost 3 Start	_	Less Than 10 V	Third level Idle boost requested

#### Idle Boost and Load Shed Without Current Sensor (based on battery voltage) (cont'd)

Function	Battery Temperature Calculation	Battery Voltage Calculation	Action Taken
Idle Boost 3 End	_	Greater Than 12.3 V	Third level Idle boost request cancelled
Load Shed 2 Start	_	Less Than 12.1 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	_	Greater Than 12.2 V	Clear Load Shed 2
Load Shed 3 Start	_	Less Than 11.9 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	_	Greater Than 12.0 V	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.

## **Stop/Start System Description and Operation**

The Stop/Start System is used to improve fuel efficiency in stop/start driving. The vehicle automatically shuts down the engine in appropriate conditions at a traffic light, for example, resulting in zero tail pipe emissions and saving fuel which otherwise is used idling the engine when stationary. The engine instantly restarts when the driver is ready to move away.

As soon as the driver prepares to move away (by releasing the brake pedal and/or depressing the accelerator pedal), the engine will start; it only takes the system around 0.3 s to start the engine.

To support the increased number of engine starts, the starter motor is upgraded with a high performance electric motor and a stronger pinion engagement mechanism with reduced noise levels.

Along with the upgraded starter motor, advanced battery technology is required to ensure the vehicles battery can handle the frequent charge and discharge cycles common with stop/start operation. There is battery sensor module connected to the battery which continually monitors the battery charge and healthy state. The Engine Control Module (ECM) uses this information from the battery sensor module to determine if the battery charge and health is sufficient for an Stop/Start condition.

The Stop/Start system can reduce fuel consumption and carbon dioxide (CO2) emissions by up to 5% in mixed driving conditions. In an urban environment and in heavy traffic with frequent stops the savings may increase to as much as 10%.

There are also sophisticated controls in place to help ensure the Stop/Start System does not compromise the needs of either the driver or vehicle. For the engine to shutdown, the vehicle must be below 5 km/h (3 MPH), the selector lever in position D, and brake pedal depressed. To restart, the driver simply releases the brake pedal and the enhanced starter motor engages the engine. When the engine has been shut down by the Stop/Start System, a control indicator will be illuminated in the Driver Information Center (DIC). When the engine is restarted, the control indicator in the DIC extinguishes.

To ensure neither the needs of the driver or vehicle are compromised the engine will not shut down in the following circumstances:

- Ambient and coolant temperature correlation does not match specified values.
- Ambient temperature is less than -10°C (14°F)
- Battery temperature is less than 0°C (32°F) or greater than 55°C (131°F)
- Driver seat belt is not fastened and the drivers door is not fully closed (not applicable to vehicles in North America)
- HVAC system demand is high
- HVAC defrost has been selected
- · Battery charge is low

Likewise the engine will automatically restart if:

- Driver door opened and driver seat belt unbuckled (not applicable to vehicles in North America)
- Engine hood opened
- Battery charge is low
- HVAC demand increases
- Vehicle speed increases
- Brake booster vacuum has been reduced
- Engine coolant temperature is greater than 125° C (257°F)
- · Economy mode turned OFF by driver
- Autostop time exceeded 2 min

When the Stop/Start System has shut down the engine, and the ambient temperature is below 15°C (59°F), the ECM will activate the Stop/Start auxiliary relay which controls the electric engine coolant pump motor to continually circulate the engine coolant through the engine while the engine is off. This is to ensure the engine and passenger compartment temperature is maintained while off. Once the Stop/Start System has restarted the engine, the ECM will turn off the electric coolant pump motor, thus allowing the engines internal coolant pump to circulate the engine coolant. The Stop/Start System is automatically activated each time the ignition switch is turned on.

Through the climate control system, the vehicle can be cycled between off, comfort, and eco air conditioning modes (if equipped). In comfort mode, the priority for Stop/Start operation is on customer comfort. Depending on ambient temp, humidity, cabin temperature and cabin temperature setpoint, the least amount of autostops occur in this mode. In eco mode, the priority is on fuel economy. There are more frequent autostops with some sacrificing of cabin temperature control. With the HVAC turned off, the maximum autostops occur since there will be no A/C compressor requests.

#### **Autostop Criteria**

The ECM will send an Autostop state message to the body control module (BCM) and shut down the engine when all of the following criteria is met. The BCM will transmit the Autostop state message to the instrument cluster which will display the Autostop indicator in the tachometer display.

- Initial minimum vehicle speed during drive cycle must be 19 km/h (12 MPH) or greater. Subsequent autostop minimum speed may vary from 2-10 km/h (1-6 MPH), depending on vehicle
- Ambient and engine coolant temperature correlation meets specified values.
- Ambient and transmission fluid temperature correlation meets specified values.
- Hood switch status is closed
- Driver door status is closed
- Driver seat belt status is buckled
- Brake booster vacuum is greater than 45 kPa (7 PSI)
- Transmission gear selector is in the Drive position
- Vehicle speed is less than 5 km/h (3 MPH)
- Engine speed is below 1,500 RPM
- Engine coolant temperature is less than 120° C (248°F)
- Ambient temperature is greater than -10°C (14°F)
- No A/C compressor request from HVAC (A/C or Defrost modes)
- Battery voltage greater than 12 V
- Battery state of charge greater than 75% (changes with state of health)

#### **Autostop Enable Ambient and Engine Coolant Temperature Table**

Ambient Temperature	inimum Coolant Temperature	Autostop Enable
-10°C (14°F)	60°C (140°F)	Yes
0°C (32°F)	50°C (122°F)	Yes
6°C (43°F)	40°C (104°F)	Yes
12°C (54°F)	30°C (86°F)	Yes
20°C (68°F)	18°C (64°F)	Yes
30°C (86°F)	18°C (64°F)	Yes

#### **Autostart Criteria**

The ECM will send an Autostart state message to the BCM. If all of the following conditions are true the ECM and BCM will restart the vehicle.

Driver Enabled Conditions that will engage Autostart:

 Driver removes pressure from the brake or depresses the accelerator pedal while the vehicle is in the forward Drive gear

System Enabled Conditions that will engage Autostart **Note:** If one or more of the following conditions occur, the system will force the engine to restart.

- Brake booster vacuum is less than 40 kPa (6 PSI)
- A/C compressor request from HVAC (A/C or Defrost modes)
- · Battery voltage less than 11 V,

- Battery state of charge is less than 73% (changes with state of health)
- Driver door status changes to open and driver seat belt status changes to unbuckled (not applicable to vehicles in North America)
- Hood switch status changes to open
- · Autostop time exceeded 2 min

If the crank time exceeds 2 s, a manual ignition switch restart will be necessary.

#### **System Components**

#### **Engine Control Module (ECM)**

The ECM monitors the inputs from the Engine Coolant Temperature (ECT) sensor, Vehicle Speed Sensor (VSS), Battery Sensor Module, hood ajar switch, brake booster vacuum sensor, and engine speed to determine Autostart and Autostop conditions. The ECM also controls the auxiliary coolant pump motor (if equipped).

#### **Transmission Control Module (TCM)**

The TCM monitors the inputs from the transmission neutral safety switch to determine the driver selected gear. This information is transmitted to the ECM via serial data to support the Auto Stop Start algorithm.

#### **Engine Coolant Temperature sensor (ECT)**

The ECT sensor is used to determine engine operating temperature.

#### Intake Air Temperature Sensor (IAT)

The ECM uses this sensor to monitor ambient air temperature. If too cold, the Autostop will not occur.

#### Inside air temperature sensor

The HVAC control module monitors the passenger compartment temperature sensor to determine the temperature inside the passenger compartment. The HVAC control module sends this temperature reading to the ECM on the data communication circuit. The ECM uses this temperature values to determine if a restart is requires based on the temperature inside the passenger compartment.

#### Vehicle speed sensor

The vehicle speed sensor is used to determine vehicle speed. If vehicle speed is detected above a calculated value during an Autostop condition, the ECM will start the engine.

#### **Hood Ajar Switch**

If the hood switch is in the open position, the vehicle will not Autostop. If the hood is opened during Autostop, the vehicle will automatically restart.

#### **Brake Booster Vacuum Sensor**

The ECM monitors vacuum in order to ensure proper power assist for the brake pedal. If the ECM determines vacuum is too low, it will restart the engine.

### Brake Pedal Position Sensor (BPPS) & Accelerator Pedal Position Sensor (APP)

The ECM monitors both the brake pedal position sensor and the accelerator pedal position sensor to determine the level of activation for each. While the accelerator pedal is in it's at rest position with no pressure applied by the operator, a partially depressed Brake pedal will cause the ECM to prepare the engine for an Autostop event. When the vehicle is in an auto stop event and the status of the brake pedal position sensor changes from meeting the autostop criteria to not meeting this criteria the engine will be restarted provided all of the other conditions to allow an autostart are met. If the Accelerator pedal is moved from its at rest position the vehicle will also enter an auto start event if all other conditions to support an autostart event, except for the brake pedal position, are met.

#### **Transmission Gear Shift Position Switch**

The transmission gear shift position switch is used to determine if the transmission is in the proper state to allow an auto stop/start event. The ECM will not allow Autostop until the brake is engaged, the transmission is

in the forward gear position and then the vehicle slows to below the minimum speed required to allow and autostop while meeting all of the other minimum criteria to support an autostop event.

#### **Coolant Pump Motor**

The ECM will turn on the auxiliary coolant pump motor during Autostop to maintain engine operating temperature and HVAC temperature. Once the engine is running, the ECM will turn off the coolant pump motor

#### **Body Control Module (BCM)**

The Body Control Module (BCM) monitors the Autostop Disable switch in order to enable or disable the system. It sends the appropriate messages to the ECM Via serial data to enable or disable the system.

#### **Battery Sensor Module**

The Battery Sensor Module monitors the battery current load, state of health, and state of charge, the information is sent to the BCM Via LIN then to the ECM Via Serial Data. If the module detects high current load, the battery is in a poor state of health or a low charge condition, the ECM will not allow Autostop to occur.

#### **Autostop Disable Switch**

The disable switch is an input to the BCM, it allows the customer to disable or re-enable the Autostop system. After the vehicle is turned off the Autostop system will turn back on the next time the vehicle is started.

#### **Power Supply Transformer**

The DC to DC converter monitors battery voltage and will maintain operating voltage to the radio, instrument cluster and instrument panel displays. The DC to DC converter will provide a boosted voltage to sensitive loads during Autostart to ensure proper operation of the driver informational displays.

#### **Instrument Cluster**

In order to differentiate between a normal engine shut down (engine speed 0 RPM) and when the engine has been shut down by the Stop/Start System, the tachometer needle will rest at the Autostop indicator icon (500 RPM point) indicating the engine has been shut down by the Stop/Start System. Once the engine is restarted, or the ECO button has disengaged Autostop, the tachometer will function normally.

### **BLANK**

## **Section 5**

## **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.

#### **Air Conditioning**

Refrigerant is the key element in an air conditioning system. R–1234yf is a very low temperature gas that can transfer the undesirable heat from the passenger compartment to the outside air.

The air conditioning compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure in the air conditioning 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 air conditioning system. The air conditioning system is mechanically protected with the use of a high pressure relief valve. If the high pressure air conditioning 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 Thermostatic 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 air conditioning 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 air conditioning cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

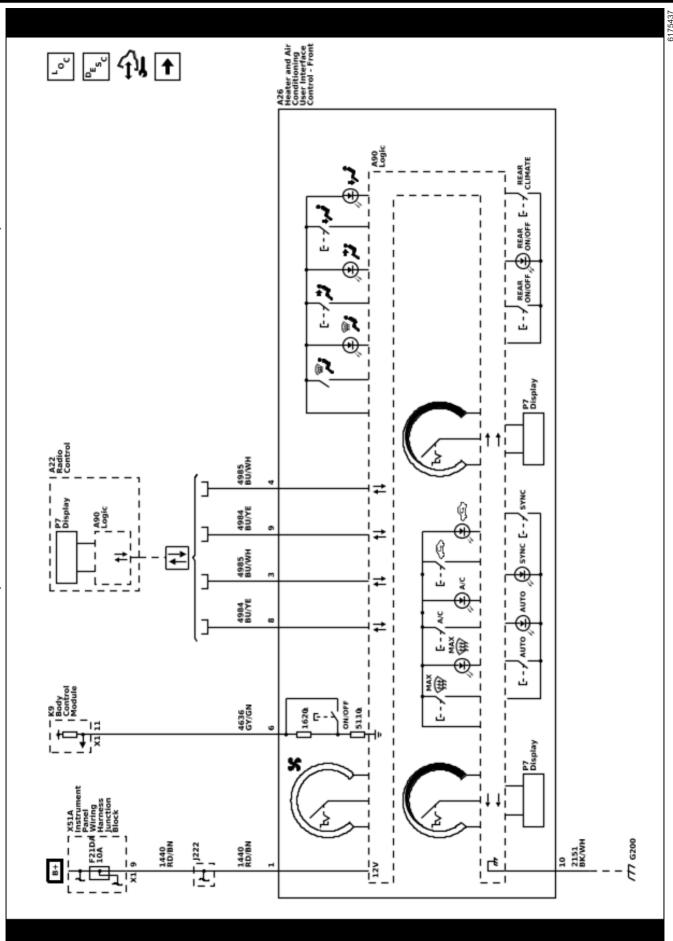
Vehicles equipped with R-1234yf may utilize an integral heat exchanger in the air conditioning line set. An integral heat exchanger transfers heat between liquid line and the suction line. It uses the cold vapor from the evaporator to cool the warm liquid refrigerant before it enters the TXV, resulting in increased cooling and higher efficiency.

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.

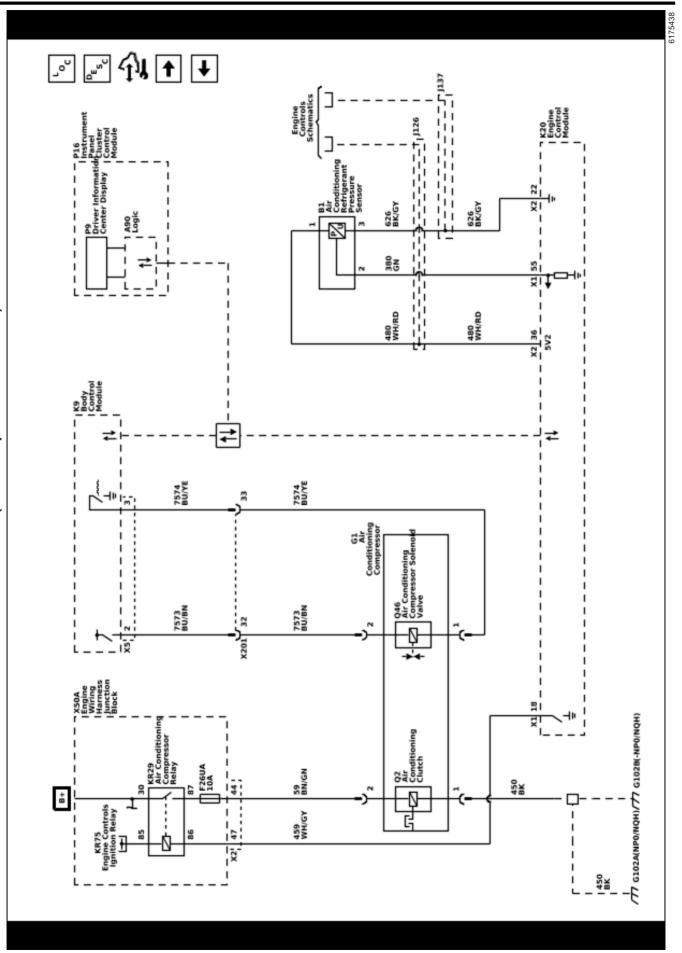
### **HVAC - Automatic**

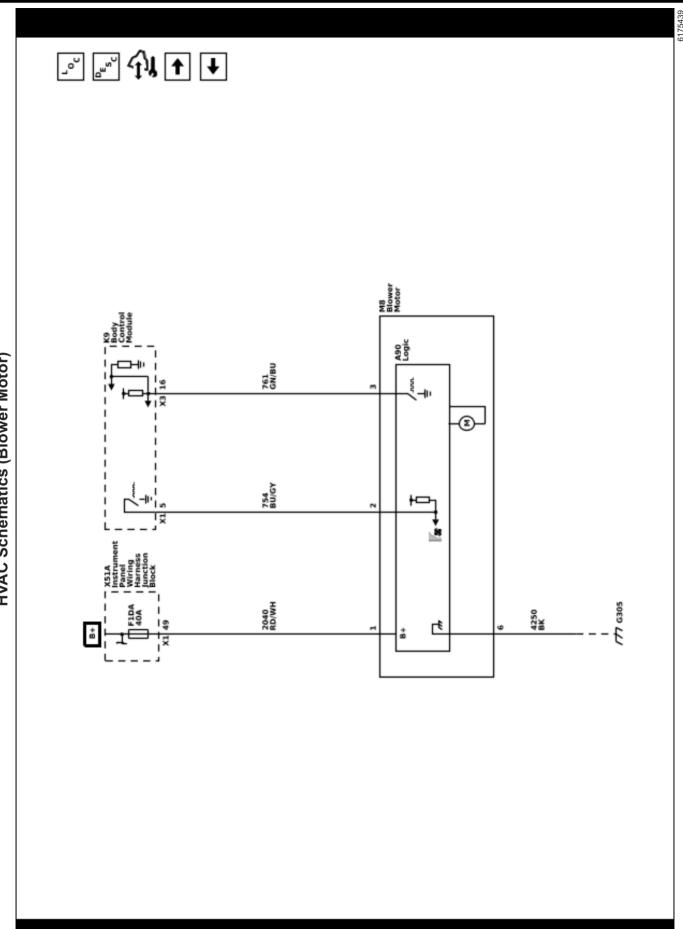
## **Schematic and Routing Diagrams**

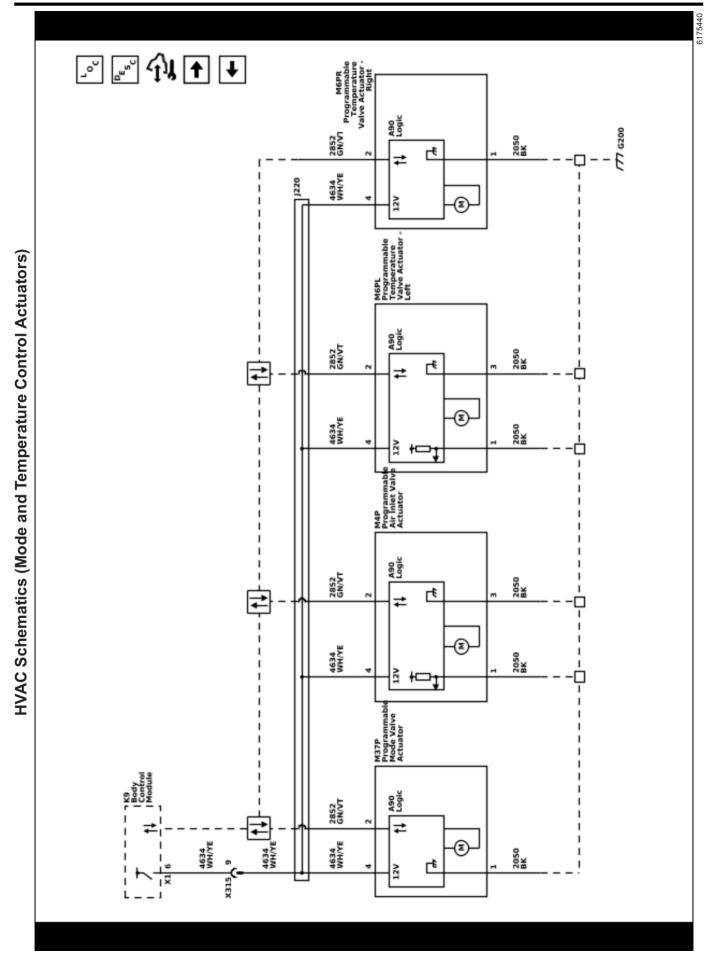
HVAC Schematics (Power, Ground, Serial Data and HVAC Controls)



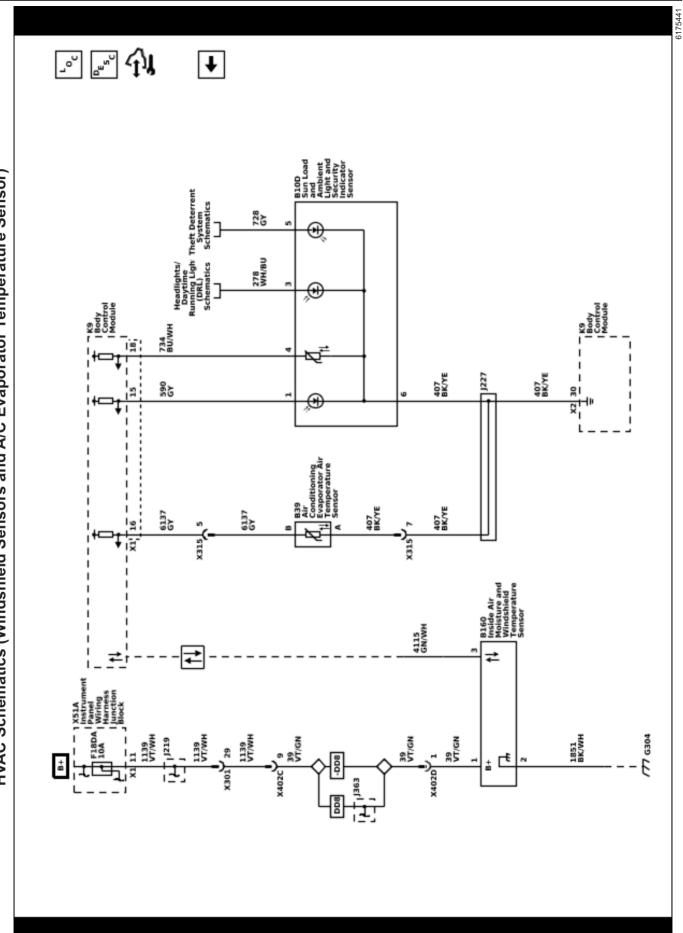












# **Description and Operation Automatic HVAC Description and Operation**

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

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

## **HVAC Control Components**

#### **K9 Body Control Module**

The body control module (BCM) is a CAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The BCM provides a device ON-Signal for the HVAC controls. The BCM provides blower, air delivery mode and air temperature control.

# A26 Heater and Air Conditioning User Interface Control - Front

The HVAC control contains all switches which are required to control the functions of HVAC and serve as interface between the operator and the BCM. The selected values are passed to the BCM via serial data.

#### **Actuators**

Doors in the HVAC case assembly are used to control air flow. The BCM 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, left and right temperature, and recirculation.

Each actuator used in the system is a LIN device controlled by the BCM. The BCM supplies a 12 V reference voltage to the actuators, and ground is provided by the wiring harness. When the BCM sends a request message to the actuator, the actuator then operates internal stepper motors to move the door to the required position.

#### Air Speed and M8 Blower Motor

The selected blower motor speed is passed from the controls to the BCM via serial data.

The motor uses a fused B+, ground, control, and speed output signal circuits to operate. The blower motor speed is controlled by increasing or decreasing the voltage drop on the ground side of the blower motor speed control circuit. The BCM provides a low side pulse width modulation (PWM) signal to the blower motor to request a specific motor speed. The blower motor internal circuitry translates the PWM signal and drives the motor accordingly.

The blower motor has a signal wire used to output a speed signal. The signal is monitored by the BCM. The BCM monitors the blower motor speed to modify the total commanded engine coolant flow rate, which is a percentage of available coolant flow sent to the heater

core for occupant comfort and windshield defrosting. The HVAC Blower Speed is monitored so that the ECM can optimize engine coolant flow for fuel economy and emissions.

#### 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.

#### **Duct Air Temperature**

Physical duct air temperature sensors are not used with the front system. The air temperature in the air distribution ducts is calculated by the BCM based on the engine coolant temperature, coolant flow, evaporator temperature, outside air temperature, solar load, blower motor speed, air inlet door position, and temperature door position information. The BCM uses the values to calculate actuator position.

# B39 Air Conditioning Evaporator Air 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.

#### **B1 Air Conditioning 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.

#### **G1 Air Conditioning 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 BCM 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 BCM provides both battery voltage and a pulse width modulated ground to the Q46 Air Conditioning

Compressor Solenoid Valve. When the A/C switch is pressed, the BCM 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.

#### B160 Inside Air Moisture and Windshield Temperature Sensor

The windshield temperature and inside moisture sensor includes the relative humidity sensor, windshield temperature sensor and humidity sensing element temperature sensor.

This sensor assembly provides information about:

- Relative humidity level at windshield (passenger compartment side)
- Temperature of the windshield (passenger compartment side)
- Temperature of the humidity sensor element

The relative humidity sensor measures the relative humidity of the passenger compartment side of the windshield. It also detects the temperature of the windshield surface on the passenger compartment side. Both values are used as control inputs for the BCM application to calculate the fog risk on windshield compartment side and ability to reduce fuel consumption by decreasing A/C compressor power to a minimum without causing any fog. The sensor will also enable partial recirculation mode in order to improve heat-up performance of the passenger compartment under cold ambient temperature conditions without the risk of mist build-up on the windshield. The humidity sensor element temperature sensor supplies the temperature of the humidity sensor element. It is only needed if the thermal contact between the humidity sensing element and the inside windshield surface is not sufficient.

The sensor is a LIN device, and the sensor values are transmitted to the BCM via serial data.

When equipped with CE1, the sensor is part of the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor LIN windshield sensor array, and the windshield temperature and humidity values are transmitted to the BCM via serial data.

# B10D Sun Load Temperature and Ambient Light and Security Indicator Sensor

The ambient light/sunload sensor includes the solar sensor and passenger compartment temperature sensor.

The solar sensor is connected to a low reference and 5 V supply through the BCM. As the sunload increases, the sensor signal voltage also increases and vice versa. The signal provided to the BCM varies between 1.2–4.85 V.

The passenger compartment temperature sensor is a negative temperature coefficient thermistor, connected to a low reference and 5 V supply through the BCM. As the air temperature increases, the sensor resistance decreases. The signal varies between 0–5 V.

Bright or high intensity light can cause the vehicles interior temperature to increase. The HVAC system uses the sensor values and compensates for the increased temperature to maintain the system settings.

## **Air Delivery**

The BCM controls the distribution of air by the use of recirculation and mode door actuators. The modes that may be selected are:

Defrost: windshield outlet

· Panel: dashboard outlets

· Floor: front footwell outlets

Defog: defrost + floorBi-level: panel + floor

• Tri-level: panel + defrost + floor

· Hi-level: panel + defrost

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 BCM via serial data. The BCM sends a request to the mode door actuator to move the door to the required position. Depending on the position of the door, air is distributed through various ducts leading to the outlets in the dash. When defrost airflow is active, the BCM will move the recirculation actuator to outside air, to aid in reducing window fogging. When defrost is selected the blower motor will be activated, regardless of the coolant temperature. A/C is available in all modes.

Refer to the owners manual for operation of the HVAC controls and mode selection.

#### **Recirculation Operation**

The recirculation switch is integrated into the HVAC control. The selected recirculation setting is sent to the BCM via serial data. The BCM 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.

In automatic mode the values of the sensors are used as inputs for the BCM to calculate the fog risk on the passenger compartment side of the windshield. The A/C compressor and the defrost mode may be activated to prevent or remove fog on the passenger compartment side of the windshield.

In automatic mode, a partial recirculation mode may be commanded to accelerate cabin heating or cooling and reduce energy usage. The recirculation indicator remains illuminated at all times, regardless of the actual operating mode determined by the 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 may affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting
- Dashboard outlet open/closed position

When the A/C switch or the AUTO switch is pressed, the HVAC control sends a signal to the BCM via serial data. The BCM 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 BCM. The A/C compressor is activated by the BCM. The BCM supplies battery voltage to the A/C compressor solenoid. When the A/C switch is pressed, the BCM provides a pulse width modulation (PWM) signal to the A/C compressor solenoid in order to command the performance of the A/C compressor. The performance of the A/C compressor is regulated using evaporator temperature and engine load.

The A/C indicator does not indicate the compressor is currently active. The A/C indicator shows that A/C has been requested and the system will activate the compressor as needed.

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.

### **Automatic Operation**

In automatic operation, the BCM maintains the comfort level inside of the vehicle by controlling the A/C compressor solenoid, the blower motor, the air temperature actuators, mode actuator and recirculation actuator.

The automatic mode indicator shows that the system is in full automatic operation. If an individual setting is changed (excluding temperature), the automatic indicator will turn off, and that function will enter manual control. All other functions will remain under automatic control unless manually changed.

To put the HVAC system in automatic mode, the following is required:

- 1. The auto switch must be activated.
- 2. The air temperature switch must not be in either the full hot or full cold position.

Once the desired temperature is reached, the blower motor, mode, recirculation and temperature actuators automatically adjust to maintain the temperature selected. The BCM performs the following functions to maintain the desired air temperature:

- Monitors the following:
  - Ambient (outside) air temperature sensor
  - Passenger compartment temperature sensor
  - Calculated front duct air temperatures
  - Windshield temperature and inside moisture sensor
  - Evaporator temperature sensor
  - Ambient light/sunload sensor
- Regulate the blower motor speed
- Position the air temperature actuators
- · Position the mode door actuators
- Position the recirculation actuator
- Control of the A/C compressor solenoid

When the temperature setting is set to full hot, the blower speed will increase gradually as the coolant warms to normal operating temperature. When normal engine operating temperature is reached the blower stays on high speed and the air temperature actuators stays in the full heat position.

When the temperature setting is set to full cold, the blower will immediately operate at high speed and the air temperature actuators move to full cold position. The mode actuator moves to the panel position and the recirculation actuator moves to the recirculation position.

Under cold ambient temperatures, the automatic HVAC system provides heat in the most efficient manner. The operator can select an extreme temperature setting but the system will not warm the vehicle any faster. Under warm ambient temperatures, the automatic HVAC system also provides air conditioning in the most efficient manner. Selecting an extreme cool temperature will not cool the vehicle any faster.

In automatic mode the values of the windshield temperature and inside moisture sensor are used as control inputs for the BCM application to calculate the fog risk on the passenger compartment side of the windshield and ability to reduce fuel consumption by decreasing A/C compressor power to a minimum

without causing any fog. The A/C compressor and the defrost mode are activated to prevent or remove fog on the passenger compartment side of the windshield. The sensor will also enable partial recirculation mode in order to improve heat-up performance of the passenger compartment under cold ambient temperature conditions without the risk of mist build-up on the windshield.

# **Engine Coolant and A/C System Refrigerant**

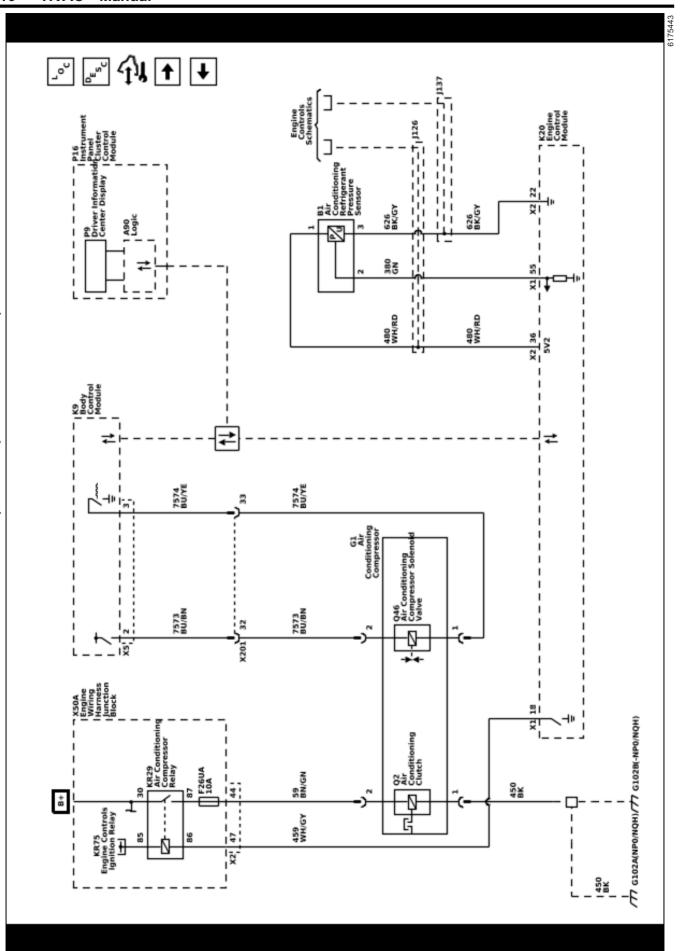
For information on engine coolant, coolant flow, A/C refrigerant, and the A/C refrigerant cycle, refer to Heating and Air Conditioning System Description and Operation on page 5-3.

# **HVAC - Manual**

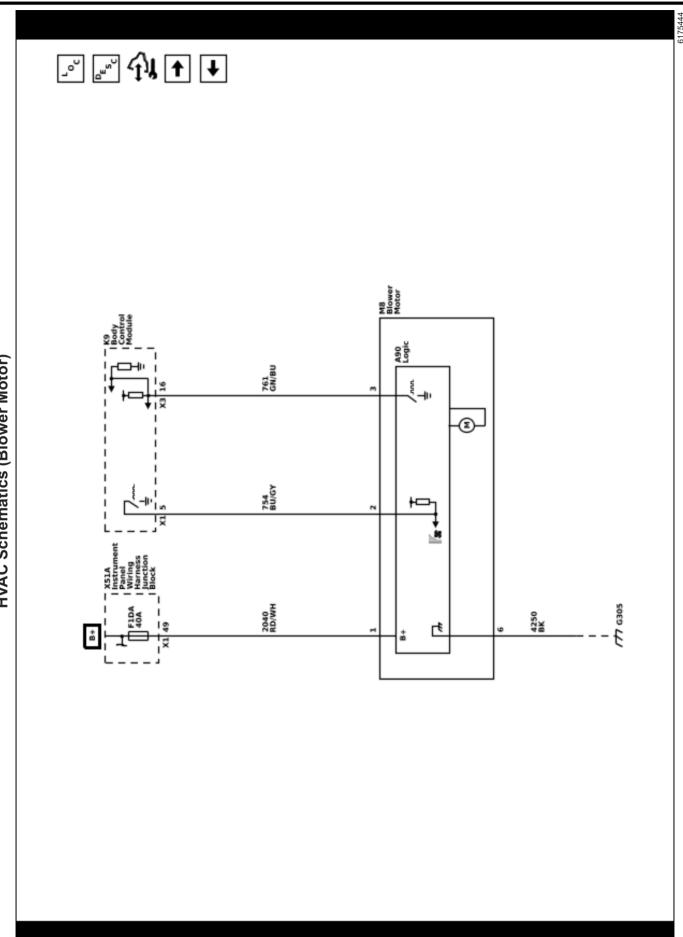
# **Schematic and Routing Diagrams**

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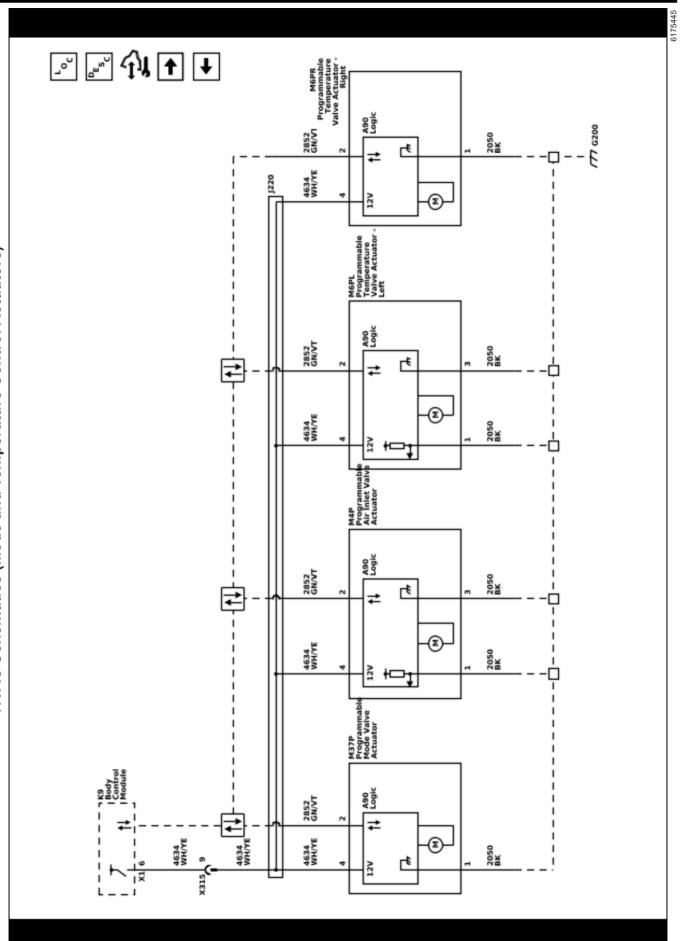




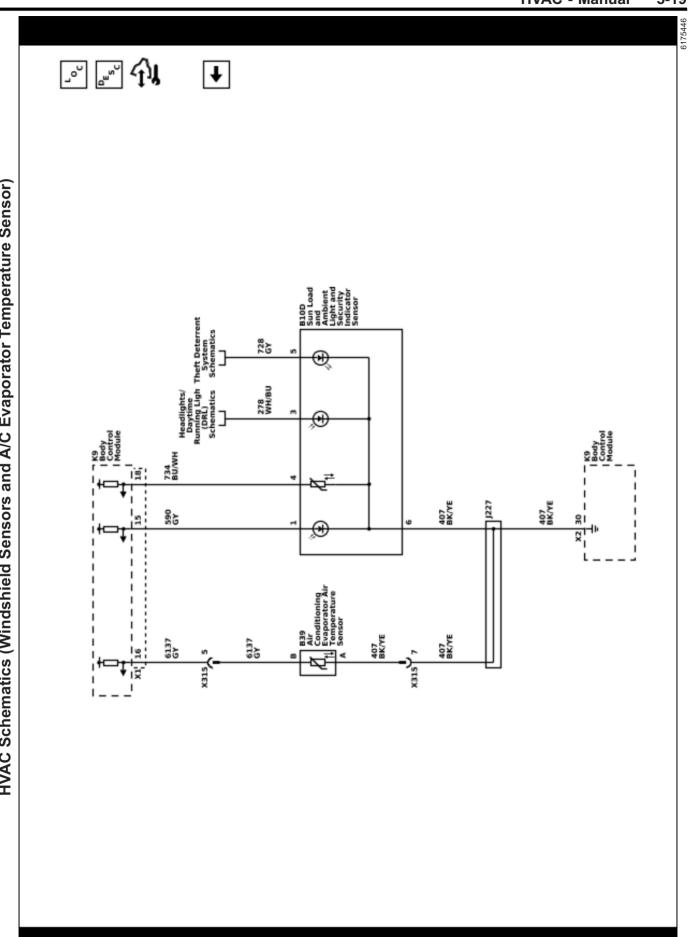




5-18







# Description and Operation Manual HVAC Description and Operation

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

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

## **HVAC Control Components**

#### **K9 Body Control Module**

The body control module (BCM) is a CAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The BCM provides a device ON-Signal for the HVAC controls. The BCM provides blower, air delivery mode and air temperature control.

# A26 Heater and Air Conditioning User Interface Control - Front

The HVAC control contains all switches which are required to control the functions of HVAC and serve as interface between the operator and the BCM. The selected values are passed to the BCM via serial data.

#### **Actuators**

Doors in the HVAC case assembly are used to control air flow. The BCM 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 LIN device controlled by the BCM. The BCM supplies a 12 V reference voltage to the actuators, and ground is provided by the wiring harness. When the BCM sends a request message to the actuator, the actuator then operates internal stepper motors to move the door to the required position.

#### Air Speed and M8 Blower Motor

The selected blower motor speed is passed from the controls to the BCM via serial data.

The motor uses a fused B+, ground, control, and speed output signal circuits to operate. The blower motor speed is controlled by increasing or decreasing the voltage drop on the ground side of the blower motor speed control circuit. The BCM provides a low side pulse width modulation (PWM) signal to the blower motor to request a specific motor speed. The blower motor internal circuitry translates the PWM signal and drives the motor accordingly.

The blower motor has a signal wire used to output a speed signal. The signal is monitored by the BCM. The BCM monitors the blower motor speed to modify the total commanded engine coolant flow rate, which is a percentage of available coolant flow sent to the heater core for occupant comfort and windshield defrosting.

The HVAC Blower Speed is monitored so that the ECM can optimize engine coolant flow for fuel economy and emissions.

#### 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.

# B39 Air Conditioning Evaporator Air 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.

#### **B1 Air Conditioning 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.

#### **G1 Air Conditioning 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 BCM 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 BCM provides both battery voltage and a pulse width modulated ground to the Q46 Air Conditioning Compressor Solenoid Valve. When the A/C switch is pressed, the BCM 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 Delivery**

The BCM controls the distribution of air by the use of recirculation and mode door actuators. The modes that may be selected are:

Defrost: windshield outletPanel: dashboard outlets

Floor: front footwell outlets

Defog: defrost + floorBi-level: panel + floor

Tri-level: panel + defrost + floor

Hi-level: panel + defrost

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 BCM via serial data. The BCM sends a request to the mode door actuator to move the door to the required position. Depending on the position of the door, air is distributed through various ducts leading to the outlets in the dash. When defrost airflow is active, the BCM will move the recirculation actuator to outside air, to aid in reducing window fogging. When defrost is selected the blower motor will be activated, regardless of the coolant temperature. A/C is available in all modes.

Refer to the owners manual for operation of the HVAC controls and mode selection.

#### **Recirculation Operation**

The recirculation switch is integrated into the HVAC control. The selected recirculation setting is sent to the BCM via serial data. The BCM 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.

## **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 may affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting
- Dashboard outlet open/closed position

When the A/C switch or the AUTO switch is pressed, the HVAC control sends a signal to the BCM via serial data. The BCM 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 BCM. The A/C compressor is activated by the BCM.

The BCM supplies battery voltage to the A/C compressor solenoid. When the A/C switch is pressed, the BCM provides a pulse width modulation (PWM) signal to the A/C compressor solenoid in order to command the performance of the A/C compressor. The performance of the A/C compressor is regulated using evaporator temperature and engine load.

The A/C indicator does not indicate the compressor is currently active. The A/C indicator shows that A/C has been requested and the system will activate the compressor as needed.

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.

# 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 5-3.

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# Section 6

# **Power and Signal Distribution**

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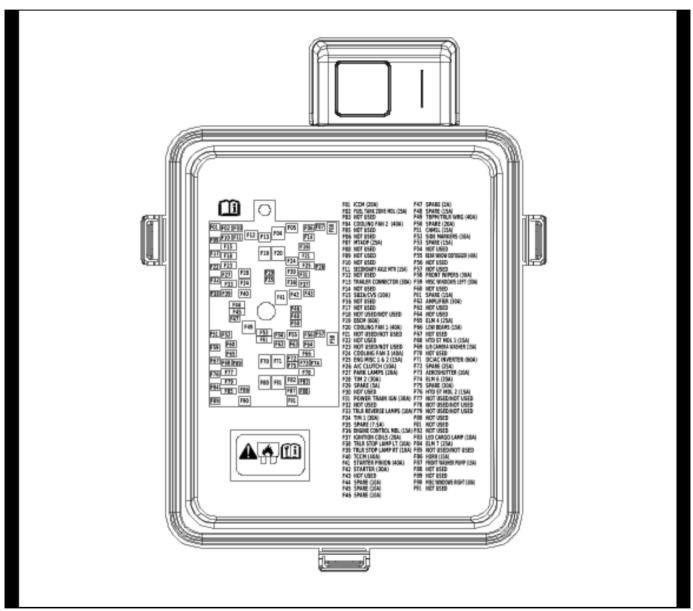
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# **Electrical Component and Inline Harness Connector End Views**

## **Component Locator**

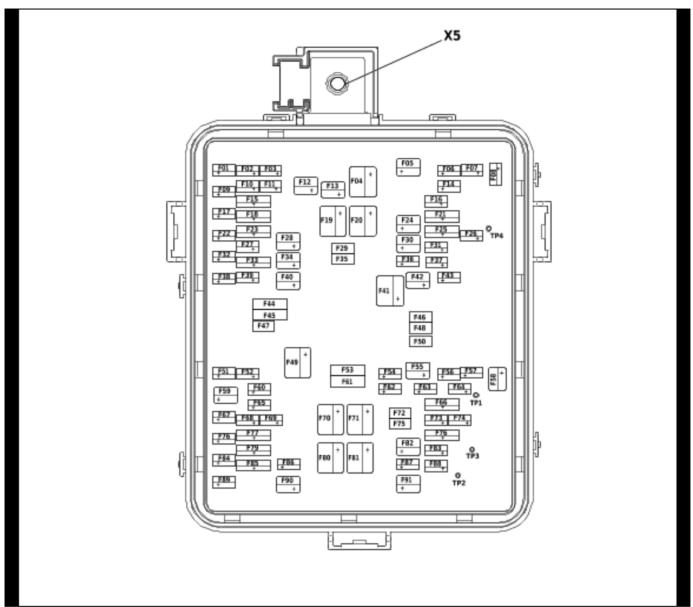
**Electrical Center Identification Views** 

**X50A Engine Wiring Harness Junction Block Label** 



6181028

## **X50A Engine Wiring Harness Junction Block Top View**



6181029

## **Usage Table**

	Davise Lakel Davise Assistand								
No.	Device Label Name	Device Assigned Name	Rating	Description					
Fuses									
F1	ICCM	F1UA	20A	K38 Chassis Control Module					
F2	FUEL TANKE ZONE MDL	F2UA	25A	K111 Fuel Pump Power Control Module					
F3	NOT USED	F3UA	_	Not Used					
F4	COOLING FAN 2	F4UA	40A	G10R Cooling Fan Motor - Right					
F5	NOT USED	F5UA	_	Not Used					
F6	NOT USED	F6UA	_	Not Used					
F7	MTA0P	F7UA	25A	G5 Automatic Transmission Auxiliary Fluid Pump					
F8	NOT USED	F8UA	_	Not Used					
F9	NOT USED	F9UA	_	Not Used					
F10	NOT USED	F10UA	_	Not Used					

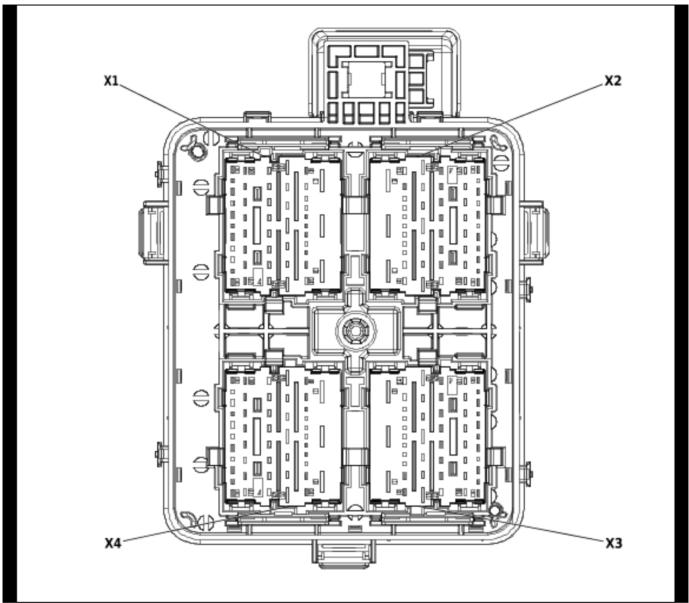
No.	Device Label Name	Device Assigned Name	Rating	Description
F11	SECONDARY	F11UA	15A	M26 Front Drive Axle Actuator
F40	AXLE MTR			Nethers
F12	NOT USED	F12UA	_	Not Used
F13	TRAILER CON- NECTOR	F13UA	30A	X88B Tow Vehicle Electrical Receptacle
F14	NOT USED	F14UA	_	Not Used
F15	SVZA/CVS	F15UA	10A	<ul> <li>B218L Side Obstacle Detection Control Module - Left (UFB/UKI)</li> <li>B218R Side Obstacle Detection Control Module - Right (UFB/UKI)</li> <li>Q13 Evaporative Emission Canister Vent Solenoid Valve</li> </ul>
F16	NOT USED	F16UA	_	Not Used
F17	NOT USED	F17UA	_	Not Used
F18	NOT USED/NOT USED	F18UA	_	Not Used
F19	EBCM	F19UA	60A	K160 Brake System Control Module
F20	COOLING FAN 1	F20UA	40A	G10L Cooling Fan Motor - Left
F21	NOT USED/NOT USED	F21UA	_	Not Used
F22	NOT USED	F22UA	_	Not Used
F23	NOT USED/NOT USED	F23UA	_	Not Used
F24	COOLING FAN 3	F24UA	40A	G10LW Cooling Fan Motor - Lower (Z82)
F25	ENG MISC 1 and 2	F25UA	15A	<ul> <li>B52D Heated Oxygen Sensor - Bank 1 Sensor 2</li> <li>B52C Heated Oxygen Sensor - Bank 1 Sensor 1</li> <li>B75 Mass Airflow Sensor</li> <li>K20 Engine Control Module</li> <li>G58 Evaporative Emission Canister Purge Pump</li> <li>M129A Intake Camshaft Profile Actuator 1</li> <li>M129B Intake Camshaft Profile Actuator 2</li> <li>M129C Intake Camshaft Profile Actuator 3</li> <li>M129D Intake Camshaft Profile Actuator 4</li> <li>M130B Exhaust Camshaft Profile Actuator 2</li> <li>M130C Exhaust Camshaft Profile Actuator 3</li> <li>Q12 Evaporative Emission Canister Purge Solenoid Valve</li> <li>Q40 Turbocharger Bypass Valve Solenoid</li> <li>Q97B Engine Coolant Flow Control Valve - Block</li> </ul>
F26	A/C CLUTCH	F26UA	10A	Q2 Air Conditioning Clutch
F27	PARK LAMPS	F27UA	20A	X88B Tow Vehicle Electrical Receptacle (Z82-U1D)
F28	TIM 2	F28UA	30A	K68 Trailer Lamp Control Module (U1D+Z82)
F29	SPARE	F29UA	5A	Not Used
F30	NOT USED	F30UA		Not Used
F31	POWER TRAIN IGN 1	F31UA	30A	K20 Engine Control Module
F32	NOT USED	F32UA	_	Not Used
F33	TRLR REVERSE LAMPS	F33UA	10A	X88B Tow Vehicle Electrical Receptacle (Z82-U1D)
F34	TIM 1	F34UA	30A	K68 Trailer Lamp Control Module (U1D+Z82)

No.	Device Label Name	Device Assigned Name	Rating	Description
F35	SPARE	F35UA	7.5A	Not Used
F36	ENGINE CON- TROL MDL	F36UA	15A	K20 Engine Control Module
F37	IGNITION COILS	F37UA	20A	<ul> <li>K20 Engine Control Module</li> <li>T8A Ignition Coil 1</li> <li>T8B Ignition Coil 2</li> <li>T8C Ignition Coil 3</li> <li>T8D Ignition Coil 4</li> </ul>
F38	TRAIL STOP LAMP LT	F38UA	10A	X88B Tow Vehicle Electrical Receptacle (Z82-U1D)
F39	TRAIL STOP LAMP RT	F39UA	10A	X88B Tow Vehicle Electrical Receptacle (Z82-U1D)
F40	TCCM	F40UA	40A	K69 Transfer Case Control Module
F41	STARTER PINON	F41UA	40A	M64 Starter
F42	STARTER	F42UA	30A	M64 Starter
F43	SPARE	F43UA	10A	Not Used
F44	SPARE	F44UA	10A	Not Used
F45	SPARE	F45UA	10A	Not Used
F46	SPARE	F46UA	10A	Not Used
F47	SPARE	F47UA	2A	Not Used
F48	SPARE	F48UA	15A	Not Used
F49	TBPM/TRLR WRG	F49UA	40A	K67 Trailer Brake Control Module (JL1+Z82)     W24 Blunt Cut -Trailer Brakes Provisions (Z82-JL1)
F50	SPARE	F50UA	20A	Not Used
F51	CHMSL	F51UA	15A	E6 High Mount Stop Lamp
F52	SIDE MARKERS	F52UA	10A	Not Used
F53	SPARE	F53UA	15A	Not Used
F54	NOT USED	F54UA	_	Not Used
F55	REAR WNDS DE- FOGGER	F55UA	40A	E18 Rear Window Defogger Grid
F56	NOT USED	F56UA	_	Not Used
F57	NOT USED	F57UA	_	Not Used
F58	FRONT WIPERS	F58UA	30A	KR12B Windshield Wiper Motor Relay     KR12C Windshield Wiper Motor Speed Control Relay
F59	MISC WINDOWS LEFT	F59UA	30A	<ul><li>S79D Front Side Door Window Control Switch - Driver</li><li>S79LR Rear Side Door Window Switch - Left</li></ul>
F60	NOT USED	F60UA	_	Not Used
F61	SPARE	F61UA	15A	Not Used
F62	AMPLIFIER	F62UA	30A	T3 Audio Amplifier (UQA)
F63	NOT USED	F63UA	_	Not Used
F64	NOT USED	F64UA	_	Not Used
F65	ELM 4	F65UA	25A	K219 Lighting Control Module
F66	LOW BEAMS	F66UA	15A	K221L Headlamp LED Driver Module - Left (T4L)     K221R Headlamp LED Driver Module - Right (T4L)
F67	NOT USED	F67UA	_	Not Used
F68	HTD ST MDL 1	F68UA	15A	K29FV Front Seat Heater Vent Control Module (KA1)

	Davidson Labora	Davida Aradamad	<u> </u>	
No.	Device Label Name	Device Assigned Name	Rating	Description
F69	U/B CAMERA WASHER	F69UA	15A	KR204 Camera Washer Fluid Pump Relay - Underbody Cameras (UXA)
F70	NOT USED	F70UA	_	Not Used
F71	DC/AC INVERTER	F71UA	60A	T1 DC/AC Converter Control Module
F72	SPARE	F72UA	25A	Not Used
F73	AEROSHUTTER	F73UA	10A	M96 Active Grille Air Shutter Actuator     M96B Active Grille Air Shutter Actuator 2
F74	ELM 6	F74UA	20A	K219 Lighting Control Module
F75	SPARE	F75UA	30A	Not Used
F76	HTD ST MDL 2	F76UA	15A	K29FV Front Seat Heater Vent Control Module (KA1)
F77	NOT USED/NOT USED	F77UA		Not Used
F78	NOT USED/NOT USED	F78UA	_	Not Used
F79	NOT USED/NOT USED	F79UA	_	Not Used
F80	NOT USED	F80UA	_	Not Used
F81	NOT USED	F81UA	_	Not Used
F82	NOT USED	F82UA	_	Not Used
F83	LED CARGO LAMP	F83UA	10A	W26 Blunt Cut - Cargo Lamps Provision (S0Y)
F84	ELM 7	F84UA	25A	K219 Lighting Control Module
F85	NOT USED/NOT USED	F85UA	_	Not Used
F86	HORN	F86UA	15A	• P13 Horn
F87	FRONT WASHER PUMP	F87UA	15A	KR11 Windshield Washer Pump Relay
F88	NOT USED	F88UA	_	Not Used
F89	NOT USED	F89UA	_	Not Used
F90	MISC WINDOWS RIGHT	F90UA	30A	<ul><li>S79P Front Side Door Window Switch - Passenger</li><li>S79RR Rear Side Door Window Switch - Right</li></ul>
F91	NOT USED	F91UA	_	Not Used
Note: Rela	ys listed below are n	on-serviceable Printe	ed Circuit Boa	ard (PCB) relays and are internal to the block.
_	_	KR3 Horn Relay	_	• F86UA
_	_	KR5 Rear Window Defogger Relay	_	• F55UA • F63UA
_	_	KR11 Windshield Washer Pump Re- lay	_	G24 Windshield Washer Pump
_	_	KR12B Windshield Wiper Motor Relay		M75 Windshield Wiper Motor
_	_	KR12C Windshield Wiper Motor Speed Control Relay	_	M75 Windshield Wiper Motor
		KR27 Starter Motor		• F42UA
_	_	KR27C Engine Re- start Relay		• F41UA
_	_	KR29 A/C Com- pressor Clutch Re- lay	_	• F26UA

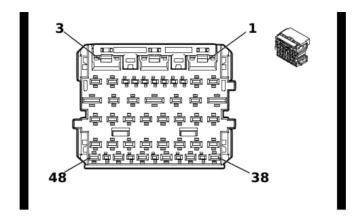
No.	Device Label Name	Device Assigned Name	Rating	Description
		KR41 High Mount		• F51UA
_	_	Stop Lamp Relay	_	
		KR53 Parking		• F27UA • F25UA
_	_	Lamp Relay	_	• F60UA
_	_	KR61 Trailer Back- up Lamp Relay	_	• F33UA
_	ı	KR63L Trailer Stop/Turn Signal Lamp Relay - Left	_	• F38UA
	-	KR63R Trailer Stop/Turn Signal Lamp Relay - Right	_	• F39UA
				• F14UA
				• F16UA • F21UA
		KR75 Engine Controls Ignition Relay	_	• F25UA
_	_			• F31UA
				• F37UA
				• F43UA
				• F73UA
_	_	KR203 Front Drive Axle Actuator Re- lay	_	• F11UA
		KR202 Accessory		
_		AC and DC Power Control Module Re- lay	_	• F71UA
_	_	KR204 Camera Washer Fluid Pump Relay - Underbody Cam- eras	_	G24 Windshield Washer Pump
Note: Item	s listed below are dia	gnostic test points fo	or Wiper/Wasl	ner
TP1		TP1	_	Front Wiper Control
TP2		TP2	_	Front Wiper High
TP3	_	TP3	_	Front Wiper Low
Note: Item	s listed below are dia	gnostic test points n	ot used	
TP4	<del>_</del>	TP4		Not Used

# **X50A Engine Wiring Harness Junction Block Bottom View**



6181030

## X50A Engine Wiring Harness Junction Block X1



5834300

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness OEM Connector: 7298-4594-60 Service Connector: 85595153

Description: 48-Way F 1.5, 2.8, 6.3 MCP, 9.5 YESC Series(GN)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19333301	J-35616-22 (RD)	J-38125-215A	
II	84764078	J-35616-42 (RD)	J-38125-215A	
III	84779405	J-35616-35 (VT)	J-38125-215A	

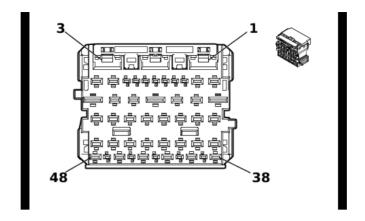
## X50A Engine Wiring Harness Junction Block X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	RD / VT	1242	Battery Positive Voltage	I	_
2	6	RD / BN	440	Battery Positive Voltage	I	_
3 - 14	_	_	_	Not Occupied	_	_
15	3	RD / WH	2242	Battery Positive Voltage	II	_
16	2.5	RD / YE	5840	Battery Positive Voltage	III	_
17	2.5	RD / VT	5640	Battery Positive Voltage	III	_
18	_	_	_	Not Occupied	_	_
19	3	RD / GY	1042	Battery Positive Voltage	III	_
20 - 26	_	_	_	Not Occupied		_
27	0.5	RD / WH	4140	Battery Positive Voltage	III	_
28	0.5	GN	8016	Secondary Axle Motor Control	III	_
29	1	_	1	Not Occupied	_	_
30	0.75	GN / VT	1619	Right Rear Trailer Stop/Turn Lamp Control	III	_
31	0.75	WH / GN	1624	Trailer Backup Lamp Control	III	_
32	1.5	GY / BN	2109	Trailer Park Lamp Control	III	_
33 - 34	_	_	_	Not Occupied	_	_
35	0.5	RD / BN	4940	Battery Positive Voltage	III	_
36	_	_	_	Not Occupied		_
37	3	RD / VT	1940	Battery Positive Voltage	III	
38	0.75	YE / GY	1618	Left Rear Trailer Stop/Turn Lamp Control	III	_

## X50A Engine Wiring Harness Junction Block X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
39 - 47	_	_		Not Occupied		_
48	1	RD / WH	2140	Battery Positive Voltage	III	_

## **X50A Engine Wiring Harness Junction Block X2**



5838162

#### **Connector Part Information**

Harness Type: Engine Wiring Harness OEM Connector: 7298-4593-40 Service Connector: 85595155

Description: 48-Way F 1.5, 2.8, 6.3 MCP, 9.5 YESC Series(GY)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333301	J-35616-22 (RD)	J-38125-215A
II	19369711	J-35616-14 (GN)	EL-38125-560A
III	84764078	J-35616-42 (RD)	J-38125-215A
IV	84779405	J-35616-35 (VT)	J-38125-215A
V	Not required	J-35616-35 (VT)	No Tool Required

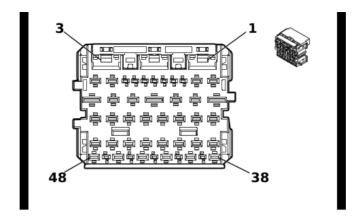
## X50A Engine Wiring Harness Junction Block X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD / YE	1442	Battery Positive Voltage	I	_
2	5	RD / BU	1542	Battery Positive Voltage	I	_
3	4	YE / GN	4358	Starter Pinion Solenoid Voltage	I	
4 - 9	_	_	_	Not Occupied	_	_
10	0.5	VT / GY	8017	Secondary Axle Motor Relay Control	II	_
11	_	_	_	Not Occupied	_	_
12	0.5	YE / VT	4325	Starter Pinion Solenoid Actuator Relay Control	II	_
13 - 17	_	_	_	Not Occupied	_	_
18	5	RD / GY	1342	Battery Positive Voltage	III	_
19	_	_	_	Not Occupied	_	_
20	0.5	RD / WH	140	Battery Positive Voltage	IV	_
21	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	III	_
22 - 25	_	_	_	Not Occupied	_	_
26	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	IV	
27	2	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	IV	_
28	1	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	V	_
29 - 33				Not Occupied		
34	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	IV	_

## X50A Engine Wiring Harness Junction Block X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
35	0.5	YE	5991	Powertrain Relay Coil Control	IV	_
36	1	YE / BK	625	Starter Enable Relay Control	V	_
37	_	_	_	Not Occupied	_	_
38	1.5	RD / BU	840	Battery Positive Voltage	IV	_
39 - 43	_	_	_	Not Occupied	_	_
44	0.75	BN / GN	59	Air Conditioning Compressor Clutch Control	IV	_
45 - 46	_	_	_	Not Occupied	_	_
47	0.5	WH / GY	459	Air Conditioning Compressor Clutch Relay Control	II	_
48	_	_	_	Not Occupied	_	_

## **X50A Engine Wiring Harness Junction Block X3**



5833039

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7298-4633-90 Service Connector: 85595154

Description: 48-Way F 1.5, 2.8, 6.3 MCP, 9.5 YESC Series(BU)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333301	J-35616-22 (RD)	J-38125-215A
II	19369711	J-35616-14 (GN)	EL-38125-560A
III	84764078	J-35616-42 (RD)	J-38125-215A
IV	84779405	J-35616-35 (VT)	J-38125-215A

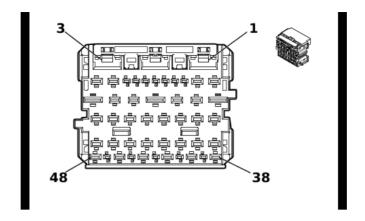
## X50A Engine Wiring Harness Junction Block X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	_	_	_	Not Occupied	_	_
2	5	BN / BK	4629	DC/AC Inverter Control	I	_
3 - 4	_	_	_	Not Occupied	_	_
5	3	RD / YE	3740	Battery Positive Voltage	IV	
6	0.35	BN / VT	193	Rear Defogger Relay Control	II	_
7 - 10	_	_	_	Not Occupied	_	_
11	0.5	WH / GN	4628	DC/AC Inverter Relay Control	II	_
12	_	_	_	Not Occupied	_	_
13	0.35	BN / GY	2268	Windshield Washer Relay Control	IV	_
14	0.75	BK	2250	Ground	IV	_
15	2.5	BN / VT	293	Rear Defogger Grid Control	III	_
16 - 19	_	_	_	Not Occupied	_	_
20	0.75	GY / VT	228	Windshield Washer Pump Control	IV	_
21 - 23	_	_	_	Not Occupied	_	_
24	0.75	RD / WH	640	Battery Positive Voltage	IV	_
25	0.5	VT / BU	5705	Powertrain Main Relay Control IV		_
26		_		Not Occupied —		_
27	0.75	GY / BU	840	Battery Positive Voltage IV —		_
28 - 31	_	_	_	Not Occupied	_	_

## X50A Engine Wiring Harness Junction Block X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
32	0.75	RD / YE	740	Battery Positive Voltage	IV	_
33	1	RD / VT	1640	Battery Positive Voltage	IV	_
34 - 40	_	_	_	Not Occupied	_	_
41	0.35	GY	91	Windshield Wiper Motor Relay Coil Control II		_
42 - 43	_	_	_	Not Occupied —		_
44	2.5	BK	150	Ground IV		_
45	_	_	_	Not Occupied —		_
46	2.5	YE / BN	95	Windshield Wiper Motor Low Speed Control IV		_
47	0.35	WH / VT	860	Windshield Wiper Switch High Signal		_
48	2.5	WH	92	Windshield Wiper Motor High Speed Control	IV	_

## X50A Engine Wiring Harness Junction Block X4



5830395

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7298-4588-30 Service Connector: 85650078

Description: 48-Way F 1.5, 2.8, 6.3 MCP, 9.5 YESC Series(BK)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333301	J-35616-22 (RD)	J-38125-215A
II	19369711	J-35616-14 (GN)	EL-38125-560A
III	84764078	J-35616-42 (RD)	J-38125-215A
IV	84779405	J-35616-35 (VT)	J-38125-215A

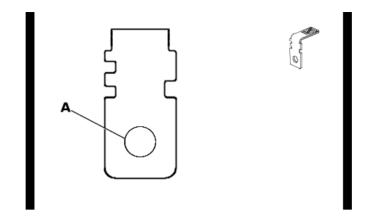
## X50A Engine Wiring Harness Junction Block X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	_	_	_	Not Occupied	_	_
3	4	RD / BN	4142	Primary Fused Battery Positive Voltage	I	_
4	2.5	BK	2250	Ground	IV	_
5	0.35	BN / WH	28	Horn Relay Control	IV	_
6 - 14	_	_	_	Not Occupied	_	_
15	2.5	RD / GY	3540	Battery Positive Voltage	III	_
16	0.75	BN / GY	29	Horn Control	IV	_
17	0.5	RD / VT	3340	Battery Positive Voltage IV		_
18		_		Not Occupied —		_
19	0.35	GN / WH	2270	Rear Window Washer Relay Control		_
20 - 21	_	_	_	Not Occupied —		_
22	2.5	RD / GY	3540	Battery Positive Voltage IV		_
23 - 25	1		1	Not Occupied —		_
26	0.75	BU / VT	392	Rear Window Washer Pump Control		_
27	1.5	RD / BN	1440	Battery Positive Voltage IV		_
28		_		Not Occupied —		
29	0.35	BU / BN	38	Backup Lamp Relay Control IV		
30	2.5	RD / YE	4340	Battery Positive Voltage IV -		
31 - 33	_	_	_	Not Occupied	_	

## X50A Engine Wiring Harness Junction Block X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
34	0.75	RD / BU	4540	Battery Positive Voltage	IV	_
35	0.35	WH / BN	7055	Auxiliary Park Lamp Relay Control	IV	_
36 - 39	_	_	_	Not Occupied	_	_
40	1.5	RD / GY	1740	Battery Positive Voltage	IV	_
41	_	_	_	Not Occupied —		_
42	0.75	RD / VT	4640	Battery Positive Voltage IV		_
43	0.35	GN / BN	319	Right Rear Trailer Stop/Turn Lamp Control II		
44		_		Not Occupied —		
45	0.35	BN / YE	820	Center High Mounted Stop Lamp Supply Voltage		_
46	2.5	RD / BU	1240	Battery Positive Voltage IV		_
47	0.35	YE / BU	318	Left Rear Trailer Stop/Turn Lamp Control II		_
48	0.5	BU / BK	1053	Center High Mounted Stop Lamp Control 3		_

## **X50A Engine Wiring Harness Junction Block X5**



5881235

#### **Connector Part Information**

Harness Type: Battery Negative Cable Extension Cable

OEM Connector: 84809756

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way Ring Terminal

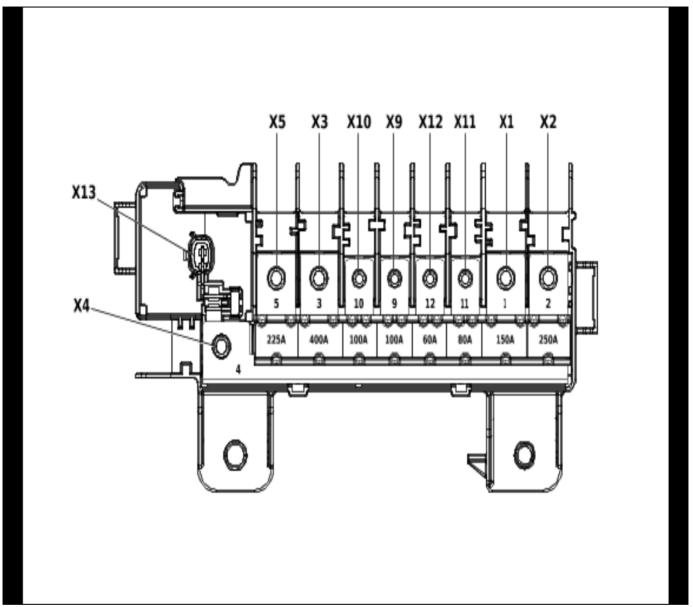
### **Terminal Part Information**

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

## X50A Engine Wiring Harness Junction Block X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	35	RD / WH	4042	Battery Positive Voltage		

## **X50B Battery Distribution Engine Compartment Fuse Block Top View**



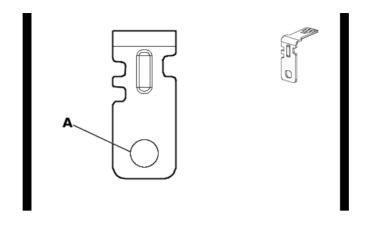
618103

## **Usage Table**

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No.	Device Label Name	Device Assigned Name	Rating	Description				
Fuses								
1	_	F1BA	150A	K43 Power Steering Control Module				
2	_	F2BA	250A	X50A Engine Wiring Harness Junction Block				
3	_	F3BA	400A	M64 Starter				
5	_	F5BA	225A	G13 Generator (-Z82)				
5	_	F5BA	300A	G13 Generator (Z82)				
9	_	F9BA	100A	X51A Instrument Panel Wiring Harness Junction Block				
10	_	F10BA	100A	X51A Instrument Panel Wiring Harness Junction Block				
11	_	F11BA	80A	G59 Engine Coolant Pump				
12	_	F12BA	60A	K160 Brake System Control Module				

## 6-20 Electrical Component and Inline Harness Connector End Views

No.	Device Label Name	3		Description
13		F13BA	5A	B110 Battery Monitor Module



6143262

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 1136902

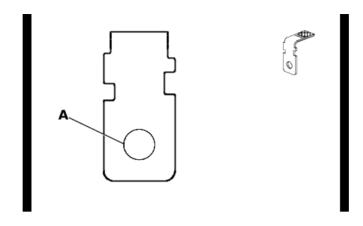
Service Connector: Service by Cable Assembly — See Part Catalog

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	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	10	RD / VT	542	Battery Positive Voltage	_	



5902836

#### **Connector Part Information**

Harness Type: Battery Negative Cable Extension Cable

OEM Connector: 84809755

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	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	35	RD / WH	4042	Battery Positive Voltage	_	

\_

#### **Connector Part Information**

Harness Type: Battery Negative Cable

OEM Connector: 84809753

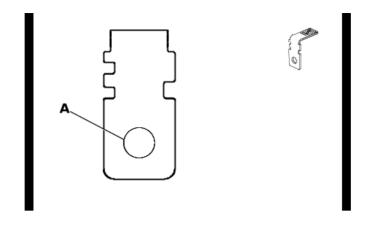
Service Connector: Service by Harness - See Part Catalog

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	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	35	RD / YE	2	Battery Positive Voltage	1	_



5881235

#### **Connector Part Information**

Harness Type: Battery Negative Cable Extension Cable

OEM Connector: 84809756

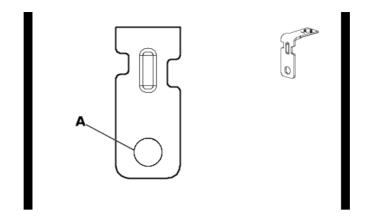
Service Connector: Service by Cable Assembly — See Part Catalog

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	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	35	RD / YE	2	Battery Positive Voltage	I	



6143257

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 1136802

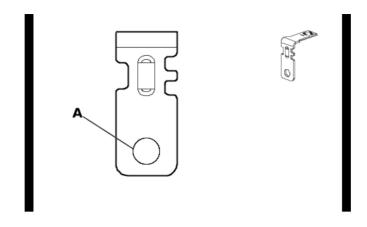
Service Connector: Service by Cable Assembly — See Part Catalog

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	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	10	RD / GN	742	Battery Positive Voltage	Ī	_



6143251

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 85528456

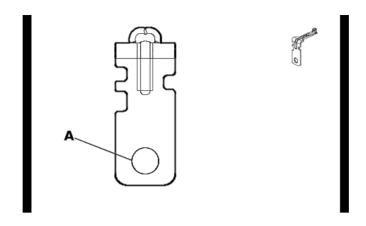
Service Connector: Service by Cable Assembly — See Part Catalog

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	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	10	RD / YE	442	Battery Positive Voltage	_	



5877012

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 84841283

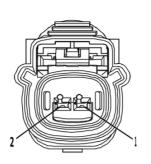
Service Connector: Service by Cable Assembly — See Part Catalog

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	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	6	RD / WH	342	Battery Positive Voltage	I	





4332222

#### **Connector Part Information**

Harness Type: Body Wiring Harness

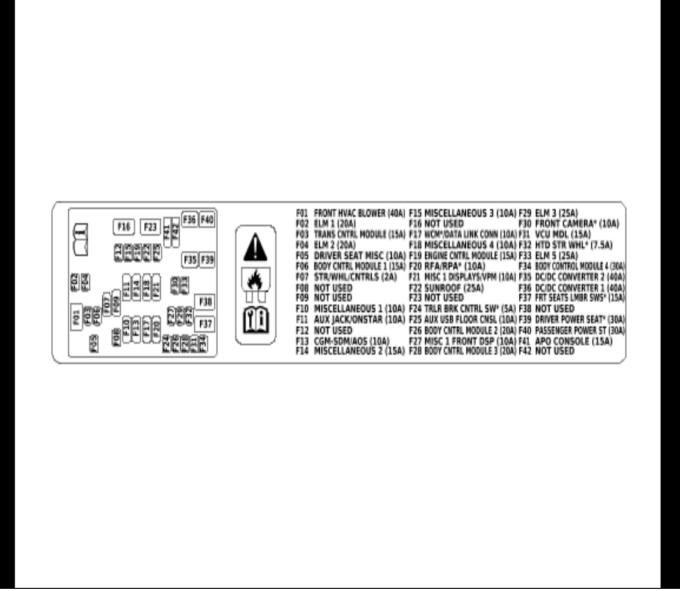
OEM Connector: 33314786 Service Connector: 19368124

Description: 2-Way F 1.5 OCS 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	

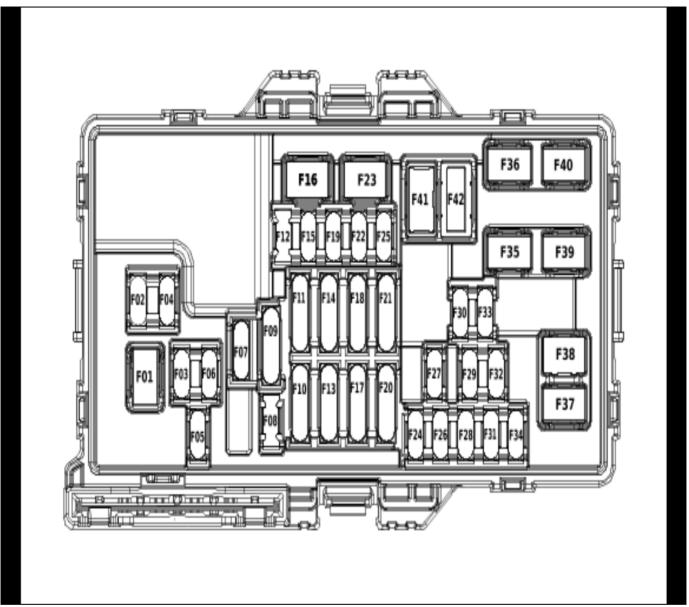
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD / YE	2340	Battery Positive Voltage	_	_
2	_	_	_	Not Occupied	_	_



6181033

## 6-30

## **X51A Instrument Panel Wiring Harness Junction Block Top View**



#### 6181034

### **Usage Table**

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	FRONT HVAC BLOWER	F1DA	40A	M8 Blower Motor
F2	ELM 1	F2DA	20A	K219 Lighting Control Module
F3	TRANS CNTRL MODULE	F3DA	15A	K71 Transmission Control Module
F4	ELM 2	F4DA	20A	K219 Lighting Control Module
F5	DRIVER SEAT MISC	F5DA	10A	K40D Driver Seat Adjuster Memory Module (A45)     S64D Front Seat Adjuster Switch - Driver (A45)
F6	BODY CNTRL MODULE 1	F6DA	15A	K9 Body Control Module
F7	STR/WHL/ CNTRLS	F7DA	2AA	S70R Radio Control Switch - Steering Wheel

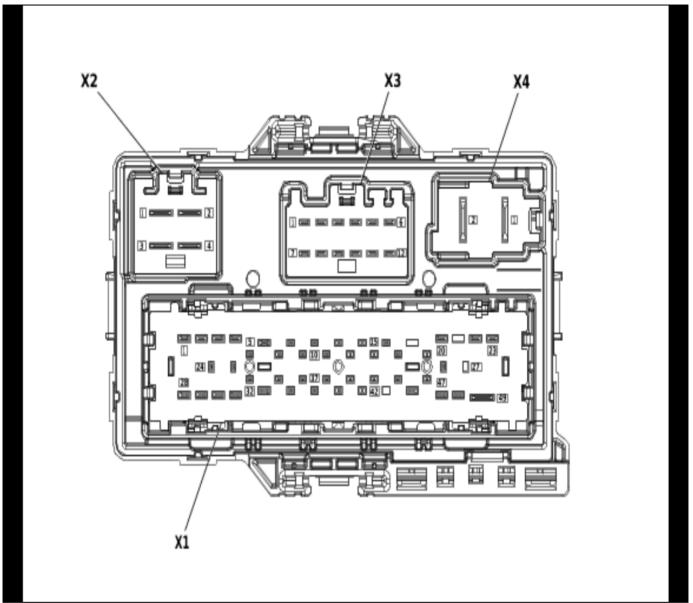
## Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F8	NOT USED	F8DA	_	Not Used
F9	NOT USED	F9DA	_	Not Used
F10	MISCELLANEOUS 1	F10DA	10A	P14 Instrument Panel Airbag Arming Status Display     S91 Parking Brake Control Switch
F11	AUX JACK/ON- STAR	F11DA	10A	K73 Telematic Control Module     X92G USB 2 Port Receptacle
F12	NOT USED	F12DA	_	Not Used
F13	CGM-SCM/AOS	F13DA	10A	K36 Restraints Control Module     K56 Serial Data Gateway Module     K85P Restraints Occupant Classification System Module - Passenger
F14	MISCELLANEOUS 2	F14DA	15A	<ul> <li>K38 Chassis Control Module</li> <li>K71 Transmission Control Module</li> <li>K160 Brake System Control Module</li> </ul>
F15	MISCELLANEOUS 3	F15DA	10A	<ul> <li>K219 Lighting Control Module</li> <li>M73D Front Seat Cushion Ventilation Blower - Driver (KU9)</li> <li>M73P Front Seat Cushion Ventilation Blower - Passenger (KU9)</li> <li>T1 DC/AC Converter Control Module</li> </ul>
F16	NOT USED	F16DA	_	Not Used
F17	WCM/DATA LINK CONN	F17DA	10A	T22 Wireless Accessory Charging Module (K4C)     X84 Data Link Connector
F18	MISCELLANEOUS 4	F18DA	10A	<ul> <li>A10 Inside Rearview Mirror (DD8)</li> <li>B160 Inside Air Moisture and Windshield Temperature Sensor</li> <li>K36 Restraints Control Module</li> <li>P43 Forward Collision Alert Display</li> <li>S126 Ride Control Switch</li> </ul>
F19	ENGINE CNTRL MODULE	F19DA	15A	K20 Engine Control Module
F20	RFA / RPA	F20DA	10A	<ul><li>K77 Remote Function Actuator Module</li><li>K182 Parking Assist Control Module (UD7)</li></ul>
F21	MISC 1 DIS- PLAYS/VPM	F21DA	10A	<ul> <li>A22 Radio Control</li> <li>A26 Heater and Air Conditioning User Interface Control</li> <li>K157 Video Processing Module (UV2/UXA-UVB)</li> <li>P16 Instrument Panel Cluster Control Module</li> </ul>
F22	SUNROOF	F22DA	25A	K61 Sunroof Control Module (CAC)
F23	NOT USED	F23DA	<u> </u>	Not Used
F24	TRLR BRK CNRTL SW	F24DA	5A	S76 Trailer Brake Control Switch (JL1+Z82)
F25	AUS USB FLOOR CNSL	F25DA	10A	X92C Single Charge Only 2nd Row Receptacle - Floor Console Rear
F26	BODY CNTRL MODULE 2	F26DA	20A	K9 Body Control Module
F27	MISC 1 FRONT DSP	F27DA	10A	S79D Front Side Door Window Control Switch - Driver
F28	BODY CNTRL MODULE 3	F28DA	20A	K9 Body Control Module
F29	ELM 3	F29DA	25A	K219 Lighting Control Module

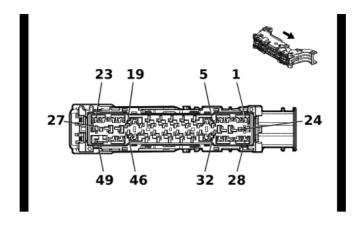
## Usage Table (cont'd)

22492 : (22 4)								
No.	Device Label Name	Device Assigned Name	Rating	Description				
F30	FRONT CAMERA	F30DA	10A	B174W Front View Camera - Windshield				
F31	VCU MDL	F31DA	15A	A11 Radio				
F32	HTD STR WHL	F32DA	7.5A	K32 Heated Steering Wheel Module (KI3)				
F33	ELM 5	F33DA	25A	K219 Lighting Control Module				
F34	BODY CNTRL MODULE 4	F34DA	30A	K9 Body Control Module				
F35	DC/DC CONVERT- ER 2	F35DA	40A	T19 Multifunction Power Supply Converter				
F36	DC/DC CONVERT- ER 1	F36DA	40A	T19 Multifunction Power Supply Converter				
F37	FRT SEATS LMBR SWS	F37DA	15A	S65D Front Seat Lumbar Switch - Driver (AL9)				
F38	NOT USED	F38DA	_	Not Used				
F39	DRIVER POWER SEAT	F39DA	30A	S64D Front Seat Adjuster Switch - Driver (A2X)				
F40	PASSENGER POWER ST	F40DA	30A	Not Used				
F41	APO CONSOLE CB41DA		15A	X80L Front Floor Console Accessory Power Rear Receptacle				
F42	NOT USED	CB42DA	_	Not Used				
Note: Rela	ys listed below are n	on-serviceable Printe	ed Circuit Boa	rd (PCB) relays and are internal to the block.				
_	_	KR73 Ignition Main Relay	_	<ul><li>F12DA</li><li>F14DA</li><li>F15DA</li><li>F19DA</li><li>F18DA</li></ul>				
_	_	KR76 Accessory Time Delay Cutoff Relay	_	<ul><li>F23DA</li><li>F25DA</li><li>CB41DA</li><li>CB42DA</li></ul>				

## X51A Instrument Panel Wiring Harness Junction Block Bottom View



6181035



5835272

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 13537037 Service Connector: 85564872

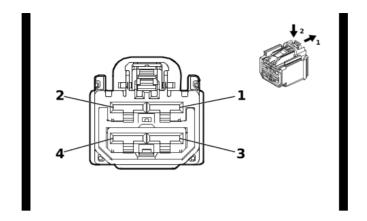
Description: 49-Way F 1.5, 2.8, 6.3 Kaizen Series(BK)

#### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	13575835	J-35616-42 (RD)	J-38125-11A	
II	13575850	J-35616-2A (GY)	J-38125-557	
III	19368264	J-35616-4A (PU)	J-38125-11A	
IV	Not required	No Tool Required	No Tool Required	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	_	_	_	Not Occupied	_	_
3	1.5	RD / GN	1540	Battery Positive Voltage	III	_
4	1.5	RD / WH	1340	Battery Positive Voltage	III	_
5	0.5	RD / VT	1940	Battery Positive Voltage	II	_
6	1	VT	1001	Retained Accessory Power Ignition Voltage	III	_
7	_	_	_	Not Occupied	_	_
8	0.5	VT	4701	Retained Accessory Power Control	II	_
9	0.35	RD / BN	1440	Battery Positive Voltage	II	_
10	_	_	_	Not Occupied	_	_
11	0.5	VT / WH	1139	Run/Crank Ignition 1 Voltage	II	_
12	0.5	VT / BK	739	Run/Crank Ignition 1 Voltage	II	_
13	_	_	_	Not Occupied	_	_
14	0.35	RD / WH	7240	Battery Positive Voltage	II	_
15	0.5	RD / BU	3240	Battery Positive Voltage	II	_
16 - 18	_	_	_	Not Occupied	_	_
19	0.35	GN / VT	5199	Run/Crank Relay Coil Control	II	_
20	0.75	RD / WH	2740	Battery Positive Voltage	III	_
21	_	_	_	Not Occupied		_
22	1	RD / BU	1240	Battery Positive Voltage	III	_

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
23	1	RD / BN	1140	Battery Positive Voltage	III	_
24	0.35	RD / BN	10040	Battery Positive Voltage	II	_
25	_	_	_	Not Occupied	_	_
26	0.35	GY / GN	4083	Retained Accessory Power Relay 2 Coil Control	II	_
27	0.75	RD / GN	1840	Battery Positive Voltage	II	_
28	0.75	RD / WH	3440	Battery Positive Voltage	III	_
29	2	RD / BU	2540	Battery Positive Voltage	III	_
30	0.75 0.75	RD / WH RD / BN	2040 2240	Battery Positive Voltage Battery Positive Voltage	III III	IVD+ UQA IVD- UQA
31	1	RD / GY	2140	Battery Positive Voltage	III	_
32	_	_	_	Not Occupied	_	_
33	1	RD / GY	2840	Battery Positive Voltage	III	_
34	0.35	RD / VT	4040	Battery Positive Voltage	II	_
35	0.35	RD / WH	4740	Battery Positive Voltage	IV	_
36	0.35	VT / GN	39	Run/Crank Ignition 1 Voltage	II	_
37	0.5	RD / BU	3240	Battery Positive Voltage	II	_
38	0.5	RD / VT	6340	Battery Positive Voltage	II	_
39	0.35	RD / WH	6440	Battery Positive Voltage	II	
40	0.5	RD / GN	4440	Battery Positive Voltage	II	
41	_	_	_	Not Occupied	_	
42	0.5	RD / GN	5140	Battery Positive Voltage	II	
43 - 45		_	_	Not Occupied	_	_
46	0.35	RD / GN	5140	Battery Positive Voltage	II	
47	_	_	_	Not Occupied	_	
48	0.35	RD / VT	3340	Battery Positive Voltage	III	_
49	5	RD / WH	2040	Battery Positive Voltage	I	_



5492913

#### **Connector Part Information**

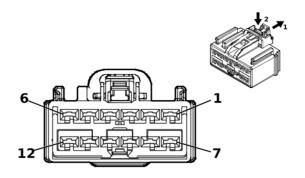
Harness Type: Body Wiring Harness OEM Connector: 7289-7459-40 Service Connector: 84766433

Description: 4-Way F 6.3 YESC Series(GY)

### **Terminal Part Information**

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

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / YE	4340	Battery Positive Voltage	1	_
2	2.5	RD / BU	2540	Battery Positive Voltage	I	_
3	2.5	RD / GY	3540	Battery Positive Voltage	I	_
4	2.5	RD / VT	2640	Battery Positive Voltage	I	_



5254826

#### **Connector Part Information**

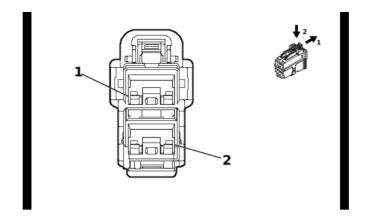
Harness Type: Body Wiring Harness OEM Connector: 7289-9152-40 Service Connector: 13518424

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	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / GN	2173	12V Regulated Supply Voltage 2	I	_
2	1.5	RD / YE	2340	Battery Positive Voltage	I	_
3 - 4	_	_	_	Not Occupied	_	_
5	0.5	BK / WH	451	Signal Ground	I	_
6	2.5	RD / YE	2172	12V Regulated Supply Voltage 1	I	_
7	0.35	RD / YE	240	Battery Positive Voltage	I	_
8	0.5	RD / VT	1640	Battery Positive Voltage	I	_
9	0.35	RD / VT	1640	Battery Positive Voltage	I	_
10	0.5	VT / BK	739	Run/Crank Ignition 1 Voltage	I	_
11	0.5 0.35	VT / BK VT / WH	739 1139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	l I	( KI7/ KCA/ KI6/ KC9/ KU9) - ( KI7/ KCA/ KI6/ KC9/ KU9)
12	_	_	_	Not Occupied	_	_



5835292

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7289-8732-30

Service Connector: Service by Harness - See Part Catalog

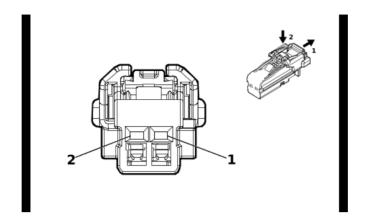
Description: 2-Way F 9.5 YESC Series( BK)

#### **Terminal Part Information**

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

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	RD / VT	542	Battery Positive Voltage	1	_
2	10	RD / GN	742	Battery Positive Voltage		_

# Component Connector End Views A3L Sunshade - Left (DEG)



4115691

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 6098-8988 Service Connector: 87816612

Description: 2-Way F 1.2 MCON Series(BK)

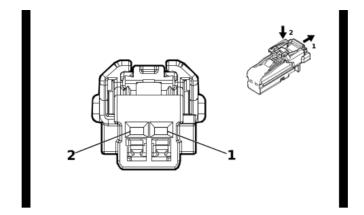
#### **Terminal Part Information**

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

### A3L Sunshade - Left (DEG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / BN	6815	Inadvertent Load Control		_
2	0.35	BK	4250	Ground	_	_

## A3R Sunshade - Right (DEG)



4115691

#### **Connector Part Information**

Harness Type: Roof Wiring Harness

OEM Connector: 6098-8988 Service Connector: 87816612

Description: 2-Way F 1.2 MCON Series(BK)

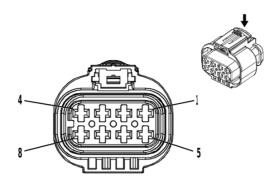
#### **Terminal Part Information**

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

### A3R Sunshade - Right (DEG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / BN	6815	Inadvertent Load Control	_	_
2	0.35	BK	4250	Ground	I	_

### A7 Fuel Tank Fuel Pump Module



3749582

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 2-2109441-5 Service Connector: 19354078

Description: 8-Way F 2.8 Series, Sealed(L-GY)

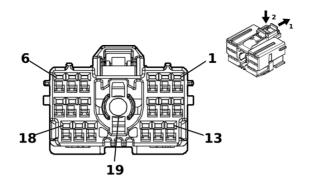
#### **Terminal Part Information**

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 Tank Fuel Pump Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	120	Fuel Pump Control	I	_
2	2.5	YE / GY	4137	Fuel Pump Supply Voltage Phase 2	I	_
3	2.5	WH / BN	4138	Fuel Pump Supply Voltage Phase 3	I	_
4	0.5	WH	7444	Fuel Pump Assembly Shield Ground	П	_
5	0.5	BU / GN	1936	Primary Fuel Level Sensor Signal	Ш	_
6	0.5	BK / GN	6281	Fuel Level Sensor Low Reference	II	
7 - 8	_	_	_	Not Occupied	_	_

#### A9A Outside Rearview Mirror - Driver



5253439

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 6098-8386

Service Connector: Service by Harness - See Part Catalog Description: 19-Way F 1.2 MCON, Coaxial Series( BK)

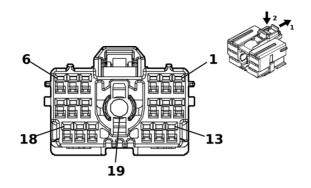
#### **Terminal Part Information**

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 No Tool Required		No Tool Required	

#### **A9A Outside Rearview Mirror - Driver**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / BK	2790	Left Front Mirror Motor Right [+] Left [-] Control	I	_
2	0.35	VT / BU	2788	Left Front Mirror Motor Up [+] Down [-] Control	I	_
3	_	_	_	Not Occupied	_	_
4	0.35	GY / YE	1760	Left Side Object Detection LED Control	I	_
5	_	_	_	Not Occupied	_	_
6	0.35	WH / YE	2792	Left Front Mirror Position Sensor Left [-] Right [+] Signal	Ι	_
7	0.5	WH	606	Left Outside Rearview Mirror Heater Control	I	_
8	_	_	_	Not Occupied	_	_
9	0.35	BK	3750	Ground	I	_
10	0.35	VT / RD	2791	Left Front Mirror Position Sensor High Reference	Ι	_
11	0.35	GY / BN	2787	Left Front Mirror Position Sensor Up [+] Down [-] Signal	Ι	_
12 - 13	_	_	_	Not Occupied	_	_
14	0.35	YE / BN	2789	Left Front Mirror Motor Common Control	I	_
15 - 17	_	_	_	Not Occupied		_
18	0.35	BK / BN	673	Left Outside Rearview Mirror Position Sensor Low Reference	I	_
19	0	Coax Ca- ble	4725	Left Sideview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	II	_

### A9B Outside Rearview Mirror - Passenger



5253439

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 6098-8386

Service Connector: Service by Harness - See Part Catalog Description: 19-Way F 1.2 MCON, Coaxial Series(BK)

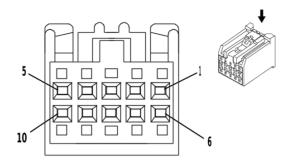
#### **Terminal Part Information**

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	No Tool Required	No Tool Required	

### A9B Outside Rearview Mirror - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / BK	2798	Right Front Mirror Motor Right [+] Left [-] Control	I	_
2	0.35	YE / VT	2796	Right Front Mirror Motor Up [+] Down [-] Control	I	_
3	_	_	_	Not Occupied	_	_
4	0.35	GY	1761	Right Side Object Detection LED Control	I	_
5	_	_	_	Not Occupied	_	_
6	0.35	VT / WH	2800	Right Front Mirror Position Sensor Left [-] Right [+] Signal	I	_
7	0.5	BN / VT	607	Right Outside Rearview Mirror Heater Control	I	_
8	_	_	_	Not Occupied	_	_
9	0.35	BK	4450	Ground	I	_
10	0.35	YE / RD	2799	Right Front Mirror Position Sensor High Reference	I	_
11	0.35	BU / YE	2795	Right Front Mirror Position Sensor Up [+] Down [-] Signal	I	_
12 - 13	_	_	_	Not Occupied	_	_
14	0.35	WH	2797	Right Front Mirror Motor Common Control	I	_
15 - 17	_	_	_	Not Occupied	_	_
18	0.35	BK / GN	675	Right Outside Rearview Mirror Position Sensor Low Reference	I	_
19	0	Coax Ca- ble WH	4724 4724	Right Sideview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal Right Sideview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	II II	_ _

### A10 Inside Rearview Mirror (DD8)



2180211

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: AIT2PB-10P-2AK Service Connector: 13577390

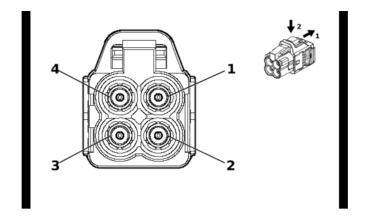
Description: 10-Way F 0.64 Kaizen Series( BK)

#### **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)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / WH	24	Backup Lamp Control	I	_
2	0.35	VT / WH	1139	Run/Crank Ignition 1 Voltage	I	_
3 - 4	_	_	_	Not Occupied	_	_
5	0.35	BK / WH	1851	Signal Ground	I	_
6 - 10	_	_	_	Not Occupied	_	_



5835118

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13544819

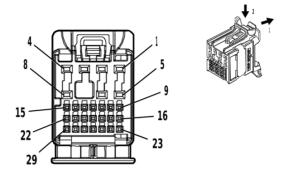
Service Connector: Service by Cable Assembly — See Part Catalog

Description: 4-Way F Mini Coax Type( BK)

#### **Terminal Part Information**

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

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	_	WH	10314	Global Navigation Satellite System Antenna Coaxial Signal	Ι	
2 - 4	_	_	_	Not Occupied		
2_BK	_	WH	6130	Coaxial Antenna XM Signal	I	_
3_BK	_	WH	3297	Coaxial Antenna DAB Signal	Ī	_
4_BK	_	WH	6001	Coaxial Antenna RF Signal	Ī	_



4578560

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

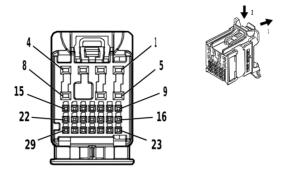
OEM Connector: 160014-0011 Service Connector: 13534971

Description: 29-Way F 0.5 NANO, 1.2 MCON, stAK50h Series(GY)

#### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	
II	84729890	J-35616-12 (BU)	J-38125-215A	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN	199	Left Rear Speaker [+] Control	II	_
2	0.75	BU	201	Left Front Speaker 1 [+] Control	II	_
3	0.75	YE / BK	117	Right Front Speaker [-] Control 1	II	_
4	0.75	BU / BK	115	Right Rear Speaker [-] Control	II	_
5	0.75	BN / BU	118	Left Front Speaker [-] Control 1	II	_
6	0.75	YE	200	Right Front Speaker 1 [+] Control	II	_
7	_	_	_	Not Occupied	_	_
8	0.75	WH	46	Right Rear Speaker [+] Control	II	_
9	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_
10	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
11 - 12	_	_	_	Not Occupied	_	_
13	0.35	GN / WH	24	Backup Lamp Control	I	_
14 - 17	_	_	_	Not Occupied	_	_
18	0.35	GN / GY	10652	Radio LIN Bus 1	I	_
19 - 21	_	_	_	Not Occupied	_	_
22	0.35	GY / YE	3885	Forward Collision Alert LED Control	I	
23	0.35	GY / BK	4787	Day Night LED Control	I	
24 - 29	_	_	_	Not Occupied	_	_



4496253

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

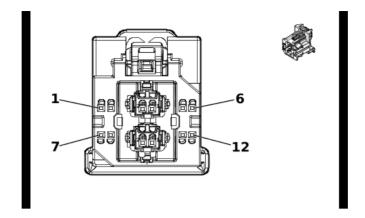
OEM Connector: 160014-0014 Service Connector: 13534974

Description: 29-Way F 0.5 NANO, 1.2 MCON, stAK50h Series( BK)

#### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	
II	84729890	J-35616-12 (BU)	J-38125-215A	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	0.75	RD / WH	2040	Battery Positive Voltage	II	IVD+ UQA
'	0.75	RD / BN	2240	Battery Positive Voltage	II	IVD- UQA
2	0.75	RD / BN	2240	Battery Positive Voltage	II	_
3	0.75	BK / WH	2151	Signal Ground	II	_
4 - 5	_	_	_	Not Occupied	_	_
6	0.75	BK / WH	2151	Signal Ground	II	_
7	_	_	_	Not Occupied	_	_
8	0.75	GN / BK	116	Left Rear Speaker [-] Control	II	_
9	0.35 0.35	BU GY / YE	655 5149	Cellular Telephone Microphone Signal Voice Recognition Audio Signal	l I	( IVD- ( UE1/ UER/ UDA)) ( IVD+ ( UE1/ UER/ UDA))
10	0.35 0.35	BK / BN BK / GY	654 5152	Cellular Telephone Microphone Low Reference Voice Recognition Audio [-] Control	I I	( IVD- ( UE1/ UER/ UDA)) ( IVD+ ( UE1/ UER/ UDA))
11	0.35	VT / YE	7043	Microphone [+] Signal	I	_
12	0.35	BU / BK	7044	Microphone [-] Signal	I	_
13 - 29	_	_	_	Not Occupied	_	_



5902882

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 35552567

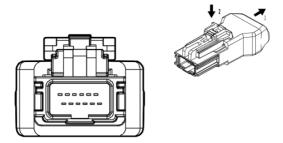
Service Connector: Service by Harness - See Part Catalog

Description: 12-Way F 0.5 CTS, AMEC High Speed Data Series(BK)

#### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Service by Cable	No Tool Required	No Tool Required	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0	BU / WH	4758	Ethernet Bus 2 [+]	I	_
2	0	BU	4757	Ethernet Bus 2 [-]	I	_
3 - 5	_	_	_	Not Occupied	_	_
6	0.001	GN	8579	Automotive Audio Bus A2B Serial Data 1 [-]	I	_
7	_	_	_	Not Occupied	_	_
8	0.001	WH	8580	Automotive Audio Bus A2B Serial Data 1 [+]	I	_
9	0	GN	7210	Ethernet Bus 4 [-]		_
10	0	WH	7211	Ethernet Bus 4 [+]	I	_
11 - 12	_			Not Occupied		_



4584321

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 13598058

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 12-Way M 2.0 HSAL-2 Series(GY)

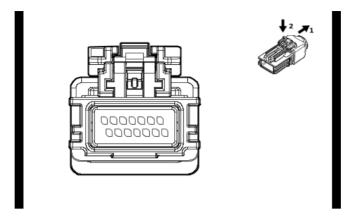
#### **Terminal Part Information**

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

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_		LVDS		(Head Up Display) Head Up Display Signal	_	

#### 6-50

### A11 Radio X7



6002723

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness USB

OEM Connector: 13535353

Service Connector: Service by Cable Assembly — See Part Catalog

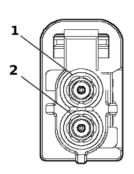
Description: 14-Way M 2.0 HSAL-2 Series( BK)

#### **Terminal Part Information**

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

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

## A11 Radio X8 (UXA)





6154796

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13544814

Service Connector: Service by Cable Assembly — See Part Catalog

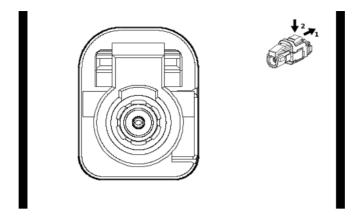
Description: 2-Way F Mini Coax Type( BU)

#### **Terminal Part Information**

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

### A11 Radio X8 (UXA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
		Coax Ca- ble		Video Processing Module Coaxial Video Signal	Ι	



5926227

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13544788

Service Connector: Service by Cable Assembly — See Part Catalog

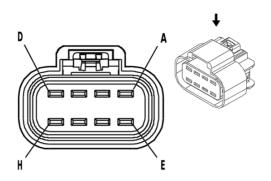
Description: 1-Way F Mini Coax Type( BK)

#### **Terminal Part Information**

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

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble	_	WiFi Antenna Coaxial Signal	I	_

## A16 Transfer Case Four Wheel Drive Actuator (NP0 / NQH)



646372

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 13538370 Service Connector: 19369184

Description: 8-Way F 280 GT Series, Sealed( BK)

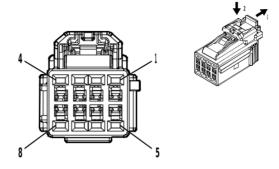
#### **Terminal Part Information**

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

### A16 Transfer Case Four Wheel Drive Actuator (NP0 / NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	2.5	YE / GY	1552	Transfer Case Motor Clockwise Control	I	_
В	0.75	BU	8013	Transfer Case Lock Solenoid Control 2	I	_
С	0.75	YE / BN	1569	Transfer Case Lock Solenoid Valve Control	I	_
D	2.5	YE / VT	1553	Transfer Case Motor Counter Clockwise Control	I	_
Е	0.5	YE	7474	Incremental Encoder Direction Signal	I	_
F	0.5	BU / GY	7473	Incremental Encoder Impulse Signal	I	_
G	0.5	WH / GN	7475	Incremental Encoder Sensor 8V Reference	Ī	_
Н	0.5	VT	7476	Incremental Encoder Sensor Low Reference	Ī	_

### **A22 Radio Control X1**



5086387

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-8443 Service Connector: 84613126

Description: 8-Way F 1.2 Series( BK)

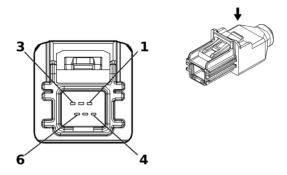
#### **Terminal Part Information**

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

#### **A22 Radio Control X1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / BN	1440	Battery Positive Voltage	I	_
2 - 7	_	_	_	Not Occupied	_	_
8	0.35	BK / WH	2151	Signal Ground	I	_

### **A22 Radio Control X2**



5278781

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 13522803

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 6-Way M HSAL-2 Series( GY)

#### **Terminal Part Information**

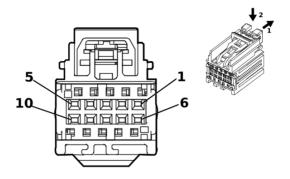
Terminal Type ID Terminated Lead		Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

#### **A22 Radio Control X2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	LVDS	_	(Head Up Display) Head Up Display Signal	I	_

#### 6-56

#### A23LR Rear Side Door Latch - Left



4622549

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Left

OEM Connector: 7289-5068-60

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 Kaizen Series(GN)

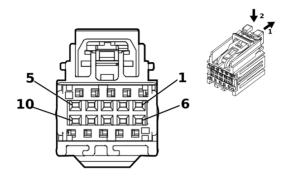
#### **Terminal Part Information**

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

#### A23LR Rear Side Door Latch - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	747	Left Rear Door Ajar Switch Signal	I	_
2			_	Not Occupied	_	_
3	0.75	BK	1150	Ground		_
4 - 6	_	_	_	Not Occupied	_	_
7	0.75	BU / YE	1091	Left Rear Door Lock Actuator Lock Control	I	_
8	0.75	WH	2679	Lock Actuators Unlock Control 1	Ī	_
9 - 10	_	_	_	Not Occupied		_

# A23P Front Side Door Latch - Passenger



4622549

### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 7289-5068-60

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 Kaizen Series(GN)

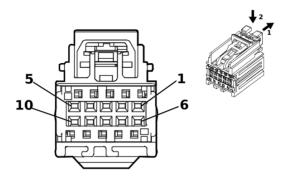
## **Terminal Part Information**

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

# A23P Front Side Door Latch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	_	_	_	Not Occupied	_	_
2	0.35	VT	4259	Right Front Door Lock Status Signal	I	_
3	0.35	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	GY / BK	2680	Lock Actuators Unlock Control 2	I	_
9	0.75	YE / GN	2682	Right Front Door Lock Actuator Lock Control	Ī	_
10		_	_	Not Occupied	_	_

# A23RR Rear Side Door Latch - Right



4622549

### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Right

OEM Connector: 7289-5068-60

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 Kaizen Series(GN)

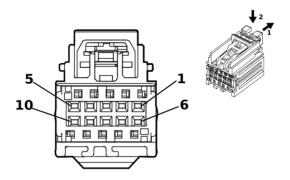
## **Terminal Part Information**

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

# A23RR Rear Side Door Latch - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	_	_	_	Not Occupied	_	_
3	0.75	BK	1250	Ground	I	_
4	_	_	_	Not Occupied	_	_
5	0.35	GY	748	Right Rear Door Ajar Switch Signal	I	_
6 - 7	_	_	_	Not Occupied	_	_
8	0.75	GY / BK	2680	Lock Actuators Unlock Control 2	I	_
9	0.75	VT / WH	1094	Right Rear Door Lock Actuator Lock Control		
10	_	_	_	Not Occupied	_	_

## **A23SL Front Side Door Latch Striker - Left**



4622549

### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 7289-5068-60

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 Kaizen Series(GN)

## **Terminal Part Information**

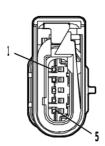
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-64B (L-BU)	No Tool Required	

## A23SL Front Side Door Latch Striker - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	745	Left Front Door Ajar Switch Signal	I	_
2	0.35	VT / GY	126	Left Front Door Open Switch Signal		_
3	0.75	BK	1150	Ground	I	_
4	0.35	WH / VT	4258	Left Front Door Lock Status Signal	l	_
5 - 6	_	_	_	Not Occupied	_	_
7	0.75	GY	2681	Left Front Door Lock Actuator Lock Control	I	_
8	0.75	WH	2679	Lock Actuators Unlock Control 1	I	_
9 - 10	_	_	_	Not Occupied	_	_

### 6-60

## A24D Front Side Door Outside Handle - Left





4808321

### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: SRVWSB-04A-BS

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed(NA)

## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-13 (BU)	No Tool Required	
II	Not required	J-35616-17 (L-GN)	No Tool Required	

### A24D Front Side Door Outside Handle - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU	2675	Left Front Exterior Door Handle Switch Unlock Signal	=	_
2	0.5	VT	4301	Passive Entry Left Front Antenna Signal High	I	
3	_	_	_	Not Occupied	_	_
4	0.5	VT / GY	4302	Passive Entry Left Front Antenna Signal Low	I	_
5	0.35	BK	1150	Ground	II	_

# A24P Front Side Door Outside Handle - Right





4808321

### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: SRVWSB-04A-BS

Service Connector: Service by Harness - See Part Catalog

Description: 5-Way M 1.2 Series, Sealed(NA)

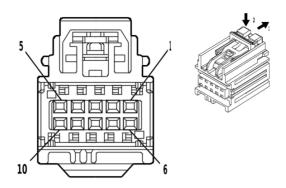
## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-13 (BU)	No Tool Required	
II	Not required	J-35616-17 (L-GN)	No Tool Required	

# A24P Front Side Door Outside Handle - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY / VT	2676	Right Front Door Exterior Switch Unlock Signal	II	
2	0.5	GN / YE	4303	Passive Entry Right Front Door Antenna Signal High	I	
3	_	_	_	Not Occupied	_	_
4	0.5	GN / BK	4304	Passive Entry Right Front Door Antenna Signal Low	I	_
5	0.35	BK	2250	Ground	II	_

# **A26 Heater and Air Conditioning User Interface Control - Front**



4891168

### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 7289-4885 Service Connector: 13509649

Description: 10-Way F 0.64 Kaizen Series(NA)

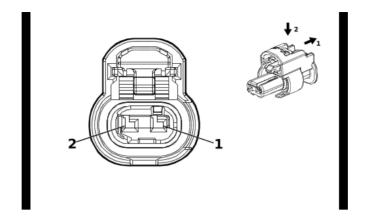
## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19300629	J-35616-64B (L-BU)	J-38125-215A	

# A26 Heater and Air Conditioning User Interface Control - Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / BN	1440	Battery Positive Voltage	I	_
2	_	_	_	Not Occupied	_	_
3	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_
4	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_
5	_	_	_	Not Occupied	_	_
6	0.35	GY / GN	4636	HVAC System Enable Signal	I	_
7	_	_	_	Not Occupied	_	_
8	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
9	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
10	0.35	BK / WH	2151	Signal Ground	I	_

# A99 Pickup Box Endgate Latch (A91)



4649903

### **Connector Part Information**

Harness Type: Liftgate Jumper Wiring Harness

OEM Connector: 1-2296694-1

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 MCON Series, Sealed( BK)

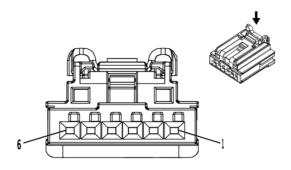
## **Terminal Part Information**

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

# A99 Pickup Box Endgate Latch (A91)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / VT	2691	Rear Closure Actuator Lock Control	_	_
2	0.5	GY / BK	2680	Lock Actuators Unlock Control 2	Ī	_

# **A103 Roof Console**



4145138

# **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 2035363-2

Service Connector: 19356359

Description: 6-Way F 0.64 Generation Y Series( BK)

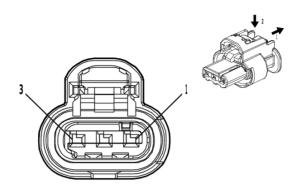
## **Terminal Part Information**

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

## **A103 Roof Console**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1			-	Not Occupied		_
2	0.35	WH / BN	6815	Inadvertent Load Control	1	_
3	0.35	GY	157	Interior Lamp Control	I	_
4	0.35	BK	4250	Ground	Ι	_
5	0.35	GY	156	Courtesy Lamp Switch Signal	I	_
6	0.35	GY / GN	328	Interior Lamp Defeat Switch Signal	Ī	_

# **B1 Air Conditioning Refrigerant Pressure Sensor**



4581126

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

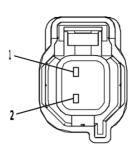
## **Terminal Part Information**

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

# **B1 Air Conditioning Refrigerant Pressure Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	_	
2	0.5	GN	380	Air Conditioning Refrigerant Pressure Sensor Signal	_	
3	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference		_

# **B5LF Front Wheel Speed Sensor - Left**





2900396

### **Connector Part Information**

6-66

Harness Type: Chassis Wiring Harness

OEM Connector: 34062-0026 Service Connector: 19366856

Description: 2-Way F 1.5 Series, Sealed(L-GY)

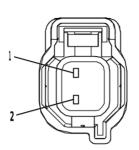
## **Terminal Part Information**

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

# **B5LF Front Wheel Speed Sensor - Left**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / WH	7064	Left Front Wheel Speed Sensor Control	_	_
2	0.5	GY	830	Left Front Wheel Speed Sensor Signal	Ī	_

# **B5LR Rear Wheel Speed Sensor - Left**





2900396

### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 34062-0026 Service Connector: 19366856

Description: 2-Way F 1.5 Series, Sealed(L-GY)

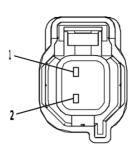
## **Terminal Part Information**

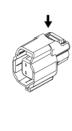
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-14 (GN)	No Tool Required	

# **B5LR Rear Wheel Speed Sensor - Left**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BK	7127	Left Rear Wheel Speed Sensor Control	_	_
2	0.5	BU	884	Left Rear Wheel Speed Sensor Signal	Ī	_

# **B5RF Front Wheel Speed Sensor - Right**





2900396

### **Connector Part Information**

6-68

Harness Type: Chassis Wiring Harness

OEM Connector: 34062-0026 Service Connector: 19366856

Description: 2-Way F 1.5 Series, Sealed(L-GY)

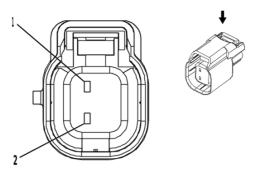
## **Terminal Part Information**

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

# **B5RF Front Wheel Speed Sensor - Right**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BN	7065	Right Front Wheel Speed Sensor Control	_	_
2	0.5	YE	872	Right Front Wheel Speed Sensor Signal	Ī	_

# **B5RR Rear Wheel Speed Sensor - Right**



4115616

### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 34062-0046 Service Connector: 19366860

Description: 2-Way F 1.5 Series, Sealed(BK)

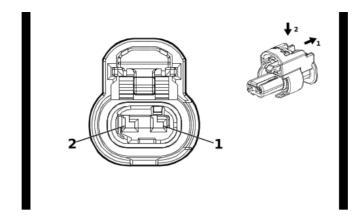
## **Terminal Part Information**

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

# **B5RR Rear Wheel Speed Sensor - Right**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / YE	7128	Right Rear Wheel Speed Sensor Control	_	_
2	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	_

# **B9 Ambient Air Temperature Sensor**



4649903

### **Connector Part Information**

Harness Type: Radiator Shutter Jumper

OEM Connector: 13512365

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 MCON Series, Sealed( BK)

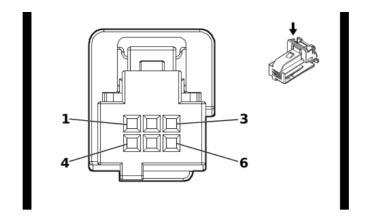
## **Terminal Part Information**

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

# **B9 Ambient Air Temperature Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / GY	636	Ambient Air Temperature Sensor Signal	I	_
2	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference	I	_

# **B10D Sun Load and Ambient Light and Security Indicator Sensor**



2282896

### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 2294663-1 Service Connector: 85587649

Description: 6-Way F 0.64 Micro-Quadlock Series( BK)

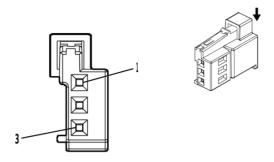
## **Terminal Part Information**

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

# **B10D Sun Load and Ambient Light and Security Indicator Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	590	Driver Solar Sensor Signal	I	_
2	_	_	_	Not Occupied	_	
3	0.35	WH / BU	278	Ambient Light Sensor Signal	I	_
4	0.35	BU / WH	734	Inside Air Temperature Sensor Signal	I	_
5	0.35	GY	728	Security Indicator Control	I	_
6	0.35	BK / YE	407	Sensor Low Reference	Ι	_

## **B12B Automatic Transmission Fluid Pressure Sensor**



4829276

### **Connector Part Information**

Harness Type: Automatic Transmission

OEM Connector: 13511013

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 0.64 Series(BU)

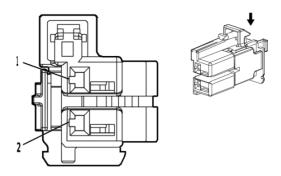
## **Terminal Part Information**

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

## **B12B Automatic Transmission Fluid Pressure Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / RD	10817	Lubricant Circuit Pressure Sensor 5 Volt Reference	I	_
2	0.5	BU / BK	10819	Lubricant Circuit Pressure Sensor Low Reference	I	_
3	0.5	GN / YE	10816	Lubricant Circuit Pressure Sensor Signal	I	_

# **B13 Automatic Transmission Fluid Temperature Sensor**



4672650

### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 13514136

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 MCON Series(BN)

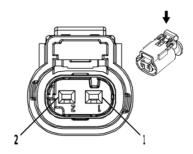
## **Terminal Part Information**

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

## **B13 Automatic Transmission Fluid Temperature Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	585	Transmission Fluid Temperature Sensor Signal	I	_
2	0.5	BK / BN	586	Transmission Fluid Temperature Sensor Low Reference	I	_

## **B20A Brake Fluid Level Indicator Switch**



2717066

### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 10010337 Service Connector: 13587326

Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

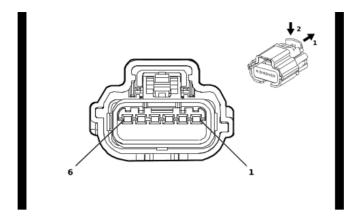
## **Terminal Part Information**

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

## **B20A Brake Fluid Level Indicator Switch**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / GY	333	Brake Fluid Level Signal	_	_
2	0.5	BK / WH	2251	Signal Ground	Ī	_

## **B22 Brake Pedal Position Sensor**



4773396

### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 31404-7810 Service Connector: 84683650

Description: 6-Way F 64 Series, Sealed(NA)

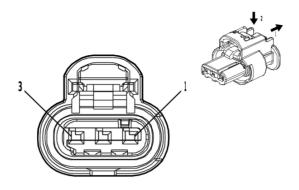
# **Terminal Part Information**

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	0.35	BK / BN	5360	Brake Apply Sensor Low Reference	I	_
2	0.35	WH	5359	Brake Apply Sensor Control	I	_
3	0.35	BU / YE	5361	Brake Apply Sensor Signal	I	_
4	0.5	WH / GN	5380	Brake Position Sensor Signal	I	_
5	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference	I	_
6	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	_

## **B23E Camshaft Position Sensor - Exhaust**



4581126

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

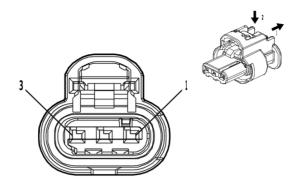
## **Terminal Part Information**

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

## **B23E Camshaft Position Sensor - Exhaust**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / YE	5297	Exhaust Camshaft Position Sensor 1 Voltage Reference	Ι	
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	_

## **B23F Camshaft Position Sensor - Intake**



4581126

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

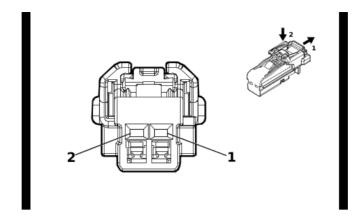
## **Terminal Part Information**

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

## **B23F Camshaft Position Sensor - Intake**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	_	_
2	0.5	BK / GN	5301	Intake Camshaft Position Sensor Low Reference 1	Ι	_
3	0.5	YE / VT	5275	Intake Camshaft Position Sensor 1	I	_

# **B24 Mobile Telephone Microphone**



4115691

### **Connector Part Information**

Harness Type: Roof Wiring Harness

OEM Connector: 6098-8988 Service Connector: 87816612

Description: 2-Way F 1.2 MCON Series(BK)

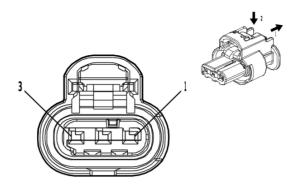
## **Terminal Part Information**

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

# **B24 Mobile Telephone Microphone**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / BN	654	Cellular Telephone Microphone Low Reference	_	_
2	0.35	BU	655	Cellular Telephone Microphone Signal	Ī	_

## **B26 Crankshaft Position Sensor**



4778903

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-2 Service Connector: 86792095

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

## **Terminal Part Information**

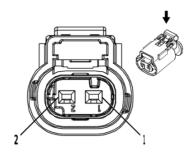
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-16 (L-GN)	No Tool Required	

## **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	_

## 6-80

# **B34A Engine Coolant Temperature Sensor 1**



2717066

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10010337 Service Connector: 13587326

Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

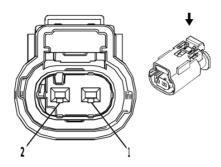
## **Terminal Part Information**

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

# **B34A Engine Coolant Temperature Sensor 1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BU	2408	Engine Inlet Coolant Temperature Signal	I	
2	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference	I	_

# **B34B Engine Coolant Temperature Sensor 2**



2830969

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10010339 Service Connector: 13587321

Description: 2-Way F 1.2 Multilock Series, Sealed( D-GY)

## **Terminal Part Information**

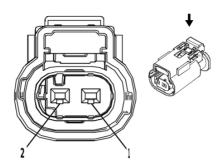
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	Not required	J-35616-16 (L-GN)	No Tool Required		

# **B34B Engine Coolant Temperature Sensor 2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	2988	Engine Outlet Coolant Temperature Signal	I	_
2	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference	I	_

#### 6-82

# **B34E Engine Coolant Temperature Sensor 5**



2830969

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10010339 Service Connector: 13587321

Description: 2-Way F 1.2 Multilock Series, Sealed( D-GY)

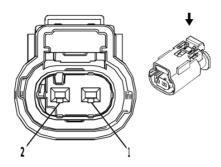
## **Terminal Part Information**

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

## **B34E Engine Coolant Temperature Sensor 5**

Pi	in	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	0.5	BU / YE	8938	Engine Integrated Exhaust Manifold Temperature Signal	I	_
2	2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	_

# **B34F Engine Coolant Temperature Sensor 6**



2830969

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10010339 Service Connector: 13587321

Description: 2-Way F 1.2 Multilock Series, Sealed( D-GY)

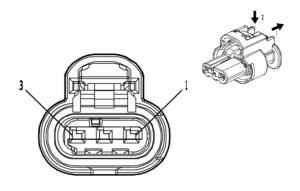
## **Terminal Part Information**

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

# **B34F Engine Coolant Temperature Sensor 6**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / VT	2404	Engine Block Coolant Temperature Signal	I	_
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1		_

# **B36 Engine Oil Temperature Sensor**



4994602

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-3 Service Connector: 19371199

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

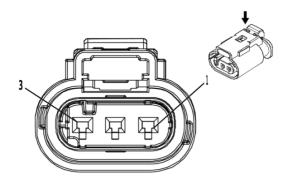
## **Terminal Part Information**

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

# **B36 Engine Oil Temperature Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference	Ι	_
2	0.5	BN / BU	357	Oil Temperature Sensor Signal	I	_
3	0.5	VT	7485	Engine Oil Temperature Sensor 2 Signal	Ī	_

# **B37B Engine Oil Pressure Sensor**



3240107

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10010344 Service Connector: 19301717

Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

## **Terminal Part Information**

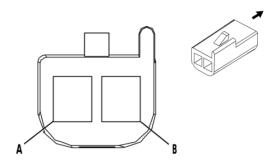
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-16 (L-GN)	No Tool Required	

# **B37B Engine Oil Pressure Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BN	331	Oil Pressure Sensor Signal	1	_
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	_
3	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	_

### 6-86

# **B39 Air Conditioning Evaporator Air Temperature Sensor**



82383

### **Connector Part Information**

Harness Type: Air Conditioning Wiring Harness

OEM Connector: 12047662

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 150 Metri-Pack Series( BK)

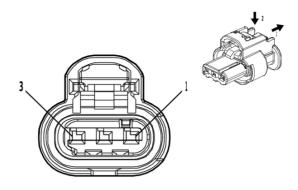
## **Terminal Part Information**

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

# **B39 Air Conditioning Evaporator Air Temperature Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	0.35	BK / YE	407	Sensor Low Reference	1	_
В	0.35	GY	6137	Air Conditioning Evaporator Temperature Sensor Signal	I	_

## **B47 Fuel Pressure Sensor**



4581126

### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed( BK)

## **Terminal Part Information**

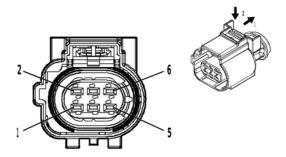
Terminal Type ID Terminated Lead		Diagnostic Test Probe	Terminal Removal Tool		
I	Not required	J-35616-12 (BU)	No Tool Required		

## **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	BU / WH	7446	Fuel Pressure Sensor Signal	I	_

## 6-88

# **B52A Heated Oxygen Sensor 1**



5086832

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 2-2309220-8 Service Connector: 84613131

Description: 6-Way F 1.5 MCP Series, Sealed(GY)

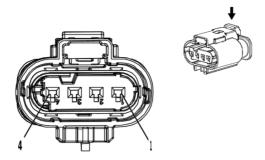
## **Terminal Part Information**

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

# **B52A Heated Oxygen Sensor 1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	6933	HO2S Pump Current Signal	1	_
2	0.5	BN	6934	HO2S Ground		_
3	0.5	GY / WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	I	_
4	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	_
5	0.5	GN	6935	HO2S Pump Current Trim Signal		_
6	0.5	YE / GY	6936	HO2S Signal	I	_

# **B52B Heated Oxygen Sensor 2**



4036496

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10021265 Service Connector: 19330904

Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

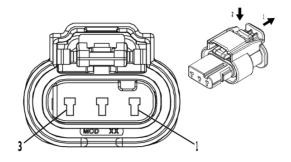
## **Terminal Part Information**

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

# **B52B Heated Oxygen Sensor 2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	_	_
2	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5		_
3	0.5	WH / YE	3121	HO2S Low Signal Bank 1 Sensor 2	I	_
4	0.5	VT / BU	3120	HO2S High Signal Bank 1 Sensor 2	I	_

# **B55 Engine Compartment Cover Switch**



4421568

### **Connector Part Information**

6-90

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 34900-3120 Service Connector: 19368220

Description: 3-Way F 1.2 MCON-LL Series, Sealed( BK)

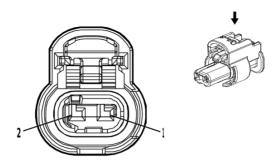
## **Terminal Part Information**

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

# **B55 Engine Compartment Cover Switch**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	4063	Hood Status A Signal	1	_
2	0.5	BN / GN	4064	Hood Status B Signal	Ι	_
3	0.75	BK	2250	Ground	I	_

# **B58L Airbag Front End Discriminating Sensor - Left**



4690744

### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 1-2296694-3 Service Connector: 19366871

Description: 2-Way F 1.2 MCON Series, Sealed(BK)

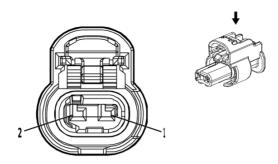
## **Terminal Part Information**

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

# **B58L Airbag Front End Discriminating Sensor - Left**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / YE	354	Left Front Impact Discriminating Sensor Signal	1	_
2	0.5	BK / OG	5045	Left Front Impact Discriminating Sensor Low Reference	Ι	_

# **B58R Airbag Front End Discriminating Sensor - Right**



4690744

### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 1-2296694-3 Service Connector: 19366871

Description: 2-Way F 1.2 MCON Series, Sealed(BK)

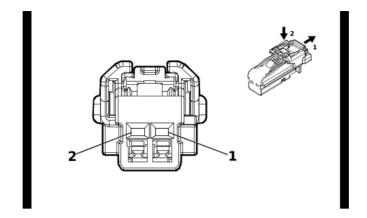
## **Terminal Part Information**

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

# **B58R Airbag Front End Discriminating Sensor - Right**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GN	1409	Right Front Impact Discriminating Sensor Signal	Ι	_
2	0.5	BK / OG	5600	Right Front Impact Discriminating Sensor Low Reference	1	_

## **B61P Seat Belt Tension Sensor - Passenger**



4115691

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 6098-8988 Service Connector: 87816612

Description: 2-Way F 1.2 MCON Series(BK)

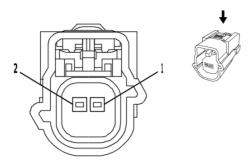
### **Terminal Part Information**

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

## **B61P Seat Belt Tension Sensor - Passenger**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / OG	3946	Passenger Automatic Locking Retractor Switch Low Reference	Ι	_
2	0.5	OG / BN	3947	Passenger Automatic Locking Retractor Switch Signal	I	_

## **B63LF Airbag Side Impact Sensor - Left Front Door**



2179777

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 54390242

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Series, Sealed(GY)

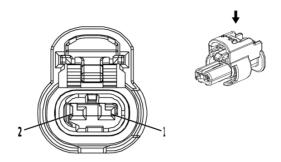
## **Terminal Part Information**

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

## **B63LF Airbag Side Impact Sensor - Left Front Door**

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

## **B63LRG Airbag Side Impact Rear Sensor - Left**



4335931

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 1-2296694-2 Service Connector: 19366843

Description: 2-Way F 1.2 MCON Series, Sealed(BK)

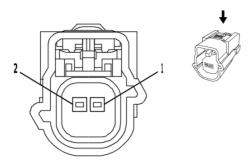
### **Terminal Part Information**

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

# **B63LRG Airbag Side Impact Rear Sensor - Left**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / BU	6622	Left Rear Side Impact Sensor Signal	I	_
2	0.5	BK / OG	6623	Left Rear Side Impact Sensor Low Reference		_

## **B63RF Airbag Side Impact Sensor - Right Front Door**



2179777

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 54390242

6-96

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 Series, Sealed(GY)

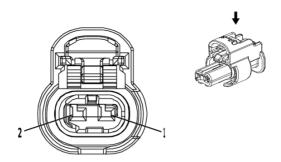
### **Terminal Part Information**

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

## **B63RF Airbag Side Impact Sensor - Right Front Door**

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

## **B63RRG Airbag Side Impact Rear Sensor - Right**



4335931

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 1-2296694-2 Service Connector: 19366843

Description: 2-Way F 1.2 MCON Series, Sealed(BK)

### **Terminal Part Information**

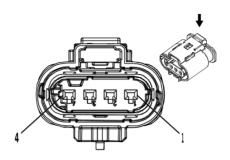
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-12 (BU)	No Tool Required	

# **B63RRG Airbag Side Impact Rear Sensor - Right**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / WH	6626	Right Rear Side Impact Sensor Signal	_	_
2	0.5	BK / OG	6627	Right Rear Side Impact Sensor Low Reference	Ī	_

### 6-98

## **B65 Manifold Absolute Pressure and Intake Air Temperature Sensor**



2717079

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10010346 Service Connector: 13587299

Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

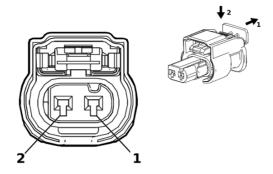
### **Terminal Part Information**

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

## **B65 Manifold Absolute Pressure and Intake Air Temperature Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BU	7329	Pre-Throttle Air Temperature Signal		_
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	_

### **B68A Knock Sensor 1**



3960139

#### **Connector Part Information**

Harness Type: Fuel Injector Wiring Harness

OEM Connector: 13509967

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 MCON Series, Sealed( BK)

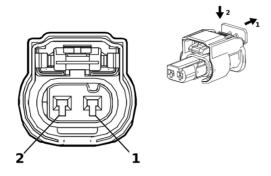
### **Terminal Part Information**

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

### **B68A Knock Sensor 1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GY	496	Knock Sensor 1 Signal	1	_
2	0.5	BK / YE	1716	Knock Sensor Low Reference 1		_

### **B68B Knock Sensor 2**



3960139

#### **Connector Part Information**

Harness Type: Fuel Injector Wiring Harness

OEM Connector: 13509967

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 MCON Series, Sealed( BK)

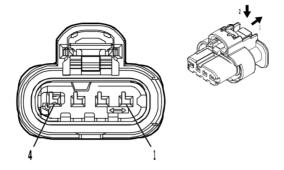
### **Terminal Part Information**

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

### **B68B Knock Sensor 2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / GY	1876	Knock Sensor 2 Signal	1	_
2	0.5	BK / GY	2303	Knock Sensor Low Reference 2		_

### **B75 Mass Airflow Sensor**



4934614

#### **Connector Part Information**

Harness Type: Engine Wiring Harness OEM Connector: 1-2296696-2 Service Connector: 85519071

Description: 4-Way F 1.2 MCON-CB Series, Sealed( BK)

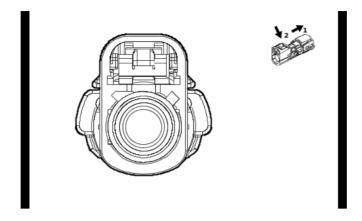
### **Terminal Part Information**

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

### **B75 Mass Airflow Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	1	_
2	0.5	GN / WH	492	Mass Air Flow Sensor Signal	I	_
3	0.5	GN / WH	4622	Engine Control Module LIN Bus 2	I	_
4	0.75	BK / WH	151	Signal Ground	I	_

## **B87 Rearview Driver Information Camera (UV2)**



5758030

#### **Connector Part Information**

Harness Type: Liftgate Jumper Wiring Harness COAX

OEM Connector: 13529782

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(BK)

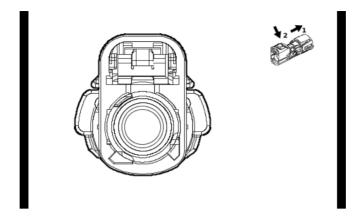
### **Terminal Part Information**

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

## **B87 Rearview Driver Information Camera (UV2)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble	_	Rear Vision Camera Coaxial Video Signal	Ι	_

## **B87 Rearview Driver Information Camera (UVB)**



5757455

#### **Connector Part Information**

Harness Type: Liftgate Jumper Wiring Harness COAX

OEM Connector: 13529793

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(OG)

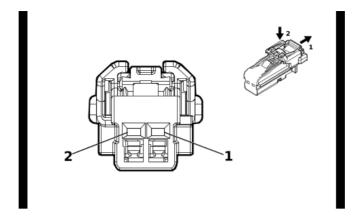
### **Terminal Part Information**

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

## **B87 Rearview Driver Information Camera (UVB)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
		Coax Ca- ble		Rear Vision Camera Coaxial Video Signal	I	_

## **B88D Seat Belt Switch - Driver**



4115691

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 6098-8988

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 MCON Series( BK)

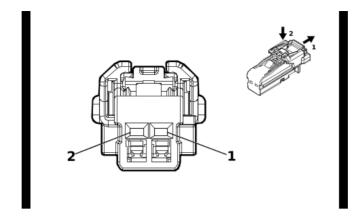
### **Terminal Part Information**

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

### **B88D Seat Belt Switch - Driver**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / OG	1363	Driver Seat Belt Switch Low Reference	_	_
2	0.5	OG / BN	238	Driver Seat Belt Switch Signal	Ī	_

## **B88P Seat Belt Switch - Passenger**



4115691

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 6098-8988

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 MCON Series(BK)

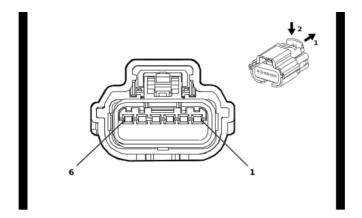
### **Terminal Part Information**

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

## **B88P Seat Belt Switch - Passenger**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / OG	1363	Driver Seat Belt Switch Low Reference	_	_
2	0.5	OG / VT	1362	Passenger Seat Belt Switch Signal	Ī	_

### **B107 Accelerator Pedal Position Sensor**



5157678

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 31404-7110 Service Connector: 84773558

Description: 6-Way F 64 Series, Sealed( BK)

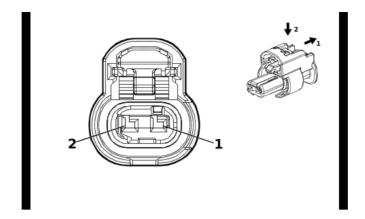
## **Terminal Part Information**

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

### **B107 Accelerator Pedal Position Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	I	_
2	0.5	GN / WH	1162	Accelerator Pedal Position Signal 2	I	_
3	0.5	BK / VT	1272	Accelerator Pedal Position Low Reference 2	I	_
4	0.5	BK / BU	1271	Accelerator Pedal Position Low Reference 1	I	_
5	0.5	YE / WH	1161	Accelerator Pedal Position Signal 1	I	_
6	0.5	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	I	_

## **B110 Battery Monitor Module X1**



4649903

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 1-2296694-1 Service Connector: 85519075

Description: 2-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	

## **B110 Battery Monitor Module X1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / YE	2855	Body Control Module LIN Bus 9	_	_
2	0.75	RD / YE	2340	Battery Positive Voltage	I	_

## **B110 Battery Monitor Module X2**

\_

#### **Connector Part Information**

Harness Type: Battery Negative Cable OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: —

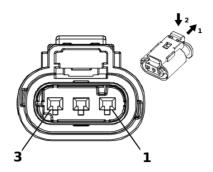
### **Terminal Part Information**

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

## **B110 Battery Monitor Module X2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	1.0	BK	250	Ground	1	_

## **B111 Turbocharger/Supercharger Boost Pressure Sensor**



2717069

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 10010341 Service Connector: 84601390

Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

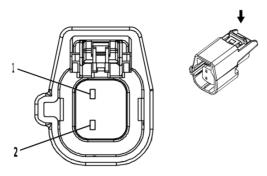
### **Terminal Part Information**

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

## **B111 Turbocharger/Supercharger Boost Pressure Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	Ι	_
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	Ι	_
3	0.5	YE / WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	_

### **B118 Windshield Washer Solvent Container Level Sensor**



3958652

#### **Connector Part Information**

Harness Type: Windshield Washer Pump Extension Wiring Harness

OEM Connector: 7287-8378-40

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(L-GY)

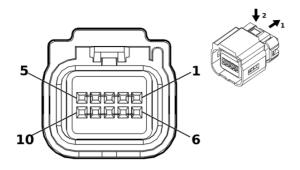
### **Terminal Part Information**

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

#### **B118 Windshield Washer Solvent Container Level Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	185	Low Washer Fluid Indicator Control	_	_
2	0.5	BK	2250	Ground	I	_

# **B137B Power Steering Shaft Torque/Position Sensor**



3608469

#### **Connector Part Information**

Harness Type: Power Steering Control Module Wiring Harness - Shaft Sensor

OEM Connector: 13587225

Service Connector: Service by Harness - See Part Catalog Description: 10-Way F 0.64 Kaizen Series, Sealed(GY)

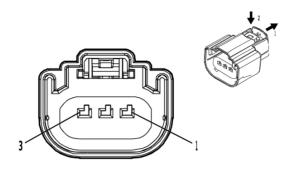
### **Terminal Part Information**

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

## **B137B Power Steering Shaft Torque/Position Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / WH	8367	Handwheel Channel A Torque Pressure Sensor 1 SENT Signal	I	_
2	0.5	BN / RD	8366	Handwheel Channel A High Reference		_
3	0.5	BK / GN	8370	Handwheel Channel A Low Reference	I	_
4	0.5	GY / RD	8371	Handwheel Channel B High Reference	I	_
5	0.5	GN	8372	Handwheel Channel B Torque Pressure Sensor 1 SENT Signal	I	_
6	0.5	VT	8368	Handwheel Channel A Torque Pressure Sensor 2 SENT Signal	I	_
7	0.5	WH	8369	Handwheel Channel A Angle Position Sensor SENT Signal	I	
8	0.5	BK / GY	8375	Handwheel Channel B Low Reference	I	_
9	0.5	GN / BU	8374	Handwheel Channel B Angle Position Sensor SENT Signal	I	
10	0.5	YE / GN	8373	Handwheel Channel B Torque Pressure Sensor 2 SENT Signal	I	_

# **B139 Transfer Case Two/Four Wheel Drive Actuator Position Sensor (NP0/NQH)**



4569745

#### **Connector Part Information**

Harness Type: Engine Wiring Harness OEM Connector: 160073-3105 Service Connector: 19179750

Description: 3-Way F 1.5 MX Series, Sealed( BK)

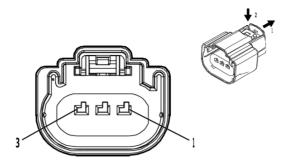
## **Terminal Part Information**

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

# **B139 Transfer Case Two/Four Wheel Drive Actuator Position Sensor (NP0/NQH)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	7477	Gear Position Sensor 5V Reference	I	_
2	0.5	WH / GN	7479	Rotary Position Sensor Signal	I	_
3	0.5	YE / BK	7478	Gear Position Sensor Low Reference	I	_

### **B150 Fuel Tank Pressure Sensor**



4589538

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 160073-3106 Service Connector: 84569854

Description: 3-Way F 1.5 MX Series, Sealed(GY)

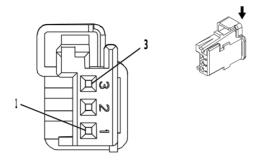
### **Terminal Part Information**

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

### **B150 Fuel Tank Pressure Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / WH	890	Fuel Tank Pressure Sensor Signal	I	_
2	0.5	BK / BN	6284	Fuel Tank Pressure Sensor Low Reference	I	_
3	0.5	YE / RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	_

## **B160 Inside Air Moisture and Windshield Temperature Sensor (CJ2)**



4218883

#### **Connector Part Information**

Harness Type: Inside Rearview Mirror Wiring Harness - Jumper

OEM Connector: 13593004

Service Connector: Service by Harness - See Part Catalog Description: 3-Way F 0.64 Micro-Quadlock Series(BK)

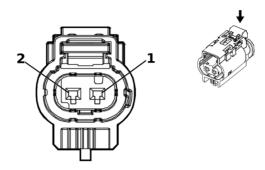
### **Terminal Part Information**

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

## **B160 Inside Air Moisture and Windshield Temperature Sensor (CJ2)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT / GN	39	Run/Crank Ignition 1 Voltage	I	_
2	0.35	BK / WH	1851	Signal Ground	1	_
3	0.35	GN / WH	4115	Body Control Module LIN Bus 5	1	_

## **B172LF Front Disc Brake Pad Wear Sensor - Left**



3747581

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 10094234 Service Connector: 84727362

Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

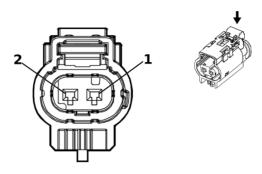
### **Terminal Part Information**

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

### **B172LF Front Disc Brake Pad Wear Sensor - Left**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / BU	1602	Front Brake Pad Wear Sensor Signal	_	_
2	0.5	BK / WH	2051	Signal Ground	I	_

### B172LR Rear Disc Brake Pad Wear Sensor - Left



3747581

#### **Connector Part Information**

Harness Type: Chassis Rear Wiring Harness Extension Harness

OEM Connector: 10094234

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

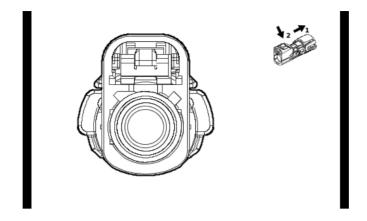
### **Terminal Part Information**

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

### B172LR Rear Disc Brake Pad Wear Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN / YE	1616	Rear Brake Pad Wear Sensor Signal	_	_
2	0.75	BK / WH	1751	Signal Ground	Ī	_

## **B174G Front View Driver Information Camera - Grille (ZR2)**



5758030

#### **Connector Part Information**

Harness Type: Front Object Alarm Sensor Wiring Harness COAX

OEM Connector: 35187032

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(BK)

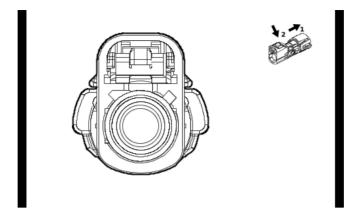
### **Terminal Part Information**

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

## **B174G Front View Driver Information Camera - Grille (ZR2)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble	_	Front Vision Camera 1 Coaxial Video Signal	Ι	_

## **B174G Front View Driver Information Camera - Grille (-ZR2)**



#### **Connector Part Information**

Harness Type: Front View Camera Switch Wiring Harness COAX

OEM Connector: 35187032

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(BK)

### **Terminal Part Information**

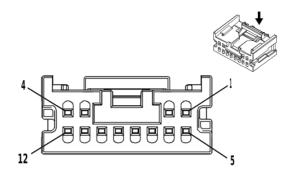
Terminal Type ID Terminated Lead		Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	No Tool Required	No Tool Required	

## **B174G Front View Driver Information Camera - Grille (-ZR2)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble	_	Front Vision Camera 1 Coaxial Video Signal	I	_

5758030

### **B174W Front View Camera - Windshield**



3824362

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 34824-5124 Service Connector: 13507121

Description: 12-Way F Mini 50 Series( BK)

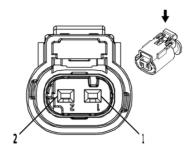
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19333221	EL-35616-58 (BK)	EL-38125-58	

### **B174W Front View Camera - Windshield**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / WH	1851	Signal Ground	I	_
2		_	-	Not Occupied	_	_
3	0.35	RD / YE	240	Battery Positive Voltage	I	_
4	_	_	_	Not Occupied	_	_
5	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	_
6	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	_
7	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	_
8	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	_
9 - 12		_		Not Occupied		_

## **B203 Radiator Coolant Temperature Sensor**



2717066

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10010337 Service Connector: 13587326

Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

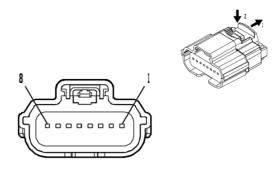
### **Terminal Part Information**

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

# **B203 Radiator Coolant Temperature Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BK	3000	Coolant Temperature Sensor 2 Signal		_
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	_

## **B218L Side Obstacle Detection Control Module - Left (UFB/UKI)**



4708234

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 31404-9110

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 64 Series, Sealed( BK)

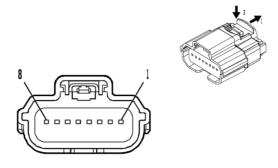
### **Terminal Part Information**

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

## **B218L Side Obstacle Detection Control Module - Left (UFB/UKI)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	4087	Private Serial Data Side Obstacle Detection CAN Bus [-] Serial Data	1	_
2	0.5	BU / VT	4088	Private Serial Data Side Obstacle Detection CAN Bus [+] Serial Data	-	_
3	0.5	BK / WH	751	Signal Ground	I	_
4	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	_
5	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	_
6	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data		_
7	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data		_
8	0.5	RD / BN	4940	Battery Positive Voltage	Ī	_

## **B218R Side Obstacle Detection Control Module - Right (UFB/UKI)**



4708234

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 31404-9532

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 64 Series, Sealed( BK)

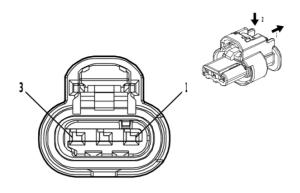
### **Terminal Part Information**

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

## **B218R Side Obstacle Detection Control Module - Right (UFB/UKI)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	4087	Private Serial Data Side Obstacle Detection CAN Bus [-] Serial Data	I	_
2	0.5	BU / VT	4088	Private Serial Data Side Obstacle Detection CAN Bus [+] Serial Data	I	_
3	0.5	BK / WH	751	Signal Ground	I	_
4	_	_	_	Not Occupied	_	
5	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	_
6	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data		_
7		_		Not Occupied	_	
8	0.5	RD / BN	4940	Battery Positive Voltage	I	_

## **B306E Parking Assist Alarm Sensor - Rear Left Outer (UD7)**



4581126

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 1-2296695-1

Service Connector: Service by Harness - See Part Catalog Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

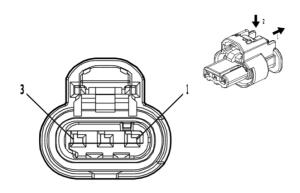
### **Terminal Part Information**

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

## **B306E Parking Assist Alarm Sensor - Rear Left Outer (UD7)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	_
2	0.5	YE	2375	Left Rear Outer Parking Assist Sensor Signal	I	_
3	0.5	BK / GY	2379	Object Sensor Low Reference	I	_

## B306F Parking Assist Alarm Sensor - Rear Left Middle (UD7)



4581126

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 1-2296695-1

Service Connector: Service by Harness - See Part Catalog Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

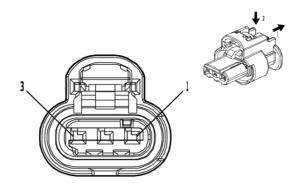
### **Terminal Part Information**

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

## B306F Parking Assist Alarm Sensor - Rear Left Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	_
2	0.5	YE / BU	2376	Left Rear Middle Parking Assist Sensor Signal	I	_
3	0.5	BK / GY	2379	Object Sensor Low Reference	I	_

## **B306G Parking Assist Alarm Sensor - Rear Right Middle (UD7)**



4581126

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 1-2296695-1

Service Connector: Service by Harness - See Part Catalog Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

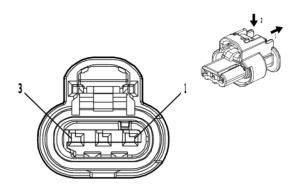
### **Terminal Part Information**

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

## **B306G Parking Assist Alarm Sensor - Rear Right Middle (UD7)**

	Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
ſ	1	0.5	BN / WH	2374	Object Sensor Voltage Reference	Ι	_
	2	0.5	YE / WH	2377	Right Rear Middle Parking Assist Sensor Signal	I	_
Ī	3	0.5	BK / GY	2379	Object Sensor Low Reference	Ι	_

# **B306H Parking Assist Alarm Sensor - Rear Right Outer (UD7)**



4581126

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 1-2296695-1

Service Connector: Service by Harness - See Part Catalog Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

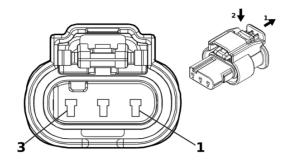
### **Terminal Part Information**

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

## B306H Parking Assist Alarm Sensor - Rear Right Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	2374	Object Sensor Voltage Reference	Ι	_
2	0.5	YE / VT	2378	Right Rear Outer Parking Assist Sensor Signal	I	_
3	0.5	BK / GY	2379	Object Sensor Low Reference	I	_

## **B310 Fuel Pressure and Temperature Sensor**



5420917

#### **Connector Part Information**

Harness Type: Fuel Injector Wiring Harness

OEM Connector: 34900-3127

Service Connector: Service by Harness - See Part Catalog Description: 3-Way F 1.2 MCON-LL Series, Sealed( GY)

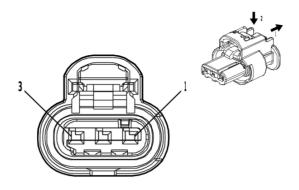
### **Terminal Part Information**

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

## **B310 Fuel Pressure and Temperature Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	1	_
2	0.5	BU / WH	2918	Fuel Rail Pressure Sensor Signal	I	_
3	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	_

### **B321 Crankcase Pressure Sensor**



4581126

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

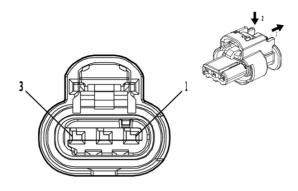
### **Terminal Part Information**

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

### **B321 Crankcase Pressure Sensor**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / GY	3926	Crankcase Differential Pressure Sensor Signal	I	_
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	_
3	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	_

## **B338A Intake Camshaft Profile Sleeve Position Sensor 1**



4581126

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

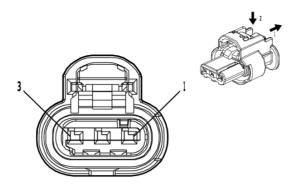
### **Terminal Part Information**

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

### **B338A Intake Camshaft Profile Sleeve Position Sensor 1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	_
3	0.5	VT / WH	3744	Camshaft Intake Lobe Axial Position Signal 1	I	

### B338B Intake Camshaft Profile Sleeve Position Sensor 2



4581126

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

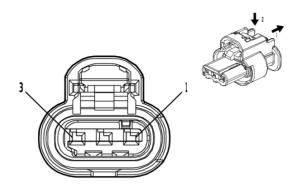
### **Terminal Part Information**

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

### **B338B Intake Camshaft Profile Sleeve Position Sensor 2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	Ι	_
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	_
3	0.5	VT / GN	3745	Camshaft Intake Lobe Axial Position Signal 2	Ī	_

## **B339A Exhaust Camshaft Profile Sleeve Position Sensor 1**



4581126

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

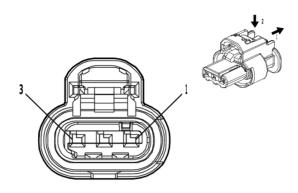
### **Terminal Part Information**

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

### **B339A Exhaust Camshaft Profile Sleeve Position Sensor 1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	Ι	
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	
3	0.5	YE / WH	3746	Camshaft Exhaust Lobe Axial Position Signal 1	Ι	

### **B339B Exhaust Camshaft Profile Sleeve Position Sensor 2**



4581126

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

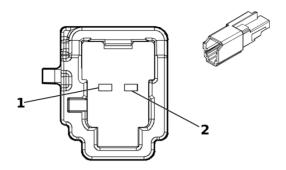
### **Terminal Part Information**

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

### **B339B Exhaust Camshaft Profile Sleeve Position Sensor 2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	Ι	_
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	_
3	0.5	YE / GN	3747	Camshaft Exhaust Lobe Axial Position Signal 2		_

### **B355 Communication Interface Module Microphone**



5360948

#### **Connector Part Information**

Harness Type: Roof Wiring Harness

OEM Connector: 6098-9073 Service Connector: 84847259

Description: 2-Way M 1.2 MCON Series (GY)

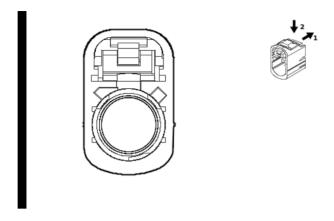
### **Terminal Part Information**

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

## **B355 Communication Interface Module Microphone**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / BK	7044	Microphone [-] Signal	_	_
2	0.35	VT / YE	7043	Microphone [+] Signal	I	_

### **B384 Rearview Underbody Camera (UXA)**



5920539

#### **Connector Part Information**

Harness Type: Rearview Camera Wiring Harness

OEM Connector: 13537644

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(BK)

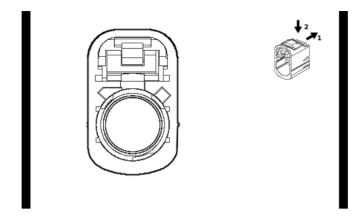
### **Terminal Part Information**

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

## **B384 Rearview Underbody Camera (UXA)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	LVDS		(PDR) Front Vision Camera #2	_	

## **B385 Front View Underbody Camera (UXA)**



5920539

#### **Connector Part Information**

Harness Type: Rearview Camera Wiring Harness

OEM Connector: 13537644

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(BK)

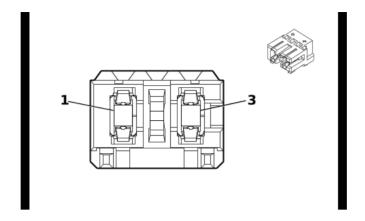
### **Terminal Part Information**

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

### **B385 Front View Underbody Camera (UXA)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	LVDS	_	(PDR) Front Vision Camera #2	Ī	_

### **E2LF Front Side Marker Lamp - Left (T4A)**



6157160

#### **Connector Part Information**

Harness Type: Front Headlamp - Left OEM Connector: 7242-003-068-960-000

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F IDC Housing Series(NA)

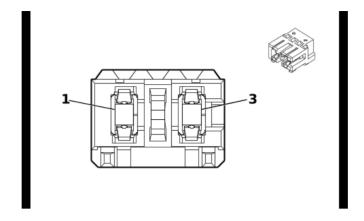
### **Terminal Part Information**

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

## E2LF Front Side Marker Lamp - Left (T4A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1254	Left Front Park Lamp Control		_
3	0.35	BK	150	Ground	I	_

## E2RF Front Side Marker Lamp - Right (T4A)



6157160

#### **Connector Part Information**

Harness Type: Front Headlamp - Right OEM Connector: 7242-003-068-960-000

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F IDC Housing Series(NA)

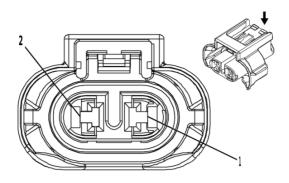
### **Terminal Part Information**

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

## E2RF Front Side Marker Lamp - Right (T4A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	1253	Right Front Park Lamp Control	_	_
3	0.35	BK	250	Ground	I	_

## E4E High Beam Headlamp Bulb - Left (T4A)



3404058

#### **Connector Part Information**

Harness Type: Front Headlamp - Left

OEM Connector: F194300

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 2.8 APEX Series, Sealed(BK)

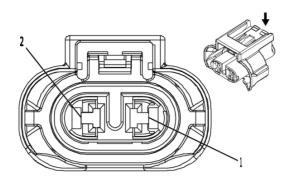
### **Terminal Part Information**

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

## E4E High Beam Headlamp Bulb - Left (T4A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	150	Ground	II	_
2	1.5	BK	711	Left Headlamp High Beam Control	I	_

## E4F High Beam Headlamp Bulb - Right (T4A)



3404058

#### **Connector Part Information**

Harness Type: Front Headlamp - Right

OEM Connector: F194300

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 2.8 APEX Series, Sealed(BK)

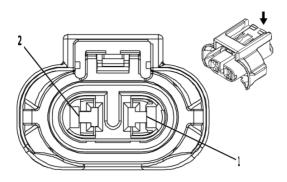
### **Terminal Part Information**

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

### E4F High Beam Headlamp Bulb - Right (T4A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	250	Ground	II	_
2	1.5	BK	311	Right Headlamp High Beam Control	I	_

### E4G Low Beam Headlamp Bulb - Left (T4A)



3404058

#### **Connector Part Information**

Harness Type: Front Headlamp - Left

OEM Connector: F194300

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 2.8 APEX Series, Sealed(BK)

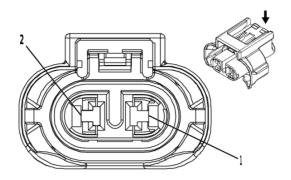
### **Terminal Part Information**

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

## E4G Low Beam Headlamp Bulb - Left (T4A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	150	Ground		_
2	1.5	BK	712	Left Headlamp Low Beam Control	I	_

### E4H Low Beam Headlamp Bulb - Right (T4A)



3404058

#### **Connector Part Information**

Harness Type: Front Headlamp - Right

OEM Connector: F194300

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 2.8 APEX Series, Sealed(BK)

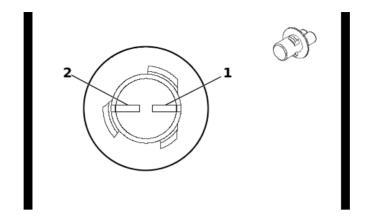
### **Terminal Part Information**

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

### E4H Low Beam Headlamp Bulb - Right (T4A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	250	Ground		_
2	1.5	BK	312	Right Headlamp Low Beam Control	I	_

### E5A Backup Bulb - Left



6157373

#### **Connector Part Information**

Harness Type: Tail Lamp Wiring Harness

OEM Connector: 1-A1000025-2

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F Lamp Socket( BK)

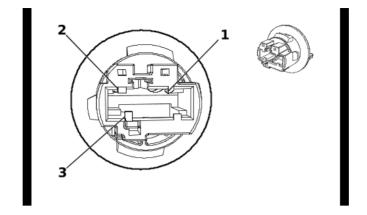
### **Terminal Part Information**

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

### E5A Backup Bulb - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH / WH	24	Backup Lamp Control	_	_
2	0.75	BK	750	Ground	Ī	_

### E5AA Tail/Stop Lamp - Left (-T93)



5754076

#### **Connector Part Information**

Harness Type: Tail Lamp Wiring Harness

OEM Connector: 3-A1000001-2

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F T20 Lamp Socket( BK)

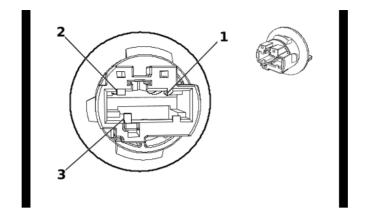
### **Terminal Part Information**

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

### E5AA Tail/Stop Lamp - Left (-T93)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / BU	6993	Left Rear Park Lamp Control	I	_
2	0.75	RD	7542	Left Rear Stop Lamp Control	I	_
3	0.5	BK	750	Ground	I	_

### E5AB Tail/Stop Lamp - Right (-T93)



5754076

#### **Connector Part Information**

Harness Type: Tail Lamp Wiring Harness

OEM Connector: 3-A1000001-2

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F T20 Lamp Socket( BK)

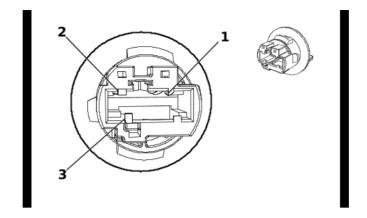
### **Terminal Part Information**

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

### E5AB Tail/Stop Lamp - Right (-T93)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	6995	1335	Right Rear Turn Signal Lamp Control 2	I	_
2	0.75	RD	7541	Right Rear Stop Lamp Control	Ι	_
3	0.5	BK	850	Ground	1	_

## E5AC Tail/Turn Signal Lamp - Left (-T93)



5754076

#### **Connector Part Information**

Harness Type: Tail Lamp Wiring Harness

OEM Connector: 3-A1000001-2

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F T20 Lamp Socket( BK)

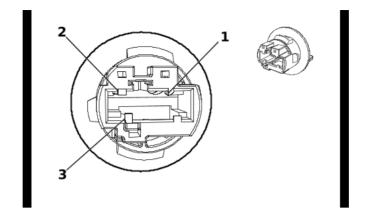
### **Terminal Part Information**

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

### E5AC Tail/Turn Signal Lamp - Left (-T93)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / WH	6993	Left Rear Park Lamp Control	I	_
2	0.75	YE	1334	Left Rear Turn Signal Lamp Control 2	I	_
3	0.5	BK	750	Ground	I	_

## E5AD Tail/Turn Signal Lamp - Right (-T93)



5754076

#### **Connector Part Information**

Harness Type: Tail Lamp Wiring Harness

OEM Connector: 3-A1000001-2

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F T20 Lamp Socket( BK)

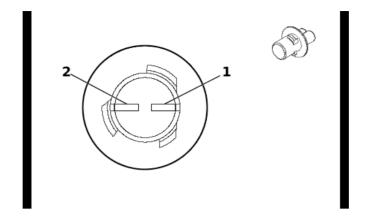
### **Terminal Part Information**

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

### E5AD Tail/Turn Signal Lamp - Right (-T93)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / GY	6995	Right Rear Park Lamp Control	I	_
2	0.75	BU / VT	1335	Right Rear Turn Signal Lamp Control 2	Ι	_
3	0.5	BK	850	Ground	I	_

## E5B Backup Bulb - Right



6157373

#### **Connector Part Information**

Harness Type: Tail Lamp Wiring Harness

OEM Connector: 1-A1000025-2

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F Lamp Socket( BK)

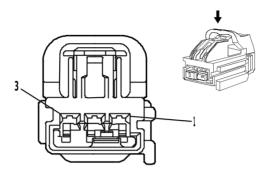
### **Terminal Part Information**

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

## E5B Backup Bulb - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH / WH	24	Backup Lamp Control		_
2	0.75	BK	850	Ground	Ī	_

## **E6 High Mount Stop Lamp**



1787799

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7283-3440-40 Service Connector: 86825460

Description: 3-Way F 1.5 Kaizen Series( L-GY)

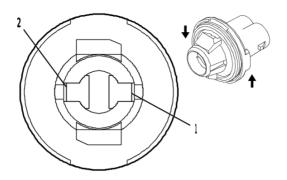
### **Terminal Part Information**

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

## **E6 High Mount Stop Lamp**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / VT	1430	Exterior Courtesy Lamp Control	Ι	_
2	0.5	BU / BK	1053	Center High Mounted Stop Lamp Control 3	Ι	_
3	0.5	BK	550	Ground	I	_

### E7L Rear License Plate Lamp - Left



5153536

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 15324946

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F Lamp Socket Wedge Base, Type W-2( D-GY)

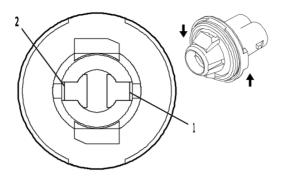
### **Terminal Part Information**

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

### E7L Rear License Plate Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / YE	6846	Rear License Plate Lamp Control		_
2	0.35	BK	750	Ground	Ī	_

### E7R Rear License Plate Lamp - Right



5153536

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 15324946

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F Lamp Socket Wedge Base, Type W-2( D-GY)

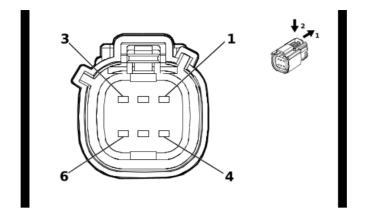
### **Terminal Part Information**

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

### E7R Rear License Plate Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / YE	6846	Rear License Plate Lamp Control	_	_
2	0.35	BK	750	Ground	Ī	_

# E13LA Front Headlamp - Left X1 (T4L)



5926694

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 33472-0607 Service Connector: 19301527

Description: 6-Way F 1.5 MX Series, Sealed(GY)

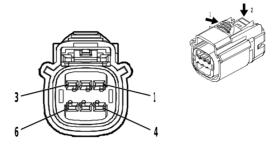
### **Terminal Part Information**

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

### E13LA Front Headlamp - Left X1 (T4L)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	150	Ground	I	_
2	0.75	RD / WH	640	Battery Positive Voltage	II	_
3	0.75	YE	712	Left Headlamp Low Beam Control	II	_
4	0.75	WH	711	Left Headlamp High Beam Control	II	_
5	0.5	GY / BU	7538	Left Front DRL Control	I	
6	0.5	WH / YE	1254	Left Front Park Lamp Control	I	_

## E13LA Front Headlamp - Left X1 (T4A)



5004419

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 15513504 Service Connector: 84999473

Description: 6-Way F 1.5 OCS Series, Sealed(BK)

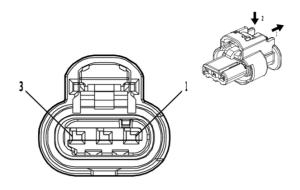
### **Terminal Part Information**

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	

## E13LA Front Headlamp - Left X1 (T4A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	150	Ground		
2	_	_	_	Not Occupied	_	_
3	0.75	YE	712	Left Headlamp Low Beam Control	II	
4	0.75	WH	711	Left Headlamp High Beam Control	Ш	
5	_	_	_	Not Occupied		
6	0.5	WH / YE	1254	Left Front Park Lamp Control	I	_

## E13LA Front Headlamp - Left X2



4581126

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

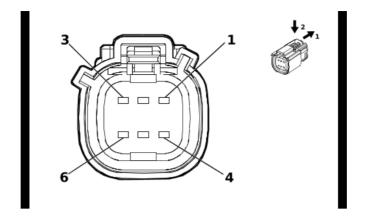
### **Terminal Part Information**

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

### E13LA Front Headlamp - Left X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / WH	1314	Left Front Turn Signal Lamp Control	I	_
2	0.5	WH / YE	1204	Left Park Lamp Control 2	I	_
3	0.5	BK	150	Ground	I	_

### E13RA Front Headlamp - Right X1 (T4L)



5926694

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 33472-0607 Service Connector: 19301527

Description: 6-Way F 1.5 MX Series, Sealed(GY)

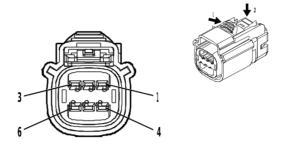
### **Terminal Part Information**

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

### E13RA Front Headlamp - Right X1 (T4L)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	250	Ground	I	_
2	0.75	RD / YE	740	Battery Positive Voltage	II	_
3	0.75	YE	312	Right Headlamp Low Beam Control	II	_
4	0.75	WH	311	Right Headlamp High Beam Control	П	_
5	0.5	BU / BN	7539	Right Front DRL Control	Ī	
6	0.5	BU / GN	1253	Right Front Park Lamp Control	I	_

## E13RA Front Headlamp - Right X1 (T4A)



5004419

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 15513504 Service Connector: 84999473

Description: 6-Way F 1.5 OCS Series, Sealed(BK)

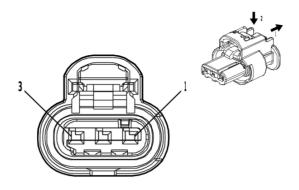
### **Terminal Part Information**

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	

## E13RA Front Headlamp - Right X1 (T4A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	250	Ground	ĺ	
2	_	_	_	Not Occupied	_	
3	0.75	YE	312	Right Headlamp Low Beam Control	II	
4	0.75	WH	311	Right Headlamp High Beam Control	II	_
5	_	_	_	Not Occupied	_	
6	0.5	BU / GN	1253	Right Front Park Lamp Control	I	_

## E13RA Front Headlamp - Right X2



4581126

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 1-2296695-1 Service Connector: 86792094

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

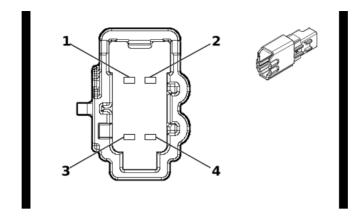
### **Terminal Part Information**

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

### E13RA Front Headlamp - Right X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / VT	1315	Right Front Turn Signal Lamp Control	Ι	_
2	0.5	VT	1203	Right Park Lamp Control 2	- 1	_
3	0.75	BK	250	Ground	I	_

## E14A Front Seat Back Heater - Driver (KA1)



5423974

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 6098-9049

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 MCON Series (GY)

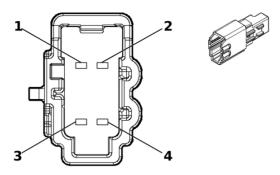
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-13 (BU)	No Tool Required	
II	Not required	J-35616-17 (L-GN)	No Tool Required	

### E14A Front Seat Back Heater - Driver (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	BU	2425	Driver Seat Back Heating Temperature Sensor Signal	II	_
3	0.5	BK / YE	2080	Driver Heated Seat Thermistor Low Reference	II	_
4	0.75	BN / BK	2078	Driver Seat Heating Element Low Reference	I	_

### E14B Front Seat Cushion Heater - Driver (KA1)



5360963

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 6098-9046

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 MCON Series( BK)

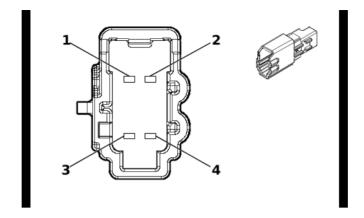
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-13 (BU)	No Tool Required	
II	Not required	J-35616-17 (L-GN)	No Tool Required	

### **E14B Front Seat Cushion Heater - Driver (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	II	
3	0.5	BK / YE	2080	Driver Heated Seat Thermistor Low Reference	II	_
4	0.75	BN / BK	2078	Driver Seat Heating Element Low Reference	I	_

# E14C Front Seat Back Heater - Passenger (KA1)



5423974

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 6098-9049

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 MCON Series (GY)

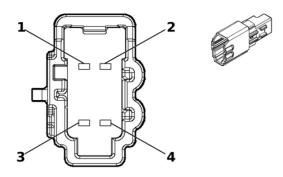
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-13 (BU)	No Tool Required	
II	Not required	J-35616-17 (L-GN)	No Tool Required	

## E14C Front Seat Back Heater - Passenger (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / BU	2479	Passenger Seat Heating Element Control		
2	0.5	WH / BU	2436	Passenger Seat Back Heating Temperature Sensor Signal	=	
3	0.5	BK / GN	2482	Passenger Heated Back Thermistor Low Reference	=	1
4	0.75	GY / BK	2480	Passenger Seat Heating Element Low Reference	Ι	_

## E14D Front Seat Cushion Heater - Passenger (KA1)



5360963

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 6098-9046

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 MCON Series( BK)

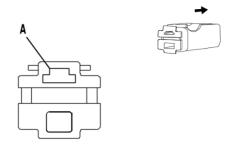
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-13 (BU)	No Tool Required	
II	Not required	J-35616-17 (L-GN)	No Tool Required	

## E14D Front Seat Cushion Heater - Passenger (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / BU	2479	Passenger Seat Heating Element Control		_
2	0.5	WH / GY	2434	Passenger Seat Heating Temperature Sensor Signal	=	_
3	0.5	BK / GY	2435	Passenger Heated Seat Thermistor Low Reference	II	_
4	0.75	GY / BK	2480	Passenger Seat Heating Element Low Reference	I	_

## E18 Rear Window Defogger Grid X1 (C49)



4248834

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7123-5014-30 Service Connector: 19367647

Description: 1-Way F 250 Series( BK)

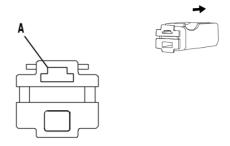
### **Terminal Part Information**

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

## E18 Rear Window Defogger Grid X1 (C49)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	2.5	BN / VT	293	Rear Defogger Grid Control	I	_

## E18 Rear Window Defogger Grid X2 (C49)



4248834

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7123-5014-30 Service Connector: 19367647

Description: 1-Way F 250 Series( BK)

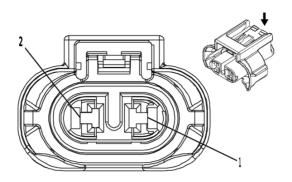
### **Terminal Part Information**

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

## E18 Rear Window Defogger Grid X2 (C49)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
А	2.5	BK	550	Ground	_	_

## E29LF Front Fog Lamp - Left (T40)



3404058

#### **Connector Part Information**

Harness Type: Front Object Alarm Sensor Wiring Harness

OEM Connector: F194300

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 2.8 APEX Series, Sealed(BK)

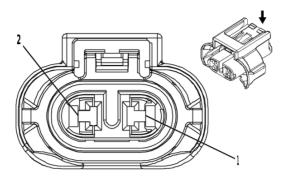
### **Terminal Part Information**

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

## E29LF Front Fog Lamp - Left (T40)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN / GY	5061	Left Front Fog Lamp Control	_	_
2	1.5	BK	550	Ground	I	_

## E29RF Front Fog Lamp - Right (T40)



3404058

#### **Connector Part Information**

Harness Type: Front Object Alarm Sensor Wiring Harness

OEM Connector: F194300

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-35616-4A (PU)	No Tool Required	

### E29RF Front Fog Lamp - Right (T40)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN / GY	5061	Left Front Fog Lamp Control	_	_
2	1.5	BK	550	Ground	Ī	_

# E33L Cargo Lamp - Left (S0Y)

Harness Type: Cargo Lamp Wiring Harness

OEM Connector: Not Available

**Connector Part Information** 

Service Connector: Service by Harness - 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	

## E33L Cargo Lamp - Left (S0Y)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BU	7762	Cargo Lamp Control	_	_
2	0.5	BK	750	Ground	I	_

# E33R Cargo Lamp - Right (S0Y)

-

#### **Connector Part Information**

Harness Type: Cargo Lamp Wiring Harness

**OEM Connector: Not Available** 

Service Connector: Service by Harness - See Part Catalog

Description: F

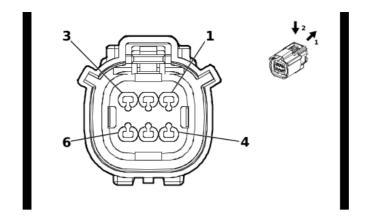
### **Terminal Part Information**

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

## E33R Cargo Lamp - Right (S0Y)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BU	7762	Cargo Lamp Control	_	
2	0.5	BK	750	Ground	Ī	_

## E42L Rear Body Structure Stop Lamp - Left



5666225

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 33472-0705 Service Connector: 86526151

Description: 6-Way F 1.5 MX Series, Sealed( BK)

### **Terminal Part Information**

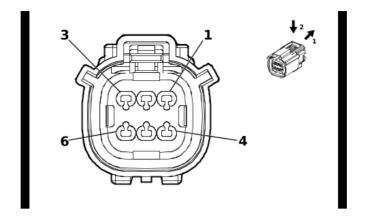
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-2A (GY)	No Tool Required	

## **E42L Rear Body Structure Stop Lamp - Left**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	750	Ground		_
2	0.5 0.5	BU / WH GY / YE	1334 7542	Left Rear Turn Signal Lamp Control 2 Left Rear Stop Lamp Control		T93 - T93
3	0.5	BN / BU	6993	Left Rear Park Lamp Control	I	_
4	0.5	BU / WH	1334	Left Rear Turn Signal Lamp Control 2	I	_
5	0.5	GN / WH	24	Backup Lamp Control	I	
6	_	_	_	Not Occupied	_	_

### 6-168

## E42R Rear Body Structure Stop Lamp - Right



5666225

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 33472-0705 Service Connector: 86526151

Description: 6-Way F 1.5 MX Series, Sealed( BK)

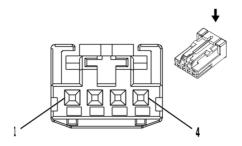
### **Terminal Part Information**

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

## E42R Rear Body Structure Stop Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	0.5	BK	850	Ground	I	T93
'	0.75	BK	850	Ground	I	- T93
2	0.5	WH / YE	7541	Right Rear Stop Lamp Control	I	T93
2	0.75	BU / VT	1335	Right Rear Turn Signal Lamp Control 2	I	- T93
3	0.5	BN / GY	6995	Right Rear Park Lamp Control	I	_
4	0.75	BU / VT	1335	Right Rear Turn Signal Lamp Control 2	I	_
5	0.5	GN / WH	24	Backup Lamp Control	Ī	_
6	_	_	_	Not Occupied	_	_

## **E97 Rear Seat Position Center Courtesy Lamp**



2717162

#### **Connector Part Information**

Harness Type: Roof Wiring Harness

OEM Connector: 936119-1 Service Connector: 19367524

Description: 4-Way F 0.64 Micro-Quadlock Series( BK)

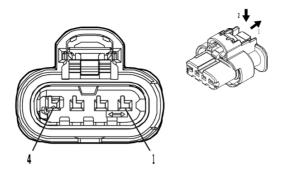
### **Terminal Part Information**

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

# **E97 Rear Seat Position Center Courtesy Lamp**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / BN	6815	Inadvertent Load Control	1	_
2	_	_	_	Not Occupied	_	_
3	0.35	BK	4250	Ground	I	_
4	0.35	GY	157	Interior Lamp Control	Ι	_

## **F101 Instrument Panel Airbag**



4280383

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 2296700-6 Service Connector: 19368563

Description: 4-Way F 1.2 MCON-CB Series, Sealed(YE)

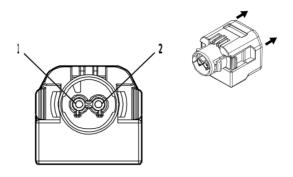
### **Terminal Part Information**

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

## **F101 Instrument Panel Airbag**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / WH	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	-	
2	0.5	YE / OG	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	1	
3	0.5	OG / VT	3026	Passenger Instrument Panel Air Bag Stage 2 Low Control	1	
4	0.5	GY / OG	3027	Passenger Instrument Panel Air Bag Stage 2 High Control	I	_

## F105L Front and Rear Row Roof Rail Airbag - Left



4676225

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 1-1802367-3 Service Connector: 13529172

Description: 2-Way F ABX-5 Series( GY with YE Cover)

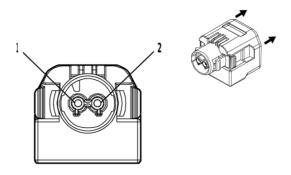
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-10 (GN)	No Tool Required	

## F105L Front and Rear Row Roof Rail Airbag - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GN	5019	Left Front Roof Rail Air Bag High Control	_	_
2	0.5	VT / OG	5020	Left Front Roof Rail Air Bag Low Control	Ī	_

## F105R Front and Rear Row Roof Rail Airbag - Right



4676225

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 1-1802367-3 Service Connector: 13529172

Description: 2-Way F ABX-5 Series( GY with YE Cover)

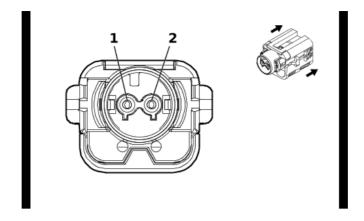
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-10 (GN)	No Tool Required	

## F105R Front and Rear Row Roof Rail Airbag - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GY	5021	Right Front Roof Rail Air Bag High Control	_	_
2	0.5	WH / OG	5022	Right Front Roof Rail Air Bag Low Control	Ī	_

## F106D Front Seat Outboard Seat Back Airbag - Driver



5499727

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 35212936

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F ABX-5 Series( PK with YE Cover)

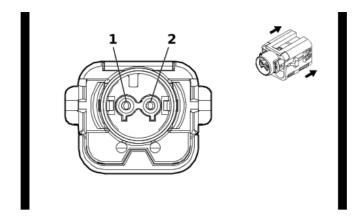
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-10 (GN)	No Tool Required	

## F106D Front Seat Outboard Seat Back Airbag - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / BU	4962	Driver Seat Back Air Bag High Control	_	_
2	0.5	BK / OG	4963	Driver Seat Back Air Bag Low Control	1	_

## F106P Front Seat Outboard Seat Back Airbag - Passenger



5499727

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 35212936

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F ABX-5 Series( PK with YE Cover)

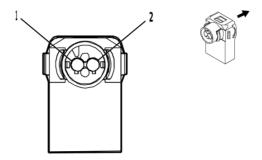
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-10 (GN)	No Tool Required	

# F106P Front Seat Outboard Seat Back Airbag - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GY	4956	Passenger Seat Back Air Bag High Control	_	_
2	0.5	BU / OG	4957	Passenger Seat Back Air Bag Low Control	Ī	_

## F107 Steering Wheel Airbag



4679778

#### **Connector Part Information**

Harness Type: Steering Wheel Wiring Harness

OEM Connector: 13516030

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F ABX-5 Series( GY with YE Cover)

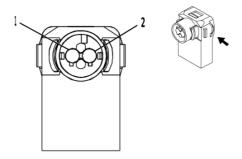
### **Terminal Part Information**

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

## F107 Steering Wheel Airbag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	_	_
2	0.35	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	I	_

### F112D Front Seat Belt Retractor - Driver



4241364

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 13516029 Service Connector: 13545487

Description: 2-Way F ABX-5 Series( PU with YE Cover)

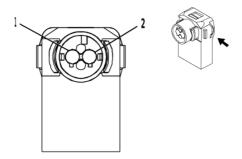
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-10 (GN)	No Tool Required	

### F112D Front Seat Belt Retractor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / WH	3477	Driver Seat Belt Retractor Pretensioner High Control	Ι	_
2	0.5	VT / OG	3478	Driver Seat Belt Retractor Pretensioner Low Control		_

## F112P Front Seat Belt Retractor - Passenger



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)

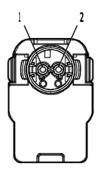
### **Terminal Part Information**

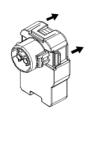
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-10 (GN)	No Tool Required	

## F112P Front Seat Belt Retractor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	Ι	
2	0.5	WH / OG	3476	Passenger Seat Belt Retractor Pretensioner Low Control	Ι	

### F113D Front Seat Belt Anchor Plate Tensioner - Driver





4823732

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 1-1802365-1 Service Connector: 13530531

Description: 2-Way F ABX-5 Series( PK with YE Cover)

### **Terminal Part Information**

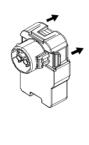
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-10 (GN)	No Tool Required	

### F113D Front Seat Belt Anchor Plate Tensioner - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	_
2	0.5	VT / OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	_

## F113P Front Seat Belt Anchor Plate Tensioner - Passenger





4823732

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 1-1802365-1 Service Connector: 13530531

Description: 2-Way F ABX-5 Series( PK with YE Cover)

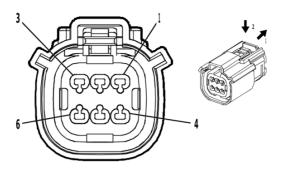
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-10 (GN)	No Tool Required	

## F113P Front Seat Belt Anchor Plate Tensioner - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	Ι	_
2	0.5	GY / OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control		_

## **G5 Automatic Transmission Auxiliary Fluid Pump**



4574736

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 160038-3009

Service Connector: Service by Harness - See Part Catalog Description: 6-Way F 1.5 MX Series, Sealed( WH)

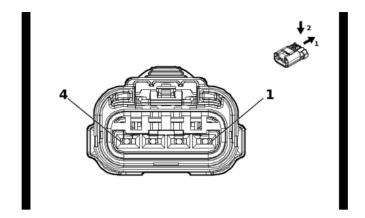
### **Terminal Part Information**

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

### **G5** Automatic Transmission Auxiliary Fluid Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	RD / GN	840	Battery Positive Voltage	1	_
2	_		_	Not Occupied	_	_
3	0.5	GN / GY	6387	Transmission High Side Driver 1 Control	I	_
4	0.5	GN / WH	2968	Transmission Auxiliary Fluid Pump Control	I	_
5	_	_	_	Not Occupied	_	_
6	1.5	BK	6250	Transmission Ground	I	_

## **G10L Cooling Fan Motor - Left**



5838592

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 35243535

Service Connector: Service by Harness - See Part Catalog Description: 4-Way F 2.8 APEX Series, Sealed(BK)

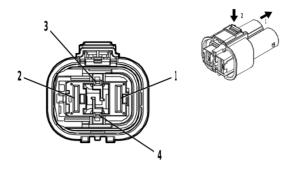
### **Terminal Part Information**

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

## **G10L Cooling Fan Motor - Left**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	BK	150	Ground	II	_
2	5	RD / BU	1542	Battery Positive Voltage	II	_
3	_	_	_	Not Occupied	_	_
4	0.75	GN / VT	4621	Engine Control Module LIN Bus 1	I	_

## **G10LW Cooling Fan Motor - Lower**



4847569

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 3-2286732-1 Service Connector: 84766431

Description: 4-Way F 1.2, 9.5 MCON Series, Sealed(BK)

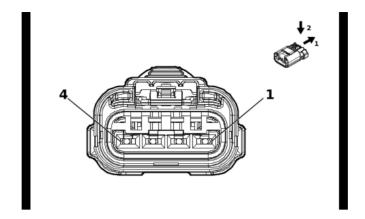
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-16 (L-GN)	No Tool Required	
II	Not required	J-35616-22 (RD)	No Tool Required	

## **G10LW Cooling Fan Motor - Lower**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD / GY	1342	Battery Positive Voltage	II	
2	5	BK	150	Ground	II	
3	0.5	GN / YE	4623	Engine Control Module LIN Bus 3	I	
4	_		_	Not Occupied	_	_

## **G10R Cooling Fan Motor - Right**



5838592

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 35243535

Service Connector: Service by Harness - See Part Catalog Description: 4-Way F 2.8 APEX Series, Sealed(BK)

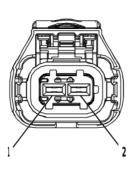
### **Terminal Part Information**

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

### **G10R Cooling Fan Motor - Right**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	BK	150	Ground	II	
2	5	RD / YE	1442	Battery Positive Voltage	II	_
3	_	_	_	Not Occupied	_	_
4	0.75	GN / VT	4621	Engine Control Module LIN Bus 1	I	_

### **G13 Generator X1**





2577394

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1928405714 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	

### **G13 Generator X1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	25	Charge Indicator Control	_	_
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	_

### **G13 Generator X2**

Connector Part Information

Harness Type: Battery Negative Cable

OEM Connector: 23385196

Service Connector: Service by Harness - See Part Catalog

Description: 1-Way

### **Terminal Part Information**

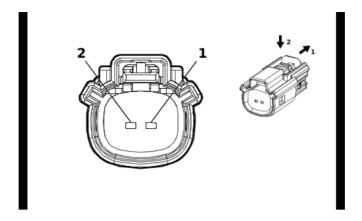
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
1	Not required	Not required No Tool Required		

### **G13 Generator X2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	35	RD / YE	2	Battery Positive Voltage	I	

# G18 Fuel Pump - High Pressure

6-186



2474713

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 33471-0206 Service Connector: 13577534

Description: 2-Way F 1.5 Series, Sealed(BK)

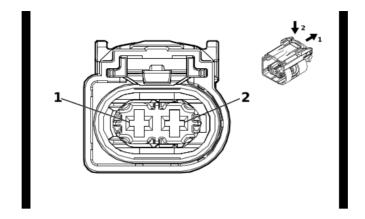
### **Terminal Part Information**

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

## **G18 Fuel Pump - High Pressure**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / BK	7300	High Pressure Fuel Pump Low Control	_	_
2	0.75	YE	7301	High Pressure Fuel Pump High Control	I	_

## **G24 Windshield Washer Pump**



5580410

#### **Connector Part Information**

Harness Type: Windshield Washer Pump Extension Wiring Harness

OEM Connector: 2425741-1

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 2.8 MCP Series, Sealed( BK)

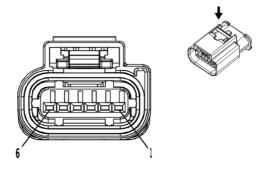
### **Terminal Part Information**

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

### **G24 Windshield Washer Pump**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU / VT	392	Rear Window Washer Pump Control	I	UXA
1	0.75	GY / VT	228	Windshield Washer Pump Control	I	UXA
4	0.75	BU / VT	392	Rear Window Washer Pump Control	I	UXA
'	0.75	GY / VT	228	Windshield Washer Pump Control	I	UXA
2	0.75	GY / VT	228	Windshield Washer Pump Control	I	UXA
	0.75	BK	2250	Ground	I	- UXA
2	0.75	GY / VT	228	Windshield Washer Pump Control	I	UXA
	0.75	BK	2250	Ground	I	- UXA

## **G58 Evaporative Emission Canister Purge Pump**



3747579

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 2272975-1 Service Connector: 19354437

Description: 6-Way F 1.2 MCON Series, Sealed(BK)

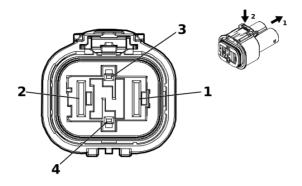
### **Terminal Part Information**

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

# **G58 Evaporative Emission Canister Purge Pump**

Pin         Size         Color         Circuit         Function         Terminal Type ID           1         0.5         BN / BU         2447         Evaporative Purge Pump Pressure Signal         I           2         0.5         BK / YE         548         Engine Control Sensors Low Reference 1         I           3         0.5         BU / RD         460         Engine Control Sensors 5 Volt Reference 1         I           4         0.5         GN / BN         2732         Engine Control Module LIN Bus 4         I		•
2         0.5         BK / YE         548         Engine Control Sensors Low Reference 1         I           3         0.5         BU / RD         460         Engine Control Sensors 5 Volt Reference 1         I           4         0.5         GN / BN         2732         Engine Control Module LIN Bus 4         I	Pin	
3	1	I –
4 0.5 GN / BN 2732 Engine Control Module LIN Bus 4 I	2	I –
	3	I –
5 05 04 550 0	4	I –
5 0.5 BK 550 Ground I	5	I –
6 0.5 VT / BU 5294 Powertrain Main Relay Fused Supply Voltage 5 I	6	I —

## **G59 Engine Coolant Pump**



5389785

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2332470-1

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 1.2, 9.5 MCON Series(BK)

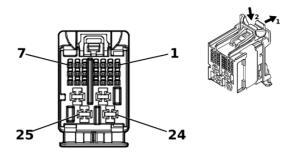
### **Terminal Part Information**

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-35616-22 (RD)	No Tool Required		

### **G59 Engine Coolant Pump**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	RD / YE	442	Battery Positive Voltage	II	
2	10	BK	6550	Ground	П	_
3	0.5	GN / BN	2732	Engine Control Module LIN Bus 4	I	_
4	_	_	_	Not Occupied		_

## **K9 Body Control Module X1**



5203995

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 160027-0013 Service Connector: 13534967

Description: 25-Way F 0.5 MQS, 2.8 MCP Series( BK with GY Inner Connector)

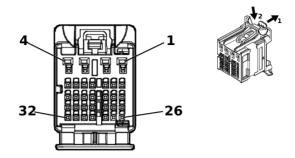
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	
II	87814662	J-35616-4A (PU)	J-38125-557	

### **K9 Body Control Module X1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	_	_	_	Not Occupied	_	_
5	0.35	BU / GY	754	Blower Motor Speed Control	I	_
6	0.35	WH / YE	4634	HVAC Remote Enable Signal	I	_
7 - 10	_	_	_	Not Occupied	_	_
11	0.35	GY / GN	4636	HVAC System Enable Signal	I	_
12	0.35	GY	728	Security Indicator Control	I	_
13	_	_	_	Not Occupied	_	_
14	0.35	GN / VT	4759	Transmission Shift Lever Position Indicator 2 Control	I	_
15	0.35	GY	590	Driver Solar Sensor Signal	I	_
16	0.35	GY	6137	Air Conditioning Evaporator Temperature Sensor Signal	I	_
17	0.35	WH / BU	278	Ambient Light Sensor Signal	I	_
18	0.35	BU / WH	734	Inside Air Temperature Sensor Signal	I	_
19	_	_		Not Occupied	_	_
20	0.35	GN / VT	2852	Body Control Module LIN Bus 6	I	_
21 - 22	_	_	_	Not Occupied	_	_
23	1	RD / GY	2840	Battery Positive Voltage	II	_
24	_	_	_	Not Occupied	_	_
25	1	RD / GY	2140	Battery Positive Voltage	II	_

## **K9 Body Control Module X2**



5204222

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 160028-0015 Service Connector: 13534980

Description: 32-Way F 0.5 NANO, 1.2 MCON, stAK50h Series( PK with GY Inner Connector)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	19370262	EL-35616-58 (BK)	EL-38125-58		
II	84729890	J-35616-12 (BU)	J-38125-215A		

### **K9 Body Control Module X2**

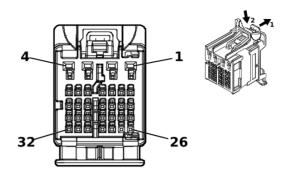
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	157	Interior Lamp Control	II	_
2 - 4	_	_	_	Not Occupied	_	_
5	0.35	BU / GN	5723	Ignition Mode Switch Mode Voltage	I	_
6 - 8	_	_	_	Not Occupied	_	
9	0.35	GN / BU	3738	Tap Up/Tap Down Switch Signal 2	I	_
10	0.35	WH / BN	2203	Enhanced Driver Mode 2 Switch Signal	I	_
11	_	_	_	Not Occupied	_	_
12	0.35	YE / BU	1714	Windshield Wiper Switch Low Signal	I	_
13	0.35	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	_
14	0.35	BN / GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	_
15	_	_	_	Not Occupied	_	_
16	0.35	BN / BK	5720	Ignition Mode Switch Accessory LED Signal	I	_
17 - 22	_	_	_	Not Occupied	_	_
23	0.35	VT / BU	2916	Right Turn Signal Switch Signal	I	_
24	_	_	_	Not Occupied	_	_
25	0.35	BK / GY	6009	Windshield Wiper Switch Low Reference	I	_
26	0.35	WH / BK	94	Windshield Washer Switch Signal	I	_
27	0.35	YE / BN	307	Headlamp Switch Flash Signal	I	_
28	0.35	GN / WH	3287	Horn Switch Signal	I	_
29	0.35	WH / GN	2915	Left Turn Signal Switch Signal	I	_

## 6-192 Electrical Component and Inline Harness Connector End Views

# K9 Body Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
30	0.35	BK / YE	407	Sensor Low Reference		_
31	0.35	GN / WH	111	Hazard Warning Switch Signal	1	_
32	0.35	WH	524	High Beam Select Switch High Beam Signal	I	_

## **K9 Body Control Module X3**



5203925

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 160028-0012 Service Connector: 13534977

Description: 32-Way F 0.5 NANO, 1.2 MCON, stAK50h Series( BU with GY Inner Connector)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	19370262	EL-35616-58 (BK)	EL-38125-58		
II	84729890	J-35616-12 (BU)	J-38125-215A		

## **K9 Body Control Module X3**

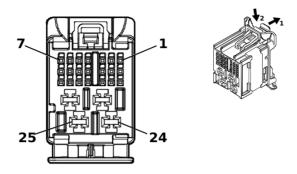
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	_	_	_	Not Occupied	_	_
3	0.5	WH / BN	6815	Inadvertent Load Control	II	_
4 - 8	_	_	_	Not Occupied	_	_
9	0.35	YE / GY	44	Instrument Panel Lamp Dimmer Switch Signal	I	_
10	0.35	GN / BK	2858	Body Control Module LIN Bus 12	I	_
11	_	_	_	Not Occupied	_	_
12	0.35	VT / BK	7553	Park Lock Solenoid Actuator Control	I	_
13	0.35	WH	3152	Lane Departure Warning Indicator Control	I	_
14	_	_	_	Not Occupied	_	_
15	0.35	GN	1110	Stop/Start Indicator Control	I	_
16	0.35	GN / BU	761	Blower Speed Feedback Signal	I	_
17	0.35	WH / VT	5905	Key Capture/Column Lock Shift Position Signal	I	_
18	0.35	BK / YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	I	_
19	0.35	BU / BK	5719	Ignition Mode Switch Start LED Signal	I	_
20 - 22	_	_	_	Not Occupied	_	_
23	0.35	BU	1111	Stop/Start Switch Signal	I	_
24	0.35	WH / BU	3691	Trailer Brake Apply Signal	I	_
25	0.35	GY	4989	Driver Mode 2 Switch Signal	I	_
26		_		Not Occupied		
27	0.35	GY / WH	3153	Lane Departure Warning Disable Switch Signal	I	_

## 6-194 Electrical Component and Inline Harness Connector End Views

# K9 Body Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28 - 32			_	Not Occupied		

## **K9 Body Control Module X4**



5203893

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 160027-0018 Service Connector: 13534970

Description: 25-Way F 0.5 MQS, 2.8 MCP Series(GY)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	19370262	EL-35616-58 (BK)	EL-38125-58		
II	87814662	J-35616-4A (PU)	J-38125-557		

## **K9 Body Control Module X4**

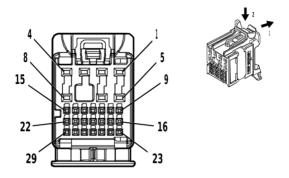
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / BK	3552	Interior Passive Entry Antenna 1 High Signal	I	_
2	0.35	WH	3553	Interior Passive Entry Antenna 1 Low Signal	I	_
3	0.35	BK / VT	1449	Steering Wheel Resistor Ladder Low Reference	I	_
4	_	_	_	Not Occupied	_	_
5	0.35	GN / VT	5199	Run/Crank Relay Coil Control	I	_
6	_	_	_	Not Occupied	_	_
7	0.35	BN / BK	4996	Immobilizer Antenna Signal [+]	I	_
8 - 9	_	_	_	Not Occupied	_	_
10	0.35	GY / GN	4083	Retained Accessory Power Relay 2 Coil Control	I	_
11	0.35	GY / GN	328	Interior Lamp Defeat Switch Signal	I	_
12	_	_	_	Not Occupied	_	_
13	0.35	GY	156	Courtesy Lamp Switch Signal	I	_
14	0.35	WH / GY	4997	Immobilizer Antenna Low Signal	I	_
15	_	_	_	Not Occupied	_	_
16	0.35	GN / WH	4115	Body Control Module LIN Bus 5	I	_
17 - 18	_	_	_	Not Occupied	_	_
19	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	_
20	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	
21	0.35	WH	6816	Indicator Dimming Control	I	
22	0.75	RD / WH	2740	Battery Positive Voltage	II	_
23	2	RD / BU	2540	Battery Positive Voltage	II	_

## 6-196 Electrical Component and Inline Harness Connector End Views

# K9 Body Control Module X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	2	BK	2050	Ground	=	
25	2	BK	2050	Ground	II	_

## **K9 Body Control Module X5**



4584346

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 160014-0012 Service Connector: 13534972

Description: 29-Way F 0.5 NANO, 1.2 MCON Series(GN)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	
II	84729890	J-35616-12 (BU)	J-38125-215A	

### **K9 Body Control Module X5**

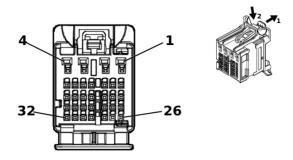
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	_	_	_	Not Occupied		_
2	0.5	BU / BN	7573	Air Conditioning Compressor Solenoid Valve Control	II	_
3	0.5	BU / YE	7574	Air Conditioning Compressor Solenoid Valve Control	II	_
4	0.75	WH	2679	Lock Actuators Unlock Control 1	II	_
5	_	_	_	Not Occupied	_	_
6	0.5	YE	6817	LED Backlight Dimming Control 1	II	_
7	_	_	_	Not Occupied	_	_
8	0.75	GY	2681	Left Front Door Lock Actuator Lock Control	II	_
9 - 10	_	_	_	Not Occupied	_	_
11	0.35	BN / WH	28	Horn Relay Control	I	<del>-</del>
12	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	_
13	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	_
14 - 15	_	_	_	Not Occupied	_	_
16	0.35	VT	4301	Passive Entry Left Front Antenna Signal High	I	_
17	0.35	GN / YE	2855	Body Control Module LIN Bus 9	I	_
18	0.35	VT / GY	126	Left Front Door Open Switch Signal	I	_
19	0.35	GN / YE	6134	Body Control Module LIN Bus 3	I	
20	_			Not Occupied	_	<u> </u>
21	0.35	WH / BU	6311	Cruise/ETC/TCC Brake Signal	I	_
22	0.35	BN / VT	193	Rear Defogger Relay Control	I	_

## 6-198 Electrical Component and Inline Harness Connector End Views

# K9 Body Control Module X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
23	0.35	VT / GY	4302	Passive Entry Left Front Antenna Signal Low		_
24	0.35	WH	5359	Brake Apply Sensor Control	I	_
25	0.35	BU / YE	5361	Brake Apply Sensor Signal	I	_
26	0.35	BK / BN	5360	Brake Apply Sensor Low Reference	I	_
27 - 29	_	_	_	Not Occupied	_	_

## **K9 Body Control Module X6**



5202291

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 160028-0017 Service Connector: 13534981

Description: 32-Way F 0.5 MQS, 1.2 OCS Series(BN with GY Inner Connector)

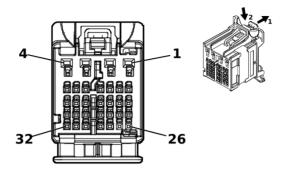
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	
II	84729890	J-35616-12 (BU)	J-38125-215A	

### **K9 Body Control Module X6**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	_	_	_	Not Occupied	_	_
2	0.75	VT / WH	1094	Right Rear Door Lock Actuator Lock Control	П	_
3	0.75	GY / BK	2680	Lock Actuators Unlock Control 2	П	_
4 - 10	_	_	_	Not Occupied	_	_
11	0.35	GN / BU	6133	Body Control Module LIN Bus 2		1
12 - 21			-	Not Occupied	_	
22	0.35	BN / GN	4064	Hood Status B Signal	I	
23 - 27	_	_	_	Not Occupied	_	_
28	0.35	BU	2675	Left Front Exterior Door Handle Switch Unlock Signal	ı	_
29 - 32	_	_	_	Not Occupied	_	_

## **K9 Body Control Module X7**



5202294

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 160028-0014 Service Connector: 13534979

Description: 32-Way F 0.5 MQS, 1.2 OCS Series( PU with GY Inner Connector)

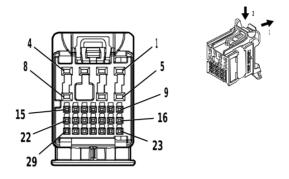
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	

## **K9 Body Control Module X7**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 18	_	_	_	Not Occupied	_	_
19	0.35	GN / VT	2857	Body Control Module LIN Bus 11	I	
20 - 29	_	_	_	Not Occupied	_	_
30	0.35	BU / YE	7176	All Windows Open Switch Signal	I	_
31 - 32	_	_	_	Not Occupied	_	_

# **K9 Body Control Module X8**



4578560

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 160014-0011 Service Connector: 13534971

Description: 29-Way F 0.5 NANO, 1.2 MCON, stAK50h Series( GY)

## **Terminal Part Information**

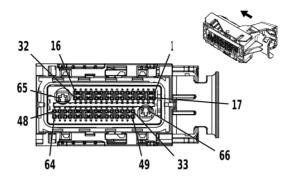
Terminal Type ID	ID Terminated Lead Diagnostic Test Probe		Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	84729890	J-35616-12 (BU)	J-38125-215A

## **K9 Body Control Module X8**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / VT	2691	Rear Closure Actuator Lock Control	II	_
2	_	_	_	Not Occupied	_	
3	0.75	BU / YE	1091	Left Rear Door Lock Actuator Lock Control	II	
4	0.75	YE / GN	2682	Right Front Door Lock Actuator Lock Control	II	_
5 - 8	_	_	_	Not Occupied	_	_
9	0.35	GN / BK	4304	Passive Entry Right Front Door Antenna Signal Low	I	
10	0.35	GN / YE	4303	Passive Entry Right Front Door Antenna Signal High	I	_
11 - 16	_	_	_	Not Occupied	_	_
17	0.35	GN / YE	2862	Body Control Module LIN Bus 16	I	_
18	0.35	GN / WH	2854	Body Control Module LIN Bus 8	I	_
19 - 27	_	_	_	Not Occupied	_	_
28	0.35	GY / VT	2676	Right Front Door Exterior Switch Unlock Signal	I	_
29	0.35	GN / GY	6135	Body Control Module LIN Bus 4	Ī	_

## **K20 Engine Control Module X1**

6-202



4504420

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34822-0033 Service Connector: 19371186

Description: 66-Way F 0.64, 2.8 Series, Sealed( BK with BU Terminal Position Assurance)

## **Terminal Part Information**

Terminal Type ID	e ID Terminated Lead Diagnostic Test Probe		Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

# **K20 Engine Control Module X1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	5991	Powertrain Relay Coil Control	П	_
2	0.5	YE / BK	625	Starter Enable Relay Control	II	_
3	0.5	YE / VT	4325	Starter Pinion Solenoid Actuator Relay Control	II	_
4 - 5	_	_	_	Not Occupied	_	_
6	0.5	VT / GY	3615	Step Cam A Control	II	_
7	0.5	GN / BK	3616	Step Cam B Control	П	_
8	0.5	GN	3585	Camshaft Position Motor Control B	II	_
9	0.5	BU	3584	Camshaft Position Motor Control A	II	_
10	0.5	YE / BU	3587	Camshaft Position Motor Control D	П	_
11	0.5	GY	3586	Camshaft Position Motor Control C	П	_
12	0.5	BU / WH	3589	Camshaft Position Motor Position Sensor 1 Signal	II	_
13	0.5	GN / WH	3592	Camshaft Position Motor Position Sensor 2 Signal	II	_
14	0.5	BK / GN	3593	Camshaft Position Sensor 2 Ground	П	_
15	_	_	_	Not Occupied	_	
16	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	П	_
17	0.5	GN / GY	465	Fuel Pump Primary Relay Control	II	_
18	0.5	WH / GY	459	Air Conditioning Compressor Clutch Relay Control	II	
19 - 21	_	_	_	Not Occupied	_	_

# **K20 Engine Control Module X1 (cont'd)**

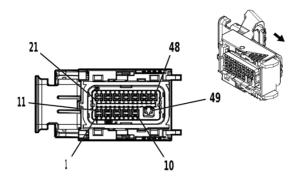
	KZU Eligilie Colitioi Module XI (Colitiu)						
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option	
22	0.5	GN / YE	1402	Camshaft Intake Stepper Cylinder 4 Front Sole- noid Control	II	_	
23	0.5	GY / YE	1502	Camshaft Intake Stepper Cylinder 4 Rear Sole- noid Control	II	_	
24	0.5	YE / VT	6265	Camshaft Exhaust Stepper Cylinder 2 Rear Solenoid Control	II	_	
25	0.5	VT / BK	6264	Camshaft Exhaust Stepper Cylinder 2 Front Solenoid Control	II	_	
26	0.5	GY / BN	6262	Camshaft Exhaust Stepper Cylinder 3 Rear Solenoid Control	II	_	
27	0.5	GN / BN	6261	Camshaft Exhaust Stepper Cylinder 3 Front Solenoid Control	II	_	
28	0.5	YE / BN	1702	Camshaft Intake Stepper Cylinder 4 Position Sensor Signal	II	_	
29	0.5	GN / BK	6266	Camshaft Exhaust Stepper Cylinder 2 Position Signal	II	_	
30	0.5	YE	6263	Camshaft Exhaust Stepper Cylinder 3 Position Signal	II	_	
31	_	–	_	Not Occupied	_	_	
32	0.5	VT / GY	139	Run/Crank Ignition 1 Voltage	Ш	_	
33	0.5	BK / BU	1271	Accelerator Pedal Position Low Reference 1	II	_	
34	0.5	YE / WH	3746	Camshaft Exhaust Lobe Axial Position Signal 1	II	_	
35	0.5	BK / VT	1272	Accelerator Pedal Position Low Reference 2	II	_	
36	0.5	YE / GN	3747	Camshaft Exhaust Lobe Axial Position Signal 2	II	_	
37	_	_	_	Not Occupied	_	_	
38	0.5	YE	4063	Hood Status A Signal	II	_	
39	0.5	YE / WH	1161	Accelerator Pedal Position Signal 1	II	_	
40 - 41	_	_	_	Not Occupied	_		
42	0.5	GN / BN	2732	Engine Control Module LIN Bus 4	II		
43 - 44	_	_	_	Not Occupied			
45	0.5	BU / GY	4054	Private Serial Data Powertrain CAN Bus [-] Serial Data	II	_	
46	0.5	WH	4055	Private Serial Data Powertrain CAN Bus [+] Serial Data	II	_	
47	0.5	GN / WH	492	Mass Air Flow Sensor Signal	II	_	
48	0.5	RD / WH	140	Battery Positive Voltage	II	_	
49	0.5	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	II	_	
50	0.5	VT / WH	3744	Camshaft Intake Lobe Axial Position Signal 1	II	_	
51	0.5	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	II	_	
52	0.5	VT / GN	3745	Camshaft Intake Lobe Axial Position Signal 2	II	_	
53	0.5	BU / GY	636	Ambient Air Temperature Sensor Signal	II	_	
54		_	_	Not Occupied	_	_	
55	0.5	GN	380	Air Conditioning Refrigerant Pressure Sensor Signal	II	_	
56	0.5	WH / GN	5380	Brake Position Sensor Signal	II	_	
57	0.5	GN / WH	1162	Accelerator Pedal Position Signal 2	II	_	
58		_	_	Not Occupied	_	_	
59	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	_	
60	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	_	
30	0.0	DO / IL	7313	7.0 1 00/11 0/11 Dus [1] 2 06/10 Data	l "	_	

# 6-204 Electrical Component and Inline Harness Connector End Views

# **K20 Engine Control Module X1 (cont'd)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
61 - 62				Not Occupied	_	
63	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	П	_
64	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	_
65	2.5	BK / WH	151	Signal Ground	I	_
66	2	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	Ī	_

# **K20 Engine Control Module X2**



4596458

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34576-0103 Service Connector: 19355678

Description: 49-Way F 0.64, 2.8 Series, Sealed( BK with BK Terminal Position Assurance)

## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

## **K20 Engine Control Module X2**

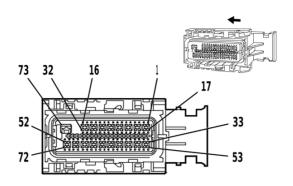
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	4320	Powertrain Sensor Bus Enable	II	_
2	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	II	_
3 - 4	_	_	_	Not Occupied	_	_
5	0.5	BN / BU	2447	Evaporative Purge Pump Pressure Signal	П	_
6 - 8	_	_	_	Not Occupied		_
9	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	П	_
10	0.5	BU / GY	2978	Coolant Diverter Valve Position Signal	II	_
11	_	_	_	Not Occupied	_	_
12	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	II	_
13 - 14	_	_	_	Not Occupied	_	_
15	0.5	GN / YE	3337	Transmission Internal Mode Switch Mode Control Y	Ш	_
16	0.5	YE / BN	331	Oil Pressure Sensor Signal	II	_
17 - 18	_	_	_	Not Occupied	_	_
19	0.5	BU / WH	2918	Fuel Rail Pressure Sensor Signal	II	_
20	0.5	WH	2590	Turbocharger Wastegate Motor Feedback Signal	II	_
21	_	_	_	Not Occupied	_	_
22	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference	II	_
23	0.5	VT	7485	Engine Oil Temperature Sensor 2 Signal	II	_
24	0.5	BN / BU	357	Oil Temperature Sensor Signal	II	_
25	0.5	YE / WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	II	_

# 6-206 Electrical Component and Inline Harness Connector End Views

# **K20 Engine Control Module X2 (cont'd)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26 - 28	_	_	_	Not Occupied	_	_
29	0.5	YE / GY	3926	Crankcase Differential Pressure Sensor Signal	II	_
30	_	_	_	Not Occupied	_	_
31	0.5	YE / GY	6936	HO2S Signal	II	_
32	0.5	BN	6934	HO2S Ground	II	_
33	0.5	GN / YE	4623	Engine Control Module LIN Bus 3	II	_
34	0.5	GY / WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	II	_
35	_	_	_	Not Occupied	_	_
36	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	П	_
37	0.5	YE / BK	3000	Coolant Temperature Sensor 2 Signal	II	_
38 - 39	_	_	_	Not Occupied	_	_
40	0.5	GY / VT	2404	Engine Block Coolant Temperature Signal	II	_
41 - 44	_	_	_	Not Occupied	_	_
45	0.5	GN	6935	HO2S Pump Current Trim Signal	II	_
46	0.5	BN / WH	6933	HO2S Pump Current Signal	II	_
47	0.75	GN / VT	4621	Engine Control Module LIN Bus 1	II	
48	0.5	GN / WH	4622	Engine Control Module LIN Bus 2	II	
49	2.5	BK / WH	151	Signal Ground	I	_

# **K20 Engine Control Module X3**



1650395

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34566-0203 Service Connector: 19333091

Description: 73-Way F 0.64, 2.8 Series, Sealed( BK with GY Terminal Position Assurance)

## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (L-BU)	J-38125-215A

## **K20 Engine Control Module X3**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	_	_	_	Not Occupied	_	_
2	0.5	GN	3060	Turbocharger Bypass Solenoid Valve Control Bank 1	II	_
3	0.5	BN	25	Charge Indicator Control	II	_
4 - 5	_	_	_	Not Occupied	_	_
6	0.5	VT / BU	6270	Crankshaft Position Sensor Voltage	II	_
7	0.5	BN / RD	2701	Throttle Position Sensor 5V Reference	II	_
8	_	_	_	Not Occupied	_	_
9	0.5	GN / WH	432	Manifold Absolute Pressure Sensor Signal	II	_
10	0.5	VT / BU	3120	HO2S High Signal Bank 1 Sensor 2	II	_
11	0.5	WH / YE	3121	HO2S Low Signal Bank 1 Sensor 2	II	_
12	0.5	VT / BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	II	_
13	0.5	GY / BU	5282	Exhaust Camshaft Position Actuator Solenoid Valve 1	II	_
14	0.5	BU	2976	Coolant Diverter Valve Actuator Control Open	II	_
15	0.75	WH / BN	2591	Turbocharger Wastegate Motor Open Control	II	_
16	0.75	WH / BU	2592	Turbocharger Wastegate Motor Close Control	II	_
17 - 20	_	_	_	Not Occupied	_	_
21	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	II	_
22	0.5	BK / VT	6272	Crankshaft Position Sensor Low Reference	II	_
23	0.5	BK / BN	2752	Throttle Position Sensor Low Reference	II	_

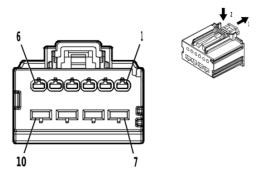
## **K20 Engine Control Module X3 (cont'd)**

Pin	Size	Color	Circuit	rgine Control Module X3 (cont'd) Function	Terminal	Option
	0126	00101	Oncuit	Tunction	Type ID	Орион
24	0.5	YE / BU	2408	Engine Inlet Coolant Temperature Signal	II	_
25	0.5	VT	2988	Engine Outlet Coolant Temperature Signal	II	_
26	0.5	WH / BU	7329	Pre-Throttle Air Temperature Signal	II	_
27	0.5	BU / YE	8938	Engine Integrated Exhaust Manifold Temperature Signal	II	_
28	0.5	BK / BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference	II	_
29	0.5	BK / VT	6754	Camshaft Position Actuator Solenoid Valve X Low Reference	II	_
30	0.5	YE	581	Throttle Actuator Open Control	II	_
31	0.5	BN / WH	582	Throttle Actuator Close Control	II	_
32	0.5	BU / BN	2977	Coolant Diverter Valve Actuator Control Close	II	_
33	0.5	VT / GY	496	Knock Sensor 1 Signal	II	_
34	0.5	WH / GY	1876	Knock Sensor 2 Signal	II	_
35	0.5	BK / GN	469	Manifold Absolute Pressure Sensor Low Reference	II	_
36	0.5	GN / BU	428	EVAP Canister Purge Solenoid Control	II	_
37 - 38	_	_	_	Not Occupied	_	_
39	0.5	BK / GN	5301	Intake Camshaft Position Sensor Low Reference 1	II	_
40	0.5	BK / GY	5296	Exhaust Camshaft Position Sensor Low Reference 1	II	_
41	_	_	_	Not Occupied	_	_
42	0.5	VT / BK	5273	Exhaust Camshaft Position Sensor 1	II	_
43	0.5	GN	6271	Crankshaft Position Sensor Signal	II	_
44	0.75	YE / BU	2124	Ignition Control 4	II	_
45	0.75	BU / WH	2122	Ignition Control 2	II	_
46	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	II	_
47	0.5	GY / WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	II	_
48	0.5	BU / WH	3630	Throttle Position Sensor SENT 1 Signal	II	_
49	0.75	BU / WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	II	_
50	0.75	GY / BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	II	_
51	0.75	BU / GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	II	_
52	0.75	BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	II	_
53	0.5	BK / YE	1716	Knock Sensor Low Reference 1	II	
54	0.5	BK / GY	2303	Knock Sensor Low Reference 2	II	
55	0.5	GY / RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	
56	0.5	YE / BN	106	Oil Pump Motor Control	II	_
57	0.5	BU	179	Engine Oil Pump Control	II	
58				Not Occupied	_	
59	0.5	GY / BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	II	_
60	0.5	GY / YE	5297	Exhaust Camshaft Position Sensor 1 Voltage Reference	II	_

# **K20 Engine Control Module X3 (cont'd)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
61	0.5	GY	23	Generator Field Duty Cycle Signal	II	_
62	_	_	_	Not Occupied	_	_
63	0.5	YE / VT	5275	Intake Camshaft Position Sensor 1	II	_
64	0.75	BU / VT	2121	Ignition Control 1	II	
65	0.75	GN / BU	2123	Ignition Control 3	II	_
66	_	_	_	Not Occupied	_	_
67	0.75	VT / BK	7300	High Pressure Fuel Pump Low Control	II	
68	0.75	YE	7301	High Pressure Fuel Pump High Control	II	
69	0.75	BN / WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	II	_
70	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	II	_
71	0.75	GN / GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	II	_
72	0.75	GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	II	_
73	2	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	I	

## **K29FV Front Seat Heater Vent Control Module X1 (KA1)**



5035058

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 31372-1600

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 1.5, 2.8 MX Series( BK)

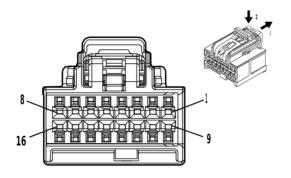
## **Terminal Part Information**

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	

## **K29FV Front Seat Heater Vent Control Module X1 (KA1)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	_	_	_	Not Occupied	_	_
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	_	_	_	Not Occupied	_	_
6	0.75	BN / VT	2077	Driver Seat Heating Element Control		_
7	0.75	RD / VT	4640	Battery Positive Voltage	II	_
8	1.5	BK	4250	Ground	II	_
9	_	_	_	Not Occupied	_	_
10	0.75	RD / BU	4540	Battery Positive Voltage	II	_

## **K29FV Front Seat Heater Vent Control Module X2 (KA1)**



4873243

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 35016343

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 0.64 OCS Series( BK)

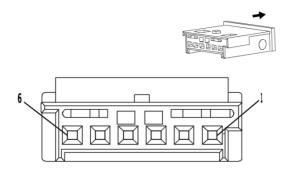
## **Terminal Part Information**

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

## K29FV Front Seat Heater Vent 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	0.5	GN / VT	2857	Body Control Module LIN Bus 11	I	_
9	0.5	GN / VT	5906	Driver Seat Blower Motor Control 1	I	_
10	0.5	VT / WH	5908	Passenger Seat Blower Motor Control 1	I	_
11	_	_	_	Not Occupied	_	_
12	0.5	BK / GN	2482	Passenger Heated Back Thermistor Low Reference	I	_
13 - 16	_	_	_	Not Occupied	_	_

## K32 Heated Steering Wheel Module X1 (KI3)



1862024

#### **Connector Part Information**

Harness Type: Steering Wheel 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)

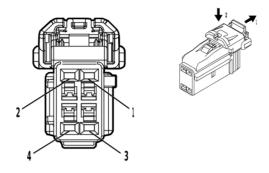
## **Terminal Part Information**

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

## K32 Heated Steering Wheel Module X1 (KI3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE / GY	5883	Steering Wheel Heating Switch Signal	1	_
2	0.35	BN / WH	5884	Steering Wheel Heating Switch LED Control	I	_
3	0.35	RD / BN	10040	Battery Positive Voltage	I	_
4	0.5	BK	6050	Steering Wheel Ground	I	_
5	0.35	BK / WH	6051	Steering Wheel Ground	I	_
6	0.35	GN / BK	2858	Body Control Module LIN Bus 12	Ī	_

# K32 Heated Steering Wheel Module X2 (KI3)



4872683

#### **Connector Part Information**

Harness Type: Steering Wheel Wiring Harness

OEM Connector: 13533335

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 1.2 Series( BK)

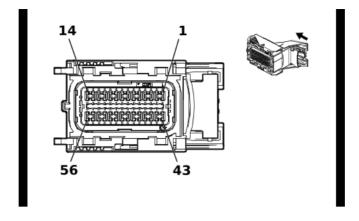
## **Terminal Part Information**

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

# K32 Heated Steering Wheel Module X2 (KI3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH / YE	5888	Steering Wheel Heating High Control	I	_
2	0.75	GY / YE	5887	Steering Wheel Heating Low Control	I	_
3	0.75	VT / BU	5886	Steering Wheel Heating Temperature Sensor Signal	I	_
4	0.75	YE / RD	5885	Steering Wheel Heating Voltage Reference	I	_

## **K36 Restraints Control Module X1**



5581812

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 160099-0019 Service Connector: 85004499

Description: 56-Way F 0.64 Series, Sealed( BK with BU Terminal Position Assurance)

## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
Ι	19354746	J-35616-64B (L-BU)	J-38125-215A	

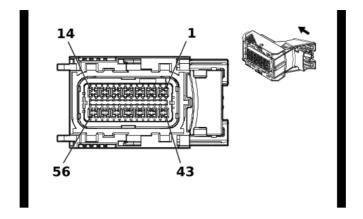
## **K36 Restraints Control Module X1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 6	_	_	_	Not Occupied	_	_
7	0.5	BK / OG	5045	Left Front Impact Discriminating Sensor Low Reference	I	_
8	0.5	OG / YE	354	Left Front Impact Discriminating Sensor Signal	I	
9	0.5	OG / GN	1409	Right Front Impact Discriminating Sensor Signal	I	_
10	0.5	BK / OG	5600	Right Front Impact Discriminating Sensor Low Reference	I	
11	0.5	WH / OG	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	
12	0.5	OG / GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	_
13	0.5	YE / OG	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	I	_
14	0.5	OG / WH	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	I	_
15 - 24	_	_	_	Not Occupied	_	_
25	0.5	VT / OG	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	
26	0.5	OG / WH	3477	Driver Seat Belt Retractor Pretensioner High Control	I	_
27	0.5	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	I	
28	0.5	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	I	
29	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	_
30	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	
31	_	_	_	Not Occupied	_	_

## **K36 Restraints Control Module X1 (cont'd)**

	K36 Restraints Control Wodule X1 (cont d)								
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option			
32	0.5	OG / BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	_			
33	0.5	GY / OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	_			
34 - 36	_	_	_	Not Occupied	_	_			
37	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	_			
38	0.5	OG / VT	3026	Passenger Instrument Panel Air Bag Stage 2 Low Control	Ţ	_			
39	0.5	GY / OG	3027	Passenger Instrument Panel Air Bag Stage 2 High Control	I	_			
40	0.35	VT / WH	5234	Passenger Seat Belt Indicator Control	I	AL0- C9I			
41	_	_	_	Not Occupied		_			
42	0.5	BK / WH	1351	Signal Ground	1	_			
43	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	_			
44	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	1	_			
45	_	_	_	Not Occupied	_	_			
46	0.5	VT / OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	1	_			
47	0.5	OG / YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	_			
48 - 49	_	_	_	Not Occupied		_			
50	0.35	BN / WH	3895	Roof Rail Air Bag Disable Switch Low Reference	I	_			
51	0.35	BU / WH	3119	Roof Rail Air Bag Disable Switch Signal	I	_			
52	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	_			
53 - 54	_		_	Not Occupied					
55	0.5	VT / WH	1139	Run/Crank Ignition 1 Voltage	I				
56	0.5	RD / GN	4440	Battery Positive Voltage	I	_			

## **K36 Restraints Control Module X2**



6154815

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 12683275 Service Connector: 86526150

Description: 56-Way F 0.64 Series, Sealed(NA)

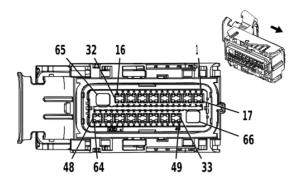
## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
Ι	19354746	J-35616-64B (L-BU)	J-38125-215A	

## **K36 Restraints Control Module X2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
12	0.5	OG / BN	238	Driver Seat Belt Switch Signal	I	_
13	0.5	BK / OG	6627	Right Rear Side Impact Sensor Low Reference	I	_
14	0.5	OG / WH	6626	Right Rear Side Impact Sensor Signal	I	_
23	0.5	BK / OG	1363	Driver Seat Belt Switch Low Reference	I	_
25	0.5	OG / VT	1362	Passenger Seat Belt Switch Signal	I	_
27	0.5	BK / OG	6628	Left Front Side Impact Sensor Low Reference	I	_
28	0.5	OG / GN	2132	Left Front Side Impact Sensor Signal	I	_
37	0.5	OG / GY	5021	Right Front Roof Rail Air Bag High Control	I	_
38	0.5	WH / OG	5022	Right Front Roof Rail Air Bag Low Control	I	_
39	0.5	BU / OG	4957	Passenger Seat Back Air Bag Low Control	I	_
40	0.5	OG / GY	4956	Passenger Seat Back Air Bag High Control	I	_
41	0.5	BK / OG	6629	Right Front Side Impact Sensor Low Reference	I	_
42	0.5	BN / OG	2134	Right Front Side Impact Sensor Signal	I	_
51	0.5	OG / GN	5019	Left Front Roof Rail Air Bag High Control	I	_
52	0.5	VT / OG	5020	Left Front Roof Rail Air Bag Low Control	I	_
53	0.5	BK / OG	4963	Driver Seat Back Air Bag Low Control	I	_
54	0.5	OG / BU	4962	Driver Seat Back Air Bag High Control	I	
55	0.5	BK / OG	6623	Left Rear Side Impact Sensor Low Reference	I	
56	0.5	OG / BU	6622	Left Rear Side Impact Sensor Signal	I	_

## **K38 Chassis Control Module**



4024881

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 34822-0023 Service Connector: 19330900

Description: 66-Way F 0.64, 2.8 Series, Sealed( BK with BK Terminal Position Assurance)

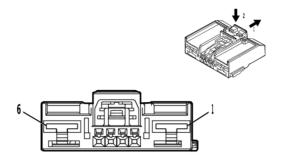
## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	13587518	J-35616-35 (VT)	J-38125-11A	
II	19351723	J-35616-64B (L-BU)	J-38125-213	

#### **K38 Chassis Control Module**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	_	_	_	Not Occupied	_	_
6	0.5	VT / BK	739	Run/Crank Ignition 1 Voltage	II	_
7 - 12	_	_	_	Not Occupied	_	_
13	0.5	YE / GN	7122	Axle Differential Lock Switch Signal	II	_
14 - 31	_	_	_	Not Occupied		_
32	0.5	VT / GY	7117	Front Axle Differential Lock Indicator Control	II	_
33	0.75	VT / WH	7256	Front Differential Lock Actuator Control	II	_
34	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	_
35	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	_
36	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	II	_
37	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	II	_
38	0.5	YE	7115	Rear Axle Differential Lock Indicator Control	II	_
39 - 43	_	_	_	Not Occupied	_	_
44	0.75	GY / BK	7253	Rear Differential Lock Actuator Low Control	II	_
45 - 49	_	_	_	Not Occupied	_	_
50	0.75	VT / BN	7258	Rear Differential Lock Actuator Control	II	_
51 - 59	_	_	_	Not Occupied	_	_
60	0.75	WH / BK	7254	Front Differential Lock Actuator Low Control	II	
61 - 64		_	_	Not Occupied		
65	1	BK	5550	Ground	I	_
66	1	RD / WH	2140	Battery Positive Voltage	I	_

## K40D Driver Seat Adjuster Memory Module X1 (A45)



4650258

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 7289-7139-30

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 0.64, 6.3 Series( BK)

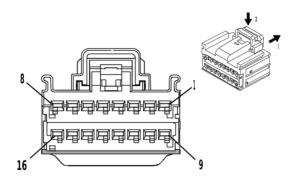
## **Terminal Part Information**

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	

## K40D Driver Seat Adjuster Memory Module X1 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	3750	Ground	I	_
2	_	_	_	Not Occupied	_	_
3	0.5	RD / VT	3340	Battery Positive Voltage	II	_
4 - 5	_	_	_	Not Occupied	_	_
6	2.5	RD / BN	3640	Battery Positive Voltage	- 1	_

## K40D Driver Seat Adjuster Memory Module X2 (A45)



4332214

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 15512506

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 1.5 OCS Series( BK)

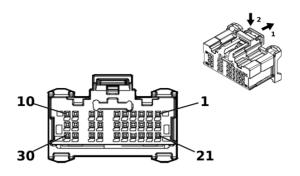
## **Terminal Part Information**

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

## K40D Driver Seat Adjuster Memory Module X2 (A45)

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	GN / YE	276	Driver Seat Recline Motor Forward Control	I	_
4 - 5	_	_	_	Not Occupied	_	_
6	1.5	BU / VT	287	Driver Seat Front Vertical Motor Down Control	I	_
7	1.5	YE	282	Driver Seat Rear Vertical Motor Up Control	I	_
8	_	_	_	Not Occupied	_	_
9	1.5	BU / YE	277	Driver Seat Recline Motor Rearward Control	I	_
10	_	_	_	Not Occupied	_	_
11	1.5	GY / GN	284	Driver Seat Horizontal Motor Rearward Control	I	_
12	_	_	_	Not Occupied	_	_
13	1.5	GY / BU	283	Driver Seat Rear Vertical Motor Down Control	I	
14 - 15	_	_	_	Not Occupied	_	
16	1.5	GN / BN	286	Driver Seat Front Vertical Motor Up Control	Ī	_

## K40D Driver Seat Adjuster Memory Module X3 (A45)



5202284

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 2309644-1

Service Connector: Service by Harness - See Part Catalog

Description: 30-Way F 0.5 MQS Series( BK)

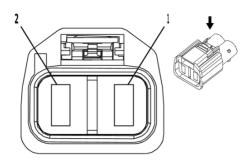
## **Terminal Part Information**

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

## K40D Driver Seat Adjuster Memory Module X3 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	_	_	_	Not Occupied	_	_
2	0.35	BU / GN	614	Seat Memory Switch Set Signal	I	_
3 - 8	_	_	_	Not Occupied	_	_
9	0.35	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	_
10	0.35	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	_
11 - 15	_	_	_	Not Occupied	_	_
16	0.35	WH	615	Seat Memory Switch Signal 1	I	_
17	_	_	_	Not Occupied	_	_
18	0.35	GN / GY	3758	Driver Seat Adjuster Memory Module LIN Bus 2	I	_
19	0.35	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	_
20	0.35	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	_
21 - 30	_	_	_	Not Occupied	_	_

# **K43 Power Steering Control Module X1**



2748050

#### **Connector Part Information**

Harness Type: Power Steering Wiring Harness

OEM Connector: 7287-1990-30

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 9.5 Series, Sealed( BK)

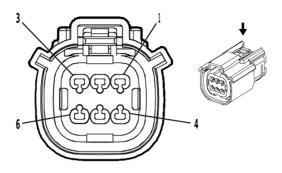
## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-22 (RD)	No Tool Required	

## **K43 Power Steering Control Module X1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	16	BK	250	Ground	_	_
2	16	RD / VT	542	Battery Positive Voltage	Ī	_

# **K43 Power Steering Control Module X2**



1986157

#### **Connector Part Information**

Harness Type: Power Steering Wiring Harness

OEM Connector: 33472-0674

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 MX Series, Sealed(BK)

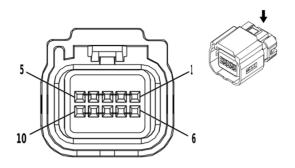
## **Terminal Part Information**

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

## **K43 Power Steering Control Module X2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	1	
2	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	_
3	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	_
4	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	_
5 - 6	_	_	_	Not Occupied	_	_

# **K43 Power Steering Control Module X3**



3608468

#### **Connector Part Information**

Harness Type: Power Steering Control Module Wiring Harness - Shaft Sensor

OEM Connector: 13587226

Service Connector: Service by Harness - See Part Catalog Description: 10-Way F 0.64 Kaizen Series, Sealed(BN)

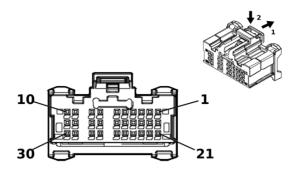
## **Terminal Part Information**

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

## **K43 Power Steering Control Module X3**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / WH	8367	Handwheel Channel A Torque Pressure Sensor 1 SENT Signal		_
2	0.5	BN / RD	8366	Handwheel Channel A High Reference		_
3	0.5	BK / GN	8370	Handwheel Channel A Low Reference	I	_
4	0.5	GY / RD	8371	Handwheel Channel B High Reference	I	_
5	0.5	GN	8372	Handwheel Channel B Torque Pressure Sensor 1 SENT Signal	I	_
6	0.5	VT	8368	Handwheel Channel A Torque Pressure Sensor 2 SENT Signal	I	_
7	0.5	WH	8369	Handwheel Channel A Angle Position Sensor SENT Signal	I	_
8	0.5	BK / GY	8375	Handwheel Channel B Low Reference	I	_
9	0.5	GN / BU	8374	Handwheel Channel B Angle Position Sensor SENT Signal	I	_
10	0.5	YE / GN	8373	Handwheel Channel B Torque Pressure Sensor 2 SENT Signal	I	_

## K56 Serial Data Gateway Module X1



5202284

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 2309644-1 Service Connector: 84766507

Description: 30-Way F 0.5 MQS Series( BK)

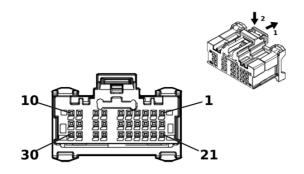
## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	

## K56 Serial Data Gateway Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / WH	6440	Battery Positive Voltage	I	_
2 - 3	_	_	_	Not Occupied	_	_
4	0.35	BK / WH	2151	Signal Ground	I	_
5	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	_
6	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	_
7	0.35	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	_
8	0.35	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	_
9 - 14	_	_	_	Not Occupied	_	_
15	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	_
16	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	_
17	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	_
18	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	_
19	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
20	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_
21 - 24	_	_	_	Not Occupied	_	_
25	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	_
26	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	_
27	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	_
28	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	_
29	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
30	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_

## K56 Serial Data Gateway Module X2



5203942

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 2309644-2 Service Connector: 84766509

Description: 30-Way F 0.5 MQS Series( BK with L-GY Front Housing)

## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	

## K56 Serial Data Gateway Module X2

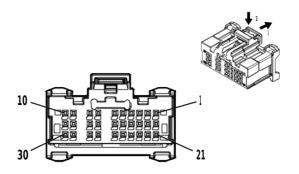
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	_	_	_	Not Occupied	_	_
3	0.35	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	I	_
4	0.35	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	ĺ	_
5	0.35	BK / GY	3559	Passive Start Switch 2 Low Reference		_
6	_	_	_	Not Occupied	_	_
7	0.35	GN / VT	5199	Run/Crank Relay Coil Control	I	_
8		_	_	Not Occupied	_	_
9	0.35	YE / WH	4973	Ethernet Bus 1R [+]	I	_
10	0.35	YE	4972	Ethernet Bus 1R [-]	I	_
11 - 12	_	_	_	Not Occupied	_	_
13	0.35	BU / BN	4983	AUTOSAR CAN Bus [+] 7 Serial Data	I	_
14	0.35	WH	4982	AUTOSAR CAN Bus [-] 7 Serial Data	I	_
15	0.35	GN / BK	3558	Passive Start Switch Signal 2	I	_
16	0.35	WH	4980	AUTOSAR CAN Bus [-] 6 Serial Data		_
17	0.35	GN	2578	Private Serial Data Presentation CAN Bus [+] 1 Serial Data	I	_
18	0.35	BN	2577	Private Serial Data Presentation CAN Bus [-] 1 Serial Data	ı	_
19	0.35	WH	7207	Ethernet Bus 1 Enable Signal	I	_
20 - 22	_	_	_	Not Occupied	_	<u> </u>
23	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_
24	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
25	_	_	_	Not Occupied	_	_

# 6-226 Electrical Component and Inline Harness Connector End Views

# K56 Serial Data Gateway Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26	0.35	YE	4981	AUTOSAR CAN Bus [+] 6 Serial Data	I	_
27	0.35	VT	2580	Private Serial Data Presentation CAN Bus [+] 2 Serial Data	_	
28	0.35	GY	2579	Private Serial Data Presentation CAN Bus [-] 2 Serial Data	Ι	_
29	0.35	GN / WH	4975	Ethernet Bus 1T [+]	I	_
30	0.35	GN	4974	Ethernet Bus 1T [-]	I	_

## K56 Serial Data Gateway Module X3



4900333

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 2309644-3 Service Connector: 13519319

Description: 30-Way F 0.5 MQS Series( BK with D-GY Front Housing)

## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	
II	Service by Cable	No Tool Required	No Tool Required	

# K56 Serial Data Gateway Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	
2	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	
3 - 4	_	_	_	Not Occupied	_	_
5	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	_
6	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	_
7	0	BU / WH	4758	Ethernet Bus 2 [+]	II	_
8	0	BU	4757	Ethernet Bus 2 [-]	II	_
9 - 24	_	_	_	Not Occupied	_	_
25	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	_
26	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	_
27 - 30	_	_	_	Not Occupied	_	

## **K61 Sunroof Control Module (CAC)**

# GRAPHIC PENDING

6153939

#### **Connector Part Information**

Harness Type: Sunroof Wiring Harness

OEM Connector: 13590453

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 1.5 OCS Series( BK)

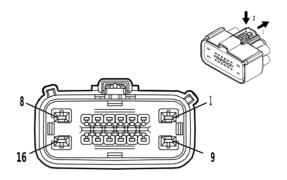
#### **Terminal Part Information**

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

## **K61 Sunroof Control Module (CAC)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.35	BU / VT	5027	Sunroof Switch Serial Data 1 Signal	I	_
4	0.35	WH / GN	3031	Sunroof Vent Switch Signal	I	_
6	0.35	GN / WH	2854	Body Control Module LIN Bus 8	I	_
8	1.5	RD / YE	2340	Battery Positive Voltage	Ī	_
10	1.5	BK	1850	Ground	I	_

## K67 Trailer Brake Control Module (JL1 & Z82)



4624589

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 34985-4016 Service Connector: 13599889

Description: 16-Way F 1.5, 2.8 MX Series, Sealed(GY)

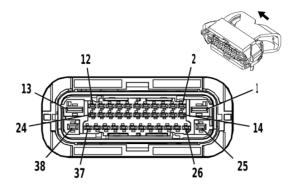
## **Terminal Part Information**

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	

## K67 Trailer Brake Control Module (JL1 & Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / VT	1242	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	П	_
6 - 7	_	_	_	Not Occupied	_	_
8	2.5	BU	47	Trailer Auxiliary Control	I	_
9	2.5	BK	5550	Ground	I	_
10 - 11	_	_	_	Not Occupied	_	_
12	0.5	GN / BU	2733	Brake System Control Module LIN Bus 2	II	_
13 - 16	_	_	_	Not Occupied	_	_

## K68 Trailer Lamp Control Module (U1D & Z82)



5141918

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 35497871 Service Connector: 86825459

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	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	

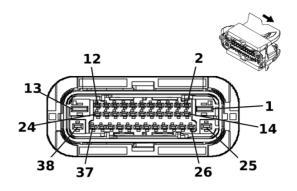
## K68 Trailer Lamp Control Module (U1D & Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / YE	5840	Battery Positive Voltage	III	_
2	0.75	YE / GY	1618	Left Rear Trailer Stop/Turn Lamp Control	II	_
3	0.75	GN / VT	1619	Right Rear Trailer Stop/Turn Lamp Control	II	_
4 - 6	_	_	_	Not Occupied	_	_
7	0.75	GN / WH	5189	Trailer Backup Lamp Control	II	_
8 - 9	_	_	_	Not Occupied	_	
10	0.5	VT / BK	739	Run/Crank Ignition 1 Voltage	II	_
11	0.5	BN / YE	820	Center High Mounted Stop Lamp Supply Voltage	II	_
12	_	_	_	Not Occupied	_	_
13	2.5	BK	5550	Ground	III	
14 - 24		_		Not Occupied		
25	1.5	GY / BN	2109	Trailer Park Lamp Control	_	
26		_		Not Occupied		
27	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	=	
28	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	=	
29	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	II	
30	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	Ш	
31	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	Ш	
32	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	II	
33 - 37	_	_		Not Occupied	_	_

# K68 Trailer Lamp Control Module (U1D & Z82) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
38	2.5	RD / VT	5640	Battery Positive Voltage	I	_

## K69 Transfer Case Control Module (NP0/NQH)



5199340

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 35497867 Service Connector: 86825458

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	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	

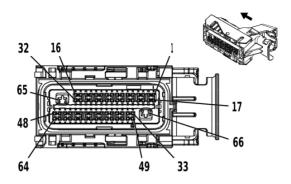
## K69 Transfer Case Control Module (NP0/NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	RD / WH	2242	Battery Positive Voltage	III	_
2	_	_	_	Not Occupied	_	_
3	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	_
4	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	_
5	0.5	WH / GN	7479	Rotary Position Sensor Signal	II	_
6	_	_	_	Not Occupied	_	_
7	0.5	YE	7474	Incremental Encoder Direction Signal	II	_
8	_	_	_	Not Occupied	_	_
9	0.5	YE / WH	1695	4WD Locked Range Indicator Control	II	_
10	_	_	_	Not Occupied	_	
11	0.5	VT / GY	8017	Secondary Axle Motor Relay Control	II	
12	0.5	GY / BK	1570	Front Axle Actuator Control	II	
13	2.5	YE / VT	1553	Transfer Case Motor Counter Clockwise Control	III	
14	_	_	-	Not Occupied	_	
15	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	
16	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	
17	_	_	_	Not Occupied	_	
18	0.5	VT / BK	2139	Run/Crank Ignition 1 Voltage	II	_
19	0.5	BU / GY	7473	Incremental Encoder Impulse Signal	II	
20	0.5	WH / RD	7477	Gear Position Sensor 5V Reference	II	

# K69 Transfer Case Control Module (NP0/NQH) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21 - 23	_	_	_	Not Occupied	_	_
24	0.5	BK	8015	Transfer Case Motor Low Reference	11	_
25	2.5	BK	450	Ground	I	_
26	_	_	_	Not Occupied	_	_
27	0.5	BK	8014	Transfer Case Lock Solenoid Low Reference	11	_
28 - 29	_	_	_	Not Occupied	_	_
30	0.5	YE / BK	7478	Gear Position Sensor Low Reference	11	_
31	0.5	WH / GN	7475	Incremental Encoder Sensor 8V Reference	11	_
32	_	_	_	Not Occupied		_
33	0.75	BU	8013	Transfer Case Lock Solenoid Control 2	II	_
34	0.75	YE / BN	1569	Transfer Case Lock Solenoid Valve Control	11	_
35	_	_	_	Not Occupied	_	_
36	0.5	VT	7476	Incremental Encoder Sensor Low Reference	II	_
37	_	_	_	Not Occupied	_	_
38	2.5	YE / GY	1552	Transfer Case Motor Clockwise Control	I	_

## **K71 Transmission Control Module**



3621452

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34822-0013 Service Connector: 19329822

Description: 66-Way F 0.64, 2.8 Series, Sealed( BK with BK Terminal Position Assurance)

## **Terminal Part Information**

Terminal Type ID Terminated Lead		Diagnostic Test Probe	Terminal Removal Tool	
I	13587518	J-35616-35 (VT)	J-38125-11A	
II	19351723	J-35616-64B (L-BU)	J-38125-213	

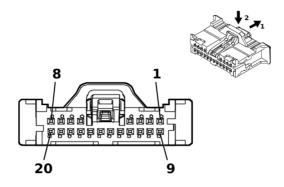
## **K71 Transmission Control Module**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BU	4507	Transmission Clutch H Control	Ш	_
2	0.5	BU	6401	Clutch Solenoid Valve B Control	II	_
3	0.5	GN / WH	1530	Transmission Line Pressure Control Solenoid Valve Control	II	_
4	_	_	_	Not Occupied	_	_
5	0.5	GY / RD	10817	Lubricant Circuit Pressure Sensor 5 Volt Reference	II	_
6	_	_	_	Not Occupied	_	_
7	0.5	YE / GN	4170	Transmission Output Shaft Speed Sensor Circuit 9V Reference	=	_
8	0.5	YE / BU	4171	Transmission Input Shaft Speed Sensor Circuit 9V Reference	=	_
9 - 10	_	_	_	Not Occupied		_
11	0.5	BU / BK	10819	Lubricant Circuit Pressure Sensor Low Reference		_
12	_	_	_	Not Occupied	_	_
13	0.5	GN / VT	4510	Transmission Intermediate Speed Signal	II	_
14	0.5	GY / BU	6358	Output Speed Signal	II	_
15	0.5	GN / YE	6353	Input Speed Signal		_
16		_	_	Not Occupied		_
17	0.5	WH	4508	Transmission Clutch G Control	II	_
18	0.5	BN	6400	Clutch Solenoid Valve A Control	II	_
19	0.5	GY	6402	Clutch Solenoid Valve C Control	II	_

# K71 Transmission Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.5	VT / WH	422	Torque Converter Clutch Solenoid Valve Control	II	_
21	0.5	GN / WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	II	_
22	0.5	YE / BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	II	_
23	_	_	_	Not Occupied	_	_
24	0.5	GN / WH	2968	Transmission Auxiliary Fluid Pump Control	II	_
25 - 27	_	_	_	Not Occupied	_	_
28	0.5	BK / BN	586	Transmission Fluid Temperature Sensor Low Reference	II	
29 - 32	_	_	_	Not Occupied	_	_
33	0.75	GN / GY	6387	Transmission High Side Driver 1 Control	II	_
34	_	_	_	Not Occupied	_	_
35	0.5	VT / BK	2139	Run/Crank Ignition 1 Voltage	II	_
36	_	_	_	Not Occupied	_	_
37	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	_
38	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	_
39 - 44	_	_	_	Not Occupied	_	_
45	0.5	GN / YE	10816	Lubricant Circuit Pressure Sensor Signal	II	_
46 - 48	_	_	_	Not Occupied	_	_
49	0.75	GY / BN	6388	Transmission High Side Driver 2 Control	II	_
50 - 52	_	_	_	Not Occupied	_	_
53	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	_
54	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	_
55 - 62	_	_	_	Not Occupied	_	_
63	0.5	BN / WH	585	Transmission Fluid Temperature Sensor Signal	II	_
64	0.5	BU / WH	3338	Transmission Internal Mode Switch Mode Control X	II	_
65	1.5	BK / WH	6251	Transmission Control Module Ground	I	
66	0.75	RD / GN	1840	Battery Positive Voltage	I	

## **K73 Telematic Control Module X1 (UE1)**



5200955

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 35068196 Service Connector: 84769280

Description: 20-Way F Mini 50 Series( BK)

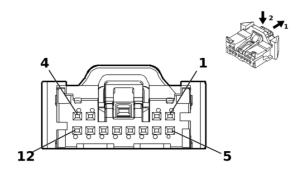
## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84944580	EL-35616-58 (BK)	EL-38125-58

# **K73 Telematic Control Module X1 (UE1)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / BU	3240	Battery Positive Voltage	I	_
2	_		_	Not Occupied	_	_
3	0.35	GN / BK	2515	Telematics Switch Supply Voltage	l	_
4	0.35	GN / WH	2514	Telematics Switch Signal	l	_
5	0.35	YE / VT	2516	Telematics Switch Green LED Indicator Control	I	_
6	0.35	BN / WH	2517	Telematics Switch Red LED Indicator Control	I	_
7	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_
8	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
9	0.35	BK / WH	451	Signal Ground	ĺ	_
10 - 18	_	_	_	Not Occupied	_	_
19	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_
20	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_

# K73 Telematic Control Module X2 (UE1)



5360826

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 35068239 Service Connector: 13529935

Description: 12-Way F 050 CTS Series( BK)

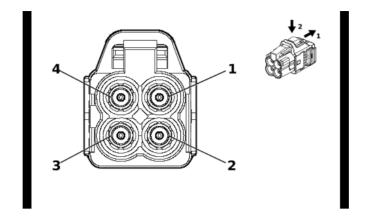
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	84944580	EL-35616-58 (BK)	EL-38125-58	

# K73 Telematic Control Module X2 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5			_	Not Occupied	_	_
6	0.35	GY / YE	5149	Voice Recognition Audio Signal	I	_
7	0.35	BK / GY	5152	Voice Recognition Audio [-] Control	I	_
8	0.35	BU	655	Cellular Telephone Microphone Signal	I	_
9	0.35	BK / BN	654	Cellular Telephone Microphone Low Reference	I	_
10	0.35	Bare	1792	Low Reference	I	
11 - 12		_	_	Not Occupied	_	_

## K73 Telematic Control Module X3 (UE1)



5835118

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13544819

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 4-Way F Mini Coax Type( BK)

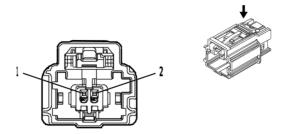
### **Terminal Part Information**

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

# K73 Telematic Control Module X3 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble	_	(GPS/Cell) Coaxial Antenna Cell/GPS combined Signal	I	_

# **K73 Telematic Control Module X7 (UE1)**



4942391

#### **Connector Part Information**

Harness Type: Body Wiring Harness CAT5

OEM Connector: 35122188

Service Connector: Service by Cable Assembly — See Part Catalog Description: 2-Way F 050 CTS Ethernet Series, Sealed( BK)

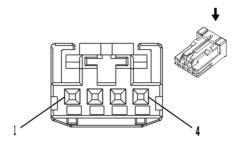
### **Terminal Part Information**

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

## **K73 Telematic Control Module X7 (UE1)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	CAT5	_	Ethernet Bus		_

### **K77 Remote Function Actuator Module**



2717162

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 1-936119-1 Service Connector: 19367524

Description: 4-Way F 0.64 Micro-Quadlock Series( BK)

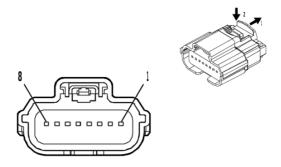
### **Terminal Part Information**

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

### **K77 Remote Function Actuator Module**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / VT	1640	Battery Positive Voltage		_
2	0.35	GN / YE	2862	Body Control Module LIN Bus 16	1	_
3	_	_	_	Not Occupied	_	_
4	0.35	BK / WH	451	Signal Ground	Ι	_

## **K85P Restraints Occupant Classification System Module - Passenger**



4708234

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 31404-9110

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 64 Series, Sealed( BK)

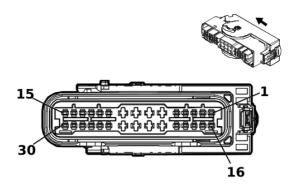
### **Terminal Part Information**

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

## K85P Restraints Occupant Classification System Module - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / GN	4440	Battery Positive Voltage	I	_
2	0.5	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	_
3	0.5	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	
4	0.5	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	_
5	0.5	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	_
6	0.5	BK / WH	1351	Signal Ground		
7	0.5	OG / BN	3947	Passenger Automatic Locking Retractor Switch Signal	I	
8	0.5	GY / OG	3946	Passenger Automatic Locking Retractor Switch Low Reference	I	_

## **K111 Fuel Pump Power Control Module**



3240109

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 7-2109446-2 Service Connector: 85140064

Description: 30-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	19329958	J-35616-2A (GY)	J-38125-11A	
II	19371214	J-35616-4A (PU)	J-38125-215A	

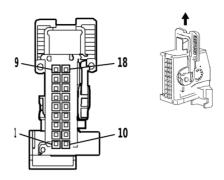
## **K111 Fuel Pump Power Control Module**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 6	_	_	_	Not Occupied	_	_
7	2.5	RD / VT	1940	Battery Positive Voltage	II	_
8	2.5	GY	120	Fuel Pump Control	II	_
9	2.5	YE / GY	4137	Fuel Pump Supply Voltage Phase 2	II	_
10	0.5	YE / RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	_
11	0.5	BU / WH	890	Fuel Tank Pressure Sensor Signal	I	_
12	0.5	BN / RD	7445	Fuel Line Pressure Sensor 5V Reference	I	_
13	0.5	BU / GN	1936	Primary Fuel Level Sensor Signal	I	_
14	_	_	_	Not Occupied	_	_
15	0.5	BU / GY	4054	Private Serial Data Powertrain CAN Bus [-] Serial Data	I	_
16	0.5	VT / GN	4320	Powertrain Sensor Bus Enable	I	_
17	_	_	_	Not Occupied	_	_
18	0.5	GN / GY	465	Fuel Pump Primary Relay Control	I	_
19 - 20	_	_	_	Not Occupied	_	_
21	0.5	WH	1310	EVAP Vent Solenoid Valve Control	II	_
22	2.5	BK	750	Ground	II	_
23	0.5	BU	7444	Fuel Pump Assembly Shield Ground	II	
24	2.5	WH / BN	4138	Fuel Pump Supply Voltage Phase 3	II	
25	0.5	BK / BN	6284	Fuel Tank Pressure Sensor Low Reference	I	_
26	0.5	BU / WH	7446	Fuel Pressure Sensor Signal	I	_

# K111 Fuel Pump Power Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
27	0.5	BK / YE	7447	Fuel Pressure Sensor Low Reference	I	_
28	0.5	BK / GN	6281	Fuel Level Sensor Low Reference	I	_
29	_		_	Not Occupied	_	_
30	0.5	WH	4055	Private Serial Data Powertrain CAN Bus [+] Serial Data	I	_

# K157 Video Processing Module X1 (UV2/UXA-UVB)



1567082

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 1379102-1 Service Connector: 84976200

Description: 18-Way F Micro-Quadlock Series( BK)

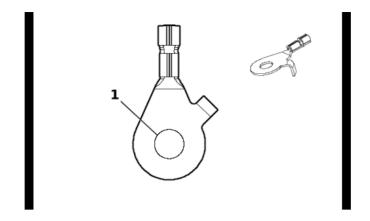
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19300632	J-35616-64B (L-BU)	J-38125-215A	

## K157 Video Processing Module X1 (UV2/UXA-UVB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	_	_	_	Not Occupied	_	_
3	0.5	BK / WH	451	Signal Ground	I	_
4 - 9	_	_	_	Not Occupied	_	_
10	0.5	RD / VT	1640	Battery Positive Voltage	I	_
11 - 12	_	_	_	Not Occupied	_	_
13	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	_
14	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	_
15	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	_
16	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	Ī	_
17 - 18	_	_	_	Not Occupied —		_

# K157 Video Processing Module X2 (UV2/UXA-UVB)



6154799

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 84172962

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way Ring Terminal

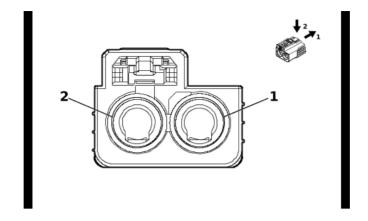
### **Terminal Part Information**

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

## K157 Video Processing Module X2 (UV2/UXA-UVB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble	_	Video Processing Module Coaxial Video Signal	I	_

# K157 Video Processing Module X3 (UV2/UXA-UVB)



5810827

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516078

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way F Coax Type(GN)

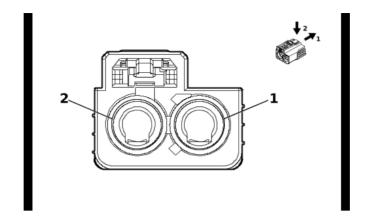
### **Terminal Part Information**

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

## K157 Video Processing Module X3 (UV2/UXA-UVB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble		Video Processing Module Coaxial Video Signal	_	_

# K157 Video Processing Module X4 (UXA)



5810832

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 13516079

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way F Coax Type(BN)

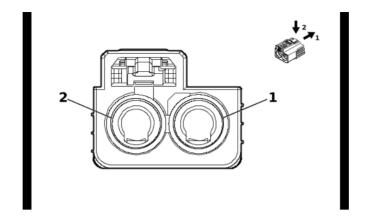
### **Terminal Part Information**

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

## K157 Video Processing Module X4 (UXA)

				<u> </u>		
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	-	LVDS	_	(PDR) Front Vision Camera #2	I	_

# K157 Video Processing Module X5 (UV2 - (UVB & UXA))



5810827

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516078

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way F Coax Type(GN)

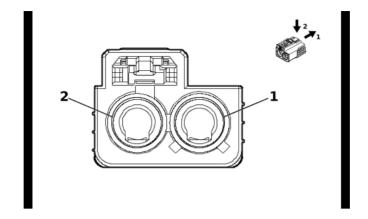
### **Terminal Part Information**

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

## K157 Video Processing Module X5 (UV2 - (UVB & UXA))

F	Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
	_		Coax Ca- ble		Video Processing Module Coaxial Video Signal	I	_

# K157 Video Processing Module X5 (UXA)



5810835

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 13516083

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way F Coax Type(CU)

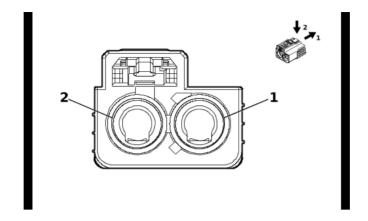
### **Terminal Part Information**

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

## K157 Video Processing Module X5 (UXA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	LVDS	_	(PDR) Front Vision Camera #2	I	_

## K157 Video Processing Module X6 (UXA)



5810832

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516079

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way F Coax Type(BN)

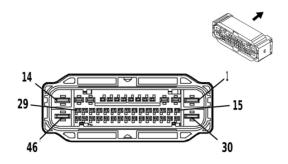
### **Terminal Part Information**

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

# K157 Video Processing Module X6 (UXA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble		Video Processing Module Coaxial Video Signal		

# **K160 Brake System Control Module**



4162046

#### **Connector Part Information**

Harness Type: Body 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

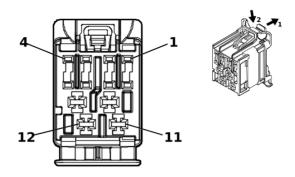
### K160 Brake System Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	6	BK	150	Ground	III	_
2	2.5	WH	2001	Left Park Brake Motor Apply Control	I	_
3	2.5	GY / BK	4369	Left Park Brake Motor Low Reference	I	_
4	0.5	GY / WH	7064	Left Front Wheel Speed Sensor Control	II	_
5	0.5	GY	830	Left Front Wheel Speed Sensor Signal	II	_
6 - 8	_	_	_	Not Occupied	_	_
9	0.5	VT / WH	639	Run/Crank Ignition 1 Voltage	II	_
10	0.5	GY / BN	7065	Right Front Wheel Speed Sensor Control	П	_
11	0.5	YE	872	Right Front Wheel Speed Sensor Signal	II	_
12	2.5	GN / VT	1988	Right Park Brake Motor Apply Control	I	_
13	2.5	GY	4368	Right Park Brake Motor Low Reference	I	_
14	6	RD / BN	440	Battery Positive Voltage	III	_
15	0.5	GY / BK	7127	Left Rear Wheel Speed Sensor Control	П	_
16	0.5	BU	884	Left Rear Wheel Speed Sensor Signal	II	_
17	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	_
18	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	II	_
19	0.5	YE / BK	2224	Trailer Brake Enable Signal	II	_
20	0.5	WH / BK	2223	Trailer Brake Apply Signal	II	
21 - 22	_	_	_	Not Occupied	_	_
23	0.35	GN / YE	2731	Brake System Control Module LIN Bus 1	II	

# 6-252 Electrical Component and Inline Harness Connector End Views

## K160 Brake System Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	_	_	_	Not Occupied	_	_
25	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	_
26	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	_
27	0.5	GN / YE	1616	Rear Brake Pad Wear Sensor Signal	II	_
28	0.5	GY / YE	7128	Right Rear Wheel Speed Sensor Control	II	_
29	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	II	_
30	6	BK	3550	Ground	III	_
31	0.5	GN / GY	333	Brake Fluid Level Signal	II	_
32	_	_	_	Not Occupied	_	_
33	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	_
34	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	II	_
35	0.5	BN / BU	1602	Front Brake Pad Wear Sensor Signal	II	_
36	0.5	GN / BU	2733	Brake System Control Module LIN Bus 2	II	_
37 - 40	_	_	_	Not Occupied	_	_
41	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	_
42	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	_
43 - 45		_		Not Occupied		
46	6	RD / WH	342	Battery Positive Voltage	III	_



5203784

#### **Connector Part Information**

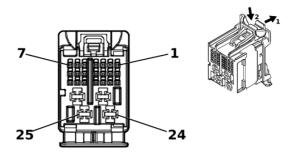
Harness Type: Body Wiring Harness OEM Connector: 160026-0003 Service Connector: 13509990

Description: 12-Way F 1.2, 2.8 stAK50h Series( L-PU)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	84729890	J-35616-12 (BU)	J-38125-215A		
II	87814662	J-35616-4A (PU)	J-38125-557		

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / YE	1204	Left Park Lamp Control 2	I	T4A
'	0.5	GY / BU	7538	Left Front DRL Control	I	T7E
2 - 4		_	_	Not Occupied	_	_
5	0.5	BU / WH	1314	Left Front Turn Signal Lamp Control	I	
6	0.5	GN / WH	24	Backup Lamp Control	I	
7		_	_	Not Occupied	_	
8	0.5	WH / VT	1430	Exterior Courtesy Lamp Control	I	_
9	1.5	RD / GY	1740	Battery Positive Voltage	II	_
10	0.75	YE	712	Left Headlamp Low Beam Control	II	_
11		_	_	Not Occupied	_	_
12	0.75	WH	711	Left Headlamp High Beam Control	II	_



5203807

#### **Connector Part Information**

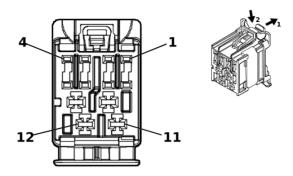
Harness Type: Body Wiring Harness OEM Connector: 160027-0012 Service Connector: 13534966

Description: 25-Way F 0.5 MQS, 2.8 MCP Series( GY with GY Inner Connector)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	
II	87814662	J-35616-4A (PU)	J-38125-557	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / YE	1254	Left Front Park Lamp Control	I	_
2	0.35	BU / GN	1253	Right Front Park Lamp Control	I	_
3	0.35	BN / GY	2268	Windshield Washer Relay Control	I	_
4	0.35	BU / BN	38	Backup Lamp Relay Control	I	_
5 - 9	_	_	_	Not Occupied	_	_
10	0.35	BN / GN	196	Windshield Wiper Motor Park Switch Signal	I	_
11	_	_	_	Not Occupied	_	_
12	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	I	_
13	_	_	_	Not Occupied	_	_
14	0.35	VT	185	Low Washer Fluid Indicator Control	I	_
15 - 18	_	_	_	Not Occupied	_	_
19	0.35	WH / BN	7055	Auxiliary Park Lamp Relay Control	I	_
20	_	_	_	Not Occupied	_	_
21	0.35	WH / VT	860	Windshield Wiper Switch High Signal	I	_
22	1.5	RD / GN	1540	Battery Positive Voltage	II	
23	1	RD / VT	1640	Battery Positive Voltage	II	
24 - 25	_	_	_	Not Occupied	_	_



5203797

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 160026-0002 Service Connector: 13509989

Description: 12-Way F 1.2, 2.8 stAK50h Series(GN)

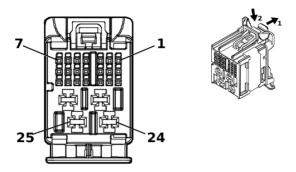
### **Terminal Part Information**

Terminal Type ID Terminated Lead		Diagnostic Test Probe	Terminal Removal Tool		
I	84729890	J-35616-12 (BU)	J-38125-215A		
II	87814662	J-35616-4A (PU)	J-38125-557		

	142 to 21gming control module /to								
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option			
1 - 3	_	_	_	Not Occupied	_	_			
4	0.5	VT	1203	Right Park Lamp Control 2	I	T4A			
7	0.5	BU / BN	7539	Right Front DRL Control	I	T7E			
5	_	ı		Not Occupied	_				
6	0.5	GN / VT	1315	Right Front Turn Signal Lamp Control	I	_			
7	0.5	BN / GY	5061	Left Front Fog Lamp Control	I	_			
8	_	_	_	Not Occupied	_	_			
9	1.5	RD / BN	1440	Battery Positive Voltage	П	_			
10	1.5	RD / WH	1340	Battery Positive Voltage	II	_			
11	0.75	WH	311	Right Headlamp High Beam Control	II	_			
12	1	YE	312	Right Headlamp Low Beam Control	II	_			

### 6-256

## **K219 Lighting Control Module X4**



5203416

#### **Connector Part Information**

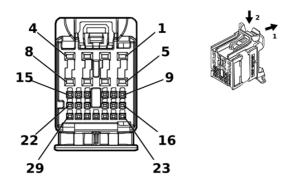
Harness Type: Body Wiring Harness OEM Connector: 160027-0015 Service Connector: 13534969

Description: 25-Way F 0.5 MQS, 2.8 MCP Series( PU with GY Inner Connector)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead Diagnostic Test Probe		Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	
II	87814662	J-35616-4A (PU)	J-38125-557	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	_	_	_	Not Occupied	_	_
3	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	_
4	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	_
5	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	_
6	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	_
7	0.35	WH / BU	6311	Cruise/ETC/TCC Brake Signal	I	_
8 - 9	_	_	_	Not Occupied	_	_
10	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	_
11	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	_
12 - 21		_	_	Not Occupied	_	_
22	1	RD / BN	1140	Battery Positive Voltage	II	_
23	1.5	BK / WH	451	Signal Ground	II	_
24	1	RD / BU	1240	Battery Positive Voltage	II	_
25	1.5	BK / WH	451	Signal Ground	П	_



5203373

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 160029-0013 Service Connector: 13534975

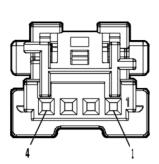
Description: 29-Way F 0.5 NANO, 1.2 MCON, stAK50h Series( BU with GY Inner Connector)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19370262	EL-35616-58 (BK)	EL-38125-58	
II	84729890	J-35616-12 (BU)	J-38125-215A	

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	_	_	_	Not Occupied	_	_
2	0.5	BN / GY	6995	Right Rear Park Lamp Control	II	_
3	0.5	GY / YE	7542	Left Rear Stop Lamp Control	II	_
4	0.5	BU / VT	1335	Right Rear Turn Signal Lamp Control 2	II	_
5	_	_	_	Not Occupied	_	_
6	0.5	BN / BU	6993	Left Rear Park Lamp Control	II	_
7	0.5	WH / YE	7541	Right Rear Stop Lamp Control	II	_
8	0.5	BU / WH	1334	Left Rear Turn Signal Lamp Control 2	II	_
9	_	_	_	Not Occupied	_	_
10	0.35	GN / WH	2270	Rear Window Washer Relay Control	I	_
11	0.35	GY	1715	Windshield Wiper Switch High Signal	I	_
13	0.35	GN / BN	319	Right Rear Trailer Stop/Turn Lamp Control	I	_
14 - 17	_	_	_	Not Occupied	_	_
18	0.35	VT / WH	1139	Run/Crank Ignition 1 Voltage	I	_
20 - 24	_	_	_	Not Occupied	_	_
25	0.35	BN / YE	820	Center High Mounted Stop Lamp Supply Voltage	I	_
26 - 27	_	_	_	Not Occupied	_	_
28	0.35	GN / YE	6846	Rear License Plate Lamp Control	I	_
29	0.35	YE / BU	318	Left Rear Trailer Stop/Turn Lamp Control	I	_

# **M4P Programmable Air Inlet Valve Actuator**





4997407

#### **Connector Part Information**

Harness Type: Air Conditioning Wiring Harness

OEM Connector: 2294218-1

Service Connector: Service by Harness - See Part Catalog Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

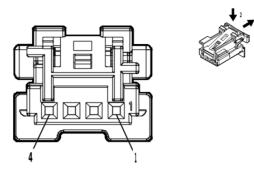
### **Terminal Part Information**

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

## **M4P Programmable Air Inlet Valve Actuator**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	2050	Ground		_
2	0.35	GN / VT	2852	Body Control Module LIN Bus 6	I	_
3	0.35	BK	2050	Ground	I	_
4	0.35	WH / YE	4634	HVAC Remote Enable Signal	I	_

## M6PL Programmable Temperature Valve Actuator - Left



4997407

#### **Connector Part Information**

Harness Type: Air Conditioning Wiring Harness

OEM Connector: 2294218-1

Service Connector: Service by Harness - See Part Catalog Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

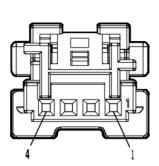
### **Terminal Part Information**

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

## M6PL Programmable Temperature Valve Actuator - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	2050	Ground		_
2	0.35	GN / VT	2852	Body Control Module LIN Bus 6	I	_
3	0.35	BK	2050	Ground	I	_
4	0.35	WH / YE	4634	HVAC Remote Enable Signal	I	_

# M6PR Programmable Temperature Valve Actuator - Right (CJ2)





4997407

#### **Connector Part Information**

Harness Type: Air Conditioning Wiring Harness

OEM Connector: 2294218-1

Service Connector: Service by Harness - See Part Catalog Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

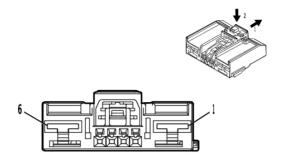
### **Terminal Part Information**

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

## M6PR Programmable Temperature Valve Actuator - Right (CJ2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	2050	Ground		_
2	0.35	GN / VT	2852	Body Control Module LIN Bus 6	I	_
3	_	_	_	Not Occupied	_	_
4	0.35	WH / YE	4634	HVAC Remote Enable Signal	I	_

### **M8 Blower Motor**



4650258

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 7289-7139-30 Service Connector: 19356432

Description: 6-Way F 0.64, 6.3 Series(BK)

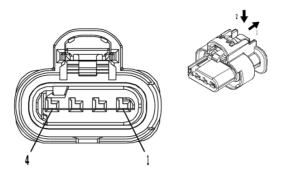
### **Terminal Part Information**

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	5	RD / WH	2040	Battery Positive Voltage	l	_
2	0.35	BU / GY	754	Blower Motor Speed Control	П	_
3	0.35	GN / BU	761	Blower Speed Feedback Signal	П	_
4 - 5	_		_	Not Occupied	_	_
6	2.5	BK	4250	Ground	I	_

## **M26 Front Drive Axle Actuator (NP0/NQH)**



4210809

#### **Connector Part Information**

Harness Type: Power Steering Wiring Harness

OEM Connector: 1-2296696-1

Service Connector: Service by Harness - See Part Catalog Description: 4-Way F 1.2 MCON-CB Series, Sealed( BK)

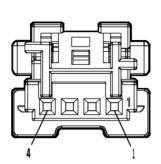
### **Terminal Part Information**

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

## M26 Front Drive Axle Actuator (NP0/NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	8016	Secondary Axle Motor Control	1	_
2	0.5	GY / BK	1570	Front Axle Actuator Control	I	_
3	0.5	YE / WH	1695	4WD Locked Range Indicator Control	1	_
4	0.5	BK	2250	Ground		_

## **M37P Programmable Mode Valve Actuator**





4997407

#### **Connector Part Information**

Harness Type: Air Conditioning Wiring Harness

OEM Connector: 2294218-1

Service Connector: Service by Harness - See Part Catalog Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

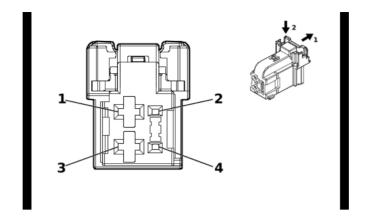
### **Terminal Part Information**

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

## **M37P Programmable Mode Valve Actuator**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	2050	Ground		_
2	0.35	GN / VT	2852	Body Control Module LIN Bus 6	I	_
3	_	_	_	Not Occupied	_	_
4	0.35	WH / YE	4634	HVAC Remote Enable Signal	I	_

## M50D Front Seat Tilt Adjuster Actuator - Driver (A45/A2X)



5410027

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 2316171-1

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64, 2.8 Series(BK)

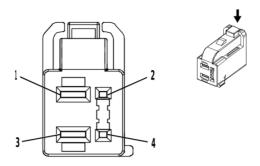
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
Ι	Not required	J-35616-35 (VT)	No Tool Required	

## M50D Front Seat Tilt Adjuster Actuator - Driver (A45/A2X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU / VT	287	Driver Seat Front Vertical Motor Down Control	1	_
2			_	Not Occupied	_	_
3	1.5	GN / BN	286	Driver Seat Front Vertical Motor Up Control	I	_
4	_	_	_	Not Occupied	_	_

# M51D Front Seat Adjuster Actuator - Driver (A45/A2X)



3683652

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 13583828

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64, 2.8 Series(BK)

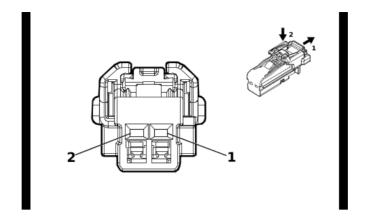
### **Terminal Part Information**

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

## M51D Front Seat Adjuster Actuator - Driver (A45/A2X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY / GN	284	Driver Seat Horizontal Motor Rearward Control	_	_
2		_	_	Not Occupied		_
3	1.5	YE / BU	285	Driver Seat Horizontal Motor Forward Control	I	_
4	_	_	_	Not Occupied	_	_

## M53D Front Seat Back Lumbar Motor - Driver (AL9)



4115691

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 6098-8988

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 MCON Series(BK)

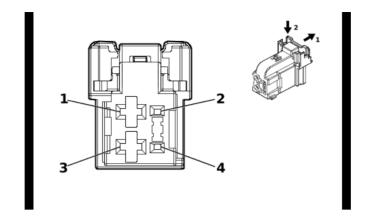
### **Terminal Part Information**

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

# M53D Front Seat Back Lumbar Motor - Driver (AL9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	611	Driver Seat Lumbar Support Motor Forward Control	Ι	_
2	0.75	VT	610	Driver Seat Lumbar Support Motor Backward Control	I	_

## M55D Front Seat Vertical Adjuster Actuator - Driver



5410027

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 2316171-1

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64, 2.8 Series(BK)

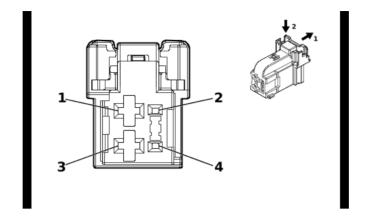
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
1	Not required	J-35616-35 (VT)	No Tool Required	

## M55D Front Seat Vertical Adjuster Actuator - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY / BU	283	Driver Seat Rear Vertical Motor Down Control	1	_
2	_		_	Not Occupied	_	_
3	1.5	YE	282	Driver Seat Rear Vertical Motor Up Control	I	_
4	_	_	_	Not Occupied	_	_

## M56D Front Seat Recliner Actuator - Driver (A45/A2X)



5410027

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 2316171-1

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64, 2.8 Series(BK)

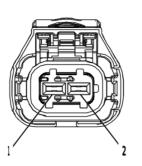
### **Terminal Part Information**

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

## M56D Front Seat Recliner Actuator - Driver (A45/A2X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN / YE	276	Driver Seat Recline Motor Forward Control	_	_
2			_	Not Occupied		_
3	1.5	BU / YE	277	Driver Seat Recline Motor Rearward Control	I	_
4				Not Occupied		_

### M64 Starter X1





2577394

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1928405714 Service Connector: 13384371

Description: 2-Way F 2.8 Series, Sealed(BK)

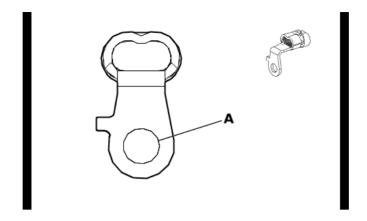
### **Terminal Part Information**

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

### M64 Starter X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	_	_
2	2.5	YE / GN	4358	Starter Pinion Solenoid Voltage	I	_

## M64 Starter X2



5524606

### **Connector Part Information**

Harness Type: Battery Negative Cable

OEM Connector: 1133401

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way Ring Terminal

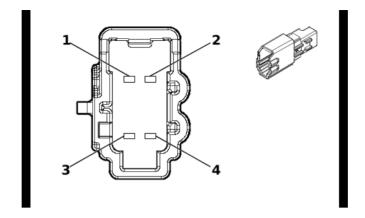
### **Terminal Part Information**

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

### M64 Starter X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	35	RD / YE	2	Battery Positive Voltage	_	

# M73A Front Seat Back Ventilation Blower - Driver (KU9)



5423974

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 6098-9049

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 MCON Series (GY)

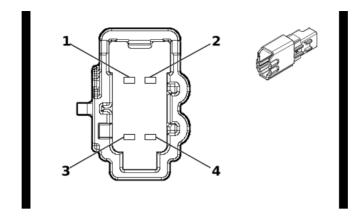
### **Terminal Part Information**

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

## M73A Front Seat Back Ventilation Blower - Driver (KU9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	839	Run/Crank Ignition 1 Voltage	1	_
2	0.5	GN / VT	5906	Driver Seat Blower Motor Control 1	I	_
3	0.5	BK	3750	Ground	I	_
4	_	_	_	Not Occupied	_	_

## M73B Front Seat Back Ventilation Blower - Passenger (KU9)



5423974

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 6098-9049

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 MCON Series (GY)

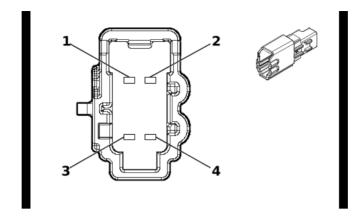
### **Terminal Part Information**

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

## M73B Front Seat Back Ventilation Blower - Passenger (KU9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	839	Run/Crank Ignition 1 Voltage	1	_
2	0.5	VT / WH	5908	Passenger Seat Blower Motor Control 1	I	_
3	0.5	BK	4250	Ground	I	_
4	_	_	_	Not Occupied	_	_

# M73D Front Seat Cushion Ventilation Blower - Driver (KU9)



5423974

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 6098-9049

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 MCON Series (GY)

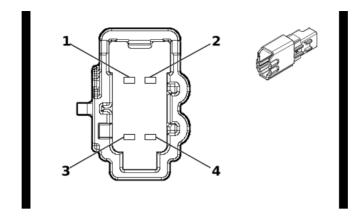
### **Terminal Part Information**

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

## M73D Front Seat Cushion Ventilation Blower - Driver (KU9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	839	Run/Crank Ignition 1 Voltage	1	_
2	0.5	GN / VT	5906	Driver Seat Blower Motor Control 1	I	_
3	0.5	BK	3750	Ground	I	_
4	_	_	_	Not Occupied	_	_

## M73P Front Seat Cushion Ventilation Blower - Passenger (KU9)



5423974

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 6098-9049

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 MCON Series (GY)

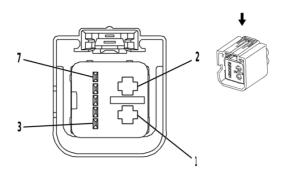
### **Terminal Part Information**

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

## M73P Front Seat Cushion Ventilation Blower - Passenger (KU9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	839	Run/Crank Ignition 1 Voltage	1	_
2	0.5	VT / WH	5908	Passenger Seat Blower Motor Control 1	I	_
3	0.5	BK	4250	Ground	I	_
4	_	_	_	Not Occupied	_	_

## M74D Front Side Door Window Regulator Motor - Driver (AXG)



2282932

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 1-1732115-1

Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed( GY)

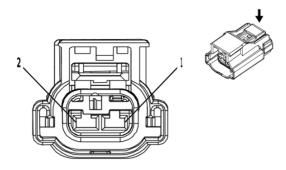
### **Terminal Part Information**

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 Front Side Door Window Regulator Motor - Driver (AXG)

					,	
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1150	Ground	I	_
2	2.5	RD / GY	3540	Battery Positive Voltage	ĺ	_
3	0.35	GY / GN	2763	Window Switch Left Front Up Signal	II	_
4	0.35	GN / YE	6134	Body Control Module LIN Bus 3	П	_
5	0.35	GN	2766	Power Window Switch Left Front Express Signal	II	_
6	0.35	GY	745	Left Front Door Ajar Switch Signal	II	_
7	0.35	WH / BN	2764	Window Switch Left Front Down Signal	II	_

## M74D Front Side Door Window Regulator Motor - Driver (AEC)



2716333

#### **Connector Part Information**

Harness Type: Front Side Door Wiring Harness - Driver

OEM Connector: 13579062

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 2.8 Series, Sealed(BK)

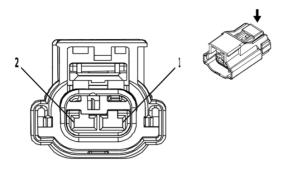
### **Terminal Part Information**

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

## M74D Front Side Door Window Regulator Motor - Driver (AEC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.0	GN / GY	164	Left Front Window Motor Up Control	_	_
2	2.0	YE / VT	165	Left Front Window Motor Down Control	Ī	_

## M74LR Rear Side Door Window Regulator Motor - Left



2716333

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Left

OEM Connector: 54200220N

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 2.8 Series, Sealed(BK)

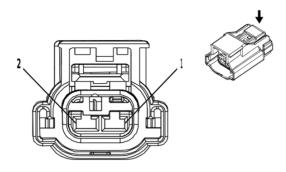
### **Terminal Part Information**

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

## M74LR Rear Side Door Window Regulator Motor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BU / VT	668	Left Rear Window Motor Up Control	_	_
2	2	YE / BU	669	Left Rear Window Motor Down Control	Ī	_

## M74P Front Side Door Window Regulator Motor - Passenger



2716333

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 54200220N

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 2.8 Series, Sealed( BK)

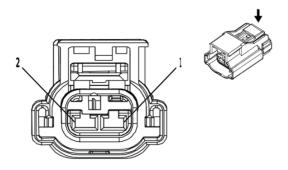
### **Terminal Part Information**

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

# M74P Front Side Door Window Regulator Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	GN / GY	666	Right Front Window Motor Up Control	I	_
2	2	YE / BU	667	Right Front Window Motor Down Control	I	_

## M74RR Rear Side Door Window Regulator Motor - Right



2716333

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Right

OEM Connector: 54200220N

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 2.8 Series, Sealed( BK)

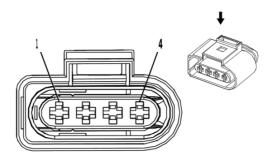
### **Terminal Part Information**

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

## M74RR Rear Side Door Window Regulator Motor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BU / GY	670	Right Rear Window Motor Up Control		_
2	2	GN / BK	671	Right Rear Window Motor Down Control	I	_

## M75 Windshield Wiper Motor



2474722

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 638245-2 Service Connector: 85596545

Description: 4-Way F Junior Power Timer Series, Sealed(BK)

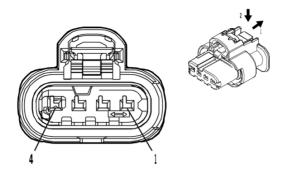
### **Terminal Part Information**

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

## M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / GN	196	Windshield Wiper Motor Park Switch Signal	1	_
2	2.5	YE / BN	95	Windshield Wiper Motor Low Speed Control	I	_
3	2.5	BK	150	Ground	I	_
4	2.5	WH	92	Windshield Wiper Motor High Speed Control	I	_

### M96 Active Grille Air Shutter Actuator



4934614

#### **Connector Part Information**

Harness Type: Radiator Extension Harness

OEM Connector: 13514087

Service Connector: Service by Harness - See Part Catalog Description: 4-Way F 1.2 MCON-CB Series, Sealed( BK)

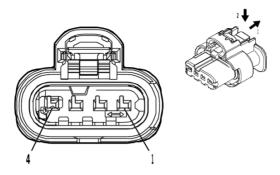
### **Terminal Part Information**

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

### M96 Active Grille Air Shutter Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5705	Powertrain Main Relay Control	1	_
2	0.5	GN / VT	4621	Engine Control Module LIN Bus 1	I	_
3	_	_	_	Not Occupied	_	_
4	0.5	BK	150	Ground	I	_

### M96B Active Grille Air Shutter Actuator 2



4934614

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 1-2296696-2 Service Connector: 85519071

Description: 4-Way F 1.2 MCON-CB Series, Sealed( BK)

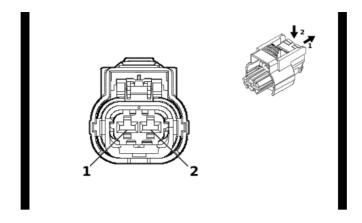
### **Terminal Part Information**

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

### M96B Active Grille Air Shutter Actuator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5705	Powertrain Main Relay Control	1	_
2	0.5	GN / VT	4621	Engine Control Module LIN Bus 1	I	_
3	0.5	BK	150	Ground	I	_
4	0.5	BK	150	Ground	I	_

## M104L Parking Brake Actuator - Left



4992524

#### **Connector Part Information**

Harness Type: Chassis Rear Wiring Harness Extension Harness

OEM Connector: 35182447

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 2.8 MCP Series, Sealed( BK)

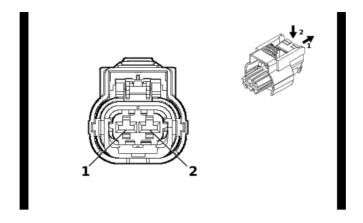
### **Terminal Part Information**

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

## M104L Parking Brake Actuator - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	WH	2001	Left Park Brake Motor Apply Control		_
2	2.5	GY / BK	4369	Left Park Brake Motor Low Reference	I	_

## M104R Parking Brake Actuator - Right



4992524

#### **Connector Part Information**

Harness Type: Chassis Rear Wiring Harness Extension Harness

OEM Connector: 35182447

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 2.8 MCP Series, Sealed( BK)

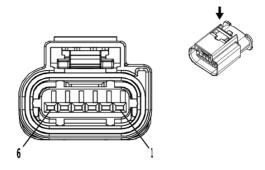
### **Terminal Part Information**

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

## M104R Parking Brake Actuator - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GN / VT	1988	Right Park Brake Motor Apply Control	1	_
2	2.5	GY	4368	Right Park Brake Motor Low Reference		_

## **M128 Turbocharger Wastegate Actuator**



3747579

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 2272975-5 Service Connector: 19352911

Description: 6-Way F 1.2 MCON Series, Sealed(BK)

### **Terminal Part Information**

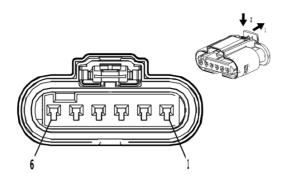
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-12 (BU)	No Tool Required	

## **M128 Turbocharger Wastegate Actuator**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	_
2	0.5	WH	2590	Turbocharger Wastegate Motor Feedback Signal	I	_
3	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	_
4	0.75	WH / BU	2592	Turbocharger Wastegate Motor Close Control	I	_
5	0.75	WH / BN	2591	Turbocharger Wastegate Motor Open Control	I	
6	_	_	_	Not Occupied		_

#### 6-286

### M129A Intake Camshaft Profile Actuator 1



3960142

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34900-6219 Service Connector: 85005020

Description: 6-Way F 1.2 MCON-LL Series, Sealed( BK)

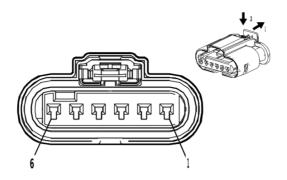
### **Terminal Part Information**

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

### M129A Intake Camshaft Profile Actuator 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GY	3615	Step Cam A Control	I	_
2	0.5	BU / WH	3589	Camshaft Position Motor Position Sensor 1 Signal	I	_
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	_
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	_
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	_
6	0.5	GN / BK	3616	Step Cam B Control	I	_

### M129B Intake Camshaft Profile Actuator 2



3960142

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34900-6219 Service Connector: 85005020

Description: 6-Way F 1.2 MCON-LL Series, Sealed( BK)

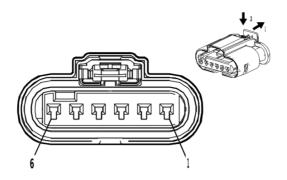
### **Terminal Part Information**

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

### M129B Intake Camshaft Profile Actuator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	3585	Camshaft Position Motor Control B	I	_
2	0.5	GN / WH	3592	Camshaft Position Motor Position Sensor 2 Signal	I	_
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	_
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	_
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	_
6	0.5	BU	3584	Camshaft Position Motor Control A	Ī	_

### M129C Intake Camshaft Profile Actuator 3



3960142

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34900-6219 Service Connector: 85005020

Description: 6-Way F 1.2 MCON-LL Series, Sealed( BK)

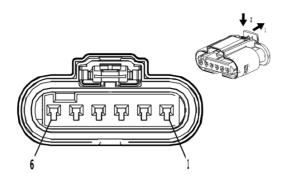
### **Terminal Part Information**

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

### M129C Intake Camshaft Profile Actuator 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BU	3587	Camshaft Position Motor Control D	I	_
2	0.5	BK / GN	3593	Camshaft Position Sensor 2 Ground	I	_
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	_
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	_
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	_
6	0.5	GY	3586	Camshaft Position Motor Control C	I	_

### M129D Intake Camshaft Profile Actuator 4



3960142

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34900-6219 Service Connector: 85005020

Description: 6-Way F 1.2 MCON-LL Series, Sealed( BK)

### **Terminal Part Information**

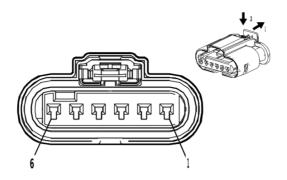
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-12 (BU)	No Tool Required	

### M129D Intake Camshaft Profile Actuator 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / YE	1402	Camshaft Intake Stepper Cylinder 4 Front Sole- noid Control	I	_
2	0.5	YE / BN	1702	Camshaft Intake Stepper Cylinder 4 Position Sensor Signal	1	_
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	_
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	_
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	_
6	0.5	GY / YE	1502	Camshaft Intake Stepper Cylinder 4 Rear Sole- noid Control	I	_

### 6-290

### M130B Exhaust Camshaft Profile Actuator 2



3960142

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34900-6219 Service Connector: 85005020

Description: 6-Way F 1.2 MCON-LL Series, Sealed( BK)

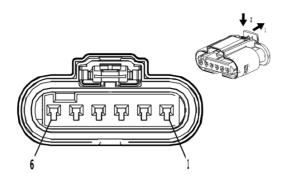
### **Terminal Part Information**

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

### M130B Exhaust Camshaft Profile Actuator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / VT	6265	Camshaft Exhaust Stepper Cylinder 2 Rear Solenoid Control	Ι	_
2	0.5	GN / BK	6266	Camshaft Exhaust Stepper Cylinder 2 Position Signal	_	_
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	_
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	_
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	_
6	0.5	VT / BK	6264	Camshaft Exhaust Stepper Cylinder 2 Front Solenoid Control	I	_

# M130C Exhaust Camshaft Profile Actuator 3



3960142

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34900-6219 Service Connector: 85005020

Description: 6-Way F 1.2 MCON-LL Series, Sealed( BK)

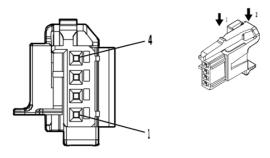
### **Terminal Part Information**

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

### M130C Exhaust Camshaft Profile Actuator 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BN	6262	Camshaft Exhaust Stepper Cylinder 3 Rear Solenoid Control	Ι	_
2	0.5	YE	6263	Camshaft Exhaust Stepper Cylinder 3 Position Signal	Ι	_
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	Ι	_
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	Ι	_
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	1	_
6	0.5	GN / BN	6261	Camshaft Exhaust Stepper Cylinder 3 Front Solenoid Control	I	_

### **P2 Automatic Transmission Control Indicator**



5092142

#### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness Extension Harness

OEM Connector: 2294399-5

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 0.64 MQS Series

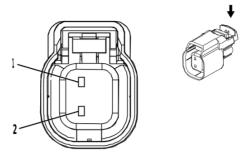
### **Terminal Part Information**

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

### **P2 Automatic Transmission Control Indicator**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / VT	4759	Transmission Shift Lever Position Indicator 2 Control	_	_
2	0.35	GN / BU	6133	Body Control Module LIN Bus 2	I	_
3	0.35	BK	2050	Ground	Ī	_
4	_	_	_	Not Occupied	_	_

## P13 Horn



2792100

## **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 34062-0027 Service Connector: 87821959

Description: 2-Way F 1.5 Series, Sealed( BK)

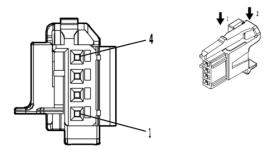
### **Terminal Part Information**

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

### P13 Horn

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	250	Ground	_	_
2	0.75	BN / GY	29	Horn Control	Ī	_

## **P14 Instrument Panel Airbag Arming Status Display**



5092142

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 2294399-5 Service Connector: 84766302

Description: 4-Way F 0.64 MQS Series

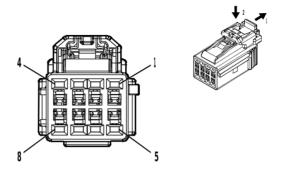
### **Terminal Part Information**

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

## P14 Instrument Panel Airbag Arming Status Display

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / VT	4040	Battery Positive Voltage		_
2	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	_
3	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	_
4	0.35	VT / WH	5234	Passenger Seat Belt Indicator Control	Ι	AL0- C9I

# **P16 Instrument Panel Cluster Control Module X1**



5086387

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-8443 Service Connector: 84613126

Description: 8-Way F 1.2 Series( BK)

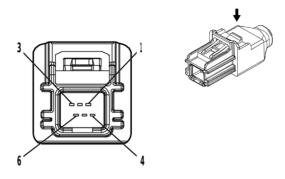
### **Terminal Part Information**

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

### P16 Instrument Panel Cluster Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / BN	1440	Battery Positive Voltage	I	_
2 - 7	_	_	_	Not Occupied	_	_
8	0.35	BK	2050	Ground	I	_

### P16 Instrument Panel Cluster Control Module X2



4806625

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 13522802

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 6-Way M HSAL-2 Series( BK)

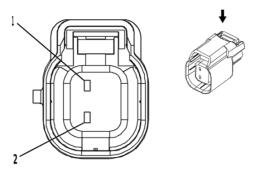
### **Terminal Part Information**

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

### P16 Instrument Panel Cluster Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_		LVDS	_	(Infotainment) Infotainment Display Signal		_

## P19AG Radio Front Side Door Speaker - Left (UQ3)



4115616

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 34062-0046

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(BK)

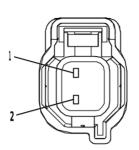
### **Terminal Part Information**

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

## P19AG Radio Front Side Door Speaker - Left (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / BU	118	Left Front Speaker [-] Control 1	_	_
2	0.75	BU	201	Left Front Speaker 1 [+] Control	I	_

## P19AG Radio Front Side Door Speaker - Left (UQA)





2900396

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 34062-0026

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(L-GY)

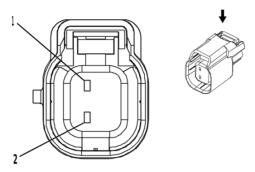
### **Terminal Part Information**

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

## P19AG Radio Front Side Door Speaker - Left (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BN / BU	118	Left Front Speaker [-] Control 1	1	_
2	1	BU	201	Left Front Speaker 1 [+] Control	Ι	_

# P19AH Radio Front Side Door Speaker - Right (UQ3)



4115616

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 34062-0046

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(BK)

### **Terminal Part Information**

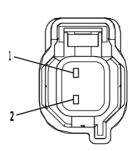
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-2A (GY)	No Tool Required	

## P19AH Radio Front Side Door Speaker - Right (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE / BK	117	Right Front Speaker [-] Control 1		_
2	0.75	YE	200	Right Front Speaker 1 [+] Control	I	_

## 6-300

## P19AH Radio Front Side Door Speaker - Right (UQA)





2900396

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 34062-0026

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(L-GY)

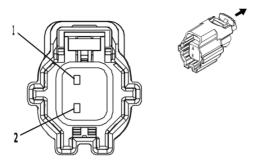
### **Terminal Part Information**

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

## P19AH Radio Front Side Door Speaker - Right (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE / BK	117	Right Front Speaker [-] Control 1	_	_
2	1	YE	200	Right Front Speaker 1 [+] Control	Ī	_

# P19AL Radio Rear Side Door Speaker - Left (UQ3)



4223204

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Left

OEM Connector: 34062-0044

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 MX Series, Sealed( BK)

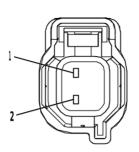
### **Terminal Part Information**

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

# P19AL Radio Rear Side Door Speaker - Left (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN / BK	116	Left Rear Speaker [-] Control	_	_
2	0.75	GN	199	Left Rear Speaker [+] Control	Ī	_

## P19AL Radio Rear Side Door Speaker - Left (UQA)





2900396

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Left

OEM Connector: 34062-0026

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(L-GY)

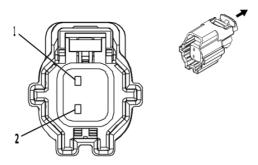
### **Terminal Part Information**

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

## P19AL Radio Rear Side Door Speaker - Left (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / BK	116	Left Rear Speaker [-] Control	_	_
2	0.5	GN	199	Left Rear Speaker [+] Control	I	_

# P19AM Radio Rear Side Door Speaker - Right (UQ3)



4223204

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Right

OEM Connector: 34062-0044

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 MX Series, Sealed( BK)

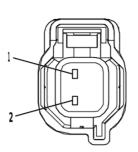
### **Terminal Part Information**

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

## P19AM Radio Rear Side Door Speaker - Right (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU / BK	115	Right Rear Speaker [-] Control	I	_
2	0.75	WH	46	Right Rear Speaker [+] Control	I	_

# P19AM Radio Rear Side Door Speaker - Right (UQA)





2900396

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Right

OEM Connector: 34062-0026

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(L-GY)

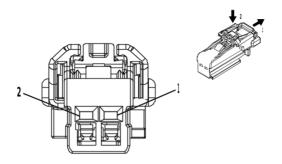
### **Terminal Part Information**

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

## P19AM Radio Rear Side Door Speaker - Right (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / BK	115	Right Rear Speaker [-] Control	_	_
2	0.5	WH	46	Right Rear Speaker [+] Control	I	_

# P19B Radio Front Center Speaker (UQA)



4373379

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-8989 Service Connector: 19369632

Description: 2-Way F 1.2 MCON Series(GY)

### **Terminal Part Information**

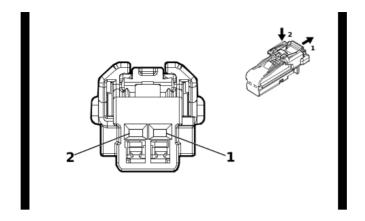
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-16 (L-GN)	No Tool Required	

## P19B Radio Front Center Speaker (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / YE	1960	Front Center Speaker [-] Control	_	_
2	0.5	YE / WH	1860	Front Center Speaker [+] Control	I	_

### 6-306

## P19J Radio Front Speaker - Instrument Panel Left (UQ3)



4115691

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-8988 Service Connector: 87816612

Description: 2-Way F 1.2 MCON Series(BK)

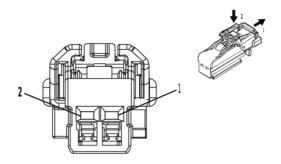
### **Terminal Part Information**

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

## P19J Radio Front Speaker - Instrument Panel Left (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / BU	118	Left Front Speaker [-] Control 1		_
2	0.75	BU	201	Left Front Speaker 1 [+] Control	Ī	_

# P19J Radio Front Speaker - Instrument Panel Left (UQA)



4373379

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-8989 Service Connector: 19369632

Description: 2-Way F 1.2 MCON Series(GY)

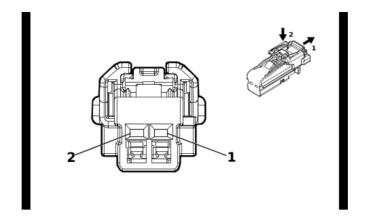
### **Terminal Part Information**

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

## P19J Radio Front Speaker - Instrument Panel Left (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / BN	1957	Left Front Midrange Speaker [-] Control		_
2	0.5	BU / VT	1857	Left Front Midrange Speaker [+] Control	I	_

## P19W Radio Front Speaker - Instrument Panel Right (UQ3)



4115691

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-8988 Service Connector: 87816612

Description: 2-Way F 1.2 MCON Series(BK)

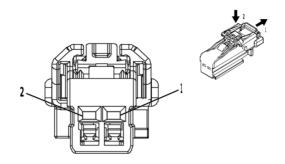
### **Terminal Part Information**

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

## P19W Radio Front Speaker - Instrument Panel Right (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE / BK	117	Right Front Speaker [-] Control 1		_
2	0.75	YE	200	Right Front Speaker 1 [+] Control	I	_

# P19W Radio Front Speaker - Instrument Panel Right (UQA)



4373379

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-8989 Service Connector: 19369632

Description: 2-Way F 1.2 MCON Series(GY)

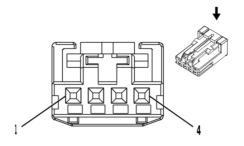
## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	Not required J-35616-16 (L-GN)		

# P19W Radio Front Speaker - Instrument Panel Right (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / BK	1953	Right Front Midrange Speaker [-] Control		_
2	0.5	WH / YE	1853	Right Front Midrange Speaker [+] Control	I	_

# **P43 Forward Collision Alert Display**



2717162

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 1-936119-1 Service Connector: 19367524

Description: 4-Way F 0.64 Micro-Quadlock Series( BK)

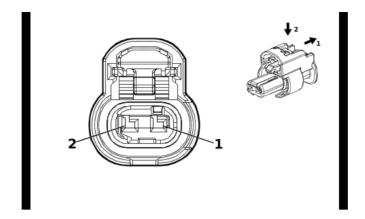
## **Terminal Part Information**

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

# **P43 Forward Collision Alert Display**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT / BK	1639	Run/Crank Ignition 1 Voltage	1	_
2	0.35	GY / YE	3885	Forward Collision Alert LED Control	I	_
3	0.35	GY / BK	4787	Day Night LED Control	I	_
4	0.35	BK / WH	2151	Signal Ground	I	_

# **Q2 Air Conditioning Clutch**



4649903

#### **Connector Part Information**

Harness Type: Engine Wiring Harness OEM Connector: 1-2296694-1

Service Connector: 85519075

Description: 2-Way F 1.2 MCON Series, Sealed(BK)

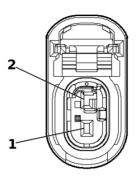
## **Terminal Part Information**

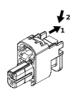
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	Not required J-35616-16 (L-GN)		

# **Q2 Air Conditioning Clutch**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	450	Ground	1	_
2	0.75	BN / GN	59	Air Conditioning Compressor Clutch Control		_

## **Q6E Camshaft Position Actuator Solenoid Valve - Exhaust**





5340268

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296702-2 Service Connector: 19371204

Description: 2-Way F 1.2 MCON-CB Series, Sealed( BK)

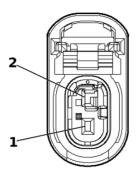
## **Terminal Part Information**

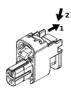
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-16 (L-GN)	No Tool Required	

## **Q6E Camshaft Position Actuator Solenoid Valve - Exhaust**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BU	5282	Exhaust Camshaft Position Actuator Solenoid Valve 1	I	_
2	0.5	BK / VT	6754	Camshaft Position Actuator Solenoid Valve X Low Reference	I	_

## **Q6F Camshaft Position Actuator Solenoid Valve - Intake**





5340268

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296702-2 Service Connector: 19371204

Description: 2-Way F 1.2 MCON-CB Series, Sealed( BK)

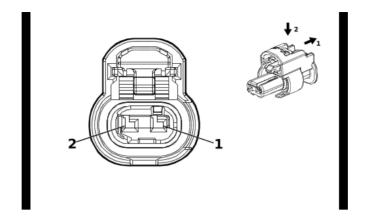
## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	Not required J-35616-16 (L-GN)		

## **Q6F Camshaft Position Actuator Solenoid Valve - Intake**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	Ι	
2	0.5	BK / BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference		_

# **Q9F Differential Locking Actuator - Front (G93)**



4649903

#### **Connector Part Information**

Harness Type: Power Steering Wiring Harness

OEM Connector: 1-2296694-1

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 MCON Series, Sealed( BK)

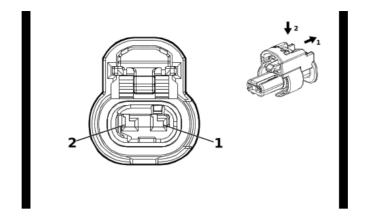
## **Terminal Part Information**

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

# **Q9F Differential Locking Actuator - Front (G93)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / WH	7256	Front Differential Lock Actuator Control	1	_
2	0.75	WH / BK	7254	Front Differential Lock Actuator Low Control		_

# **Q9R Differential Locking Actuator - Rear (G94)**



4649903

#### **Connector Part Information**

Harness Type: Chassis Rear Wiring Harness Extension Harness

OEM Connector: 1-2296694-1

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 MCON Series, Sealed(BK)

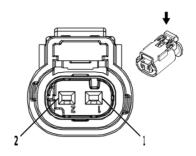
## **Terminal Part Information**

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

# **Q9R Differential Locking Actuator - Rear (G94)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / BN	7258	Rear Differential Lock Actuator Control	_	_
2	0.75	GY / BK	7253	Rear Differential Lock Actuator Low Control	Ī	_

# **Q12 Evaporative Emission Canister Purge Solenoid Valve**



2717066

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10010337 Service Connector: 13587326

Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

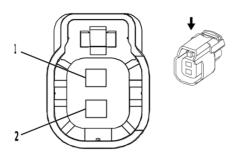
## **Terminal Part Information**

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

# **Q12 Evaporative Emission Canister Purge Solenoid Valve**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	_	_
2	0.5	GN / BU	428	EVAP Canister Purge Solenoid Control	I	_

# **Q13 Evaporative Emission Canister Vent Solenoid Valve**



2422378

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 34062-0028 Service Connector: 13579002

Description: 2-Way F 1.5 Series, Sealed(BK)

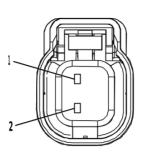
## **Terminal Part Information**

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

# **Q13 Evaporative Emission Canister Vent Solenoid Valve**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1310	EVAP Vent Solenoid Valve Control	_	_
2	0.5	RD / WH	4140	Battery Positive Voltage	I	_

# Q17A Fuel Injector 1





2792100

#### **Connector Part Information**

Harness Type: Fuel Injector Wiring Harness

OEM Connector: 34062-4008

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(BK)

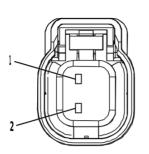
## **Terminal Part Information**

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

# Q17A Fuel Injector 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	Ι	_
2	0.75	BN / WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	_

# Q17B Fuel Injector 2





2792100

#### **Connector Part Information**

Harness Type: Fuel Injector Wiring Harness

OEM Connector: 34062-4008

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(BK)

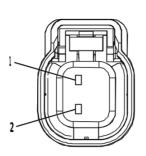
## **Terminal Part Information**

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

# Q17B Fuel Injector 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	Ι	
2	0.75	BU / GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2		_

# Q17C Fuel Injector 3





2792100

#### **Connector Part Information**

Harness Type: Fuel Injector Wiring Harness

OEM Connector: 34062-4008

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(BK)

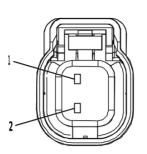
## **Terminal Part Information**

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

# Q17C Fuel Injector 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	Ι	_
2	0.75	GN / GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	Ι	_

# Q17D Fuel Injector 4





2792100

#### **Connector Part Information**

Harness Type: Fuel Injector Wiring Harness

OEM Connector: 34062-4008

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.5 Series, Sealed(BK)

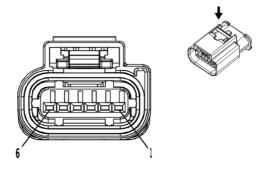
## **Terminal Part Information**

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

# Q17D Fuel Injector 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY / BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	Ι	_
2	0.75	BU / WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4		_

# **Q38 Throttle Body**



3747579

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 2272975-5 Service Connector: 19352911

Description: 6-Way F 1.2 MCON Series, Sealed(BK)

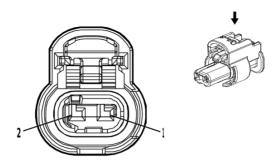
## **Terminal Part Information**

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

# **Q38 Throttle Body**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Open Control	1	_
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		_
6	_	_	_	Not Occupied	_	_

# **Q40 Turbocharger Bypass Valve Solenoid**



4690744

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296694-3 Service Connector: 19366871

Description: 2-Way F 1.2 MCON Series, Sealed(BK)

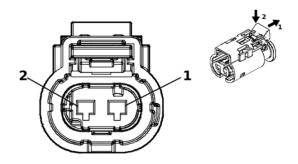
## **Terminal Part Information**

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

# **Q40 Turbocharger Bypass Valve Solenoid**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	_	
2	0.5	GN	3060	Turbocharger Bypass Solenoid Valve Control Bank 1	-	

## **Q44 Engine Oil Pressure Control Solenoid Valve**



5245486

#### **Connector Part Information**

Harness Type: Engine Oil Pressure Control Solenoid Valve Jumper Harness

OEM Connector: 13522570

Service Connector: Service by Harness - See Part Catalog Description: 2-Way M 1.2 MLK Series, Sealed( BK)

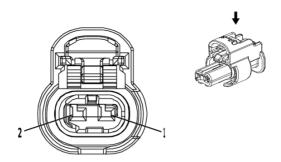
## **Terminal Part Information**

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

# **Q44 Engine Oil Pressure Control Solenoid Valve**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BN	106	Oil Pump Motor Control	1	_
2	0.5	BU	179	Engine Oil Pump Control	Ī	_

# **Q46 Air Conditioning Compressor Solenoid Valve**



4335931

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296694-2 Service Connector: 19366843

Description: 2-Way F 1.2 MCON Series, Sealed(BK)

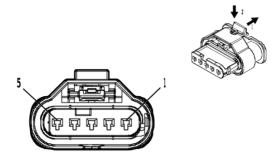
## **Terminal Part Information**

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

# **Q46 Air Conditioning Compressor Solenoid Valve**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / YE	7574	Air Conditioning Compressor Solenoid Valve Control	Ι	_
2	0.5	BU / BN	7573	Air Conditioning Compressor Solenoid Valve Control	_	_

# **Q74 Engine Coolant Bypass Valve**



4994456

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 2-2236898-5 Service Connector: 19371191

Description: 5-Way F 1.2 MCON-LL Series, Sealed(NA)

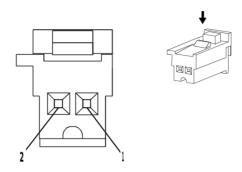
## **Terminal Part Information**

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

# **Q74 Engine Coolant Bypass Valve**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2976	Coolant Diverter Valve Actuator Control Open	l	_
2	0.5	BU / BN	2977	Coolant Diverter Valve Actuator Control Close	l	_
3	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	_
4	0.5	BU / GY	2978	Coolant Diverter Valve Position Signal	I	_
5	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	_

## **Q77A Transmission Control Solenoid Valve 1**



4051391

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 13956948

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 MTS Series( VT)

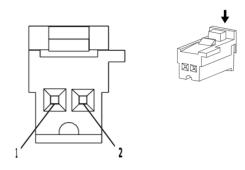
## **Terminal Part Information**

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

## **Q77A Transmission Control Solenoid Valve 1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	6400	Clutch Solenoid Valve A Control		_
2	0.5	GY / BN	6388	Transmission High Side Driver 2 Control	I	_

## **Q77B Transmission Control Solenoid Valve 2**



4008644

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 13941672

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 MTS Series(GY)

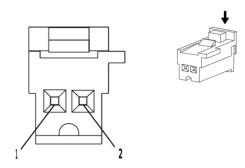
## **Terminal Part Information**

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

## **Q77B Transmission Control Solenoid Valve 2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	6401	Clutch Solenoid Valve B Control	_	_
2	0.5	GY / BN	6388	Transmission High Side Driver 2 Control	I	_

# **Q77C Transmission Control Solenoid Valve 3**



4008644

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 13941672

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 MTS Series(GY)

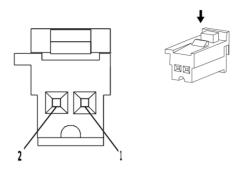
## **Terminal Part Information**

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

## **Q77C Transmission Control Solenoid Valve 3**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	6402	Clutch Solenoid Valve C Control	_	_
2	0.5	GY / BN	6388	Transmission High Side Driver 2 Control	Ī	_

## **Q77D Transmission Control Solenoid Valve 4**



4051391

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 13956948

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 MTS Series( VT)

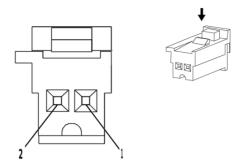
## **Terminal Part Information**

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

## **Q77D Transmission Control Solenoid Valve 4**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	4508	Transmission Clutch G Control		_
2	0.5	GN / GY	6387	Transmission High Side Driver 1 Control	I	_

## **Q77E Transmission Control Solenoid Valve 5**



4051391

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness - Control

OEM Connector: 13956948

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 MTS Series( VT)

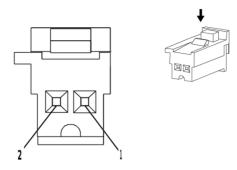
## **Terminal Part Information**

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

## **Q77E Transmission Control Solenoid Valve 5**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / WH	422	Torque Converter Clutch Solenoid Valve Control	_	_
2	0.5	GY / BN	6388	Transmission High Side Driver 2 Control	Ī	_

## **Q77F Transmission Control Solenoid Valve 6**



4051391

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 13956948

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 MTS Series( VT)

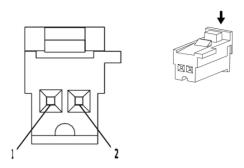
## **Terminal Part Information**

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

## **Q77F Transmission Control Solenoid Valve 6**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BU	4507	Transmission Clutch H Control	_	_
2	0.5	GN / GY	6387	Transmission High Side Driver 1 Control	Ī	_

# **Q77G Transmission Control Solenoid Valve 7**



4008644

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 13941672

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 0.64 MTS Series(GY)

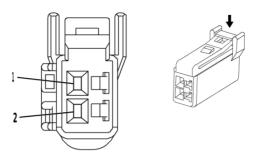
## **Terminal Part Information**

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

## **Q77G Transmission Control Solenoid Valve 7**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / WH	1530	Transmission Line Pressure Control Solenoid Valve Control	Ι	_
2	0.5	GY / BN	6388	Transmission High Side Driver 2 Control	1	_

## **Q77H Transmission Control Solenoid Valve 8**



4051682

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 7287-0122

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 040 III Series( NA)

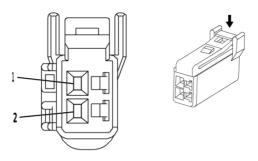
## **Terminal Part Information**

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

## **Q77H Transmission Control Solenoid Valve 8**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / GY	6387	Transmission High Side Driver 1 Control	_	_
2	0.5	GN / WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	_	_

## **Q77J Transmission Control Solenoid Valve 9**



4051682

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 7287-0122

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 040 III Series( NA)

## **Terminal Part Information**

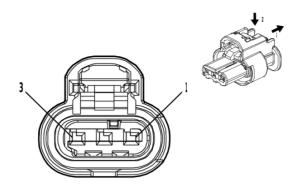
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	No Tool Required	No Tool Required	

## **Q77J Transmission Control Solenoid Valve 9**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BN	6388	Transmission High Side Driver 2 Control	1	_
2	0.5	YE / BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	Ι	_

## 6-336

# **Q97B Engine Coolant Flow Control Valve - Block**



4778903

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 1-2296695-2 Service Connector: 86792095

Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

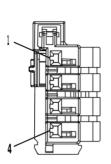
## **Terminal Part Information**

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

# **Q97B Engine Coolant Flow Control Valve - Block**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / BN	2732	Engine Control Module LIN Bus 4	I	_
2	0.5	BK	550	Ground	I	_
3	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	_

## S2 Automatic Transmission Manual Shift Shaft Position Switch





4364148

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 2289524-1

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 1.2 MCON Series(BN)

## **Terminal Part Information**

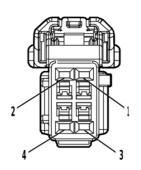
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	No Tool Required	No Tool Required	

## **S2 Automatic Transmission Manual Shift Shaft Position Switch**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / YE	3337	Transmission Internal Mode Switch Mode Control Y		_
2	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	1	_
3	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference	I	_
4	0.5	BU / WH	3338	Transmission Internal Mode Switch Mode Control X	I	_

# **S3 Automatic Transmission Control**

6-338





4872683

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-8435 Service Connector: 19369633

Description: 4-Way F 1.2 Series( BK)

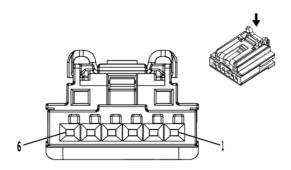
## **Terminal Part Information**

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

## **S3 Automatic Transmission Control**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT / BK	7553	Park Lock Solenoid Actuator Control	_	_
2	0.35	WH / VT	5905	Key Capture/Column Lock Shift Position Signal		_
3	0.35	GN / BU	3738	Tap Up/Tap Down Switch Signal 2	I	_
4	0.5	BK	2050	Ground	I	_

## S13D Door Lock Switch - Driver



4145138

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 2035363-2

Service Connector: Service by Harness - See Part Catalog Description: 6-Way F 0.64 Generation Y Series(BK)

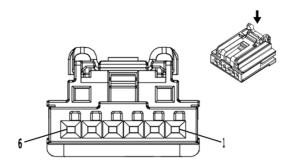
## **Terminal Part Information**

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

## S13D Door Lock Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / GY	4784	Left Front Door LED Backlight Dimming Control	I	_
2	0.35	VT / YE	4244	Left Front Door Lock Indicator Control	I	_
3	0.35	BN / YE	2771	Left Front Door Lock Switch Lock Signal	I	_
4	0.35	BN / WH	2772	Left Front Door Lock Switch Unlock Signal	I	_
5	0.35	BK	1150	Ground	I	_
6	_	_	_	Not Occupied	_	_

# S13P Door Lock Switch - Passenger



4145138

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 2035363-2

Service Connector: Service by Harness - See Part Catalog Description: 6-Way F 0.64 Generation Y Series(BK)

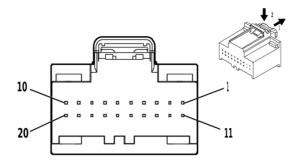
## **Terminal Part Information**

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

## S13P Door Lock Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY / VT	4638	LED Backlight Dimming Control Right Front Door	1	_
2	0.35	YE / BU	4245	Right Front Door Lock Indicator Control	I	_
3	0.35	YE / VT	2773	Right Front Door Lock Switch Lock Control	I	_
4	0.35	BN / VT	2774	Right Front Door Lock Switch Unlock Control	I	_
5	0.35	BK	3450	Ground	I	_
6	_	_	_	Not Occupied	_	_

# **S26 Hazard Warning Switch**



5109511

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 31410-0208 Service Connector: 13525993

Description: 20-Way F 0.64 Series(GN)

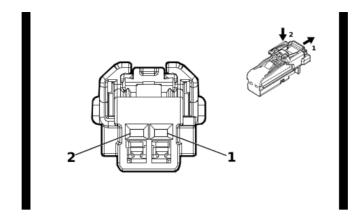
## **Terminal Part Information**

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

# **S26 Hazard Warning Switch**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / WH	2151	Signal Ground	I	_
2	0.35	YE	6817	LED Backlight Dimming Control 1	I	_
3	0.35	GN / WH	111	Hazard Warning Switch Signal	I	_
4	0.35	WH	6816	Indicator Dimming Control	I	_
5	0.35	GN	1110	Stop/Start Indicator Control	I	_
6	0.35	BU	1111	Stop/Start Switch Signal	I	_
7	0.35	WH	3152	Lane Departure Warning Indicator Control	I	_
8	0.35	GY / WH	3153	Lane Departure Warning Disable Switch Signal	I	_
9	0.35	BU / YE	7176	All Windows Open Switch Signal	I	_
10	_	_	_	Not Occupied	_	_
11	0.5	YE / GN	7122	Axle Differential Lock Switch Signal	I	_
12	0.5	YE	7115	Rear Axle Differential Lock Indicator Control	I	_
13	0.5	VT / GY	7117	Front Axle Differential Lock Indicator Control	I	_
14	_	_	_	Not Occupied	_	_
15	0.35	BU / WH	3119	Roof Rail Air Bag Disable Switch Signal	I	_
16	0.35	BN / WH	3895	Roof Rail Air Bag Disable Switch Low Reference	I	_
17	_	_	_	Not Occupied	_	
18	0.5	BU / WH	10716	Upfitter Accessory Relay 1 Coil Control	Ī	_
19	0.35	GY	4989	Driver Mode 2 Switch Signal	I	_
20	_	_	_	Not Occupied	_	_

# **S33 Steering Wheel Horn Contact**



4115691

#### **Connector Part Information**

Harness Type: Steering Wheel Horn Switch Wiring Harness

OEM Connector: 13532422

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 MCON Series(BK)

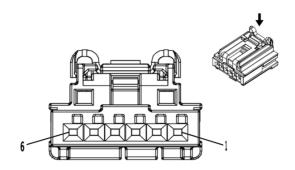
## **Terminal Part Information**

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

# **S33 Steering Wheel Horn Contact**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / WH	6051	Steering Wheel Ground	_	_
2	0.35	GN / WH	3287	Horn Switch Signal	I	_

## S36 Dimmer Switch



3960313

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 2035363-4 Service Connector: 19332786

Description: 6-Way F 0.64 Generation Y Series(BK)

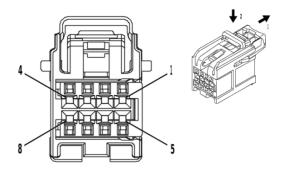
## **Terminal Part Information**

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

## S36 Dimmer Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference		
2	0.35	YE / GY	44	Instrument Panel Lamp Dimmer Switch Signal	I	_
3	_	_	_	Not Occupied	_	
4	0.35	BK	2050	Ground	l	
5	0.35	YE	6817	LED Backlight Dimming Control 1	I	_
6	_	_	_	Not Occupied	_	_

## S38 On/Off Vehicle Switch



4232228

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 15526973 Service Connector: 19353873

Description: 8-Way F 0.64 OCS Series(GY)

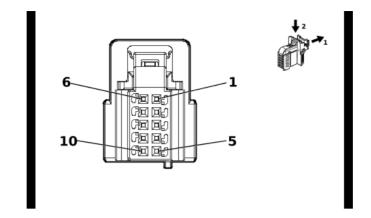
## **Terminal Part Information**

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

## S38 On/Off Vehicle Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / BK	5719	Ignition Mode Switch Start LED Signal	I	_
2	0.35	BN / BK	5720	Ignition Mode Switch Accessory LED Signal	I	_
3	0.75	BK / WH	2151	Signal Ground	I	_
4	0.35	BU / GN	5723	Ignition Mode Switch Mode Voltage	I	_
5	0.35	YE	6817	LED Backlight Dimming Control 1	I	_
6	_	_	_	Not Occupied	_	_
7	0.35	BK / GY	3559	Passive Start Switch 2 Low Reference	Ī	_
8	0.35	GN / BK	3558	Passive Start Switch Signal 2	I	_

# S47D Front Seat Adjuster Memory Switch - Driver (A45)



5838155

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 2310000-1

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 0.64 MQS Series( BK)

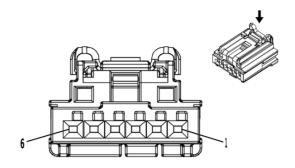
### **Terminal Part Information**

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

### S47D Front Seat Adjuster Memory Switch - Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / GY	4784	Left Front Door LED Backlight Dimming Control	I	_
2	0.35	VT / YE	4244	Left Front Door Lock Indicator Control	I	_
3	0.35	BN / YE	2771	Left Front Door Lock Switch Lock Signal	I	_
4	0.35	BN / WH	2772	Left Front Door Lock Switch Unlock Signal	I	_
5	0.35	BK / WH	3051	Signal Ground	I	_
6	0.35	BU / GN	614	Seat Memory Switch Set Signal	I	_
7	0.35	WH	615	Seat Memory Switch Signal 1	I	_
8 - 10	_	_	_	Not Occupied	_	_

### **S51 Communication Center Call Switch (UE1)**



3960313

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 2035363-4 Service Connector: 19332786

Description: 6-Way F 0.64 Generation Y Series(BK)

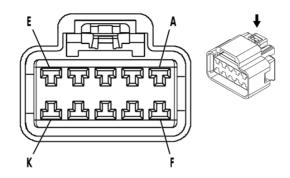
### **Terminal Part Information**

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

### **S51 Communication Center Call Switch (UE1)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / BK	2515	Telematics Switch Supply Voltage	1	_
2	_	_	_	Not Occupied	_	_
3	0.35	GN / WH	2514	Telematics Switch Signal	I	_
4	0.35	YE / VT	2516	Telematics Switch Green LED Indicator Control	I	_
5	0.35	BN / WH	2517	Telematics Switch Red LED Indicator Control	I	_
6	0.35	BK / WH	451	Signal Ground	I	_

### S64D Front Seat Adjuster Switch - Driver (A2X)



623046

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 35058909

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 280 GT Series( BK)

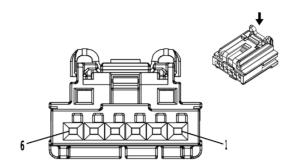
### **Terminal Part Information**

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

### S64D Front Seat Adjuster Switch - Driver (A2X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
А	2.5	RD / GY	3540	Battery Positive Voltage	I	_
В	1.5	BU / YE	277	Driver Seat Recline Motor Rearward Control	I	_
С	1.5	YE / BU	285	Driver Seat Horizontal Motor Forward Control	I	_
D	1.5	GY / GN	284	Driver Seat Horizontal Motor Rearward Control	I	_
Е	1.5	GY / BU	283	Driver Seat Rear Vertical Motor Down Control	I	_
F	1.5	GN / BN	286	Driver Seat Front Vertical Motor Up Control	I	
G	1.5	YE	282	Driver Seat Rear Vertical Motor Up Control	I	_
Н	1.5	GN / YE	276	Driver Seat Recline Motor Forward Control	I	_
J	2.5	BK	3750	Ground	I	_
K	1.5	BU / VT	287	Driver Seat Front Vertical Motor Down Control	I	_

### S64D Front Seat Adjuster Switch - Driver (A45)



3960313

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 2035363-4

Service Connector: Service by Harness - See Part Catalog Description: 6-Way F 0.64 Generation Y Series(BK)

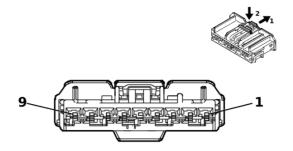
### **Terminal Part Information**

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

### S64D Front Seat Adjuster Switch - Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / VT	3340	Battery Positive Voltage	1	_
2		_	_	Not Occupied	_	_
3	0.35	GN / GY	3758	Driver Seat Adjuster Memory Module LIN Bus 2	I	_
4	0.5	BK	3750	Ground	I	_
5 - 6	_	_	_	Not Occupied	_	_

### S65D Front Seat Lumbar Switch - Driver (AL9)



5204289

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 7289-6875-40

Service Connector: Service by Harness - See Part Catalog

Description: 9-Way F 2.8 YESC Series(GY)

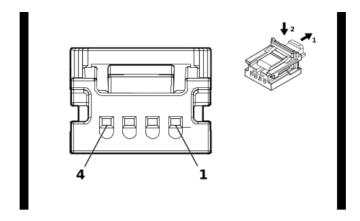
### **Terminal Part Information**

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

### S65D Front Seat Lumbar Switch - Driver (AL9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	3750	Ground	I	_
2	_		_	Not Occupied	_	
3	0.75	RD / WH	3440	Battery Positive Voltage		_
4				Not Occupied		_
5	0.75	BU	611	Driver Seat Lumbar Support Motor Forward Control	_	
6	_			Not Occupied	_	_
7	0.75	VT	610	Driver Seat Lumbar Support Motor Backward Control	Ι	
8 - 9	_	_	_	Not Occupied		_

### **S70E Radio Favorites Switch - Steering Wheel**



5493278

#### **Connector Part Information**

Harness Type: Steering Wheel Wiring Harness

OEM Connector: 13507113

6-350

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F Mini 50 Series( BK)

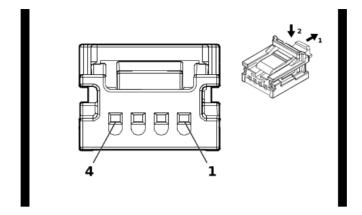
### **Terminal Part Information**

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

### **S70E Radio Favorites Switch - Steering Wheel**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / WH	6051	Steering Wheel Ground		_
2	0.35	WH / YE	4313	Radio Favorite Forward Switch Signal	I	_
3	0.35	YE / BU	4312	Radio Favorite Back Switch Signal	I	_
4	_	_	_	Not Occupied	_	_

### **S70F Radio Volume Switch - Steering Wheel**



5493584

#### **Connector Part Information**

Harness Type: Steering Wheel Wiring Harness

OEM Connector: 13507115

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F Mini 50 Series( GY)

### **Terminal Part Information**

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

### S70F Radio Volume Switch - Steering Wheel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / WH	6051	Steering Wheel Ground		_
2	0.35	GY / BN	4314	Radio Volume Down Switch Signal	I	_
3	0.35	BU	4315	Radio Volume Up Switch Signal	I	_
4	_	_	_	Not Occupied	_	

### **S70L Cruise Control Switch**

**Connector Part Information** 

Harness Type: Steering Wheel Wiring Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: —

### **Terminal Part Information**

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

### **S70L Cruise Control Switch**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / GN	5140	Battery Positive Voltage	I	_
3	0.35	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	_
4	0.35	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	_
5	0.35	YE / BK	3893	Steering Wheel LED Backlight Dimming Control	I	
6	0.35	BK / WH	6051	Steering Wheel Ground	l	
7	0.35	BN / GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	_
8	0.35	BK / VT	1449	Steering Wheel Resistor Ladder Low Reference	I	_
10	0.35	BK / WH	6051	Steering Wheel Ground	I	_

### **S70R Radio Control Switch - Steering Wheel**

\_

#### **Connector Part Information**

Harness Type: Steering Wheel Wiring Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: —

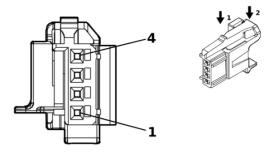
### **Terminal Part Information**

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

### **S70R Radio Control Switch - Steering Wheel**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / GN	5140	Battery Positive Voltage	I	_
2	0.35	GY / BN	4314	Radio Volume Down Switch Signal	I	
3	0.35	WH / YE	4313	Radio Favorite Forward Switch Signal	I	
4	0.35	GN / BK	10652	Radio LIN Bus 1	l	
5	0.35	YE / BK	3893	Steering Wheel LED Backlight Dimming Control	I	
6	0.35	YE / GY	5883	Steering Wheel Heating Switch Signal	I	_
7	0.35	BN / WH	5884	Steering Wheel Heating Switch LED Control	I	_
8	0.35	BK / WH	6051	Steering Wheel Ground	I	_
9	0.35	BU	4315	Radio Volume Up Switch Signal	I	_
10	0.35	YE / BU	4312	Radio Favorite Back Switch Signal	Ī	_

# **S72 Sunroof Switch (CAC)**



5191926

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 2294399-1 Service Connector: 84724190

Description: 4-Way F 0.64 Micro-Quadlock Series( BK)

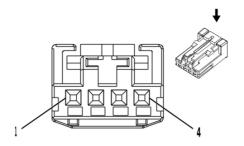
### **Terminal Part Information**

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

### **S72 Sunroof Switch (CAC)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	4250	Ground		_
2	0.35	YE	6817	LED Backlight Dimming Control 1	I	_
3	_	_	_	Not Occupied	_	_
4	0.35	BU / VT	5027	Sunroof Switch Serial Data 1 Signal	I	_

### S76 Trailer Brake Control Switch (JL1 & Z82)



2717162

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 1-936119-1 Service Connector: 19367524

Description: 4-Way F 0.64 Micro-Quadlock Series( BK)

### **Terminal Part Information**

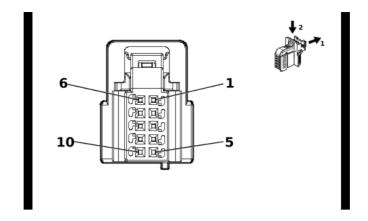
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-64B (L-BU)	No Tool Required	

### S76 Trailer Brake Control Switch (JL1 & Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / VT	4040	Battery Positive Voltage		_
2	0.35	GN / BU	2733	Brake System Control Module LIN Bus 2	I	_
3	0.35	BK	2050	Ground	I	_
4	_	_	_	Not Occupied	_	_

### 6-356

### **S78 Turn Signal Switch**



5838155

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 2310000-1 Service Connector: 13518417

Description: 10-Way F 0.64 MQS Series( BK)

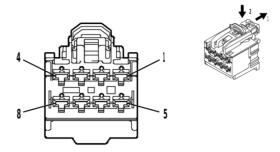
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	19300632	J-35616-64B (L-BU)	J-38125-215A		

### **S78 Turn Signal Switch**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / GN	2915	Left Turn Signal Switch Signal	I	_
2	0.35	VT / BU	2916	Right Turn Signal Switch Signal	I	
3	0.35	BK	2050	Ground	I	_
4	_	_	_	Not Occupied	_	
5	0.35	WH / BK	94	Windshield Washer Switch Signal	I	_
6	0.35	YE / BN	307	Headlamp Switch Flash Signal	I	_
7	0.35	WH	524	High Beam Select Switch High Beam Signal	I	_
8	0.35	BK / GY	6009	Windshield Wiper Switch Low Reference	I	_
9	0.35	GY	1715	Windshield Wiper Switch High Signal	I	_
10	0.35	YE / BU	1714	Windshield Wiper Switch Low Signal	İ	_

### S79D Front Side Door Window Control Switch - Driver X1



4875738

#### **Connector Part Information**

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver

OEM Connector: 33223792

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 2.8 OCS Series( BK)

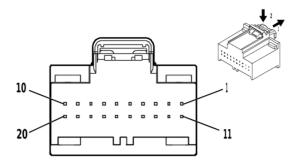
### **Terminal Part Information**

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

### S79D Front Side Door Window Control Switch - Driver X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	2.5	BK	1150	Ground	I	AEC+ AED
'	0.5	BK	1150	Ground	I	AXG
2	2	YE / VT	165	Left Front Window Motor Down Control	I	AEC+ AED
2	0.35	WH / BN	2764	Window Switch Left Front Down Signal	I	AXG
3 - 4	_	_	_	Not Occupied	_	_
5	0.5	WH	606	Left Outside Rearview Mirror Heater Control	I	_
6	_	_	_	Not Occupied	_	_
7	2	GN / GY	164	Left Front Window Motor Up Control	I	AEC+ AED
′	0.35	GY / GN	2763	Window Switch Left Front Up Signal	I	AXG
8	2.5	RD / BU	1240	Battery Positive Voltage	I	AEC+ AED
0	0.5	RD / VT	1940	Battery Positive Voltage	I	AXG

### S79D Front Side Door Window Control Switch - Driver X2



5109537

#### **Connector Part Information**

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver

OEM Connector: 31410-0206

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 0.64 Series(GY)

### **Terminal Part Information**

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

### S79D Front Side Door Window Control Switch - Driver X2

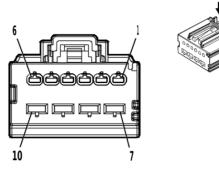
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / YE	2771	Left Front Door Lock Switch Lock Signal	I	_
2	0.35	BN / WH	2772	Left Front Door Lock Switch Unlock Signal	I	_
3	_	_	_	Not Occupied	_	_
4	0.35	VT / YE	4244	Left Front Door Lock Indicator Control	I	_
5	0.35	BN / GY	4784	Left Front Door LED Backlight Dimming Control	I	_
6	0.35	GY / YE	1760	Left Side Object Detection LED Control	I	
7	_	_	_	Not Occupied	_	_
8	0.35	YE / BN	2789	Left Front Mirror Motor Common Control	I	_
9	0.35	GN	2766	Power Window Switch Left Front Express Signal	I	_
10	_	_	_	Not Occupied	_	_
11	0.35	WH / VT	4258	Left Front Door Lock Status Signal	I	_
12	0.35	VT / BU	2788	Left Front Mirror Motor Up [+] Down [-] Control	I	
13	0.35	BN / BK	2790	Left Front Mirror Motor Right [+] Left [-] Control	I	
14	_	_	_	Not Occupied	_	_
15	0.35	GN / YE	6134	Body Control Module LIN Bus 3	I	_
16	0.35	WH / YE	2792	Left Front Mirror Position Sensor Left [-] Right [+] Signal	I	_
17	0.35	GY / BN	2787	Left Front Mirror Position Sensor Up [+] Down [-] Signal	1	
18	0.35	GY	745	Left Front Door Ajar Switch Signal	I	_
19	0.35	VT / RD	2791	Left Front Mirror Position Sensor High Reference	ı	_

# S79D Front Side Door Window Control Switch - Driver X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.35	BK / BN	673	673 Left Outside Rearview Mirror Position Sensor Low Reference		

#### 6-360

### S79LR Rear Side Door Window Switch - Left



5035058

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Left

OEM Connector: 31372-1600

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 1.5, 2.8 MX Series( BK)

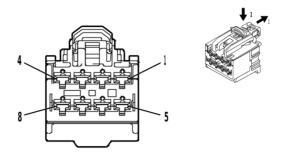
### **Terminal Part Information**

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

### S79LR Rear Side Door Window Switch - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / GY	6135	Body Control Module LIN Bus 4	I	_
2	0.35	GY	747	Left Rear Door Ajar Switch Signal	I	_
3	0.75	BK	1150	Ground	II	_
4 - 6	_	_	_	Not Occupied	_	_
7	2.5	BK	1150	Ground	III	_
8	2.5	RD / BU	1240	Battery Positive Voltage	III	_
9	2	BU / VT	668	Left Rear Window Motor Up Control	III	_
10	2	YE / BU	669	Left Rear Window Motor Down Control	III	_

# S79P Front Side Door Window Switch - Passenger X1



4875738

#### **Connector Part Information**

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger

OEM Connector: 33223792

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 2.8 OCS Series( BK)

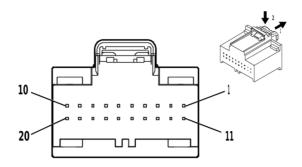
### **Terminal Part Information**

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

### S79P Front Side Door Window Switch - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1250	Ground	I	_
2	2	YE / BU	667	Right Front Window Motor Down Control	I	_
3 - 4		_	_	Not Occupied	_	_
5	0.5	BN / VT	607	Right Outside Rearview Mirror Heater Control	I	_
6	_	_	_	Not Occupied	_	_
7	2	GN / GY	666	Right Front Window Motor Up Control		_
8	2.5	RD / GY	3540	Battery Positive Voltage		_

### **S79P Front Side Door Window Switch - Passenger X2**



5109537

#### **Connector Part Information**

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger

OEM Connector: 31410-0206

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 0.64 Series(GY)

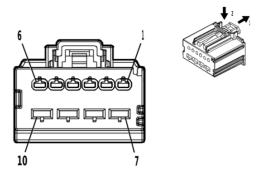
### **Terminal Part Information**

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

### S79P Front Side Door Window Switch - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE / RD	2799	Right Front Mirror Position Sensor High Reference	I	
2	0.35	GN / BK	2798	Right Front Mirror Motor Right [+] Left [-] Control	I	_
3	_	_	_	Not Occupied	_	_
4	0.35	YE / BU	4245	Right Front Door Lock Indicator Control	I	_
5	0.35	GY / VT	4638	LED Backlight Dimming Control Right Front Door	I	_
6	0.35	GY	1761	Right Side Object Detection LED Control	I	_
7	_	_	_	Not Occupied	_	_
8	0.35	GY	746	Right Front Door Ajar Switch Signal	I	_
9	0.35	GN / YE	6134	Body Control Module LIN Bus 3	I	_
10	0.35	VT / WH	2800	Right Front Mirror Position Sensor Left [-] Right [+] Signal	I	_
11	0.35	BU / YE	2795	Right Front Mirror Position Sensor Up [+] Down [-] Signal	I	_
12	0.35	YE / VT	2773	Right Front Door Lock Switch Lock Control	I	_
13	0.35	BN / VT	2774	Right Front Door Lock Switch Unlock Control	I	_
14 - 15	_	_	_	Not Occupied	_	_
16	0.35	VT	4259	Right Front Door Lock Status Signal	I	_
17	0.35	YE / VT	2796	Right Front Mirror Motor Up [+] Down [-] Control	I	_
18		_	_	Not Occupied	_	_
19	0.35	WH	2797	Right Front Mirror Motor Common Control	I	_
20	0.35	BK / GN	675	Right Outside Rearview Mirror Position Sensor Low Reference	ı	_

# S79RR Rear Side Door Window Switch - Right



5035058

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Right

OEM Connector: 31372-1600

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way F 1.5, 2.8 MX Series( BK)

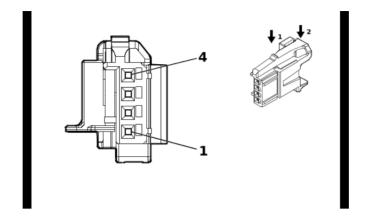
### **Terminal Part Information**

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

### S79RR Rear Side Door Window Switch - Right

<del>_</del>						
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / GY	6135	Body Control Module LIN Bus 4	I	
2	0.35	GY	748	Right Rear Door Ajar Switch Signal		_
3 - 6	_	_	_	Not Occupied	_	_
7	2.5	BK	1250	Ground	II	_
8	2.5	RD / GY	3540	Battery Positive Voltage	II	_
9	2	BU / GY	670	Right Rear Window Motor Up Control	II	
10	2	GN / BK	671	Right Rear Window Motor Down Control	II	_

## **S88 Sunroof Tilt Position Switch (CAC)**



5417126

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 2294399-2 Service Connector: 84880893

Description: 4-Way F 0.64 MQS Series(WH)

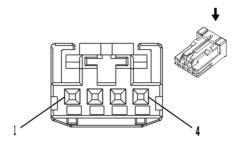
### **Terminal Part Information**

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

### **S88 Sunroof Tilt Position Switch (CAC)**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	4250	Ground	I	_
2	0.35	YE	6817	LED Backlight Dimming Control 1	I	_
3	_	_	_	Not Occupied	_	_
4	0.35	WH / GN	3031	Sunroof Vent Switch Signal	I	_

### **S91 Parking Brake Control Switch**



2717162

#### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness Extension Harness

OEM Connector: 1-936119-1

Service Connector: Service by Harness - See Part Catalog Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

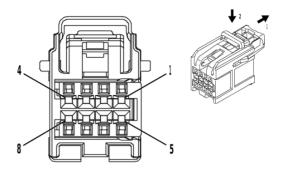
### **Terminal Part Information**

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

### **S91 Parking Brake Control Switch**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / GN	5140	Battery Positive Voltage	1	_
2	0.35	GN / YE	2731	Brake System Control Module LIN Bus 1	I	_
3	_	_	_	Not Occupied	_	_
4	0.35	BK / WH	2151	Signal Ground	I	_

### S126 Ride Control Switch (NP0/NQH)



4232228

#### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness Extension Harness

OEM Connector: 15526973

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 0.64 OCS Series(GY)

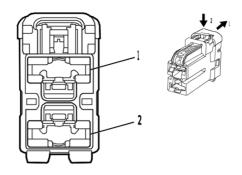
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	Not required J-35616-64B (L-BU)		

### S126 Ride Control Switch (NP0/NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / BN	2203	Enhanced Driver Mode 2 Switch Signal	I	_
2	_		_	Not Occupied	_	_
3	0.35	BK / GY	2204	Enhanced Driver Mode 1 Switch Low Reference	I	_
4	0.35	YE	6817	LED Backlight Dimming Control 1	I	_
5	0.35	BK	2050	Ground	I	_
6 - 7	_	_	_	Not Occupied	_	_
8	0.35	VT / GN	39	Run/Crank Ignition 1 Voltage	I	_

### **T1 DC/AC Converter Control Module X1**



2453116

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7283-0724-30

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 9.5 Series( BK)

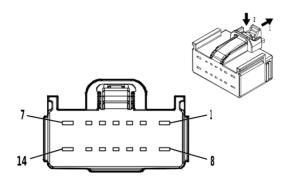
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-22 (RD)	No Tool Required	

### T1 DC/AC Converter Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	BN / BK	4629	DC/AC Inverter Control	_	_
2	5	BK	550	Ground	Ī	_

### T1 DC/AC Converter Control Module X2 (KI6)



4934172

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7289-7630-30 Service Connector: 13513604

Description: 14-Way F 1.5, 2.8 YESC Series( BK)

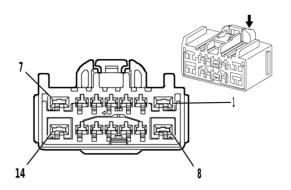
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	13575850	J-35616-2A (GY)	J-38125-557	
II	84962855	J-35616-4A (PU)	J-38125-11A	

# T1 DC/AC Converter Control Module X2 (KI6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	10117	AC Outlet Phase A Control	II	_
2	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	I	_
3	0.5	VT / GY	539	Run/Crank Ignition 1 Voltage	I	_
4	0.5	WH / GN	4628	DC/AC Inverter Relay Control	I	_
5	0.5	BU / BN	6807	DC/AC Inverter Control	I	_
6	_	_	_	Not Occupied	_	_
7	0.75	BK / WH	10120	AC Outlet 2 Phase A Control	II	_
8	0.75	RD	10118	AC Outlet Phase B Control	II	
9	0.75	Bare	10116	AC Outlet Low Reference	I	_
10	0.35	GN / BU	6133	Body Control Module LIN Bus 2	I	_
11	_	_	_	Not Occupied	_	_
12	0.5	GN / BN	2266	DC/AC Inverter Control 2	I	_
13	0.75	Bare	10119	AC Outlet 2 Low Reference	I	_
14	0.75	RD / WH	10121	AC Outlet 2 Phase B Control	II	_

### T1 DC/AC Converter Control Module X2 (KI7)



1540775

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7289-7631-90 Service Connector: 13513603

Description: 14-Way F 1.5, 2.8 YESC Series(BU)

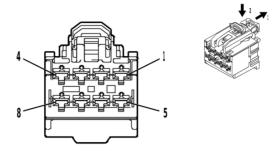
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	13575850	J-35616-2A (GY)	J-38125-557	
II	84962855	J-35616-4A (PU)	J-38125-11A	

### T1 DC/AC Converter Control Module X2 (KI7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	10117	AC Outlet Phase A Control	II	_
2	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	ĺ	_
3	0.5	VT / GY	539	Run/Crank Ignition 1 Voltage	ĺ	_
4	0.5	WH / GN	4628	DC/AC Inverter Relay Control	I	_
5	0.5	BU / BN	6807	DC/AC Inverter Control	I	_
6	_	_	_	Not Occupied	_	_
7	0.75	BK / WH	10120	AC Outlet 2 Phase A Control	Ш	_
8	0.75	RD	10118	AC Outlet Phase B Control	II	_
9	0.75	Bare	10116	AC Outlet Low Reference	I	_
10	0.35	GN / BU	6133	Body Control Module LIN Bus 2	ĺ	_
11	_	_	_	Not Occupied	_	_
12	0.5	GN / BN	2266	DC/AC Inverter Control 2		_
13	0.75	Bare	10119	AC Outlet 2 Low Reference	l	_
14	0.75	RD / WH	10121	AC Outlet 2 Phase B Control	II	_

### T3 Audio Amplifier X1 (UQA)



4875738

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 33223792 Service Connector: 19369366

Description: 8-Way F 2.8 OCS Series( BK)

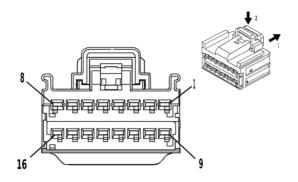
### **Terminal Part Information**

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

### T3 Audio Amplifier X1 (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	200	Right Front Speaker 1 [+] Control	I	_
2	_		_	Not Occupied	_	_
3	2.5	BU	201	Left Front Speaker 1 [+] Control	I	_
4	3	RD / YE	3740	Battery Positive Voltage	I	_
5	2.5	YE / BK	117	Right Front Speaker [-] Control 1	I	_
6	_	_	_	Not Occupied	_	_
7	2.5	BN / BU	118	Left Front Speaker [-] Control 1	I	_
8	3	BK / WH	651	Signal Ground	I	_

### T3 Audio Amplifier X2 (UQA)



4332214

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 15512506 Service Connector: 13591061

Description: 16-Way F 1.5 OCS Series( BK)

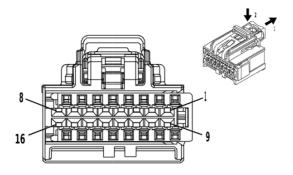
### **Terminal Part Information**

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

### T3 Audio Amplifier X2 (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1		_		Not Occupied	_	_
2	0.5	WH / YE	1853	Right Front Midrange Speaker [+] Control	I	_
3	0.5	BU / VT	1857	Left Front Midrange Speaker [+] Control	I	_
4	0.5	WH	46	Right Rear Speaker [+] Control	I	_
5	0.5	GN	199	Left Rear Speaker [+] Control	I	_
6	_	_	_	Not Occupied	_	_
7	0.5	YE / WH	1860	Front Center Speaker [+] Control	I	_
8 - 9	_	_	_	Not Occupied	_	_
10	0.5	BN / BK	1953	Right Front Midrange Speaker [-] Control	I	_
11	0.5	BU / BN	1957	Left Front Midrange Speaker [-] Control	I	_
12	0.5	BU / BK	115	Right Rear Speaker [-] Control	I	_
13	0.5	GN / BK	116	Left Rear Speaker [-] Control	I	_
14				Not Occupied		
15	0.5	BU / YE	1960	Front Center Speaker [-] Control	I	_
16	_	_	_	Not Occupied	_	_

### T3 Audio Amplifier X4 (UQA)



4256181

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 35016345 Service Connector: 13519740

Description: 16-Way F 0.64 OCS Series(BN)

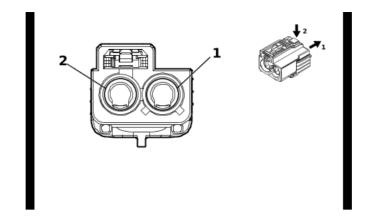
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Service by Cable	No Tool Required	No Tool Required	

### T3 Audio Amplifier X4 (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 7		_	_	Not Occupied	_	_
8	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
9	_	_	_	Not Occupied	_	_
10	0.35	WH / VT	8580	Automotive Audio Bus A2B Serial Data 1 [+]	I	_
11	0.35	YE / BU	8579	Automotive Audio Bus A2B Serial Data 1 [-]	I	_
12 - 15		_	_	Not Occupied	_	_
16	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data		_

### **T4P High Frequency Antenna X1 (U2K)**



5907715

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516431

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way F Coax Type(CU)

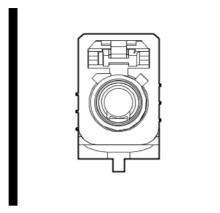
### **Terminal Part Information**

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

### T4P High Frequency Antenna X1 (U2K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble		(AM/FM) Antenna RF Signal	_	_

### T4P High Frequency Antenna X1 (- U2K)





5633209

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516408

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type( BK)

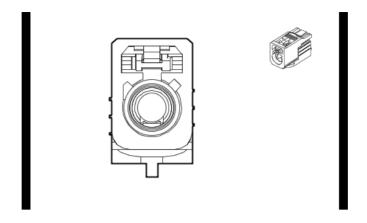
### **Terminal Part Information**

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

### T4P High Frequency Antenna X1 (- U2K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
		Coax Ca- ble		(AM/FM) Antenna RF Signal	Ι	_

### T4P High Frequency Antenna X2 (KI7)



5633890

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516410

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type( BU)

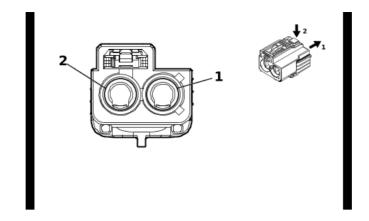
### **Terminal Part Information**

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

### T4P High Frequency Antenna X2 (KI7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble		(GPS only) Coaxial Antenna GPS Signal	Ι	_

### T4P High Frequency Antenna X2 (- KI7)



5661671

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516425

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way F Coax Type( VT)

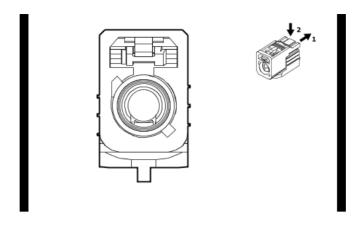
### **Terminal Part Information**

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

### T4P High Frequency Antenna X2 (- KI7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_		Coax Ca- ble		(GPS/Cell) Coaxial Antenna Cell/GPS combined Signal	_	_

### **T4TA Auxiliary Wireless Communication Interface Antenna**



5518436

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13516416

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(BG)

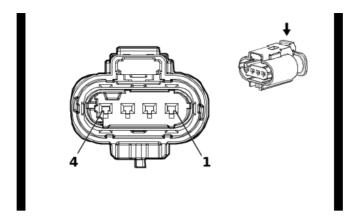
### **Terminal Part Information**

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

### **T4TA Auxiliary Wireless Communication Interface Antenna**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
_	_	Coax Ca- ble		WiFi Antenna Coaxial Signal	I	_

# **T8A Ignition Coil 1**



5402120

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10092979 Service Connector: 84889372

Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

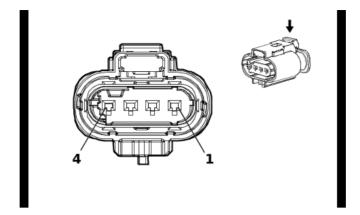
### **Terminal Part Information**

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

### **T8A Ignition Coil 1**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	6450	Engine Even Bank Ground	1	_
2	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	I	_
3	0.75	BU / VT	2121	Ignition Control 1	1	_
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	1	_

# **T8B Ignition Coil 2**



5402120

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10092979 Service Connector: 84889372

Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

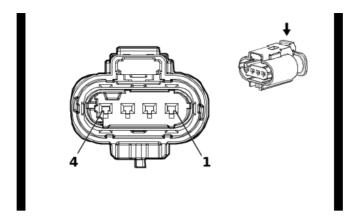
### **Terminal Part Information**

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

### **T8B Ignition Coil 2**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	6450	Engine Even Bank Ground	1	_
2	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	I	_
3	0.75	BU / WH	2122	Ignition Control 2	1	_
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	1	_

# **T8C Ignition Coil 3**



5402120

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10092979 Service Connector: 84889372

Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

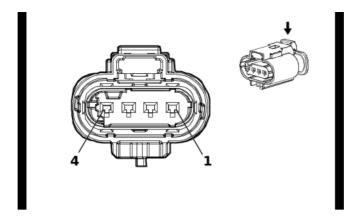
### **Terminal Part Information**

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

### **T8C Ignition Coil 3**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	6450	Engine Even Bank Ground		_
2	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	I	_
3	0.75	GN / BU	2123	Ignition Control 3	I	_
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	_

## **T8D Ignition Coil 4**



5402120

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10092979 Service Connector: 84889372

Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

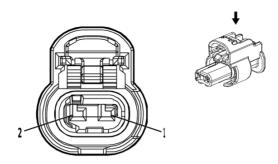
### **Terminal Part Information**

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

## **T8D Ignition Coil 4**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	6450	Engine Even Bank Ground		_
2	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	I	_
3	0.75	YE / BU	2124	Ignition Control 4	I	_
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	_

## **T10KA Low Frequency Console Number 2 Antenna**



4690744

### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness

OEM Connector: 1-2296694-3

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 MCON Series, Sealed( BK)

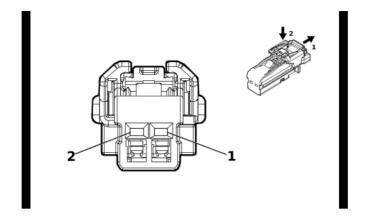
### **Terminal Part Information**

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

## **T10KA Low Frequency Console Number 2 Antenna**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / BK	3552	Interior Passive Entry Antenna 1 High Signal	_	_
2	0.35	WH	3553	Interior Passive Entry Antenna 1 Low Signal	Ī	_

## **T10UA Low Frequency Console Antenna**



4115691

### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness

OEM Connector: 6098-8988

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 MCON Series( BK)

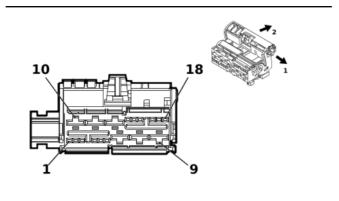
### **Terminal Part Information**

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

## **T10UA Low Frequency Console Antenna**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / BK	4996	Immobilizer Antenna Signal [+]	_	_
2	0.35	WH / GY	4997	Immobilizer Antenna Low Signal	Ī	_

## **T19 Multifunction Power Supply Converter**



3825662

### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 13549243 Service Connector: 84789277

Description: 18-Way F 0.64 MTS, 6.3 MCP Series(BK)

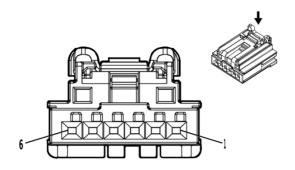
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	19300632	J-35616-64B (L-BU)	J-38125-215A	
II	19367600	J-35616-42 (RD)	J-38125-556	

## **T19 Multifunction Power Supply Converter**

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	_	_	_	Not Occupied	_	_
4	0.5	VT / GN	4320	Powertrain Sensor Bus Enable	I	_
5	0.5	YE / BK	625	Starter Enable Relay Control	I	_
6	_	_	_	Not Occupied	_	_
7	2.5	BK	3750	Ground	II	_
8	2.5	RD / VT	2640	Battery Positive Voltage	II	_
9	2.5	RD / GN	2173	12V Regulated Supply Voltage 2	II	_
10	2.5	RD / YE	2172	12V Regulated Supply Voltage 1	II	_
11	2.5	RD / BU	2540	Battery Positive Voltage	II	_
12	2.5	BK	3750	Ground	II	_
13	0.5	BU / GY	4054	Private Serial Data Powertrain CAN Bus [-] Serial Data	I	_
14	0.5	BU / GY	4054	Private Serial Data Powertrain CAN Bus [-] Serial Data	I	_
15	0.5	WH	4055	Private Serial Data Powertrain CAN Bus [+] Serial Data	I	
16	0.5	WH	4055	Private Serial Data Powertrain CAN Bus [+] Serial Data	I	_
17 - 18	_	_	_	Not Occupied	_	_

## T22 Wireless Accessory Charging Module (K4C)



5020940

### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness Extension Harness

OEM Connector: 2035363-6

Service Connector: Service by Harness - See Part Catalog Description: 6-Way F 0.64 Generation Y Series(BK)

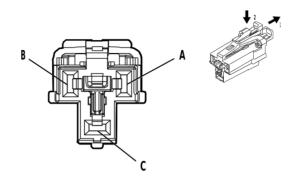
### **Terminal Part Information**

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

## T22 Wireless Accessory Charging Module (K4C)

					•	
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / VT	6340	Battery Positive Voltage	I	_
2	0.5	BK	2050	Ground	I	_
3	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
4	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_
5	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	_
6	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	_

## X80L Front Floor Console Accessory Power Rear Receptacle (KCA)



4872413

### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness

OEM Connector: 33386302

Service Connector: Service by Harness - See Part Catalog

Description: 3-Way F 2.8 APEX Series(GY)

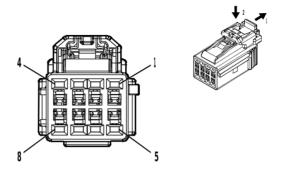
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
Ι	Not required	J-35616-35 (VT)	No Tool Required	

## X80L Front Floor Console Accessory Power Rear Receptacle (KCA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Α	1	VT	1001	Retained Accessory Power Ignition Voltage	I	_
В	_	_	_	Not Occupied	_	_
С	1	BK	2050	Ground	I	_

## X81ACA Front Floor Console Accessory Power Rear Receptacle - 110V AC (KI6)



5086387

### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness

OEM Connector: 6098-8443

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 1.2 Series( BK)

### **Terminal Part Information**

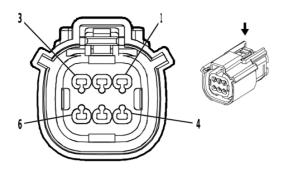
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-16 (L-GN)	No Tool Required	

## X81ACA Front Floor Console Accessory Power Rear Receptacle - 110V AC (KI6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	10117	AC Outlet Phase A Control	I	
2	_	_	_	Not Occupied	_	
3	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	I	
4	0.5	BU / BN	6807	DC/AC Inverter Control	I	
5	0.75	RD	10118	AC Outlet Phase B Control	I	_
6	_	_	_	Not Occupied	_	_
7	0.5	BK	2050	Ground	Ī	
8	_	_	_	Not Occupied	_	_

### 6-388

## X81AP Pickup Box Accessory Power Receptacle - 110V AC (KC9)



1986157

### **Connector Part Information**

Harness Type: Body Rear Wiring Harness

OEM Connector: 33472-0616

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 MX Series, Sealed(BK)

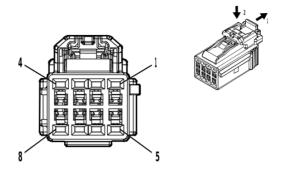
### **Terminal Part Information**

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	

## X81AP Pickup Box Accessory Power Receptacle - 110V AC (KC9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	I	_
2	0.5	GN / BN	2266	DC/AC Inverter Control 2	I	_
3	_	_	_	Not Occupied	_	_
4	0.75	BK / WH	10120	AC Outlet 2 Phase A Control	II	_
5	0.5	BK	850	Ground	İ	
6	0.75	RD / WH	10121	AC Outlet 2 Phase B Control	II	_

## X81BCA Front Floor Console Accessory Power Rear Receptacle - 220V AC (KI7)



5086387

### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness

OEM Connector: 6098-8443

Service Connector: Service by Harness - See Part Catalog

Description: 8-Way F 1.2 Series( BK)

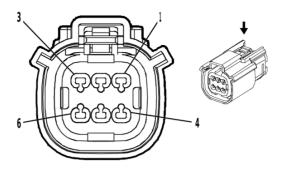
### **Terminal Part Information**

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

## X81BCA Front Floor Console Accessory Power Rear Receptacle - 220V AC (KI7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	10117	AC Outlet Phase A Control	I	_
2	_	_	_	Not Occupied	_	_
3	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	I	_
4	0.5	BU / BN	6807	DC/AC Inverter Control	I	_
5	0.75	RD	10118	AC Outlet Phase B Control	I	_
6	_	_	_	Not Occupied	_	_
7	0.5	BK	2050	Ground		_
8	_	_	_	Not Occupied	_	_

## X81BP Pickup Box Accessory Power Receptacle - 220V AC (KCA)



1986157

### **Connector Part Information**

Harness Type: Pickup Box Accessory Power Receptacle Jumper Harness

OEM Connector: 13577153

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 MX Series, Sealed(BK)

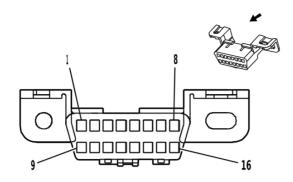
### **Terminal Part Information**

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

## X81BP Pickup Box Accessory Power Receptacle - 220V AC (KCA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	1	_
2	0.5	GN / BN	2266	DC/AC Inverter Control 2	I	_
3	_	_	_	Not Occupied	_	_
4	0.75	BK / WH	10120	AC Outlet 2 Phase A Control	I	_
5	0.5	BK	850	Ground	Ī	_
6	0.75	RD / WH	10121	AC Outlet 2 Phase B Control	Ī	_

## 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**

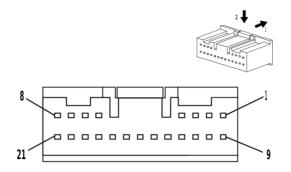
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	13580059	J-35616-14 (GN)	J-38125-12A	

### X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / BN	4983	AUTOSAR CAN Bus [+] 7 Serial Data	I	_
2	0.35	GN	2578	Private Serial Data Presentation CAN Bus [+] 1 Serial Data	I	_
3	0.35	YE / WH	4973	Ethernet Bus 1R [+]	I	_
4	0.75	BK	2050	Ground	I	_
5	0.5	BK / WH	2151	Signal Ground	I	_
6	0.35	YE	4981	AUTOSAR CAN Bus [+] 6 Serial Data	I	_
7	0.35	VT	2580	Private Serial Data Presentation CAN Bus [+] 2 Serial Data	I	_
8	0.35	WH	7207	Ethernet Bus 1 Enable Signal	I	_
9	0.35	WH	4982	AUTOSAR CAN Bus [-] 7 Serial Data	I	_
10	0.35	BN	2577	Private Serial Data Presentation CAN Bus [-] 1 Serial Data	I	_
11	0.35	YE	4972	Ethernet Bus 1R [-]	I	_
12	0.35	GN / WH	4975	Ethernet Bus 1T [+]	I	_
13	0.35	GN	4974	Ethernet Bus 1T [-]	I	_
14	0.35	WH	4980	AUTOSAR CAN Bus [-] 6 Serial Data	I	_
15	0.35	GY	2579	Private Serial Data Presentation CAN Bus [-] 2 Serial Data	ı	_
16	0.5	RD / BU	3240	Battery Positive Voltage	I	_

## 6-392

## X85 Steering Wheel Airbag Coil X1



3960237

### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: ATLCPB-21B-2AY Service Connector: 13510218

Description: 21-Way F 0.64 Series( YE)

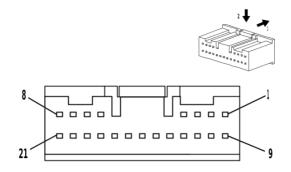
### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	13575742	J-35616-64B (L-BU)	J-38125-215A	
II	13575865	J-35616-64B (L-BU)	J-38125-215A	

## X85 Steering Wheel Airbag Coil X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK / WH	6051	Steering Wheel Ground	I	_
2	0.35	GN / WH	3287	Horn Switch Signal	I	_
3 - 6	_	_	_	Not Occupied	_	_
7	0.5	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	II	_
8	0.5	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	II	_
9	0.35	GN / GY	10652	Radio LIN Bus 1	I	_
10	0.35	GN / BK	2858	Body Control Module LIN Bus 12	I	_
11	0.35	BN / GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	_
12	0.35	BK / VT	1449	Steering Wheel Resistor Ladder Low Reference	I	_
13	_	_	_	Not Occupied	_	_
14	0.35	RD / GN	5140	Battery Positive Voltage	I	_
15	0.35	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	_
16 - 19	_	_		Not Occupied	_	_
20	0.5	BK	2050	Ground	I	_
21	0.35	RD / BN	10040	Battery Positive Voltage	Ī	_

## X85 Steering Wheel Airbag Coil X2



3960237

### **Connector Part Information**

Harness Type: Steering Wheel Horn Switch Wiring Harness

OEM Connector: 13510218

Service Connector: Service by Harness - See Part Catalog

Description: 21-Way F 0.64 Series(YE)

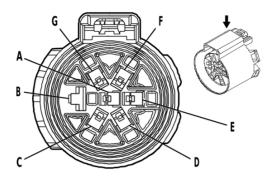
### **Terminal Part Information**

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

## X85 Steering Wheel Airbag Coil X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / WH	6051	Steering Wheel Ground	I	_
2	0.35	GN / WH	3287	Horn Switch Signal	I	_
3 - 6	_	_	_	Not Occupied	_	_
7	0.35	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	I	_
8	0.35	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	I	_
9	0.35	RD / BN	10040	Battery Positive Voltage	I	_
10	0.5	BK	6050	Steering Wheel Ground	I	_
11 - 14	_	_	_	Not Occupied	_	_
15	0.35	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	_
16	0.35	RD / GN	5140	Battery Positive Voltage	I	_
17	_	_	_	Not Occupied	_	_
18	0.35	BK / VT	1449	Steering Wheel Resistor Ladder Low Reference	I	_
19	0.35	BN / GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal		_
20	0.35	GN / BK	2858	Body Control Module LIN Bus 12		_
21	0.35	GN / BK	10652	Radio LIN Bus 1		_

## X88B Tow Vehicle Electrical Receptacle (U1D & Z82)



2056936

### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 13857223 Service Connector: 86816072

Description: 7-Way F 280, 630 Metri-Pack Series, Sealed(BK)

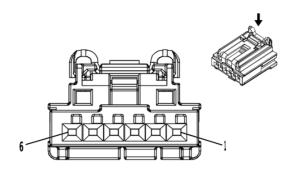
### **Terminal Part Information**

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		

## X88B Tow Vehicle Electrical Receptacle (U1D & Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
Λ	0.75	GN / WH	5189	Trailer Backup Lamp Control	Ш	U1D+ Z82
A	0.75	WH / GN	1624	Trailer Backup Lamp Control	II	Z82- U1D
В	5	WH	22	Trailer Ground	I	_
С	2.5	BU	47	Trailer Auxiliary Control	II	_
D	0.75	GN / VT	1619	Right Rear Trailer Stop/Turn Lamp Control	II	_
Е	3	RD / GY	1042	Battery Positive Voltage	II	_
F	1.5	GY / BN	2109	Trailer Park Lamp Control II		_
G	0.75	YE / GY	1618	Left Rear Trailer Stop/Turn Lamp Control	II	_

## X92C Single Charge Only 2nd Row Receptacle - Floor Console Rear



3960313

### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness

OEM Connector: 2035363-4

Service Connector: Service by Harness - See Part Catalog Description: 6-Way F 0.64 Generation Y Series(BK)

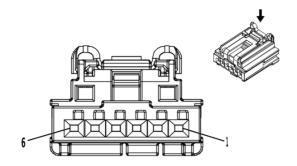
### **Terminal Part Information**

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

## X92C Single Charge Only 2nd Row Receptacle - Floor Console Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	4701	Retained Accessory Power Control		_
2			_	Not Occupied	_	_
3	0.5	BK	2050	Ground	I	_
4 - 6			_	Not Occupied		_

## X92G USB 2 Port Receptacle X1 (UBI/UBP)



3960313

### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 2035363-4 Service Connector: 19332786

Description: 6-Way F 0.64 Generation Y Series(BK)

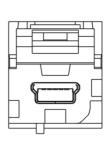
### **Terminal Part Information**

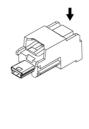
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

## X92G USB 2 Port Receptacle X1 (UBI/UBP)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / WH	7240	Battery Positive Voltage	1	_
2	0.35	YE	6817	LED Backlight Dimming Control 1	1	_
3	0.5	BK / WH	2151	Signal Ground	I	_
4 - 6				Not Occupied		_

## X92G USB 2 Port Receptacle X2 (UBI/UBP)





3028807

### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness USB

OEM Connector: 13585100

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 5-Way M 2.0 Mini-B USB Type(GY)

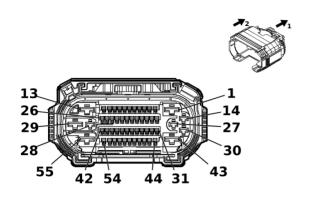
### **Terminal Part Information**

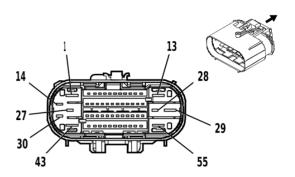
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	Not required	No Tool Required	No Tool Required		

## X92G USB 2 Port Receptacle X2 (UBI/UBP)

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

# Inline Harness Connector End Views X100 Chassis Wiring Harness to Body Wiring Harness





5246872 4994369

### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 35016653 Service Connector: 19371184

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series,

Sealed(GY)

### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 35205174

Service Connector: 84727363

Description: 55-Way M 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	19370818	J-35616-12 (BU)	J-38125-215A		
II	84634921	J-35616-42 (RD)	J-38125-212		
III	84847992	J-35616-32 (OG)	J-38125-36		
IV	84867140	J-35616-13 (BU)	J-38125-215A		
V	84992391	J-35616-5 (PU)	J-38125-215A		

## **X100 Chassis Wiring Harness to Body Wiring Harness**

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	6	GY	4368	II		Right Park Brake Motor Low Refer- ence	1	2.5	GY	4368	III	_
2	0.5	VT / BU	5705	1		Powertrain Main Relay Control	2	0.5	VT / BU	5705	IV	_
3	0.5	BK	150	I	_	Ground	3	0.5	BK	150	IV	_
4	_	_	_	_	_	Not Occu- pied	4	_	_	_	_	_
5	0.5	BU / YE	4979	I		AUTOSAR CAN Bus [+] 2 Serial Data	5	0.5	BU / YE	4979	IV	_
6	0.5	WH	4978	I	_	AUTOSAR CAN Bus [-] 2 Serial Data	6	0.5	WH	4978	IV	_
7	_	_	_	_	_	Not Occu- pied	7	_	_	_	_	_

## X100 Chassis Wiring Harness to Body Wiring Harness (cont'd)

	Pin Size Color Circuit Terminal							<u>_</u>				
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	BU / WH	1334	I	_	Left Rear Turn Signal Lamp Control 2	8	0.5	BU / WH	1334	IV	_
9	0.75	BU / VT	1335	I	ı	Right Rear Turn Signal Lamp Control 2	9	0.5	BU / VT	1335	IV	_
10	_	_	_	_	_	Not Occu- pied	10	_	_	_	_	_
11	0.5	BN / BU	6993	I	_	Left Rear Park Lamp Control	11	0.5	BN / BU	6993	IV	_
12	0.5	BN / GY	6995	I	_	Right Rear Park Lamp Control	12	0.5	BN / GY	6995	IV	_
13	6	RD / BN	440	II	_	Battery Positive Voltage	13	6	RD / BN	440	III	_
14	_	_	_	_	_	Not Occu- pied	14	_	_	_	_	_
15	0.75	BU / WH	10119	I	_	AC Outlet 2 Low Refer- ence	15	0.75	BK	10119	IV	_
16	0.75	BK / WH	10120	I	_	AC Outlet 2 Phase A Control	16	0.75	BK / WH	10120	IV	_
17	0.75	RD / WH	10121	I	_	AC Outlet 2 Phase B Control	17	0.75	RD / WH	10121	IV	_
18 - 19			_		_	Not Occu- pied	18 - 19	_	_	_		_
20	0.5	GY / VT	2691	I	_	Rear Closure Actuator Lock Control	20	0.5	GY / VT	2691	IV	_
21	0.5	GY / BK	2680	I	١	Lock Actua- tors Unlock Control 2	21	0.5	GY / BK	2680	IV	_
22 - 23	_		_	_	_	Not Occu- pied	22 - 23	_	_	_	_	_
24	0.75	GY / BU	840	I	_	Battery Posi- tive Voltage	24	0.75	GY / BU	840	IV	_
25	0.5	GN / YE	6846	I	_	Rear License Plate Lamp Control	25	0.35	GN / YE	6846	IV	_
26 - 27	_	_		_	_	Not Occu- pied	26 - 27	_	_			_
28	_		_	_	_	Ground	28	2.5	BK	150	V	
29	6	GY / BK	4369	II	_	Left Park Brake Motor Low Refer- ence	29	2.5	GY / BK	4369	III	_
30		_	_	_	_	Not Occu- pied	30	_	_	_		_

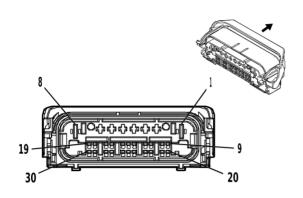
## X100 Chassis Wiring Harness to Body Wiring Harness (cont'd)

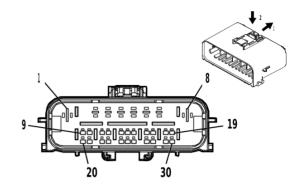
	٥.					ness to bot						
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
31	0.5	BN / BU	1602	I	1	Front Brake Pad Wear Sensor Sig- nal	31	0.5	BN / BU	1602	IV	_
32	0.5	BK / WH	2051	I	_	Signal Ground	32	0.5	BK / WH	2051	IV	_
33	0.5	YE	872	I		Right Front Wheel Speed Sensor Sig- nal	33	0.5	YE	872	IV	_
34	0.5	GY / BN	7065	I		Right Front Wheel Speed Sensor Con- trol	34	0.5	GY / BN	7065	IV	_
35	0.5	GY	830	I		Left Front Wheel Speed Sensor Sig- nal	35	0.5	GY	830	IV	_
36	0.5	GY / WH	7064	I	-	Left Front Wheel Speed Sensor Con- trol	36	0.5	GY / WH	7064	IV	_
37	0.5	VT	882	I	-	Right Rear Wheel Speed Sensor Sig- nal	37	0.5	VT	882	IV	_
38	0.5	GY / YE	7128	I	_	Right Rear Wheel Speed Sensor Con- trol	38	0.5	GY / YE	7128	IV	_
39	0.5	BU	884	I	_	Left Rear Wheel Speed Sensor Sig- nal	39	0.5	BU	884	IV	_
40	0.5	GY / BK	7127	I	_	Left Rear Wheel Speed Sensor Con- trol	40	0.5	GY / BK	7127	IV	_
41 - 42		_		_	_	Not Occu- pied	41 - 42	_	_	-	1	_
43	6	GN / VT	1988	II	_	Right Park Brake Motor Apply Control	43	2.5	GN / VT	1988	III	_
44	_	_	_	_	_	Not Occu- pied	44	_	_	_		_
45	0.5	GN / YE	1616	I	_	Rear Brake Pad Wear Sensor Sig- nal	45	0.5	GN / YE	1616	IV	_
46	0.5	YE	2375	I	_	Left Rear Outer Park- ing Assist Sensor Sig- nal	46	0.5	YE	2375	IV	_
47	0.75	BN / WH	2374	I	_	Object Sensor Voltage Reference	47	0.75	BN / WH	2374	IV	_

## X100 Chassis Wiring Harness to Body Wiring Harness (cont'd)

	Din Sine Color Circuit Torminal Outlan Function Bin Sine Color Circuit Torminal Outlan											
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
48	0.5	YE / BU	2376	_	-	Left Rear Middle Park- ing Assist Sensor Sig- nal	48	0.5	YE / BU	2376	IV	
49	0.5	YE / VT	2378	_	ı	Right Rear Outer Park- ing Assist Sensor Sig- nal	49	0.5	YE / VT	2378	IV	ı
50	0.75	BK / GY	2379	1		Object Sen- sor Low Reference	50	0.75	BK / GY	2379	IV	
51	0.5	YE / WH	2377	I	_	Right Rear Middle Park- ing Assist Sensor Sig- nal	51	0.5	YE / WH	2377	IV	_
52 - 54		_			_	Not Occu- pied	52 - 54	_			_	_
55	6	WH	2001	II	_	Left Park Brake Motor Apply Control	55	2.5	WH	2001	III	_

## **X101 Body Wiring Harness to Chassis Wiring Harness**





4650150 4817393

### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 2301462-1 Service Connector: 19368311

Description: 30-Way F 1.2 MCON, 2.8, 6.3 MCP Series,

Sealed(BK)

### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 13545870 Service Connector: 19371177

Description: 30-Way M 1.2 MCON, 2.8, 6.3 MCP Series,

Sealed(BK)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19331733	J-35616-12 (BU)	J-38125-215A
II	19371214	J-35616-4A (PU)	J-38125-215A
III	13578827	J-35616-5 (PU)	J-38125-36
IV	19330704	J-35616-13 (BU)	J-38125-215A

## X101 Body Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	_	_		_		Not Occu- pied	1	_	_		_	
2	0.5	BK	2250	П	_	Ground	2	0.5	BK	2250	III	_
3	0.5	WH / YE	7541	II	_	Right Rear Stop Lamp Control	3	0.5	WH / YE	7541	III	
4	0.5	GY / YE	7542	II		Left Rear Stop Lamp Control	4	0.5	GY / YE	7542	III	
5 - 6	_	_		_		Not Occu- pied	5 - 6	_	_		_	
7	2.5	BU	47	II		Trailer Auxili- ary Control	7	2.5	BU	47	III	
8		_				Not Occu- pied	8	_	_			
9	0.5	GN / WH	24	I		Backup Lamp Control	9	0.75	GN / WH	24	IV	
10	0.5	WH / BK	2223	I	_	Trailer Brake Apply Signal	10	0.5	WH / BK	2223	IV	_
11	0.5	YE / BK	2224	I	_	Trailer Brake Enable Sig- nal	11	0.5	YE / BK	2224	IV	_

## X101 Body Wiring Harness to Chassis Wiring Harness (cont'd)

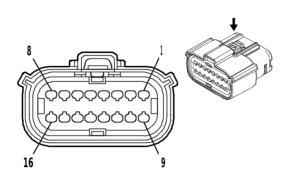
Pin	Size	Color	Circuit	Terminal	Option	Function	Pin	Size	Color	Circuit	Terminal	Option
L	OIZC	00101	Oncore	Type ID	Option	1 dilotion		OIZC	00101	Oncore	Type ID	Option
12	0.5	VT / BK	739	I	_	Run/Crank Ignition 1 Voltage	12	0.5	VT / BK	739	IV	_
13				_		Not Occu- pied	13	_			_	_
14	0.35	BN / YE	820	I	ı	Center High Mounted Stop Lamp Supply Volt- age	14	0.5	BN / YE	820	IV	_
15	0.5	GN / BU	2733	1		Brake Sys- tem Control Module LIN Bus 2	15	0.5	GN / BU	2733	IV	_
16	0.5	BU / YE	4979	I		AUTOSAR CAN Bus [+] 2 Serial Data	16	0.5	BU / YE	4979	IV	_
17	0.5	WH	4978	I		AUTOSAR CAN Bus [-] 2 Serial Data	17	0.5	WH	4978	IV	_
18	0.5	BU / YE	4979	I		AUTOSAR CAN Bus [+] 2 Serial Data	18	0.5	BU / YE	4979	IV	_
19	0.5	WH	4978	I	١	AUTOSAR CAN Bus [-] 2 Serial Data	19	0.5	WH	4978	IV	
20	0.5	GN / BN	2266	I	_	DC/AC Inver- ter Control 2	20	0.5	GN / BN	2266	IV	_
21	0.5	VT / RD	4049	I	_	AC Power Outlet Sen- sor High Reference	21	0.5	VT / RD	4049	IV	_
22	0.5	YE / GN	7122	I	_	Axle Differ- ential Lock Switch Sig- nal	22	0.5	YE / GN	7122	IV	_
23	0.5	YE	7115	I		Rear Axle Differential Lock Indica- tor Control	23	0.5	YE	7115	IV	
24	0.5	VT / GY	7117	I	-	Front Axle Differential Lock Indica- tor Control	24	0.5	VT / GY	7117	IV	_
25	0.5	BU / VT	4101	I	_	AUTOSAR CAN Bus [+] 4 Serial Data	25	0.5	BU / VT	4101	IV	_
26	0.5	WH	4100	I	_	AUTOSAR CAN Bus [-] 4 Serial Data	26	0.5	WH	4100	IV	_
27	0.5	WH	4055	I	_	Private Serial Data Power- train CAN Bus [+] Serial Data	27	0.5	WH	4055	IV	_
28	0.5	BU / GY	4054	I	_	Private Serial Data Power- train CAN Bus [-] Serial Data	28	0.5	BU / GY	4054	IV	_

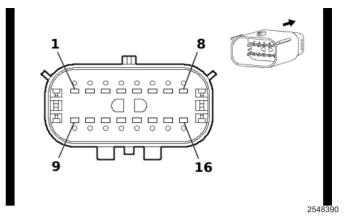
## 6-404 Electrical Component and Inline Harness Connector End Views

## X101 Body Wiring Harness to Chassis Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	0.5	BU / BK	4977	I		AUTOSAR CAN Bus [+] 3 Serial Data	29	0.5	BU / BK	4977	IV	_
30	0.5	WH	4976	I		AUTOSAR CAN Bus [-] 3 Serial Data	30	0.5	WH	4976	IV	_

## **X107 Chassis Wiring Harness to Power Steering Wiring Harness**





### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 33472-1606 Service Connector: 13584788

Description: 16-Way F 1.5 MX Series, Sealed( BK)

### **Connector Part Information**

Harness Type: Power Steering Wiring Harness

OEM Connector: 33482-8601

Service Connector: Service by Harness - See Part Catalog Description: 16-Way M 1.5 MX Series, Sealed( BK)

## **Terminal Part Information**

2548389

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

## X107 Chassis Wiring Harness to Power Steering Wiring Harness

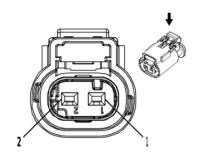
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU / YE	4979	I	_	AUTOSAR CAN Bus [+] 2 Serial Data	1	0.5	BU / YE	4979	II	_
2	0.5	WH	4978	I	_	AUTOSAR CAN Bus [-] 2 Serial Data	2	0.5	WH	4978	II	_
3 - 4	_	_	_	_	_	Not Occu- pied	3 - 4	_	_	_		_
5	0.5	BU / YE	4979	I	_	AUTOSAR CAN Bus [+] 2 Serial Data	5	0.5	BU / YE	4979	II	_
6	0.5	WH	4978	I	_	AUTOSAR CAN Bus [-] 2 Serial Data	6	0.5	WH	4978	II	_
7 - 8	_	_	_	_	_	Not Occu- pied	7 - 8	_	_	_	_	_
9	0.75	VT / WH	7256	I	I	Front Differ- ential Lock Actuator Control	9	0.75	VT / WH	7256	II	_
10	0.75	WH / BK	7254	I	_	Front Differ- ential Lock Actuator Low Control	10	0.75	WH / BK	7254	Ш	_
11 - 12	_	_	_	_	_	Not Occu- pied	11 - 12	_	_	_	_	_

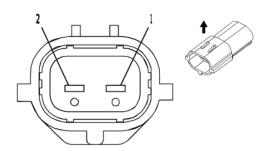
## 6-406 Electrical Component and Inline Harness Connector End Views

## X107 Chassis Wiring Harness to Power Steering Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
13	0.5	YE / WH	1695	Ι		4WD Locked Range Indi- cator Control	13	0.5	YE / WH	1695	II	
14	0.5	GY / BK	1570	I	_	Front Axle Actuator Control	14	0.5	GY / BK	1570	II	1
15	0.5	BK	2250	I	_	Ground	15	0.5	BK	2250	II	_
16	0.5	GN	8016	I	_	Secondary Axle Motor Control	16	0.5	GN	8016	II	

## X144 Engine Wiring Harness to Oil Pump Flow Control Solenoid Valve Harness





2717066 2684367

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 10010337 Service Connector: 13587326

Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

### **Connector Part Information**

Harness Type: Oil Pump Flow Control Solenoid Valve

Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M ( BK)

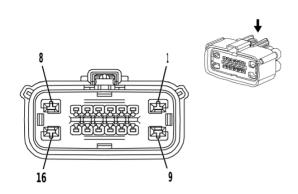
### **Terminal Part Information**

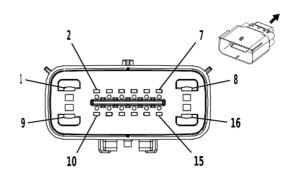
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

### X144 Engine Wiring Harness to Oil Pump Flow Control Solenoid Valve Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE / BN	106	I		Oil Pump Motor Con- trol	1	0.5	YE / BN	106	II	
2	0.5	BU	179	I	_	Engine Oil Pump Con- trol	2	0.5	BU	179	Ш	_

## **X150 Body Wiring Harness to Forward Lamp Wiring Harness**





3684497 2373686

### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 34985-1606 Service Connector: 19352906

Description: 16-Way F 1.5, 2.8 MX Series, Sealed(BK)

### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 34986-1601 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
1	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217
III	19366658	J-35616-5 (PU)	J-38125-12A
IV	86800300	J-35616-3 (GY)	J-38125-217

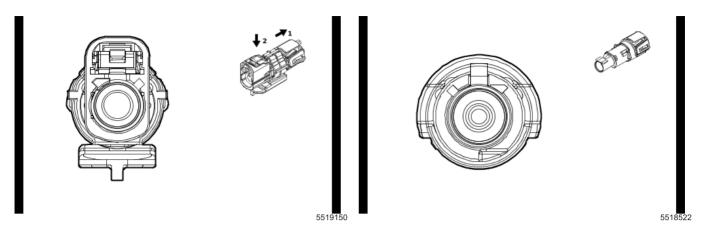
## X150 Body Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	RD / WH	640	I	_	Battery Positive Voltage	1	0.75	RD / WH	640	III	_
2	0.75	YE	712	II	_	Left Head- lamp Low Beam Con- trol	2	0.75	YE	712	IV	-
3	0.75	WH	711	Ш	_	Left Head- lamp High Beam Con- trol	3	0.75	WH	711	IV	_
4	0.35	WH / YE	1254	Ш	_	Left Front Park Lamp Control	4	0.5	WH / YE	1254	IV	
5	0.5	WH / YE	1204	II	_	Left Park Lamp Control 2	5	0.5	WH / YE	1204	IV	
6 - 8					_	Not Occu- pied	6 - 8	1				_
9	2.5	BK	150	I	_	Ground	9	2.5	BK	150	III	_
10	0.5	GY / BU	7538	II	_	Left Front DRL Control	10	0.5	GY / BU	7538	IV	_
11	0.5	BU / WH	1314	II	_	Left Front Turn Signal Lamp Control	11	0.5	BU / WH	1314	IV	_

## X150 Body Wiring Harness to Forward Lamp Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12 - 13	_	_			_	Not Occu- pied	12 - 13	_	_	_		
14	0.5	OG / YE	354	II		Left Front Impact Discriminating Sensor Signal	14	0.5	OG / YE	354	IV	
15	0.5	BK / OG	5045	II	I	Left Front Impact Discriminating Sensor Low Reference	15	0.5	BK / OG	5045	IV	
16	_	_	_	_	_	Not Occu- pied	16	_	_	_	_	_

## X156 Body Wiring Harness to Forward Lamp Wiring Harness (UV2/UXA)



### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13529796

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F Coax Type, Sealed( BK)

### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness COAX

OEM Connector: 33355538

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type( BK)

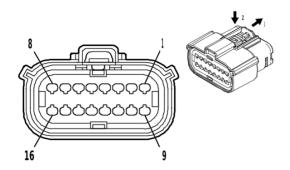
### **Terminal Part Information**

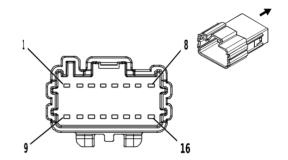
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

## X156 Body Wiring Harness to Forward Lamp Wiring Harness (UV2/UXA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	Coax Cable	_	I	-	Front Vision Camera 1 Coaxial Vid- eo Signal	_	_	Coax Cable	_	I	_

## X160 Engine Wiring Harness to Fuel Injector Wiring Harness





4574233 4223086

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 33472-1866 Service Connector: 13584788

Description: 16-Way F 1.5 MX Series, Sealed(BK)

### **Connector Part Information**

Harness Type: Fuel Injector Wiring Harness

OEM Connector: 13520643 Service Connector: 13584788 Description: 16-Way M ( 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	Not required	No Tool Required	No Tool Required

## **X160 Engine Wiring Harness to Fuel Injector Wiring Harness**

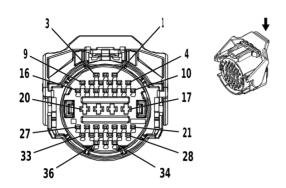
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT / GY	496	Ι		Knock Sen- sor 1 Signal	1	0.5	VT / GY	496	II	_
2	0.75	BN	4801	_	ı	Direct Fuel Injector High Voltage Con- trol Cylinder 1	2	0.75	BN	4801	=	
3	0.5	WH / RD	480	_	ı	Engine Control Vehicle Sensors 5 Volt Reference 1	3	0.5	WH / RD	480	II	_
4	0.75	GY / BU	4804	I	_	Direct Fuel Injector High Voltage Con- trol Cylinder 4	4	0.75	GY / BU	4804	II	_
5	_	_	_		_	Not Occu- pied	5	_	_		_	_
6	0.75	GN	4803	I	_	Direct Fuel Injector High Voltage Con- trol Cylinder 3	6	0.75	GN	4803	II	_
7	0.75	BU	4802	I	_	Direct Fuel Injector High Voltage Con- trol Cylinder 2	7	0.75	BU	4802	II	_

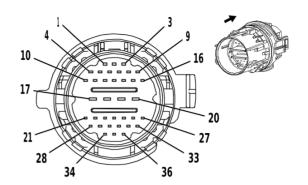
## 6-412 Electrical Component and Inline Harness Connector End Views

## X160 Engine Wiring Harness to Fuel Injector Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal	Option	Function	Pin	Size	Color	Circuit	Terminal	Option
Pin	Size	Color	Circuit	Type ID	Option	Function	Pin	Size	Color	Circuit	Type ID	Option
8	0.5	WH / GY	1876	1		Knock Sen- sor 2 Signal	8	0.5	WH / GY	1876	Ш	_
9	0.5	BK / YE	1716	1		Knock Sen- sor Low Reference 1	9	0.5	BK / YE	1716	=	_
10	0.75	BN / WH	4901	I	I	Direct Fuel Injector High Voltage Sup- ply Cylinder 1	10	0.75	BN / WH	4901	=	_
11	0.5	BU / WH	2918	I	_	Fuel Rail Pressure Sensor Sig- nal	11	0.5	BU / WH	2918	II	_
12	0.5	BK / GN	580	I	_	Engine Control Sensors Low Reference 2	12	0.5	BK / GN	580	Ш	_
13	0.75	BU / WH	4904	I	_	Direct Fuel Injector High Voltage Sup- ply Cylinder 4	13	0.75	BU / WH	4904	II	_
14	0.75	GN / GY	4903	I	_	Direct Fuel Injector High Voltage Sup- ply Cylinder 3	14	0.75	GN / GY	4903	II	_
15	0.75	BU / GY	4902	I	_	Direct Fuel Injector High Voltage Sup- ply Cylinder 2	15	0.75	BU / GY	4902	II	_
16	0.5	BK / GY	2303	I	_	Knock Sen- sor Low Reference 2	16	0.5	BK / GY	2303	II	

## X175 Engine Wiring Harness to Automatic Transmission Wiring Harness





3621473 3977661

### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 2138314-1 Service Connector: 19329922

Description: 36-Way F 1.2 MCON-CB, 2.8 MCP 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: 36-Way M (BK)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575368	J-35616-35 (VT)	J-38125-36
II	19300445	J-35616-12 (BU)	J-38125-11A
III	Not required	No Tool Required	No Tool Required

## X175 Engine Wiring Harness to Automatic Transmission Wiring Harness

Pin	Size	Color	Circuit	Terminal	Option	Function	Pin	Size	Color	Circuit	Terminal	Option
				Type ID							Type ID	
1	0.5	GN / WH	6380	II	l	Torque Converter Clutch Enable Solenoid Valve A Control	1	0.5	GN / WH	6380	III	_
2		_	_	_		Not Occu- pied	2	_	_	_	_	_
3	0.5	VT / WH	422	II	ı	Torque Converter Clutch Solenoid Valve Control	3	0.5	VT / WH	422	III	ı
4	0.5	GN / WH	1530	II	_	Transmission Line Pres- sure Control Solenoid Valve Control	4	0.5	GN / WH	1530	III	_
5	0.5	BN	6400	II	_	Clutch Sole- noid Valve A Control	5	0.5	BN	6400	III	_
6	0.5	BU	6401	II	_	Clutch Sole- noid Valve B Control	6	0.5	BU	6401	III	_

## 6-414 Electrical Component and Inline Harness Connector End Views

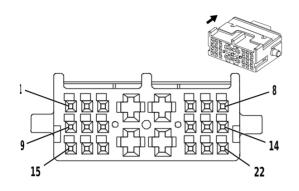
## X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (cont'd)

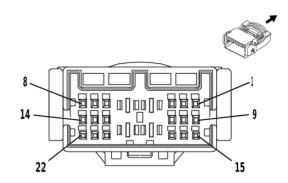
Pin	Size	Color	Circuit	Terminal	Option	Function	Pin	Size	Color	Circuit	Terminal	Option
FIII	SIZE	COIOI	Circuit	Type ID	Ομιιοπ		FIII	Size	COIOI	Circuit	Type ID	Ομιίστι
7	0.5	YE / BN	6210	II	_	Torque Converter Clutch Enable Solenoid Valve B Control	7	0.5	YE / BN	6210	III	_
8	0.5	GN / WH	2968	II	_	Transmission Auxiliary Flu- id Pump Control	8	0.5	GN / WH	2968	III	_
9		_	_	_	_	Not Occu- pied	9	_	_	_		_
10	0.5	GY	6402	II	_	Clutch Sole- noid Valve C Control	10	0.5	GY	6402	III	_
11	0.5	BK / BN	586	II	_	Transmission Fluid Tem- perature Sensor Low Reference	11	0.5	BK / BN	586	III	_
12	0.5	BN / WH	585	II	_	Transmission Fluid Tem- perature Sensor Sig- nal	12	0.5	BN / WH	585	≡	_
13	0.5	WH	4508	II	_	Transmission Clutch G Control	13	0.5	WH	4508	III	_
14	0.5	WH / BU	4507	II	_	Transmission Clutch H Control	14	0.5	WH / BU	4507	III	_
15 - 16		1	_	_	_	Not Occu- pied	15 - 16	_				_
17	1.5	RD / BU	840	I	_	Battery Posi- tive Voltage	17	1.5	RD / GN	840	III	_
18	0.75	GN / GY	6387	I	_	Transmission High Side Driver 1 Con- trol	18	0.75	GN / GY	6387	III	_
19	0.75	GY / BN	6388	I	_	Transmission High Side Driver 2 Con- trol	19	0.75	GY / BN	6388	III	_
20	1.5	BK	450	I	_	Ground	20	1.5	BK	6250	III	_
21	0.5	GN / YE	3337	II	_	Transmission Internal Mode Switch Mode Control Y	21	0.5	GN / YE	3337	III	_
22	0.5	BU / WH	3338	II	_	Transmission Internal Mode Switch Mode Control X	22	0.5	BU / WH	3338	III	_
23		_		_	_	Not Occu- pied	23	_	_			
24	0.5	GY / BU	6358	II	_	Output Speed Signal	24	0.5	GY / BU	6358	III	_

## X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
25	0.5	YE / GN	4170	II		Transmission Output Shaft Speed Sen- sor Circuit 9V Reference	25	0.5	YE / GN	4170	III	
26	0.5	GN / YE	6353	=	l	Input Speed Signal	26	0.5	GN / YE	6353	III	
27	0.5	YE / BU	4171	=		Transmission Input Shaft Speed Sen- sor Circuit 9V Reference	27	0.5	YE / BU	4171	III	I
28	_	_	_	_	_	Not Occu- pied	28	_	_	_	_	
29	0.5	WH / RD	480	II	_	Engine Control Vehicle Sensors 5 Volt Reference 1	29	0.5	WH / RD	480	III	_
30	0.5	BK / GY	626	II	_	Engine Control Vehicle Sensors Low Reference 1	30	0.5	BK / GY	626	III	
31	_	_	_	_		Not Occu- pied	31	_		_	_	_
32	0.5	GN / VT	4510	II	_	Transmission Intermediate Speed Signal	32	0.5	GN / VT	4510	III	_
33	_	_	_	_	_	Not Occu- pied	33	_	_	_	_	_
34	0.5	GY / RD	10817	II		Lubricant Circuit Pressure Sensor 5 Volt Reference	34	0.5	GY / RD	10817	III	I
35	0.5	BU / BK	10819	II	_	Lubricant Circuit Pressure Sensor Low Reference	35	0.5	BU / BK	10819	III	_
36	0.5	GN / YE	10816	II	_	Lubricant Circuit Pressure Sensor Signal	36	0.5	GN / YE	10816	III	_

## X176 Automatic Transmission Wiring Harness - Case to Automatic Transmission Wiring Harness





3977748 3977770

### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 1897543-1

Service Connector: Service by Harness - See Part Catalog

Description: 22-Way F 0.64 Micro-Quadlock, 2.8

Micro-Power Series (NA)

### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 1897540-1

Service Connector: Service by Harness - See Part Catalog

Description: 22-Way M 0.64 Micro-Quadlock, 2.8

Micro-Power Series (NA)

### **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		

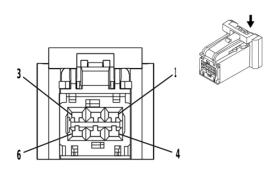
## X176 Automatic Transmission Wiring Harness - Case to Automatic Transmission Wiring Harness

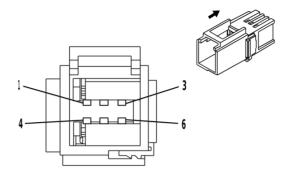
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN / WH	6380	I	I	Torque Converter Clutch Enable Solenoid Valve A Control	1	0.5	GN / WH	6380	=	1
2	0.5	BU / WH	3338	I	I	Transmission Internal Mode Switch Mode Control X	2	0.5	BU / WH	3338	II	
3	0.5	GY / RD	10817	I	ı	Lubricant Circuit Pressure Sensor 5 Volt Reference	3	0.5	GY / RD	10817	Ш	1
4	2.5	GN / GY	6387	I	I	Transmission High Side Driver 1 Con- trol	4	2.5	GN / GY	6387	II	1
5	1.5	WH / RD	480	l	_	Engine Control Vehicle Sensors 5 Volt Reference 1	5	1.5	WH / RD	480	II	
6	_	_	_	_	_	Not Occu- pied	6		_	_	_	_

## X176 Automatic Transmission Wiring Harness - Case to Automatic Transmission Wiring Harness (cont'd)

	Harness (cont a)											
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	WH / BU	4507	I	_	Transmission Clutch H Control	7	0.5	WH / BU	4507	II	_
8	_	_	_	_	-	Not Occu- pied	8	_	_	_	_	
9	0.5	WH	4508	Ι		Transmission Clutch G Control	9	0.5	WH	4508	II	
10	0.5	YE / BN	6210	-	I	Torque Converter Clutch Enable Solenoid Valve B Control	10	0.5	YE / BN	6210	II	
11	0.5	GN / YE	3337	I	_	Transmission Internal Mode Switch Mode Control Y	11	0.5	GN / YE	3337	II	_
12	0.5	BU / BK	10819	1	ı	Lubricant Circuit Pressure Sensor Low Reference	12	0.5	BU / BK	10819	II	
13	0.5	GY	6402	-		Clutch Sole- noid Valve C Control	13	0.5	GY	6402	II	
14	0.5	GN / WH	1530	I	_	Transmission Line Pres- sure Control Solenoid Valve Control	14	0.5	GN / WH	1530	II	
15	0.5	BN / WH	585	I	_	Transmission Fluid Tem- perature Sensor Sig- nal	15	0.5	BN / WH	585	II	_
16	0.5	BK / BN	586	I	_	Transmission Fluid Tem- perature Sensor Low Reference	16	0.5	BK / BN	586	II	_
17	0.5	GN / YE	10816	-	ı	Lubricant Circuit Pressure Sensor Signal	17	0.5	GN / YE	10816	II	ı
18	2.5	GY / BN	6388	1	ı	Transmission High Side Driver 2 Con- trol	18	2.5	GY / BN	6388	II	
19	1.5	BK	450	I		Ground	19	1.5	BK	6250	II	
20	0.5	BK / GY	626	I	_	Engine Control Vehicle Sensors Low Reference 1	20	0.5	BK / GY	626	II	_
21	0.5	BN	6400	Ι	_	Clutch Sole- noid Valve A Control	21	0.5	BN	6400	Ш	_
22	0.5	BU	6401	I	_	Clutch Sole- noid Valve B Control	22	0.5	BU	6401	Ш	_

## X177 Automatic Transmission Wiring Harness to Automatic Transmission Output Speed Sensor Wiring Harness





3977938 3977959

#### **Connector Part Information**

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 13582377

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.2 OCS Series( NA)

#### **Connector Part Information**

Harness Type: Transmission Output Speed Sensor Wiring

Harness

OEM Connector: 13582378

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 0.64 II Series (GY)

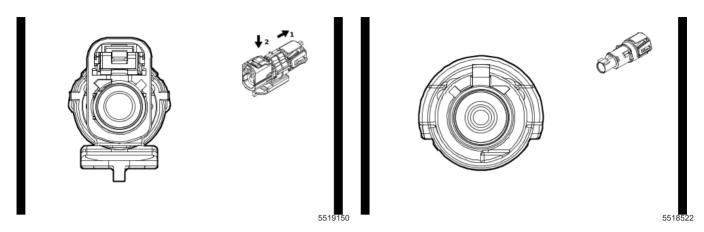
#### **Terminal Part Information**

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

## X177 Automatic Transmission Wiring Harness to Automatic Transmission Output Speed Sensor Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	GY / BU	6358	-		Output Speed Signal	1	0.35	YE	6358	II	_
2	0.35	YE / GN	4170	_	-	Transmission Output Shaft Speed Sen- sor Circuit 9V Reference	2	0.35	RD	4170	II	_
3	0.35	YE / GN	4170	_	I	Transmission Output Shaft Speed Sen- sor Circuit 9V Reference	3	0.35	WH	4170	II	_
4	0.35	YE / BU	4171	_	I	Transmission Input Shaft Speed Sen- sor Circuit 9V Reference	4	0.35	YE / BU	4171	II	_
5	0.35	GN / YE	6353	I	_	Input Speed Signal	5	0.35	BK	6353	II	_
6	0.35	GN / VT	4510	I	_	Transmission Intermediate Speed Signal	6	0.35	GN	4510	II	_

# X195 Forward Lamp Wiring Harness to Front Object Alarm Sensor Wiring Harness (ZR2)



#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness COAX

OEM Connector: 35187047

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F Coax Type, Sealed( BK)

#### **Connector Part Information**

Harness Type: Front Object Alarm Sensor Wiring

Harness COAX

OEM Connector: 33355538

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type( BK)

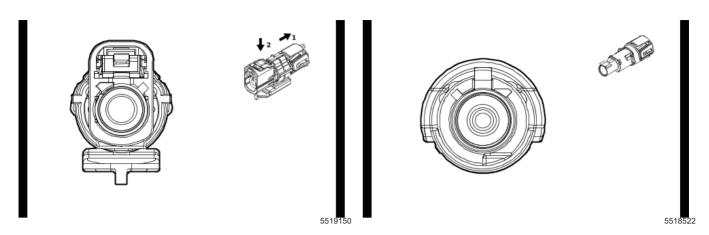
#### **Terminal Part Information**

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

## X195 Forward Lamp Wiring Harness to Front Object Alarm Sensor Wiring Harness (ZR2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	Coax Cable		I	ı	Front Vision Camera 1 Coaxial Vid- eo Signal			Coax Cable		I	-

## X195 Forward Lamp Wiring Harness to Front View Camera Switch Wiring Harness (-ZR2)



#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness COAX

OEM Connector: 35187047

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F Coax Type, Sealed( BK)

#### **Connector Part Information**

Harness Type: Front View Camera Switch Wiring

Harness COAX

OEM Connector: 33355538

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type( BK)

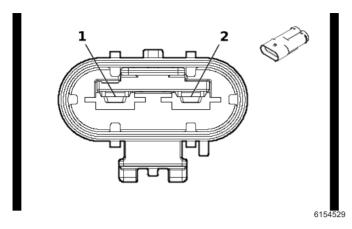
#### **Terminal Part Information**

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

## X195 Forward Lamp Wiring Harness to Front View Camera Switch Wiring Harness (-ZR2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	Coax Cable		I		Front Vision Camera 1 Coaxial Vid- eo Signal	_	_	Coax Cable	_	I	

## X198 Power Steering Wiring Harness to Battery Negative Cable Extension Cable



#### **Connector Part Information**

Harness Type: Power Steering Wiring Harness

OEM Connector: 13544729

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 12 MAS Series( BK)

#### **Connector Part Information**

Harness Type: Battery Negative Cable Extension Cable

OEM Connector: 13533168

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way M ( BK)

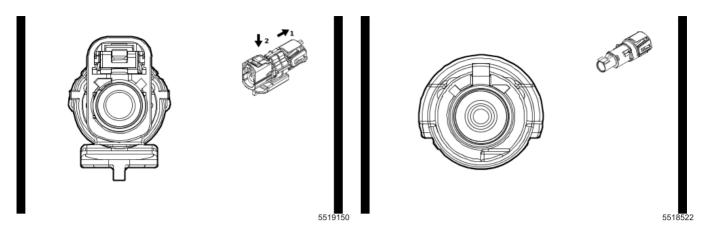
### **Terminal Part Information**

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

## X198 Power Steering Wiring Harness to Battery Negative Cable Extension Cable

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	16	RD / VT	542	I	_	Battery Positive Voltage	1	16	RD / VT	542	Ш	_
2	16	BK	250	I	_	Ground	2	16	BK	250	II	_

## **X199 Chassis Wiring Harness to Body Wiring Harness**



## **Connector Part Information**

Harness Type: Chassis Wiring Harness COAX

OEM Connector: 35187047

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F Coax Type, Sealed(BK)

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516806

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type, Sealed( BK)

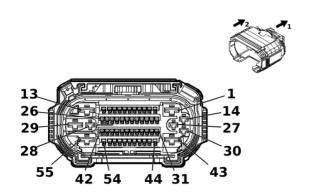
## **Terminal Part Information**

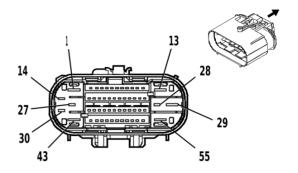
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
1	Not required	No Tool Required	No Tool Required

## X199 Chassis Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_		Coax Cable	_	I	-	Rear Vision Camera Co- axial Video Signal	_	_	Coax Cable	_	I	

## **X201 Engine Wiring Harness to Body Wiring Harness**





5246872 4994369

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 35016653 Service Connector: 19371184

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series,

Sealed(GY)

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 35205174 Service Connector: 84727363

Description: 55-Way M 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	19332901	J-35616-35 (VT)	J-38125-212
II	19370818	J-35616-12 (BU)	J-38125-215A
III	84867140	J-35616-13 (BU)	J-38125-215A
IV	84992391	J-35616-5 (PU)	J-38125-215A

## **X201 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 - 3	ı	_	_		ı	Not Occu- pied	1 - 3		ı			_
4	0.5	GN / VT	4621	II	1	Engine Con- trol Module LIN Bus 1	4	0.5	GN / VT	4621	III	_
5	0.5	WH	4055	II	ı	Private Serial Data Power- train CAN Bus [+] Serial Data	5	0.5	WH	4055	III	_
6	0.5	BU / GY	4054	Ш	I	Private Serial Data Power- train CAN Bus [-] Serial Data	6	0.5	BU / GY	4054	III	_
7	0.5	BU / BK	4977	II	١	AUTOSAR CAN Bus [+] 3 Serial Data	7	0.5	BU / BK	4977	III	_
8	0.5	WH	4976	II		AUTOSAR CAN Bus [-] 3 Serial Data	8	0.5	WH	4976	III	_
9 - 14	_	_	_	_	_	Not Occu- pied	9 - 14	_	_	_	_	_

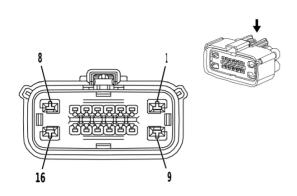
## X201 Engine Wiring Harness to Body Wiring Harness (cont'd)

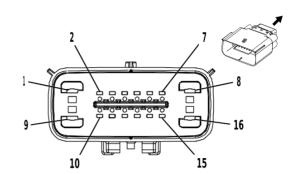
Pin	Size	Color	Circuit	Terminal	Option	Function	Pin	Size	Color	Circuit	Terminal	Option
				Type ID							Type ID	
15	0.5	WH / RD	480	II	_	Engine Control Vehicle Sensors 5 Volt Reference 1	15	0.5	WH / RD	480	III	_
16	0.5	WH / GN	5380	Ш	-	Brake Posi- tion Sensor Signal	16	0.5	WH / GN	5380	III	1
17	0.5	BK / GY	626	II		Engine Control Vehicle Sensors Low Reference 1	17	0.5	BK / GY	626	III	1
18	0.5	BK / GY	626	II		Engine Control Vehicle Sensors Low Reference 1	18	0.5	BK / GY	626	III	1
19	0.5	BU / GY	636	II		Ambient Air Temperature Sensor Sig- nal	19	0.5	BU / GY	636	III	1
20	0.5	YE / BK	625	II	_	Starter Ena- ble Relay Control	20	0.5	YE / BK	625	III	_
21	0.5	VT / GN	4320	II	_	Powertrain Sensor Bus Enable	21	0.5	VT / GN	4320	III	_
22	0.5	VT / BK	2139	II	_	Run/Crank Ignition 1 Voltage	22	0.5	VT / BK	2139	III	_
23		_	_	_	_	Not Occu- pied	23	_	_	_	_	_
24	0.5	WH / RD	1164	II	_	Accelerator Pedal Posi- tion 5V Reference 1	24	0.5	WH / RD	1164	III	_
25	0.5	YE / WH	1161	II	_	Accelerator Pedal Posi- tion Signal 1	25	0.5	YE / WH	1161	III	_
26	0.5	BK / BU	1271	II	_	Accelerator Pedal Posi- tion Low Reference 1	26	0.5	BK / BU	1271	III	_
27	1	_	_	_	_	Not Occu- pied	27	_	_	_	_	_
28	0.75	RD / GN	1840	I	_	Battery Posi- tive Voltage	28	0.75	RD / GN	1840	IV	_
29 - 31	_	_	_	_	_	Not Occu- pied	29 - 31	_	_	_	_	_
32	0.5	BU / BN	7573	II	_	Air Condi- tioning Com- pressor Sole- noid Valve Control	32	0.5	BU / BN	7573	III	_
33	0.5	BU / YE	7574	II	_	Air Condi- tioning Com- pressor Sole- noid Valve Control	33	0.5	BU / YE	7574	III	_

## X201 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
34	_	_	_	_		Not Occu- pied	34	_	_		_	
35	0.5	YE	4063	=	l	Hood Status A Signal	35	0.5	YE	4063	III	
36	_		_		l	Not Occu- pied	36					
37	0.5	VT / GY	139	Ш		Run/Crank Ignition 1 Voltage	37	0.5	VT / BK	739	III	
38 - 39	_	_	_	_		Not Occu- pied	38 - 39	_	_	_		-
40	0.5	BN / RD	1274	II	_	Accelerator Pedal Posi- tion 5V Reference 2	40	0.5	BN / RD	1274	III	_
41	0.5	GN / WH	1162	II		Accelerator Pedal Posi- tion Signal 2	41	0.5	GN / WH	1162	III	
42	0.5	BK / VT	1272	II	١	Accelerator Pedal Posi- tion Low Reference 2	42	0.5	BK / VT	1272	III	I
43 - 46	_	_	_	_		Not Occu- pied	43 - 46	_	_	_	_	
47	0.5	BU / RD	460	II	_	Engine Control Sensors 5 Volt Reference 1	47	0.5	BU / RD	460	III	_
48	0.5	BK / YE	548	II	_	Engine Control Sensors Low Reference 1	48	0.5	BK / YE	548	III	_
49	0.5	YE / WH	3200	II	_	Throttle Inlet Absolute Pressure Sensor Sig- nal	49	0.5	YE / WH	3200	III	_
50 - 55	_	_	_	_	_	Not Occu- pied	50 - 55	_	_	_	_	_

## **X204 Engine Wiring Harness to Chassis Wiring Harness**





3684497 2373686

#### **Connector Part Information**

Harness Type: Engine Wiring Harness

OEM Connector: 34985-1601 Service Connector: 19352906

Description: 16-Way F 1.5, 2.8 MX Series, Sealed(BK)

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 34986-1601 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
1	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217
III	19366658	J-35616-5 (PU)	J-38125-12A
IV	86800300	J-35616-3 (GY)	J-38125-217

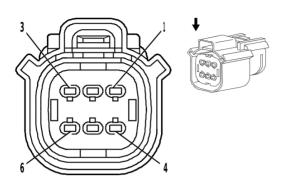
## **X204 Engine Wiring Harness to Chassis Wiring Harness**

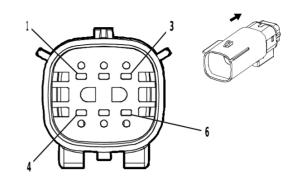
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	RD / WH	2242	I	_	Battery Positive Voltage	1	3	RD / WH	2242	III	_
2		_	_		_	Not Occu- pied	2	_	_	_		
3	0.5	GY / BK	1570	II		Front Axle Actuator Control	3	0.5	GY / BK	1570	IV	
4	0.5	YE / WH	1695	II		4WD Locked Range Indi- cator Control	4	0.5	YE / WH	1695	IV	
5	١	_				Not Occu- pied	5		_			
6	0.5	VT / GN	4320	=		Powertrain Sensor Bus Enable	6	0.5	VT / GN	4320	IV	
7	0.5	GN / GY	465	II	_	Fuel Pump Primary Re- lay Control	7	0.5	GN / GY	465	IV	
8 - 10	ı	_	ı			Not Occu- pied	8 - 10		_	ı		
11	0.5	GN / VT	4621	Ш	_	Engine Con- trol Module LIN Bus 1	11	0.5	GN / VT	4621	IV	_

## X204 Engine Wiring Harness to Chassis Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	0.5	BU / YE	4979	Ш		AUTOSAR CAN Bus [+] 2 Serial Data	12	0.5	BU / YE	4979	IV	
13	0.5	WH	4978	II	_	AUTOSAR CAN Bus [-] 2 Serial Data	13	0.5	WH	4978	IV	_
14	0.5	BU / BK	4977	II		AUTOSAR CAN Bus [+] 3 Serial Data	14	0.5	BU / BK	4977	IV	_
15	0.5	WH	4976	II	_	AUTOSAR CAN Bus [-] 3 Serial Data	15	0.5	WH	4976	IV	_
16	_	_	_	_	_	Not Occu- pied	16	_	_	_	_	_

## X250A Radiator Extension Wiring Harness to Forward Lamp Wiring Harness





1664625 1986159

#### **Connector Part Information**

Harness Type: Radiator Extension Wiring Harness

**OEM Connector: Not Available** 

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 33482-3640 Service Connector: 19370462

Description: 6-Way M 1.5 MX Series, Sealed(BK)

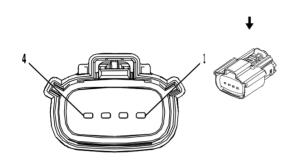
## **Terminal Part Information**

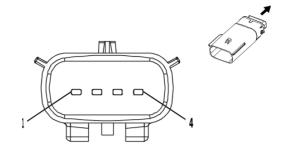
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

## X250A Radiator Extension Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN / VT	4621	I	_	Engine Con- trol Module LIN Bus 1	1	0.5	GN / VT	4621	II	_
2	0.5	BK	150	I	_	Ground	2	0.5	BK	150	II	_
3	0.5	VT / BU	5705	I	_	Powertrain Main Relay Control	3	0.5	VT / BU	5705	II	_
4	_	_	_	_	_	Not Occu- pied	4	_	_	_	_	_
5	0.5	BU / GY	636	I	_	Ambient Air Temperature Sensor Sig- nal	5	0.5	BU / GY	636	II	-
6	0.5	BK / GY	626	I	_	Engine Control Vehicle Sensors Low Reference 1	6	0.5	BK / GY	626	II	_

## **X250J Windshield Washer Pump Extension Wiring Harness to Forward Lamp Wiring Harness**





2474747 2917338

#### **Connector Part Information**

Harness Type: Windshield Washer Pump Extension Wiring

Harness

OEM Connector: 33471-0406 Service Connector: 19330690

Description: 4-Way F 1.5 Series, Sealed(BK)

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 33481-4401 Service Connector: 19330690

Description: 4-Way M 1.5 Series, Sealed(BK)

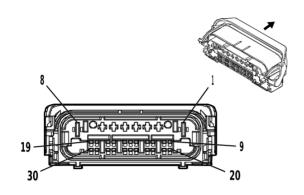
#### **Terminal Part Information**

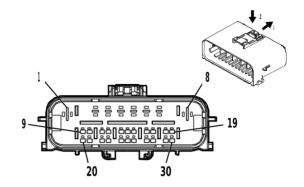
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

## X250J Windshield Washer Pump Extension Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75 0.75	GY / VT BK	228 2250		UXA - UXA	Windshield Washer Pump Con- trol Ground	1	0.75 0.75	GY / VT BK	228 2250	==	UXA - UXA
2	0.75 0.75	BU / VT GY / VT	392 228		UXA - UXA	Rear Window Washer Pump Con- trol Windshield Washer Pump Con- trol	2	0.75 0.75	BU / VT GY / VT	392 228	 	UXA - UXA
3	0.5	VT	185	1	_	Low Washer Fluid Indica- tor Control	3	0.5	VT	185	II	_
4	0.5	BK	2250	I	_	Ground	4	0.5	BK	2250	II	_

## X250R Body Wiring Harness to Forward Lamp Wiring Harness





4650150 4817393

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 2301462-1 Service Connector: 19368311

Description: 30-Way F 1.2 MCON, 2.8, 6.3 MCP Series,

Sealed(BK)

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 13545870 Service Connector: 19371177

Description: 30-Way M 1.2 MCON, 2.8, 6.3 MCP Series,

Sealed(BK)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19331733	J-35616-12 (BU)	J-38125-215A
II	19371214	J-35616-4A (PU)	J-38125-215A
III	85158596	J-35616-40 (BU)	EL-38125-560A
IV	13575376	J-35616-32 (OG)	J-38125-36
V	13578827	J-35616-5 (PU)	J-38125-36
VI	19330704	J-35616-13 (BU)	J-38125-215A

## X250R Body Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GY / VT	228	III	_	Windshield Washer Pump Con- trol	1	0.75	GY / VT	228	IV	_
2	0.75	BU / VT	392	II		Rear Window Washer Pump Con- trol	2	0.75	BU / VT	392	V	_
3	0.75	RD / YE	740	II		Battery Positive Voltage	3	0.75	RD / YE	740	V	_
4	1	YE	312	II	_	Right Head- lamp Low Beam Con- trol	4	0.75	YE	312	V	_
5	0.75	WH	311	Ш	_	Right Head- lamp High Beam Con- trol	5	0.75	WH	311	V	_
6	0.35	BU / GN	1253	II	_	Right Front Park Lamp Control	6	0.5	BU / GN	1253	V	_

## X250R Body Wiring Harness to Forward Lamp Wiring Harness (cont'd)

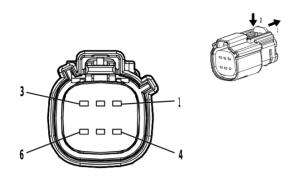
						to Forward			9		(	
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	GN / VT	1315	II	_	Right Front Turn Signal Lamp Control	7	0.5	GN / VT	1315	V	_
8	0.75	BN / GY	29	III	_	Horn Control	8	0.75	BN / GY	29	IV	_
9		_	-	_	_	Not Occu- pied	9			_	_	_
10	0.35	VT	185	Ι		Low Washer Fluid Indica- tor Control	10	0.5	VT	185	VI	_
11 - 12	_	_		_	_	Not Occu- pied	11 - 12	_	_	_	_	_
13	0.5	GN / VT	4621	I	_	Engine Con- trol Module LIN Bus 1	13	0.5	GN / VT	4621	VI	_
14	_	_	_	_	_	Not Occu- pied	14	_	_	_	_	_
15	0.5	VT / BU	5705	I	_	Powertrain Main Relay Control	15	0.5	VT / BU	5705	VI	_
16	0.5	VT	1203	I	_	Right Park Lamp Control 2	16	0.5	VT	1203	VI	_
17	0.5	BU / BN	7539	I	_	Right Front DRL Control	17	0.5	BU / BN	7539	VI	_
18 - 19	_		_	_	_	Not Occu- pied	18 - 19	_	_		_	_
20	0.5	BU / GY	636	I		Ambient Air Temperature Sensor Sig- nal	20	0.5	BU / GY	636	VI	_
21	0.5	BK / GY	626	_	ı	Engine Control Vehicle Sensors Low Reference 1	21	0.5	BK / GY	626	VI	_
22	0.35	BN / GN	4064	Ι	_	Hood Status B Signal	22	0.5	BN / GN	4064	VI	_
23	0.5	YE	4063	I	_	Hood Status A Signal	23	0.5	YE	4063	VI	_
24	0.5	BU / RD	460	I	_	Engine Control Sensors 5 Volt Reference 1	24	0.5	BU / RD	460	VI	_
25	0.5	BK / YE	548	I	_	Engine Control Sensors Low Reference 1	25	0.5	BK / YE	548	VI	_
26	0.5	YE / WH	3200	I	_	Throttle Inlet Absolute Pressure Sensor Sig- nal	26	0.5	YE / WH	3200	VI	_
27	0.5	BN / GY	5061	I		Left Front Fog Lamp Control	27	0.5	BN / GY	5061	VI	
28	_	_	_		_	Not Occu- pied	28	_	_	_		

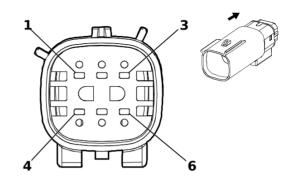
## 6-432 Electrical Component and Inline Harness Connector End Views

## X250R Body Wiring Harness to Forward Lamp Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	0.5	OG / GN	1409	_	ı	Right Front Impact Dis- criminating Sensor Sig- nal	29	0.5	OG / GN	1409	VI	ı
30	0.5	BK / OG	5600	l	_	Right Front Impact Dis- criminating Sensor Low Reference	30	0.5	BK / OG	5600	VI	_

# **X260 Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness (T40)**





4828881 5318944

#### **Connector Part Information**

Harness Type: Front Object Alarm Sensor Wiring Harness

OEM Connector: 33472-0670

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.5 MX Series, Sealed( GY)

#### **Connector Part Information**

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 33482-3628 Service Connector: 84856300

Description: 6-Way M 1.5 MX Series, Sealed(GY)

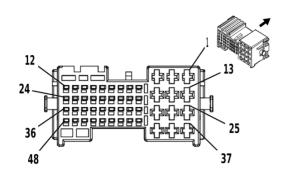
### **Terminal Part Information**

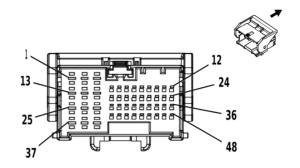
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

### X260 Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness (T40)

			•							•		, ,
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BN / GY	5061	I		Left Front Fog Lamp Control	1	0.5	BN / GY	5061	II	ı
2	0.5	BK	550	I		Ground	2	0.75	BK	550	II	
3 - 6	_	_	_	_	_	Not Occu- pied	3 - 6	_	_	_	_	_

## **X300 Body Wiring Harness to Instrument Panel Wiring Harness**





3277913 3277901

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 2109452-2 Service Connector: 19329739

Description: 48-Way F 1.2 MCON, 2.8 MCP Series(BK)

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 5-2109455-2 Service Connector: 19329740

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
1	19329758	J-35616-12 (BU)	J-38125-215A
II	87814662	J-35616-4A (PU)	J-38125-557
III	13575574	J-35616-5 (PU)	J-38125-215A
IV	86509266	J-35616-13 (BU)	J-38125-215A

## X300 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	1	RD / BN	1140	II		Battery Positive Voltage	1	1	RD / BN	1140	III	_
2	1	RD / BU	1240	Ш		Battery Positive Voltage	2	1	RD / BU	1240	III	_
3	0.35	RD / VT	3340	Ш		Battery Positive Voltage	3	0.35	RD / VT	3340	III	_
4	0.35	GN / BU	6133	I		Body Control Module LIN Bus 2	4	0.35	GN / BU	6133	IV	_
5	0.35	BU / WH	4985	I	_	AUTOSAR CAN Bus [+] 5 Serial Data	5	0.35	BU / WH	4985	IV	_
6	0.35	BU / YE	4984	I	_	AUTOSAR CAN Bus [-] 5 Serial Data	6	0.35	BU / YE	4984	IV	_
7	0.35	BU / WH	4985	I	_	AUTOSAR CAN Bus [+] 5 Serial Data	7	0.35	BU / WH	4985	IV	1
8	0.35	BU / YE	4984	I	_	AUTOSAR CAN Bus [-] 5 Serial Data	8	0.35	BU / YE	4984	IV	_
9	0.35	GN / YE	2731	I	_	Brake System Control Module LIN Bus 1	9	0.35	GN / YE	2731	IV	_

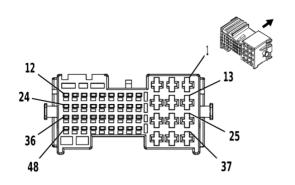
## X300 Body Wiring Harness to Instrument Panel Wiring Harness (cont'd)

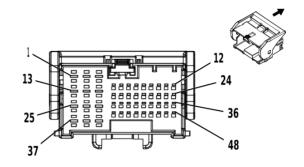
Pin	Size	Color	Circuit	Terminal	Option	Function	Pin	Size	Color	Circuit	Terminal	Option
<u> </u>		20.0.		Type ID	- 6				20.0.		Type ID	- 6
10	0.5	GN / BU	2733	I	_	Brake Sys- tem Control Module LIN Bus 2	10	0.35	GN / BU	2733	IV	_
11	0.5 0.35	BU / VT BU / VT	4101 4101		( UFB/ UKI/ U1D) - ( A45) A45	AUTOSAR CAN Bus [+] 4 Serial Data AUTOSAR CAN Bus [+] 4 Serial Data	11	0.35	BU / VT	4101	IV	_
12	0.5 0.35	WH WH	4100 4100	-	( UFB/ UKI/ U1D) - ( A45) A45	AUTOSAR CAN Bus [-] 4 Serial Data AUTOSAR CAN Bus [-] 4 Serial Data	12	0.35	WH	4100	IV	
13	1.5	RD / WH	1340	II	_	Battery Posi- tive Voltage	13	1.5	RD / WH	1340	III	_
14	1.5	RD / GN	1540	II	_	Battery Posi- tive Voltage	14	1.5	RD / GN	1540	III	_
15	0.75	RD / WH	3440	II	l	Battery Positive Voltage	15	0.75	RD / WH	3440	III	_
16 - 17		_	_			Not Occu- pied	16 - 17	_	_			
18	0.35	BU	4987	I	_	AUTOSAR CAN Bus [+] 1 Serial Data	18	0.35	BU	4987	IV	_
19	0.35	WH	4986	I		AUTOSAR CAN Bus [-] 1 Serial Data	19	0.35	WH	4986	IV	_
20	0.35	GY	1715	I		Windshield Wiper Switch High Signal	20	0.35	GY	1715	IV	
21	0.5	VT / OG	3482	I	I	Driver Seat Belt Anchor Pretensioner Low Control	21	0.5	VT / OG	3482	IV	1
22	0.5	OG / YE	3481	I	ı	Driver Seat Belt Anchor Pretensioner High Control	22	0.5	OG / YE	3481	IV	
23	0.5	GY / OG	3480	I		Passenger Seat Belt An- chor Preten- sioner Low Control	23	0.5	GY / OG	3480	IV	1
24	0.5	OG / BN	3479	I	_	Passenger Seat Belt An- chor Preten- sioner High Control	24	0.5	OG / BN	3479	IV	_
25	0.75	GN / BK	116	II	_	Left Rear Speaker [-] Control	25	0.75	GN / BK	116	III	_
26	0.75	GN	199	II	_	Left Rear Speaker [+] Control	26	0.75	GN	199	III	_

## X300 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
27 - 28		_	_	_	_	Not Occu- pied	27 - 28		_	_	_	_
29	0.5	OG / YE	354	I		Left Front Impact Discriminating Sensor Signal	29	0.5	OG / YE	354	IV	_
30	0.5	BK / OG	5045	I	_	Left Front Impact Discriminating Sensor Low Reference	30	0.5	BK / OG	5045	IV	_
31	0.5	OG / GN	1409	I	I	Right Front Impact Dis- criminating Sensor Sig- nal	31	0.5	OG / GN	1409	IV	_
32	0.5	BK / OG	5600	I		Right Front Impact Dis- criminating Sensor Low Reference	32	0.5	BK / OG	5600	IV	_
33	0.5	VT / OG	3478	1	I	Driver Seat Belt Retrac- tor Preten- sioner Low Control	33	0.5	VT / OG	3478	IV	_
34	0.5	OG / WH	3477	I	-	Driver Seat Belt Retrac- tor Preten- sioner High Control	34	0.5	OG / WH	3477	IV	_
35	0.5	WH / OG	3476	1	l	Passenger Seat Belt Re- tractor Pre- tensioner Low Control	35	0.5	WH / OG	3476	IV	_
36	0.5	OG / GN	3475	I	Ι	Passenger Seat Belt Re- tractor Pre- tensioner High Control	36	0.5	OG / GN	3475	IV	_
37 - 44	_	_	_	_	_	Not Occu- pied	37 - 44	_	_	_	_	_
45	0.35	GY / GN	328	I	_	Interior Lamp Defeat Switch Sig- nal	45	0.35	GY / GN	328	IV	_
46	0.35	GY	156	I	_	Courtesy Lamp Switch Signal	46	0.35	GY	156	IV	_
47	0.5	GY	157	I	_	Interior Lamp Control	47	0.5	GY	157	IV	_
48	0.5	WH / BN	6815	I	_	Inadvertent Load Control	48	0.5	WH / BN	6815	IV	_

## **X301 Body Wiring Harness to Instrument Panel Wiring Harness**





3924402 3924404

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 1-2109452-3 Service Connector: 19329737

Description: 48-Way F 1.2 MCON, 2.8 MCP Series(GY)

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 1-2109455-3 Service Connector: 19329738

Description: 48-Way M 1.2 MCON, 2.8 MCP Series(GY)

## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300446	J-35616-12 (BU)	J-38125-12A
II	87814662	J-35616-4A (PU)	J-38125-557
III	13575574	J-35616-5 (PU)	J-38125-215A
IV	86509266	J-35616-13 (BU)	J-38125-215A
V	Not required	No Tool Required	No Tool Required

## **X301 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	2.5	BU	47	II		Trailer Auxili- ary Control	1	2.5	BU	47	III	
2	2.5	RD / BN	4142	II	I	Primary Fused Bat- tery Positive Voltage	2	2.5	RD / BN	4142	III	I
3	0.5	RD / VT	1940	II	_	Battery Positive Voltage	3	0.5	RD / VT	1940	III	_
4	0.5	YE	6817	I	_	LED Back- light Dim- ming Control 1	4	0.5	YE	6817	IV	_
5	0.5	VT / GY	7117	I	_	Front Axle Differential Lock Indica- tor Control	5	0.5	VT / GY	7117	IV	
6	0.5	YE	7115	I	_	Rear Axle Differential Lock Indica- tor Control	6	0.5	YE	7115	IV	_
7	0.5	YE / GN	7122	I	_	Axle Differ- ential Lock Switch Sig- nal	7	0.5	YE / GN	7122	IV	_

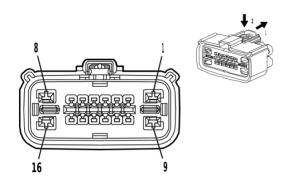
## X301 Body Wiring Harness to Instrument Panel Wiring Harness (cont'd)

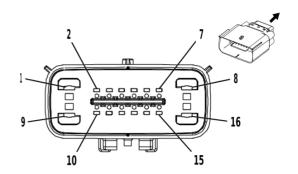
Pin	Size	Color	Circuit		Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	_	_	_	_	_	Not Occu- pied	8	_	_	_	_	_
9	0.5	YE	2375	I	П	Left Rear Outer Park- ing Assist Sensor Sig- nal	9	0.5	YE	2375	V	_
10	0.75	BN / WH	2374	I		Object Sen- sor Voltage Reference	10	0.75	BN / WH	2374	V	
11	0.5	YE / BU	2376	_		Left Rear Middle Park- ing Assist Sensor Sig- nal	11	0.5	YE / BU	2376	<b>&gt;</b>	_
12	0.5	YE / VT	2378	I	П	Right Rear Outer Park- ing Assist Sensor Sig- nal	12	0.5	YE / VT	2378	V	_
13 - 20	_	_	_		_	Not Occu- pied	13 - 20	_	_	_		
21	0.35	BU / YE	7176	Ι		All Windows Open Switch Signal	21	0.35	BU / YE	7176	IV	
22	0.35	GN / WH	24	-		Backup Lamp Control	22	0.35	GN / WH	24	IV	_
23	0.5	YE / WH	2377	_		Right Rear Middle Park- ing Assist Sensor Sig- nal	23	0.5	YE / WH	2377	٧	_
24	0.75	BK / GY	2379	I	_	Object Sen- sor Low Reference	24	0.75	BK / GY	2379	V	_
25	0.75 0.5	BN / BU BU / BN	118 1957	==	UQ3 UQA	Left Front Speaker [-] Control 1 Left Front Midrange Speaker [-] Control	25	0.75 0.5	BN / BU BU / BN	118 1957	≡	UQ3 UQA
26	0.75 0.5	BU BU / VT	201 1857	=	UQ3 UQA	Left Front Speaker 1 [+] Control Left Front Midrange Speaker [+] Control	26	0.75 0.5	BU BU / VT	201 1857	≡	UQ3 UQA
27	_	_	_	_	_	Not Occu- pied	27	_	_	_	_	_
28	0.5	VT / BK	739	I	_	Run/Crank Ignition 1 Voltage	28	0.5	VT / BK	739	IV	_
29	0.5	VT / WH	1139	I	_	Run/Crank Ignition 1 Voltage	29	0.5	VT / WH	1139	IV	_
30 - 34	_	_	_	_	_	Not Occu- pied	30 - 34	_	_	_	_	_

## X301 Body Wiring Harness to Instrument Panel Wiring Harness (cont'd)

		7301		viiiiig iii		mstrument	ı an	C1 111	<u>g</u>	arricss	(cont a)	
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
35	0.5	VT / RD	4049	I	_	AC Power Outlet Sen- sor High Reference	35	0.5	VT / RD	4049	IV	_
36	0.5	BU / BN	6807	I	_	DC/AC Inver- ter Control	36	0.5	BU / BN	6807	IV	_
37 - 40	_	_	_	_	_	Not Occu- pied	37 - 40	_	_	_	_	_
41	0.35	RD / BU	3240	I	_	Battery Posi- tive Voltage	41	0.5	RD / BU	3240	IV	_
42	0.35	RD / VT	4040	I	_	Battery Positive Voltage	42	0.35	RD / VT	4040	IV	_
43	0.35	BU	2307	I	_	Passenger Air Bag On Indicator Control	43	0.35	BU	2307	IV	_
44	0.35	GN	2308	I	_	Passenger Air Bag Off Indicator Control	44	0.35	GN	2308	IV	_
45	0.35	VT / WH	5234	I	AL0- C9I	Passenger Seat Belt In- dicator Con- trol	45	0.35	VT / WH	5234	IV	AL0- C9I
46	0.75	Bare	10116	I	_	AC Outlet Low Refer- ence	46	0.75	Bare	10116	IV	_
47	0.75	BK	10117	I	_	AC Outlet Phase A Control	47	0.75	BK	10117	IV	_
48	0.75	RD	10118	I	_	AC Outlet Phase B Control	48	0.75	RD	10118	IV	_

## X302A Front Seat Wiring Harness - Driver to Body Wiring Harness





4283035 2373686

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 34985-2161

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 1.5, 2.8 MX Series, Sealed(YE)

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 34986-1605 Service Connector: 19332830

Description: 16-Way M 1.5, 2.8 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-35616-35 (VT)	No Tool Required
IV	Not required	No Tool Required	No Tool Required
V	19366658	J-35616-5 (PU)	J-38125-12A
VI	86800300	J-35616-3 (GY)	J-38125-217

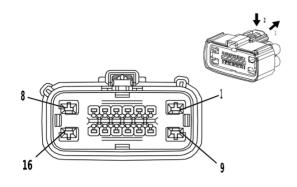
### X302A Front Seat Wiring Harness - Driver to Body Wiring Harness

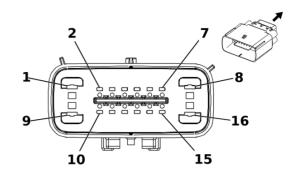
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BK	3750	III	_	Ground	1	2.5	BK	3750	V	_
2	0.5	OG / BU	4962	IV		Driver Seat Back Air Bag High Control	2	0.5	OG / BU	4962	VI	
3	0.5	BK / OG	4963	IV	1	Driver Seat Back Air Bag Low Control	3	0.5	BK / OG	4963	VI	1
4	0.5	BK / OG	1363	I	-	Driver Seat Belt Switch Low Refer- ence	4	0.5	BK / OG	1363	VI	ı
5	0.5	OG / BN	238	I		Driver Seat Belt Switch Signal	5	0.5	OG / BN	238	VI	
6 - 7	ı	_	_		ı	Not Occu- pied	6 - 7	_	_	_		
8	2.5 2.5	RD / BN RD / GY	3640 3540	III	A2X/ A45 AXG+ AED	Battery Positive Voltage Battery Positive Voltage	8	2.5	RD / GY	3540	>	
9	0.5	RD / VT	3340	III	_	Battery Positive Voltage	9	0.35	RD / VT	3340	V	_

## X302A Front Seat Wiring Harness - Driver to Body Wiring Harness (cont'd)

	Accept Front Coat Willing Flat Hood British to Body Willing Flat Hood (Contra)											
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10		_	_	_	_	Not Occu- pied	10		_	_	_	
11	0.5	BU	2425	I	_	Driver Seat Back Heating Temperature Sensor Sig- nal	11	0.5	BU	2425	VI	_
12	0.5	BK / YE	2080	I	_	Driver Heated Seat Thermistor Low Refer- ence	12	0.5	BK / YE	2080	VI	_
13	0.5	YE / GY	2079	I	_	Driver Seat Heating Tem- perature Sensor Sig- nal	13	0.5	YE / GY	2079	VI	_
14	0.75	BN / BK	2078	II	_	Driver Seat Heating Ele- ment Low Reference	14	0.75	BN / BK	2078	VI	_
15	0.75	BN / VT	2077	II	_	Driver Seat Heating Ele- ment Control	15	0.75	BN / VT	2077	VI	_
16	0.75	RD / WH	3440	III	_	Battery Posi- tive Voltage	16	0.75	RD / WH	3440	V	_

## X302B Front Seat Wiring Harness - Driver to Body Wiring Harness





4341043 4209017

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Driver

OEM Connector: 34985-1607

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: Body Wiring Harness OEM Connector: 34986-1602 Service Connector: 19352214

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	86800300	J-35616-3 (GY)	J-38125-217

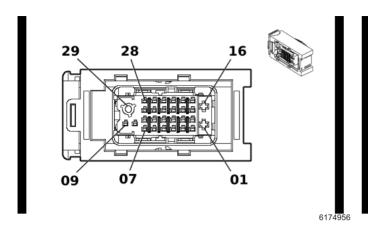
## X302B Front Seat Wiring Harness - Driver to Body Wiring Harness

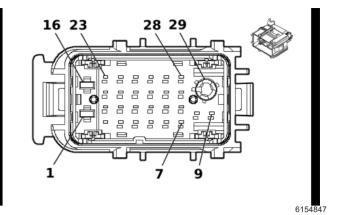
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1			_			Not Occu- pied	1			1		_
2	0.35	BU / GN	614	I		Seat Memory Switch Set Signal	2	0.35	BU / GN	614	II	_
3	0.35	WH	615	I		Seat Memory Switch Sig- nal 1	3	0.35	WH	615	II	_
4 - 9	_	_	_	_	_	Not Occu- pied	4 - 9	_	_	_	_	_
10	0.5	VT / GN	839	I	_	Run/Crank Ignition 1 Voltage	10	0.5	VT / GN	839	II	_
11	0.5	GN / VT	5906	I		Driver Seat Blower Motor Control 1	11	0.5	GN / VT	5906	II	_
12	0.35	WH	4100	I		AUTOSAR CAN Bus [-] 4 Serial Data	12	0.35	WH	4100	II	_
13	0.35	BU / VT	4101	I	_	AUTOSAR CAN Bus [+] 4 Serial Data	13	0.35	BU / VT	4101	II	_
14	0.35	WH	4100	I	_	AUTOSAR CAN Bus [-] 4 Serial Data	14	0.5	WH	4100	II	_

## X302B Front Seat 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
15	0.35	BU / VT	4101	Ι		AUTOSAR CAN Bus [+] 4 Serial Data	15	0.5	BU / VT	4101	II	
16	_	_	_	_	_	Not Occu- pied	16	_	_	_	_	_

## X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver





#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 13539487

Service Connector: Service by Harness - See Part Catalog

Description: 29-Way F 150 Metri-Pack Series(YE)

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 13539488

Service Connector: Service by Harness - See Part Catalog Description: 29-Way M 1.2 CTS, 2.8 DCS-2, Coaxial Series,

Sealed( YE)

## **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
1	Not required	J-35616-2A (GY)	No Tool Required
II	Service by Cable	No Tool Required	J-38125-12A
III	Not required	J-35616-13 (BU)	No Tool Required
IV	Not required	J-35616-17 (L-GN)	No Tool Required
V	Not required	J-35616-5 (PU)	No Tool Required
VI	Not required	No Tool Required	No Tool Required

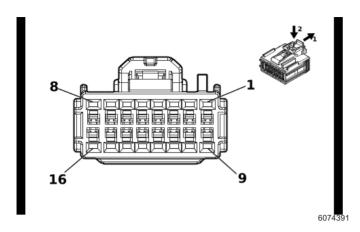
## X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver

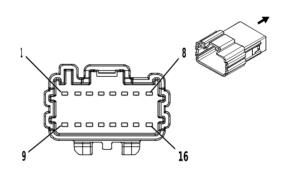
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BK	3750	ĺ		Ground	1	2.5	BK	1150	V	ı
3	0.5	BK / WH	451	I	ı	Signal Ground	3	0.35	BK / WH	3051	IV	
4	0.35	BU / GN	614	I		Seat Memory Switch Set Signal	4	0.35	BU / GN	614	IV	
5	0.35	WH	615	I		Seat Memory Switch Sig- nal 1	5	0.35	WH	615	IV	
7	0.35	GN / YE	6134	I		Body Control Module LIN Bus 3	7	0.35	GN / YE	6134	IV	
11	0.5	OG / GN	2132	I		Left Front Side Impact Sensor Sig- nal	11	0.5	OG / GN	2132	IV	
12	0.5	BK / OG	6628	I		Left Front Side Impact Sensor Low Reference	12	0.5	BK / OG	6628	IV	

## X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver (cont'd)

	A303 Body Willing Harriess to Front Side Door										·	
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
14	0.35	VT / GY	4302	I		Passive Entry Left Front Antenna Signal Low	14	0.5	VT / GY	4302	IV	
15	0.35	VT	4301	1	l	Passive Entry Left Front Antenna Signal High	15	0.5	VT	4301	IV	ı
16	2.5	RD / BU	1240	I		Battery Positive Voltage Battery Positive Voltage	16	2.5 2.5	RD / GY RD / BU	3540 1240	V V	AXG+ AED AEC+ AED
17	0.5	RD / VT	1940	I	_	Battery Posi- tive Voltage	17	0.5	RD / VT	1940	IV	_
19	0.35	VT / GY	126	I	_	Left Front Door Open Switch Sig- nal	19	0.35	VT / GY	126	IV	_
20	0.35	BU	2675	I	_	Left Front Exterior Door Handle Switch Un- lock Signal	20	0.35	BU	2675	IV	
23	0.75	WH	2679	1	_	Lock Actua- tors Unlock Control 1	23	0.75	WH	2679	IV	_
24	0.75	GY	2681	I		Left Front Door Lock Actuator Lock Control	24	0.75	GY	2681	IV	I
27	0.75 1	BU BU	201 201	-	UQ3 UQA	Left Front Speaker 1 [+] Control Left Front Speaker 1 [+] Control	27	0.75 1	BU BU	201 201	IV III	UQ3 UQA
28	0.75 1	BN / BU BN / BU	118 118	1	UQ3 UQA	Left Front Speaker [-] Control 1 Left Front Speaker [-] Control 1	28	0.75 1	BN / BU BN / BU	118 118	IV III	UQ3 UQA
29	0	WH	4725	II	_	Left Sideview Camera LVDS (Low Voltage Dif- ferential Sig- naling) Co- axial Signal	29	0	Coax Cable	4725	VI	

## **X304 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness Extension Harness**





4223086

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-9012 Service Connector: 13541574

Description: 16-Way F 1.2 MCON Series(BK)

#### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness

Extension Harness

OEM Connector: 6098-8828

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way M 1.2 Series( BK)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19371240	J-35616-12 (BU)	J-38125-215A
II	Not required	J-35616-17 (L-GN)	No Tool Required

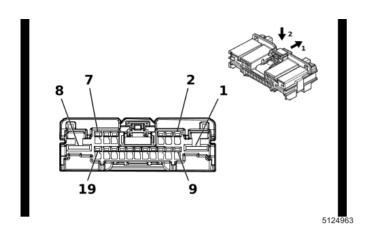
## X304 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness Extension Harness

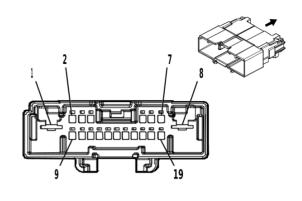
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	WH / BN	2203	I	_	Enhanced Driver Mode 2 Switch Sig- nal	1	0.35	WH / BN	2203	II	_
2	0.35	BK / GY	2204	I	_	Enhanced Driver Mode 1 Switch Low Reference	2	0.35	BK / GY	2204	II	
3	0.35	GN / BU	6133	I		Body Control Module LIN Bus 2	3	0.35	GN / BU	6133	II	1
4	0.35	GN / YE	2731	I	_	Brake Sys- tem Control Module LIN Bus 1	4	0.35	GN / YE	2731	=	I
5		_	_	_	_	Not Occu- pied	5	_	_	_	_	_
6	0.35	VT / GN	39	I	_	Run/Crank Ignition 1 Voltage	6	0.35	VT / GN	39	II	
7	0.5	RD / VT	6340	I	_	Battery Positive Voltage	7	0.5	RD / VT	6340	II	
8	0.35	RD / GN	5140	ı	_	Battery Positive Voltage	8	0.35	RD / GN	5140	II	_

# X304 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness Extension Harness (cont'd)

		· · · · ·	I			·	<del></del>	1	ı	I		
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.35	BU / WH	4985	I		AUTOSAR CAN Bus [+] 5 Serial Data	9	0.35	BU / WH	4985	II	
10	0.35	BU / YE	4984	I	1	AUTOSAR CAN Bus [-] 5 Serial Data	10	0.35	BU / YE	4984	II	1
11	0.35	BU / WH	4985	I		AUTOSAR CAN Bus [+] 5 Serial Data	11	0.35	BU / WH	4985	II	
12	0.35	BU / YE	4984	I		AUTOSAR CAN Bus [-] 5 Serial Data	12	0.35	BU / YE	4984	=	
13	0.35	YE	6817	I	I	LED Back- light Dim- ming Control 1	13	0.35	YE	6817	II	I
14	0.35	GN / VT	4759	I	ı	Transmission Shift Lever Position Indi- cator 2 Con- trol	14	0.35	GN / VT	4759	II	
15	0.35	BK / WH	2151	I	1	Signal Ground	15	0.35	BK / WH	2151	II	
16	0.5	BK	2050	I		Ground Ground	16	0.35 0.5	BK BK	2050 2050	= =	- ( NP0/ NQH/ K4C) ( NP0/ NQH/ K4C)

## X305 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness





4879946

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 6098-8756 Service Connector: 13526847

Description: 19-Way F 1.2, 6.3 Series(BK)

#### **Connector Part Information**

Harness Type: Front Floor Console Wiring Harness

OEM Connector: 6098-8086

Service Connector: Service by Harness - See Part Catalog Description: 19-Way M 1.2 MCON, 6.3 YESC Series( BK)

### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	13578928	J-35616-42 (RD)	J-38125-11A		
II	19371240	J-35616-12 (BU)	J-38125-215A		
III	84962854	J-35616-12 (BU)	J-38125-215A		
IV	Not required	J-35616-13 (BU)	No Tool Required		
V	Not required	J-35616-17 (L-GN)	No Tool Required		
VI	Not required	J-35616-43 (RD)	No Tool Required		

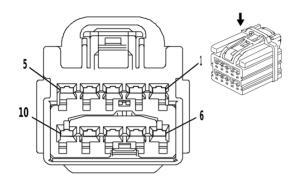
### **X305 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness**

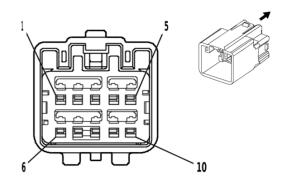
Pin	Size	Color	Circuit	Terminal	Option	Function	Pin	Size	Color	Circuit	Terminal	Option
				Type ID	-						Type ID	-
1	2.5	ВК	2050	I	_	Ground Ground	1	1 2.5	BK BK	2050 2050	VI VI	( KPA) - ( KI6/ KI7/ UB/ UBP) ( KPA) + ( KI6/ KI7/ UB/ UBP)
2	0.5	VT	4701	III	_	Retained Accessory Power Control	2	0.5	VT	4701	V	Ι
3 - 4		_	_		_	Not Occu- pied	3 - 4	_	_	_		
5	0.75	Bare	10116	III		AC Outlet Low Refer- ence	5	0.75	Bare	10116	IV	
6	0.75	BK	10117	III	_	AC Outlet Phase A Control	6	0.75	BK	10117	IV	_
7	0.75	RD	10118	III		AC Outlet Phase B Control	7	0.75	RD	10118	IV	

## X305 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8		_	_	_	_	Not Occu- pied	8	_		_	_	_
9	1	VT	1001	Ш	_	Retained Accessory Power Ignition Voltage	9	1	VT	1001	IV	_
10 - 11	_	_	_	_	_	Not Occu- pied	10 - 11	_	_	_	_	_
12	0.35	WH / GY	4997	III	_	Immobilizer Antenna Low Signal	12	0.35	WH / GY	4997	V	_
13	0.35	BN / BK	4996	III	_	Immobilizer Antenna Sig- nal [+]	13	0.35	BN / BK	4996	V	_
14	0.35	BN / BK	3552	III	_	Interior Pas- sive Entry Antenna 1 High Signal	14	0.35	BN / BK	3552	V	_
15	0.35	WH	3553	III	ı	Interior Pas- sive Entry Antenna 1 Low Signal	15	0.35	WH	3553	<b>V</b>	I
16 - 17			1			Not Occu- pied	16 - 17	l		l		
18	0.5	VT / RD	4049	III	_	AC Power Outlet Sen- sor High Reference	18	0.5	VT / RD	4049	V	_
19	0.5	BU / BN	6807	III		DC/AC Inver- ter Control	19	0.5	BU / BN	6807	V	

## X315 Instrument Panel Wiring Harness to Air Conditioning Wiring Harness





1733159 1732767

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 7283-6455-40 Service Connector: 22708788

Description: 10-Way F 1.5 Kaizen Series( L-GY)

#### **Connector Part Information**

Harness Type: Air Conditioning Wiring Harness

OEM Connector: 7282-6455-40 Service Connector: 22708788

Description: 10-Way M Kaizen Series( L-GY)

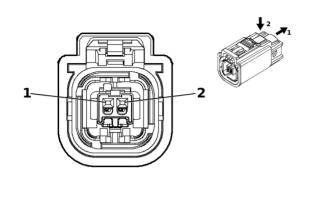
## **Terminal Part Information**

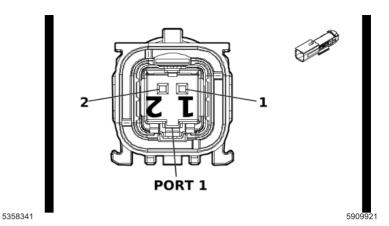
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	13578891	J-35616-2A (GY)	J-38125-11A		
II	Not required	No Tool Required	No Tool Required		

## X315 Instrument Panel 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	ı		l			Not Occu- pied	1 - 4					_
5	0.35	GY	6137	-		Air Condi- tioning Evap- orator Tem- perature Sensor Sig- nal	5	0.35	GY	6137	II	
6	0.35	GN / VT	2852	Ι		Body Control Module LIN Bus 6	6	0.35	GN / VT	2852	II	_
7	0.35	BK / YE	407	I		Sensor Low Reference	7	0.35	BK / YE	407	Ш	_
8					_	Not Occu- pied	8	_				_
9	0.35	WH / YE	4634	I	_	HVAC Re- mote Enable Signal	9	0.35	WH / YE	4634	II	_
10	0.5	BK	2050	I		Ground	10	0.5	BK	2050	II	_

## **X367 Instrument Panel Wiring Harness to Body Wiring Harness**





#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 35212796

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 2-Way F 050 CTS Ethernet Series,

Sealed(BK)

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 35185531

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 2-Way M 050 CTS Ethernet Series,

Sealed(BK)

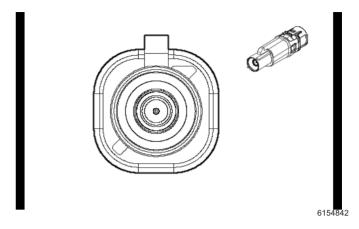
## **Terminal Part Information**

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

## **X367 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
_	l	Coax Cable		-		WiFi Antenna Coaxial Sig- nal			Coax Cable		-	

# X371 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)



#### **Connector Part Information**

Harness Type: Rearview Camera Wiring Harness Jumper

OEM Connector: Not Available

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F

#### **Connector Part Information**

Harness Type: Rearview Camera Wiring Harness

OEM Connector: 13517385

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type( GY)

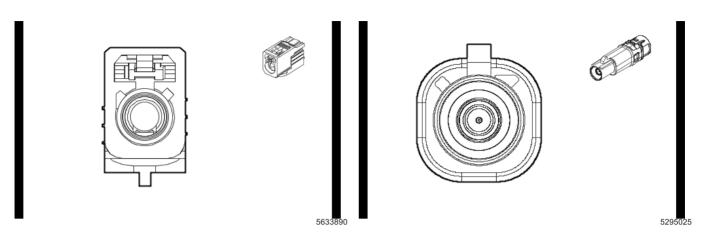
### **Terminal Part Information**

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

## X371 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	LVDS	_	I	_	(Infotain- ment) Info- tainment Dis- play Signal	_	_	LVDS	_	I	

# X372 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)



#### **Connector Part Information**

Harness Type: Rearview Camera Wiring Harness Jumper

OEM Connector: Not Available

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F

#### **Connector Part Information**

Harness Type: Rearview Camera Wiring Harness

OEM Connector: 13517379

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type( BK)

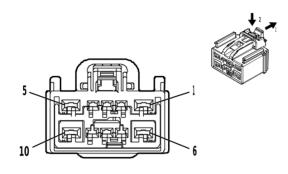
#### **Terminal Part Information**

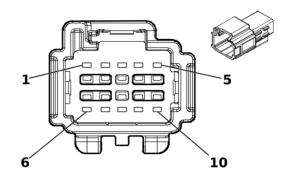
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

# X372 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
		LVDS		-	_	(PDR) Front Vision Cam- era #2	_	_	LVDS		Ι	_

# X375 Roof Wiring Harness to Sunroof Jumper Wiring Harness (CAC)





5020939 5355759

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 7289-9153-40 Service Connector: 13518747

Description: 10-Way F 1.5, 2.8 Kaizen Series(L-GY)

#### **Connector Part Information**

Harness Type: Sunroof Jumper Wiring Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 10-Way M ( L-GY)

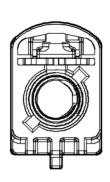
#### **Terminal Part Information**

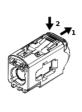
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	13587516	J-35616-4A (PU)	J-38125-11A		
II	19332534	J-35616-2A (GY)	J-38125-557		
III	Not required	No Tool Required	No Tool Required		

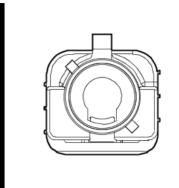
## X375 Roof Wiring Harness to Sunroof Jumper Wiring Harness (CAC)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	ı	_	_			Not Occu- pied	1 - 3					_
4	0.35	GN / WH	2854	II	1	Body Control Module LIN Bus 8	4	0.35	GN / WH	2854	III	_
5	1.5	BK	1850	I	_	Ground	5	1.5	BK	1850	III	_
6	1.5	RD / YE	2340	I	_	Battery Positive Voltage	6	1.5	RD / YE	2340	III	_
7	0.35	BU / VT	5027	II		Sunroof Switch Serial Data 1 Signal	7	0.35	BU / VT	5027	III	_
8		_	_	_		Not Occu- pied	8	_			_	_
9	0.35	WH / GN	3031	=		Sunroof Vent Switch Sig- nal	9	0.35	WH / GN	3031	III	_
10	_	_	_	_		Not Occu- pied	10	_			_	_

# X380 Instrument Panel Wiring Harness to Body Wiring Harness (UV2/UXA-UVB)









5215274

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13516215

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F Coax Type( BU)

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516061

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type(BU)

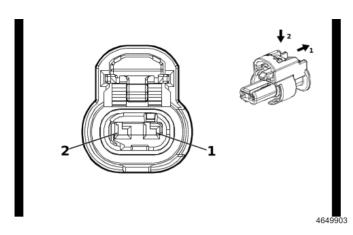
#### **Terminal Part Information**

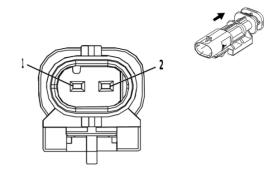
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

# X380 Instrument Panel Wiring Harness to Body Wiring Harness (UV2/UXA-UVB)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	Coax Cable	_	I		Video Pro- cessing Mod- ule Coaxial Video Signal	_	_	Coax Cable	_	I	

# X382 Chassis Wiring Harness to Chassis Wiring Harness (S0Y)





2474755

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 1-2296694-1 Service Connector: 85519075

Description: 2-Way F 1.2 MCON Series, Sealed(BK)

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 13591337 Service Connector: 85533165

Description: 2-Way M 1.2 MCON Series, Sealed(BK)

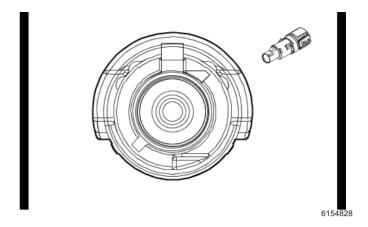
# **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	
I	Not required	J-35616-12 (BU)	No Tool Required	
II	Not required	J-35616-17 (L-GN)	No Tool Required	

## X382 Chassis Wiring Harness to Chassis Wiring Harness (S0Y)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY / BU	840	Ι	_	Battery Positive Voltage	1	0.75	GY / BU	840	Ш	_
2	0.5	BK	750	I	_	Ground	2	0.75	BK	750	II	_

# X383 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)



#### **Connector Part Information**

Harness Type: Rearview Camera Wiring Harness Jumper

OEM Connector: Not Available

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 13516812

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type, Sealed(GY)

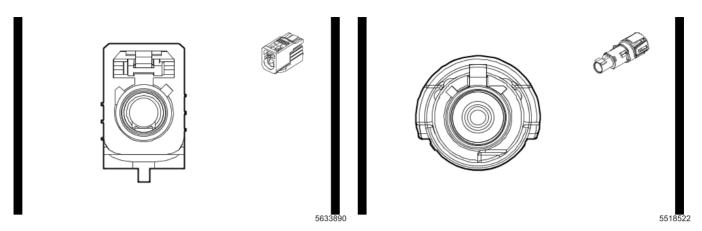
#### **Terminal Part Information**

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

# X383 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	LVDS	_	I	-	(Infotain- ment) Info- tainment Dis- play Signal	_	_	LVDS	_	I	

# X384 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)



#### **Connector Part Information**

Harness Type: Rearview Camera Wiring Harness Jumper

OEM Connector: Not Available

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 13516806

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type, Sealed( BK)

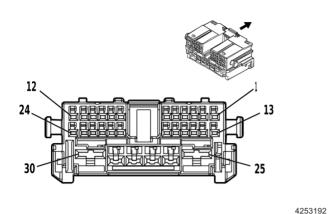
#### **Terminal Part Information**

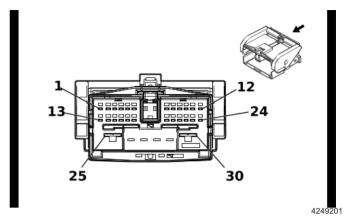
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

# X384 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)

							•				•	
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	LVDS		I	_	(PDR) Front Vision Cam- era #2	_	_	LVDS	_	I	_

# X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver





#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 7298-4329-30

Service Connector: Service by Harness - See Part Catalog

Description: 30-Way F 1.2 MCON, 2.8, 6.3 YESC

Series (BK)

#### **Connector Part Information**

Harness Type: Front Side Door Door Lock Door Wiring

Harness - Driver

OEM Connector: 7297-4331-30

Service Connector: Service by Harness - See Part Catalog

Description: 30-Way M 1.2 MCON, 2.8, 6.3 YESC

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-35616-35 (VT)	No Tool Required
III	Not required	J-35616-42 (RD)	No Tool Required
IV	Not required	J-35616-4A (PU)	No Tool Required
V	Not required	J-35616-17 (L-GN)	No Tool Required
VI	Not required	J-35616-43 (RD)	No Tool Required
VII	Not required	J-35616-5 (PU)	No Tool Required

# X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BN / GY	4784	_	-	Left Front Door LED Backlight Dimming Control	1	0.35	BN / GY	4784	>	
2	0.35	VT / YE	4244	I	_	Left Front Door Lock In- dicator Con- trol	2	0.35	VT / YE	4244	V	_
3	0.35	WH / VT	4258	I	_	Left Front Door Lock Status Signal	3	0.35	WH / VT	4258	V	
4	0.35	BN / YE	2771	I	_	Left Front Door Lock Switch Lock Signal	4	0.35	BN / YE	2771	٧	_

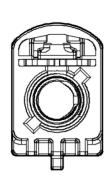
# X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver (cont'd)

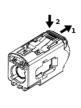
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	0.35	BN / WH	2772	I		Left Front Door Lock Switch Un- lock Signal	5	0.35	BN / WH	2772	V	
6	0.35	GY / YE	1760	-	ı	Left Side Object Detection LED Control	6	0.35	GY / YE	1760	٧	I
7	0.35	GN / YE	6134	I		Body Control Module LIN Bus 3	7	0.35	GN / YE	6134	٧	
8	0.35	GY	745	I	_	Left Front Door Ajar Switch Sig- nal	8	0.35	GY	745	V	_
9	0.35	GY / GN	2763	I		Window Switch Left Front Up Sig- nal	9	0.35	GY / GN	2763	٧	
10	0.35	WH / BN	2764	I	I	Window Switch Left Front Down Signal	10	0.35	WH / BN	2764	<b>V</b>	I
11	0.35	GN	2766	-	I	Power Window Switch Left Front Express Signal	11	0.35	GN	2766	V	
12	_	_	_			Not Occu- pied	12	_	_	_		
13	0.5	WH	606	_	I	Left Outside Rearview Mirror Heater Control	13	0.5	WH	606	<b>V</b>	I
14 - 15	_	_	_		_	Not Occu- pied	14 - 15	_	_	_		_
16	0.35	VT / BU	2788	I	_	Left Front Mirror Motor Up [+] Down [-] Control	16	0.35	VT / BU	2788	V	_
17	0.35	YE / BN	2789	I	_	Left Front Mirror Motor Common Control	17	0.35	YE / BN	2789	V	_
18	0.35	BN / BK	2790	I	_	Left Front Mirror Motor Right [+] Left [-] Control	18	0.35	BN / BK	2790	V	_
19	0.35	GY / BN	2787	I	_	Left Front Mirror Posi- tion Sensor Up [+] Down [-] Signal	19	0.35	GY / BN	2787	V	_
20	0.35	VT / RD	2791	_	_	Left Front Mirror Posi- tion Sensor High Refer- ence	20	0.35	VT / RD	2791	٧	_

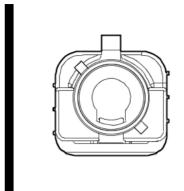
# X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
21	0.35	WH / YE	2792	_	ı	Left Front Mirror Posi- tion Sensor Left [-] Right [+] Signal	21	0.35	WH / YE	2792	>	-
22	0.35	BK / BN	673	_		Left Outside Rearview Mirror Posi- tion Sensor Low Refer- ence	22	0.35	BK / BN	673	>	-
23 - 24	_	_	_	_	_	Not Occu- pied	23 - 24	_	_	_	_	_
25	2.5 0.5	RD / BU RD / VT	1240 1940	III III	AEC/ AXG AXG	Battery Positive Voltage Battery Positive Voltage	25	2.5 0.5	RD / BU RD / VT	1240 1940	VI VI	AEC/ AXG AXG
26	2.5 0.5	BK BK	1150 1150	IV II	AED AXG	Ground Ground	26	2.5 0.5	BK BK	1150 1150	VII VII	AED AXG
27	2	YE / VT	165	IV	_	Left Front Window Mo- tor Down Control	27	2	YE / VT	165	VII	_
28	2	GN / GY	164	IV	_	Left Front Window Mo- tor Up Con- trol	28	2	GN / GY	164	VII	_
29 - 30			_			Not Occu- pied	29 - 30	_				_

# X399 Instrument Panel Wiring Harness to Body Wiring Harness (UVB-UV2)









5215274

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13516215

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F Coax Type( BU)

#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516061

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type(BU)

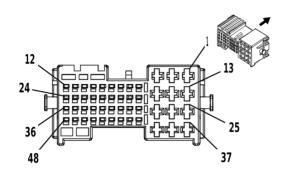
#### **Terminal Part Information**

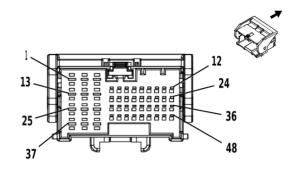
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

# X399 Instrument Panel Wiring Harness to Body Wiring Harness (UVB-UV2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	Coax Cable	_	I	-	Rear Vision Camera Co- axial Video Signal	_	_	Coax Cable	_	I	I

# **X400 Instrument Panel Wiring Harness to Body Wiring Harness**





3277913 3277901

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness

OEM Connector: 2109452-2 Service Connector: 19329739

Description: 48-Way F 1.2 MCON, 2.8 MCP Series(BK)

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 5-2109455-2 Service Connector: 19329740

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	19329758	J-35616-12 (BU)	J-38125-215A
II	87814662	J-35616-4A (PU)	J-38125-557
III	Service by Cable	No Tool Required	No Tool Required
IV	13575574	J-35616-5 (PU)	J-38125-215A
V	86509266	J-35616-13 (BU)	J-38125-215A

# **X400 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	0.75 0.5	YE / BK BN / BK	117 1953	=	UQ3 UQA	Right Front Speaker [-] Control 1 Right Front Midrange Speaker [-] Control	1	0.75 0.5	YE / BK BN / BK	117 1953	IV IV	UQ3 UQA
2	0.75 0.5	YE WH / YE	200 1853	 	UQ3 UQA	Right Front Speaker 1 [+] Control Right Front Midrange Speaker [+] Control	2	0.75 0.5	YE WH / YE	200 1853	IV IV	UQ3 UQA
3	0.5	YE / WH	1860	II	_	Front Center Speaker [+] Control	3	0.5	YE / WH	1860	IV	_
4	0.5	RD / GN	4440	Ι	_	Battery Positive Voltage	4	0.5	RD / GN	4440	V	
5	0.5	BK / WH	1351	I		Signal Ground	5	0.5	BK / WH	1351	V	
6	0.35	GN / WH	4115	I	_	Body Control Module LIN Bus 5	6	0.35	GN / WH	4115	٧	

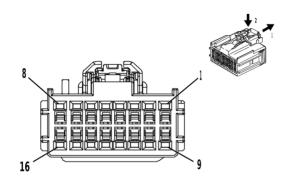
# X400 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

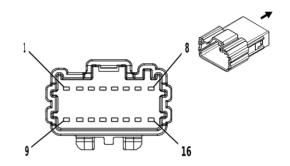
					9	ng Harness to Body Wiring F				<del></del>			
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option	
7	0.35	BU	4987	I	_	AUTOSAR CAN Bus [+] 1 Serial Data	7	0.35	BU	4987	V	_	
8	0.35	WH	4986	I		AUTOSAR CAN Bus [-] 1 Serial Data	8	0.35	WH	4986	V	_	
9	0.35	BU	4987	I	_	AUTOSAR CAN Bus [+] 1 Serial Data	9	0.35	BU	4987	V	_	
10	0.35	WH	4986	I	_	AUTOSAR CAN Bus [-] 1 Serial Data	10	0.35	WH	4986	V	_	
11	0.35	BU / YE	4979	I	_	AUTOSAR CAN Bus [+] 2 Serial Data	11	0.35	BU / YE	4979	V	_	
12	0.35	WH	4978	I		AUTOSAR CAN Bus [-] 2 Serial Data	12	0.35	WH	4978	V	_	
13	0.75	BU / BK	115	=		Right Rear Speaker [-] Control	13	0.75	BU / BK	115	IV	_	
14	0.75	WH	46	II		Right Rear Speaker [+] Control	14	0.75	WH	46	IV		
15	0.5	BU / YE	1960	II		Front Center Speaker [-] Control	15	0.5	BU / YE	1960	IV	_	
16	0.35 0.35	BK / GY BK / BN	5152 654		( UE1/ UER/ UDA) - ( UE1/ UER/ UDA)	Voice Recognition Audio [-] Control Cellular Telephone Microphone Low Reference	16	0.35 0.35	BK / GY BK / BN	5152 654	V V	( UE1/ UER/ UDA) - ( UE1/ UER/ UDA)	
17	0.35 0.35	GY / YE BU	5149 655	1	( UE1/ UER/ UDA) - ( UE1/ UER/ UDA)	Voice Recognition Audio Signal Cellular Telephone Microphone Signal	17	0.35 0.35	GY / YE BU	5149 655	V V	( UE1/ UER/ UDA) - ( UE1/ UER/ UDA)	
18	0.35	Bare	1792	I	_	Low Refer- ence	18	0.35	Bare	1792	V	_	
19 - 22	_	_	_	_	_	Not Occu- pied	19 - 22	_	_	_	_	_	
23	0.35	BU / BK	4977	-	_	AUTOSAR CAN Bus [+] 3 Serial Data	23	0.5	BU / BK	4977	V	_	
24	0.35	WH	4976	I		AUTOSAR CAN Bus [-] 3 Serial Data	24	0.5	WH	4976	V	_	
25 - 27	_	_	_	_	_	Not Occu- pied	25 - 27	_	_		_	_	
28	0.35	BU / BK	7044	I	_	Microphone [-] Signal	28	0.35	BU / BK	7044	V	_	
29	0.35	VT / YE	7043	I	_	Microphone [+] Signal	29	0.35	VT / YE	7043	V	_	

# X400 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

A too metallioner and triming harmood to Doug triming harmood (contra)												
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
30 - 32		_	_			Not Occu- pied	30 - 32	_	_	_		
33	0.0- 01	WH	8580	III	_	Automotive Audio Bus A2B Serial Data 1 [+]	33	0.35	WH / VT	8580	V	_
34	0.0- 01	GN	8579	III		Automotive Audio Bus A2B Serial Data 1 [-]	34	0.35	YE / BU	8579	>	
35 - 36	_	_	_	_	_	Not Occu- pied	35 - 36	_	_	_		_
37	2.5	BK	4250	II	_	Ground	37	2.5	BK	4250	IV	_
38		_	_			Not Occu- pied	38		_	_	_	
39	0.75	RD / GN	1840	II		Battery Positive Voltage	39	0.75	RD / GN	1840	IV	
40 - 48	_	_	_	_	_	Not Occu- pied	40 - 48	_	_	_	_	_

# **X401 Roof Wiring Harness to Body Wiring Harness**





4218949 4218594

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 6098-8452 Service Connector: 13533120

Description: 16-Way F 1.2 OCS Series(GY)

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 6098-8829 Service Connector: 13527235

Description: 16-Way M 1.2 Series(GY)

#### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19371240	J-35616-12 (BU)	J-38125-215A
II	84726946	J-35616-13 (BU)	J-38125-215A

## **X401 Roof Wiring Harness to Body Wiring Harness**

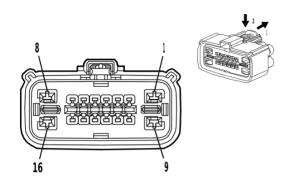
A to those timing manness to Dody timing manness												
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	4250	I	_	Ground	1	0.75	BK	4250	П	_
2	0.35 0.5	WH / BN WH / BN	6815 6815		( TCA- ( C75/ DEG)) ( TCA/ DEG/ C75)	Inadvertent Load Control Inadvertent Load Control	2	0.5	WH / BN	6815	Ш	ı
3	0.5	GY	157	Ι	_	Interior Lamp Control	3	0.5	GY	157	II	_
4	0.35	GY	156	I		Courtesy Lamp Switch Signal	4	0.35	GY	156	II	
5	0.35	GY / GN	328	I	_	Interior Lamp Defeat Switch Sig- nal	5	0.35	GY / GN	328	II	_
6 - 10	_	_	_	_	_	Not Occu- pied	6 - 10	_	_	_	_	_
11	0.35	YE	6817	-	_	LED Back- light Dim- ming Control 1	11	0.35	YE	6817	II	_
12	0.35	GN / WH	2854	I	_	Body Control Module LIN Bus 8	12	0.35	GN / WH	2854	II	_
13	0.35	GN / YE	2862	I	_	Body Control Module LIN Bus 16	13	0.35	GN / YE	2862	II	_

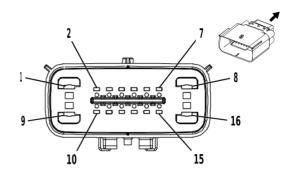
# X401 Roof Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
14 - 16	_	_				Not Occu- pied	14 - 16		_	_		

#### 6-468

# X402A Front Seat Wiring Harness - Passenger to Body Wiring Harness





4283035 2373686

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 34985-2161

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 1.5, 2.8 MX Series, Sealed( YE)

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 34986-1605 Service Connector: 19332830

Description: 16-Way M 1.5, 2.8 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-35616-35 (VT)	No Tool Required
III	Not required	No Tool Required	No Tool Required
IV	19366658	J-35616-5 (PU)	J-38125-12A
V	86800300	J-35616-3 (GY)	J-38125-217

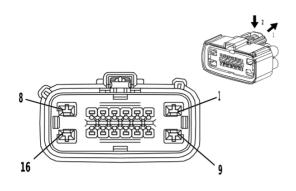
# X402A Front Seat Wiring Harness - Passenger to Body Wiring Harness

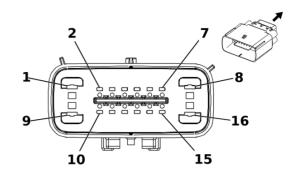
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5 1.5	BK BK	4250 4250	= =	AED CAC	Ground Ground	1	2.5	BK	4250	IV	
2	0.5	OG / GY	4956	III	_	Passenger Seat Back Air Bag High Control	2	0.5	OG / GY	4956	V	_
3	0.5	BU / OG	4957	III	ı	Passenger Seat Back Air Bag Low Control	3	0.5	BU / OG	4957	V	ı
4	0.5	BK / WH	1351	I	_	Signal Ground	4	0.5	BK / WH	1351	V	
5	0.5	GY / OG	3946	I	_	Passenger Automatic Locking Re- tractor Switch Low Reference	5	0.5	GY / OG	3946	٧	_
6	0.5	OG / BN	3947	I		Passenger Automatic Locking Re- tractor Switch Sig- nal	6	0.5	OG / BN	3947	<b>&gt;</b>	_

# X402A Front Seat Wiring Harness - Passenger to Body Wiring Harness (cont'd)

	A402A Front ocal Willing Harness F assenger to Body Willing Harness (oonlea)											
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	RD / GN	4440	Ι	ı	Battery Positive Voltage	7	0.5	RD / GN	4440	V	
8		l	_	1	ı	Battery Positive Voltage	8	2.5	RD / YE	4340	IV	
9			_			Not Occu- pied	9					
10	0.5	OG / VT	1362	-	1	Passenger Seat Belt Switch Sig- nal	10	0.5	OG / VT	1362	V	I
11	0.5	BK / OG	1363	I		Driver Seat Belt Switch Low Refer- ence	11	0.5	BK / OG	1363	V	
12	0.5	WH	4986	I		AUTOSAR CAN Bus [-] 1 Serial Data	12	0.35	WH	4986	V	
13	0.5	BU	4987	I		AUTOSAR CAN Bus [+] 1 Serial Data	13	0.35	BU	4987	V	_
14	0.5	WH	4986	I		AUTOSAR CAN Bus [-] 1 Serial Data	14	0.35	WH	4986	V	
15	0.5	BU	4987	I	_	AUTOSAR CAN Bus [+] 1 Serial Data	15	0.35	BU	4987	V	_
16	_	_	_	_	_	Battery Positive Voltage	16	0.75	RD / BN	4240	IV	_

# X402B Front Seat Wiring Harness - Passenger to Body Wiring Harness





4341043 4209017

#### **Connector Part Information**

Harness Type: Front Seat Wiring Harness - Passenger

OEM Connector: 34985-1607

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: Body Wiring Harness OEM Connector: 34986-1602 Service Connector: 19352214

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-35616-2A (GY)	No Tool Required
III	86800300	J-35616-3 (GY)	J-38125-217

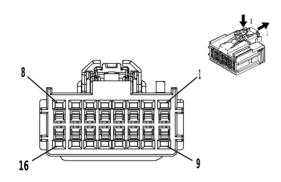
# X402B Front Seat Wiring Harness - Passenger to Body Wiring Harness

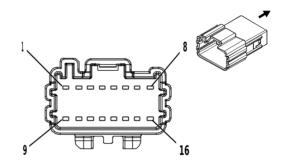
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1		_		_		Not Occu- pied	1	_	_		_	_
2	0.75	BN / VT	2077	=		Driver Seat Heating Ele- ment Control	2	0.75	BN / VT	2077	III	
3	0.75	BN / BK	2078	Ш	_	Driver Seat Heating Ele- ment Low Reference	3	0.75	BN / BK	2078	III	1
4	0.5	YE / GY	2079	_	-	Driver Seat Heating Tem- perature Sensor Sig- nal	4	0.5	YE / GY	2079	III	1
5	0.5	BK / YE	2080	_	I	Driver Heated Seat Thermistor Low Refer- ence	5	0.5	BK / YE	2080	III	
6	0.5	BU	2425	-	_	Driver Seat Back Heating Temperature Sensor Sig- nal	6	0.5	BU	2425	III	_
7 - 9	_	_	_	_	_	Not Occu- pied	7 - 9	_	_	_	_	_

# X402B Front Seat Wiring Harness - Passenger to Body Wiring Harness (cont'd)

g												
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	GN / VT	2857	I	_	Body Control Module LIN Bus 11	10	0.35	GN / VT	2857	III	
11	0.75	RD / BU	4540	II	_	Battery Positive Voltage	11	0.75	RD / BU	4540	III	_
12	0.75	RD / VT	4640	П	_	Battery Positive Voltage	12	0.75	RD / VT	4640	III	_
13	_	_	_	_	_	Not Occu- pied	13	_	_	_	_	_
14	0.5	GN / VT	5906	I	_	Driver Seat Blower Motor Control 1	14	0.5	GN / VT	5906	III	_
15	0.5	VT / GN	839	I	_	Run/Crank Ignition 1 Voltage	15	0.5	VT / GN	839	III	_
16	_	_	_	_	_	Not Occu- pied	16	_	_	_	_	_

# **X402C Roof Wiring Harness to Body Wiring Harness**





4115730 4223086

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 6098-8451 Service Connector: 13533121

Description: 16-Way F 1.2 OCS Series( BK)

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 6098-8828 Service Connector: 13526848

Description: 16-Way M 1.2 Series( BK)

#### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84962854	J-35616-12 (BU)	J-38125-215A
II	Not required	No Tool Required	No Tool Required
III	84726946	J-35616-13 (BU)	J-38125-215A
IV	Not required	No Tool Required	No Tool Required

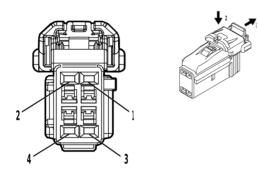
## **X402C Roof Wiring Harness to Body Wiring Harness**

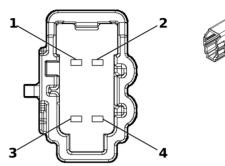
	X4020 Root Willing Harrisos to Body Willing Harrisos											
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35 0.5	BK / WH BK / WH	1851 1851	 	CJ2 - CJ2	Signal Ground Signal Ground	1	0.5	BK / WH	451	III	_
2	0.35	RD / YE	240	I	_	Battery Positive Voltage	2	0.35	RD / YE	240	III	_
3	0.35	RD / VT	4040	I		Battery Positive Voltage	3	0.35	RD / VT	4040	III	
4	0.35	BU	2307	I	-	Passenger Air Bag On Indicator Control	4	0.35	BU	2307	III	
5	0.35	GN	2308	I	_	Passenger Air Bag Off Indicator Control	5	0.35	GN	2308	III	_
6	0.35	VT / WH	5234	I	AL0- C9I	Passenger Seat Belt In- dicator Con- trol	6	0.35	VT / WH	5234	III	AL0- C9I
7	0.35	GN / WH	4115	I	_	Body Control Module LIN Bus 5	7	0.35	GN / WH	4115	III	_
8	0.35	GN / WH	24	I	_	Backup Lamp Control	8	0.35	GN / WH	24	III	_

# X402C Roof Wiring Harness to Body Wiring Harness (cont'd)

	A-1020 Roof Willing Harnood to Body Willing Harnood (cont. a)											
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.35 0.35	VT / WH VT / GN	1139 39	_ =	DD8 - DD8	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	9	0.5 0.5	VT / WH VT / GY	1139 39	IV III	DD8 - DD8
10	0.35	BU / BK	7044	1		Microphone [-] Signal	10	0.35	BU / BK	7044	III	_
11	0.35	VT / YE	7043	1	_	Microphone [+] Signal	11	0.35	VT / YE	7043	III	_
12	_	_	_	_	_	Not Occu- pied	12	_	_	_	_	_
13	0.35	BU / YE	4979	I	_	AUTOSAR CAN Bus [+] 2 Serial Data	13	0.5	BU / YE	4979	III	_
14	0.35	WH	4978	I	_	AUTOSAR CAN Bus [-] 2 Serial Data	14	0.5	WH	4978	III	_
15	0.35	BU / YE	4979	I	_	AUTOSAR CAN Bus [+] 2 Serial Data	15	0.35	BU / YE	4979	III	_
16	0.35	WH	4978	I	_	AUTOSAR CAN Bus [-] 2 Serial Data	16	0.35	WH	4978	III	_

# X402D Inside Air Moisture and Windshield Temperature Sensor Jumper to Roof Wiring Harness (CJ2)







4872683 5360963

#### **Connector Part Information**

Harness Type: Inside Air Moisture and Windshield

Temperature Sensor Jumper OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 6098-9046 Service Connector: 84847258

Description: 4-Way M 1.2 MCON Series(BK)

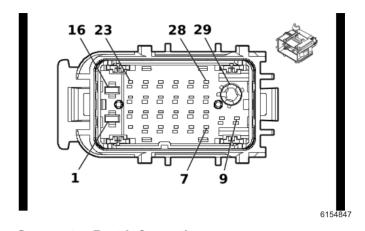
#### **Terminal Part Information**

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

# X402D Inside Air Moisture and Windshield Temperature Sensor Jumper to Roof Wiring Harness (CJ2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	VT / GN	39	I		Run/Crank Ignition 1 Voltage	1	0.35	VT / GN	39	=	_
2	0.35	BK / WH	1851	I	_	Signal Ground	2	0.35	BK / WH	1851	II	_
3	0.35	GN / BN	4115	I	_	Body Control Module LIN Bus 5	3	0.35	GN / WH	4115	II	_
4			_	_		Not Occu- pied	4	_			_	_

# X404 Body Wiring Harness to Front Side Door Door Wiring Harness - Passenger



#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 13539487

Service Connector: Service by Harness - See Part Catalog

Description: 29-Way F 1.2, 2.8 CTS, Coaxial Series,

Sealed(YE)

#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness -

Passenger

OEM Connector: 13539488

Service Connector: Service by Harness - See Part Catalog Description: 29-Way M 1.2 CTS, 2.8 DCS-2, Coaxial 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-35616-35 (VT)	No Tool Required
III	Service by Cable	No Tool Required	J-38125-12A
IV	Not required	J-35616-13 (BU)	No Tool Required
V	Not required	J-35616-17 (L-GN)	No Tool Required
VI	Not required	J-35616-5 (PU)	No Tool Required
VII	Not required	No Tool Required	No Tool Required

#### X404 Body Wiring Harness to Front Side Door Door Wiring Harness - Passenger

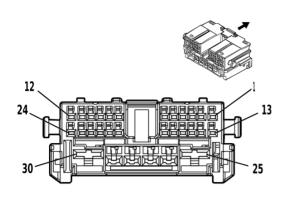
			<del>,</del>	9				A 10 + Body Willing Harrison to Front Glad Book Willing Harrison Flagoringer									
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option					
1	2.5	BK	4250	II		Ground	1	2.5	BK	1250	VI						
7	0.35	GN / YE	6134	I		Body Control Module LIN Bus 3	7	0.35	GN / YE	6134	V	_					
11	0.5	BN / OG	2134	I	ı	Right Front Side Impact Sensor Sig- nal	11	0.5	BN / OG	2134	>	1					
12	0.5	BK / OG	6629	I	ı	Right Front Side Impact Sensor Low Reference	12	0.5	BK / OG	6629	>	ı					
14	0.35	GN / BK	4304	I	_	Passive Entry Right Front Door Antenna Signal Low	14	0.5	GN / BK	4304	V						

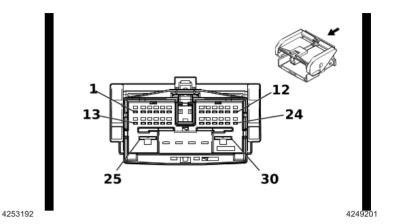
# 6-476 Electrical Component and Inline Harness Connector End Views

# X404 Body Wiring Harness to Front Side Door Door Wiring Harness - Passenger (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
15	0.35	GN / YE	4303	I	_	Passive Entry Right Front Door Antenna Signal High	15	0.5	GN / YE	4303	V	_
16	2.5	RD / GY	3540	II	_	Battery Positive Voltage	16	2.5	RD / GY	3540	VI	_
20	0.35	GY / VT	2676	I	_	Right Front Door Exterior Switch Un- lock Signal	20	0.35	GY / VT	2676	V	_
23	0.75	GY / BK	2680	I	_	Lock Actua- tors Unlock Control 2	23	0.75	GY / BK	2680	V	_
24	0.75	YE / GN	2682	I	_	Right Front Door Lock Actuator Lock Control	24	0.75	YE / GN	2682	V	_
27	0.75	YE YE	200 200	I I	UQ3 UQA	Right Front Speaker 1 [+] Control Right Front Speaker 1 [+] Control	27	0.75 1	YE YE	200 200	V IV	UQ3 UQA
28	0.75	YE / BK YE / BK	117 117	I I	UQ3 UQA	Right Front Speaker [-] Control 1 Right Front Speaker [-] Control 1	28	0.75 1	YE / BK YE / BK	117 117	V IV	UQ3 UQA
29	0	WH	4724	III	_	Right Side- view Camera LVDS (Low Voltage Dif- ferential Sig- naling) Co- axial Signal	29	0	WH	4724	VII	_

# X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger





#### **Connector Part Information**

Harness Type: Front Side Door Door Wiring Harness -

Passenger

OEM Connector: 7298-4329-30

Service Connector: Service by Harness - See Part Catalog

Description: 30-Way F 1.2 MCON, 2.8, 6.3 YESC

Series(BK)

#### **Connector Part Information**

Harness Type: Front Side Door Door Lock Door Wiring

Harness - Passenger

OEM Connector: 7297-4331-30

Service Connector: Service by Harness - See Part Catalog

Description: 30-Way M 1.2 MCON, 2.8, 6.3 YESC

Series(BK)

#### **Terminal Part Information**

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
1	Not required	J-35616-16 (L-GN)	No Tool Required		
II	Not required	J-35616-42 (RD)	No Tool Required		
III	Not required	J-35616-4A (PU)	No Tool Required		
IV	Not required	J-35616-17 (L-GN)	No Tool Required		
V	Not required	J-35616-43 (RD)	No Tool Required		
VI	Not required	J-35616-5 (PU)	No Tool Required		

# X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	GY / VT	4638	-	-	LED Back- light Dim- ming Control Right Front Door	1	0.35	GY / VT	4638	IV	
2	0.35	YE / BU	4245	I	_	Right Front Door Lock In- dicator Con- trol	2	0.35	YE / BU	4245	IV	-
3	0.35	VT	4259	I	_	Right Front Door Lock Status Signal	3	0.35	VT	4259	IV	_
4	0.35	YE / VT	2773	I	_	Right Front Door Lock Switch Lock Control	4	0.35	YE / VT	2773	IV	_

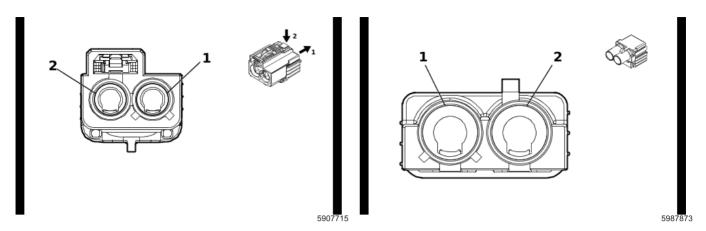
# X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger (cont'd)

						arness - Pas		<del>``</del>				
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	0.35	BN / VT	2774	I	ı	Right Front Door Lock Switch Un- lock Control	5	0.35	BN / VT	2774	IV	_
6	0.35	GY	1761	1	ı	Right Side Object De- tection LED Control	6	0.35	GY	1761	IV	_
7	0.35	GN / YE	6134	I		Body Control Module LIN Bus 3	7	0.35	GN / YE	6134	IV	_
8	0.35	GY	746	I	_	Right Front Door Ajar Switch Sig- nal	8	0.35	GY	746	IV	_
9 - 12	_	_	_	_	_	Not Occu- pied	9 - 12	_	_	_	_	_
13	0.5	BN / VT	607	-		Right Out- side Rear- view Mirror Heater Con- trol	13	0.5	BN / VT	607	IV	_
14 - 15	_	_	_	_	_	Not Occu- pied	14 - 15	_	_	_	_	_
16	0.35	YE / VT	2796	I	I	Right Front Mirror Motor Up [+] Down [-] Control	16	0.35	YE / VT	2796	IV	_
17	0.35	WH	2797	I		Right Front Mirror Motor Common Control	17	0.35	WH	2797	IV	_
18	0.35	GN / BK	2798	I	_	Right Front Mirror Motor Right [+] Left [-] Control	18	0.35	GN / BK	2798	IV	_
19	0.35	BU / YE	2795	I	I	Right Front Mirror Posi- tion Sensor Up [+] Down [-] Signal	19	0.35	BU / YE	2795	IV	_
20	0.35	YE / RD	2799	_	ı	Right Front Mirror Posi- tion Sensor High Refer- ence	20	0.35	YE / RD	2799	IV	_
21	0.35	VT / WH	2800	I	_	Right Front Mirror Posi- tion Sensor Left [-] Right [+] Signal	21	0.35	VT / WH	2800	IV	_
22	0.35	BK / GN	675	ı	_	Right Out- side Rear- view Mirror Position Sen- sor Low Reference	22	0.35	BK / GN	675	IV	_
23 - 24	_	_	_	_	_	Not Occu- pied	23 - 24	_	_	_	_	_

# X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger (cont'd)

		9 (								,		
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
25	2.5	RD / GY	3540	Ш	_	Battery Posi- tive Voltage	25	2.5	RD / GY	3540	V	_
26	2.5	BK	1250	III	_	Ground	26	2.5	BK	1250	VI	_
27	2	YE / BU	667	III	_	Right Front Window Mo- tor Down Control	27	2	YE / BU	667	VI	_
28	2	GN / GY	666	III		Right Front Window Mo- tor Up Con- trol	28	2	GN / GY	666	VI	ı
29 - 30	_	_	_	_	_	Not Occu- pied	29 - 30	_	_	_	_	_

# X499A Body Wiring Harness to Instrument Panel Wiring Harness (CW1)



#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516431

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 2-Way F Coax Type(CU)

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13516098

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 2-Way M Coax Type(CU)

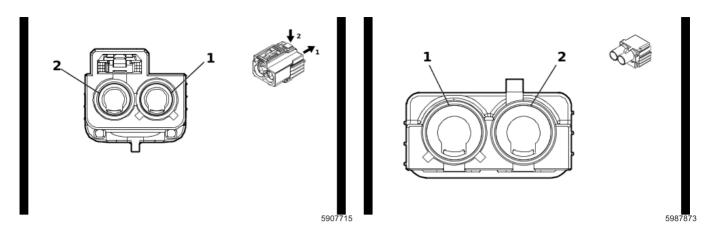
#### **Terminal Part Information**

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

# X499A Body Wiring Harness to Instrument Panel Wiring Harness (CW1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	Coax Cable		I	_	(DAB/DMB) Coaxial An- tenna DAB Signal	_	_	Coax Cable	_	I	_

# X499C Body Wiring Harness to Instrument Panel Wiring Harness (U2K)



#### **Connector Part Information**

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516431

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 2-Way F Coax Type(CU)

#### **Connector Part Information**

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13516098

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 2-Way M Coax Type(CU)

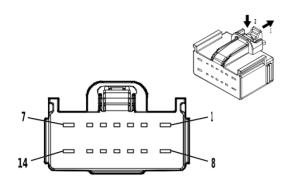
#### **Terminal Part Information**

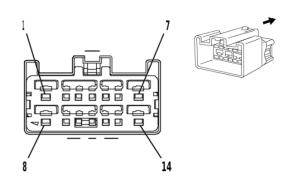
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

# X499C Body Wiring Harness to Instrument Panel Wiring Harness (U2K)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2			1			Not Occu- pied	1 - 2	_		1	l	_
1 CU		WH	6130	Ι		Coaxial An- tenna XM Signal	1 CU	_	WH	6130	II	_
2 CU	_	WH	6001	I	_	Coaxial An- tenna RF Signal	2 CU	_	WH	6001	II	_

# **X500 Roof Wiring Harness to Body Wiring Harness**





4934172 1283905

#### **Connector Part Information**

Harness Type: Roof Wiring Harness OEM Connector: 7289-7630-40 Service Connector: 13513605

Description: 14-Way F 1.5, 2.8 YESC Series (GY)

#### **Connector Part Information**

Harness Type: Body Wiring Harness OEM Connector: 7282-6447-40 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	13575850	J-35616-2A (GY)	J-38125-557
II	84962855	J-35616-4A (PU)	J-38125-11A
III	13578907	J-35616-3 (GY)	J-38125-215A
IV	13578908	J-35616-5 (PU)	J-38125-11A

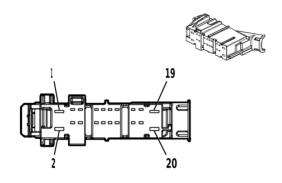
# **X500 Roof Wiring Harness to Body Wiring Harness**

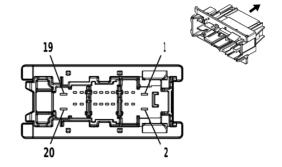
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	RD / YE	2340	II		Battery Positive Voltage	1	1.5	RD / YE	2340	IV	
2					ı	Not Occu- pied	2	_		_		
3	0.35	GN / BK	2515	-		Telematics Switch Sup- ply Voltage	3	0.35	GN / BK	2515	III	
4	0.35	GN / WH	2514	-	١	Telematics Switch Sig- nal	4	0.35	GN / WH	2514	III	
5	0.35	YE / VT	2516	-	I	Telematics Switch Green LED Indica- tor Control	5	0.35	YE / VT	2516	III	1
6	0.35	BN / WH	2517	_	1	Telematics Switch Red LED Indica- tor Control	6	0.35	BN / WH	2517	Ш	
7		l	1	1	l	Not Occu- pied	7	_				
8	1.5	BK	1850	Ш		Ground	8	1.5	BK	4250	IV	_
9	0.5 0.35	BK / WH	451 451	 	( UE1/ UER)	Signal Ground	9	0.5	BK / WH	451	III	_

# X500 Roof 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
		BK / WH			- ( UE1/ UER)	Signal Ground						
10	0.35	RD / VT	1640	Ι		Battery Positive Voltage	10	0.35	RD / VT	1640	III	
11						Not Occu- pied	11				1	
12	0.35	BK / BN	654	-	I	Cellular Tele- phone Micro- phone Low Reference	12	0.35	BK / BN	654	III	1
13	0.35	BU	655	I	_	Cellular Tele- phone Micro- phone Signal	13	0.35	BU	655	III	_
14	_	_	_	_	_	Not Occu- pied	14	_	_	_	_	_

# X503 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness





4650257 4663657

#### **Connector Part Information**

 $\label{thm:continuous} \textit{Harness Type: Rear Side Door Door Wiring Harness - Left}$ 

OEM Connector: 6098-8196

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 1.2 MCON, 2.8 MCP Series( BK)

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 6098-8887 Service Connector: 13527239

Description: 20-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-35616-35 (VT)	No Tool Required
III	13586064	J-35616-5 (PU)	J-38125-36
IV	84616651	J-35616-13 (BU)	J-38125-215A

#### X503 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness

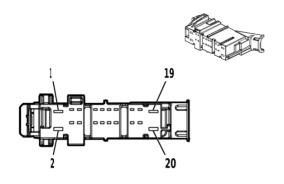
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD / BU	1240	Ш	_	Battery Positive Voltage	1	2.5	RD / BU	1240	III	
2	2.5	BK	1150	П	_	Ground	2	2.5	BK	3750	III	
3	0.75	BU / YE	1091	I		Left Rear Door Lock Actuator Lock Control	3	0.75	BU / YE	1091	IV	
4	0.75	WH	2679	Ι		Lock Actua- tors Unlock Control 1	4	0.75	WH	2679	IV	ı
5 - 6	_	_	_	_	_	Not Occu- pied	5 - 6	_	_	_	_	_
7	0.35	GN / GY	6135	_		Body Control Module LIN Bus 4	7	0.35	GN / GY	6135	IV	ı
8 - 11		ı				Not Occu- pied	8 - 11			1		
12	0.75 0.5	GN / BK GN / BK	116 116		UQ3 UQA	Left Rear Speaker [-] Control Left Rear Speaker [-] Control	12	0.75 0.5	GN / BK GN / BK	116 116	IV IV	UQ3 UQA

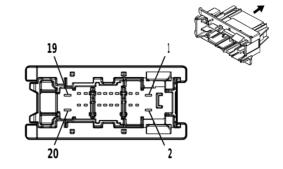
# X503 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
13	0.75 0.5	GN GN	199 199		UQ3 UQA	Left Rear Speaker [+] Control Left Rear Speaker [+] Control	13	0.75 0.5	GN GN	199 199	IV IV	UQ3 UQA
14 - 20					_	Not Occu- pied	14 - 20					

#### 6-486

# X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness





4650257 4663657

#### **Connector Part Information**

Harness Type: Rear Side Door Door Wiring Harness - Right

OEM Connector: 6098-8196

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F 1.2 MCON, 2.8 MCP Series( BK)

#### **Connector Part Information**

Harness Type: Body Wiring Harness

OEM Connector: 6098-8887 Service Connector: 13527239

Description: 20-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-35616-35 (VT)	No Tool Required
III	13586064	J-35616-5 (PU)	J-38125-36
IV	84616651	J-35616-13 (BU)	J-38125-215A

## X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness

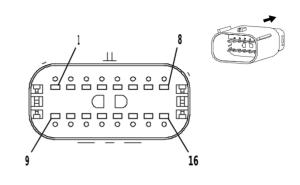
	Accountage and account many manager and account manager and accoun											
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD / GY	3540	=	ı	Battery Positive Voltage	1	2.5	RD / GY	3540	III	_
2	2.5	BK	1250	Ш	_	Ground	2	2.5	BK	4250	III	_
3	0.75	VT / WH	1094	I	_	Right Rear Door Lock Actuator Lock Control	3	0.75	VT / WH	1094	IV	_
4	0.75	GY / BK	2680	I		Lock Actua- tors Unlock Control 2	4	0.75	GY / BK	2680	IV	_
5 - 6	_	_	_	_	_	Not Occu- pied	5 - 6	_	_	_	_	_
7	0.35	GN / GY	6135	I	_	Body Control Module LIN Bus 4	7	0.35	GN / GY	6135	IV	_
8 - 11	_	_	_	_	_	Not Occu- pied	8 - 11	_	_	_	_	_
12	0.75 0.5	BU / BK BU / BK	115 115		UQ3 UQA	Right Rear Speaker [-] Control Right Rear Speaker [-] Control	12	0.75 0.5	BU / BK BU / BK	115 115	IV IV	UQ3 UQA

# X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
13	0.75 0.5	WH WH	46 46		UQ3 UQA	Right Rear Speaker [+] Control Right Rear Speaker [+] Control	13	0.75 0.5	WH WH	46 46	IV IV	UQ3 UQA
14 - 20	_	_	_			Not Occu- pied	14 - 20	_	_	_		

# X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness

# **GRAPHIC PENDING**



4223713

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 33472-1607

Service Connector: Service by Harness - See Part Catalog

Description: 16-Way F 1.5 MX Series, Sealed( L-GY)

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 33482-8602 Service Connector: 84625100

Description: 16-Way M 1.5 MX Series, Sealed( GY)

## **Terminal Part Information**

6177973

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	19119395	J-35616-3 (GY)	J-38125-217

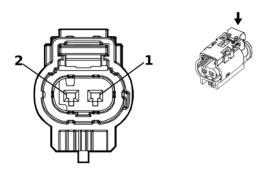
#### X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness

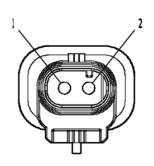
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU / VT	4101	I	_	AUTOSAR CAN Bus [+] 4 Serial Data	1	0.5	BU / VT	4101	III	1
2	0.5	WH	4100	I	_	AUTOSAR CAN Bus [-] 4 Serial Data	2	0.5	WH	4100	III	_
4	0.5	GY / BK	2680	_		Lock Actua- tors Unlock Control 2	4	0.5	GY / BK	2680	III	١
5	0.5	GY / VT	2691	I		Rear Closure Actuator Lock Control	5	0.5	GY / VT	2691	III	
6	0.5	YE	2375	_	I	Left Rear Outer Park- ing Assist Sensor Sig- nal	6	0.5	YE	2375	III	1
7	0.75	BK / GY	2379	II	_	Object Sen- sor Low Reference	7	0.75	BK / GY	2379	III	_
8	0.75	BN / WH	2374	II	_	Object Sen- sor Voltage Reference	8	0.75	BN / WH	2374	III	_
9	0.5	RD / BN	4940	I		Battery Positive Voltage	9	0.5	RD / BN	4940	III	

# X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (cont'd)

	<del></del>				<del></del>			<del> </del>				
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	BK / WH	751	I	1	Signal Ground	10	0.5	BK / WH	751	III	
11	0.5	GN / YE	6846	I	_	Rear License Plate Lamp Control	11	0.5	GN / YE	6846	III	
12	0.5	BK	750	I	_	Ground	12	0.5	BK	750	III	_
14	0.5	YE / BU	2376	I	_	Left Rear Middle Park- ing Assist Sensor Sig- nal	14	0.5	YE / BU	2376	III	_
15	0.5	YE / WH	2377	I	-	Right Rear Middle Park- ing Assist Sensor Sig- nal	15	0.5	YE / WH	2377	III	
16	0.5	YE / VT	2378	I	_	Right Rear Outer Park- ing Assist Sensor Sig- nal	16	0.5	YE / VT	2378	III	_

# X777 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness (-G94)







5207726 4992757

#### **Connector Part Information**

Harness Type: Chassis Rear Wiring Harness Extension

Harness

OEM Connector: 10094237

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 Multilock Series, Sealed( GY)

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 10094251 Service Connector: 19371200

Description: 2-Way M 1.2 MLK Series, Sealed(GY)

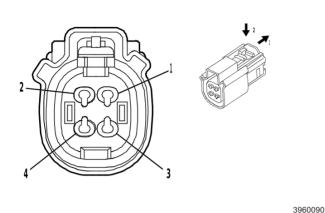
#### **Terminal Part Information**

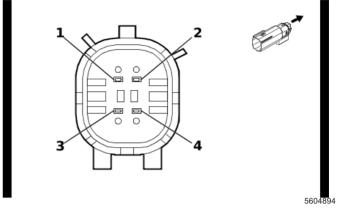
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-13 (BU)	No Tool Required

# X777 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness (-G94)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GN / YE	1616	I	I	Rear Brake Pad Wear Sensor Sig- nal	1	0.5	GN / YE	1616	II	I
2	0.75	BK / WH	1751	I		Signal Ground	2	0.5	BK / WH	2051	II	

# X788 Chassis Wiring Harness to Chassis Rear Wiring Harness Extension Harness (G94)





#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 33472-4002 Service Connector: 19368970

Description: 4-Way F 1.5 MX Series, Sealed( GY)

#### **Connector Part Information**

Harness Type: Chassis Rear Wiring Harness Extension

Harness

OEM Connector: 33482-4002

Service Connector: Service by Harness - See Part Catalog Description: 4-Way M 1.5 MX Series, Sealed( GY)

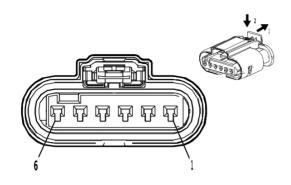
### **Terminal Part Information**

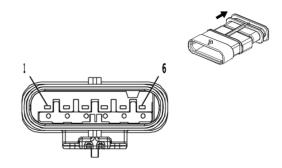
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-3 (GY)	No Tool Required

## X788 Chassis Wiring Harness to Chassis Rear Wiring Harness Extension Harness (G94)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	VT / BN	7258	Ш		Rear Differ- ential Lock Actuator Control	1	0.75	VT / BN	7258	III	1
2	0.75	GY / BK	7253	II	_	Rear Differ- ential Lock Actuator Low Control	2	0.75	GY / BK	7253	III	-
3	0.5	GN / YE	1616	I	_	Rear Brake Pad Wear Sensor Sig- nal	3	0.75	GN / YE	1616	III	
4	0.5	BK / WH	2051	I	_	Signal Ground	4	0.75	BK / WH	1751	III	_

# X820 Body Rear Wiring Harness to Chassis Wiring Harness (KC9/KCA)





3960142 4561098

#### **Connector Part Information**

Harness Type: Body Rear Wiring Harness

OEM Connector: 34900-6219

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 1.2 MCON-LL Series, Sealed( BK)

#### **Connector Part Information**

Harness Type: Chassis Wiring Harness

OEM Connector: 34899-6120 Service Connector: 86526152

Description: 6-Way M 1.2 MCON Series, Sealed(YE)

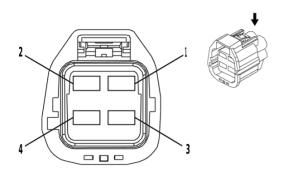
# **Terminal Part Information**

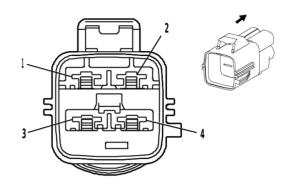
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-13 (BU)	No Tool Required

# X820 Body Rear Wiring Harness to Chassis Wiring Harness (KC9/KCA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	850	I	_	Ground	1	0.5	BK	850	П	_
2	0.5	VT / RD	4049	I	_	AC Power Outlet Sen- sor High Reference	2	0.5	VT / RD	4049	II	_
3	0.5	GN / BN	2266	I	_	DC/AC Inverter Control 2	3	0.5	GN / BN	2266	II	_
4	0.75	BK	10119	Ι	_	AC Outlet 2 Low Refer- ence	4	0.75	WH	10119	II	_
5	0.75	BK / WH	10120	I	_	AC Outlet 2 Phase A Control	5	0.75	BK / WH	10120	II	_
6	0.75	RD / WH	10121	I	_	AC Outlet 2 Phase B Control	6	0.75	RD / WH	10121	II	_

# **X904A Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness**





2852121 1853524

#### **Connector Part Information**

Harness Type: Chassis Rear Wiring Harness Extension

Harness

OEM Connector: 7283-3601-10

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 6.3 Series, Sealed(GY)

## **Connector Part Information**

Harness Type: Chassis Wiring Harness OEM Connector: 7288-3029-10

Service Connector: 19371198

Description: 4-Way M 6.3 Series, Sealed(GY)

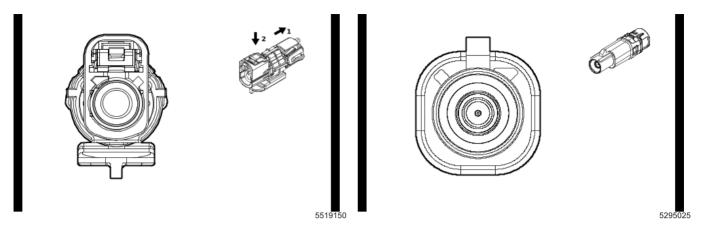
### **Terminal Part Information**

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-35616-43 (RD)	No Tool Required

## X904A Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	WH	2001	I	_	Left Park Brake Motor Apply Control	1	5	WH	2001	II	_
2	2.5	GY / BK	4369	I	_	Left Park Brake Motor Low Refer- ence	2	5	GY / BK	4369	II	_
3	2.5	GN / VT	1988	I	_	Right Park Brake Motor Apply Control	3	5	GN / VT	1988	II	_
4	2.5	GY	4368	-	_	Right Park Brake Motor Low Refer- ence	4	5	GY	4368	Ш	_

# X933 Chassis Wiring Harness to Rear Object Alarm Sensor Wiring Harness



## **Connector Part Information**

Harness Type: Chassis Wiring Harness COAX

OEM Connector: 35187047

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F Coax Type, Sealed( BK)

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring

Harness COAX

OEM Connector: 13517379

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way M Coax Type( BK)

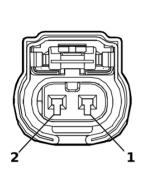
### **Terminal Part Information**

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

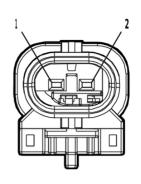
# X933 Chassis Wiring Harness to Rear Object Alarm Sensor Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	Coax Cable		I		Rear Vision Camera Co- axial Video Signal	_	_	Coax Cable	_	I	-

# X950 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness (A91)









5210916 4994410

#### **Connector Part Information**

Harness Type: Liftgate Jumper Wiring Harness

OEM Connector: 34900-2121

Service Connector: Service by Harness - See Part Catalog Description: 2-Way F 1.2 MCON Series, Sealed(BK)

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness

OEM Connector: 34899-2081

Service Connector: Service by Harness - See Part Catalog Description: 2-Way M 1.2 MCON Series, Sealed( GY)

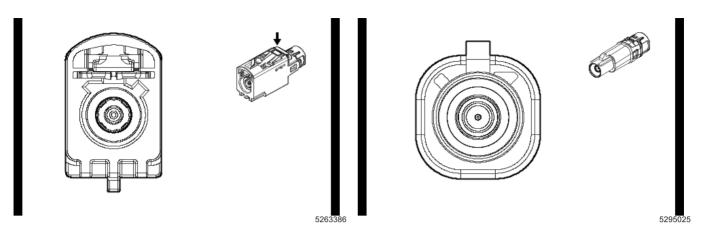
### **Terminal Part Information**

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-35616-17 (L-GN)	No Tool Required

# X950 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness (A91)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY / VT	2691	I		Rear Closure Actuator Lock Control	1	0.5	GY / VT	2691	II	
2	0.5	GY / BK	2680	I		Lock Actua- tors Unlock Control 2	2	0.5	GY / BK	2680	=	

# X955 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness



#### **Connector Part Information**

Harness Type: Liftgate Jumper Wiring Harness COAX

OEM Connector: 13517364

Service Connector: Service by Cable Assembly — See Part

Catalog

Description: 1-Way F Coax Type(BK)

#### **Connector Part Information**

Harness Type: Rear Object Alarm Sensor Wiring Harness COAX

OEM Connector: 13517379

Service Connector: Service by Cable Assembly — See Part

Description: 1-Way M Coax Type( BK)

## **Terminal Part Information**

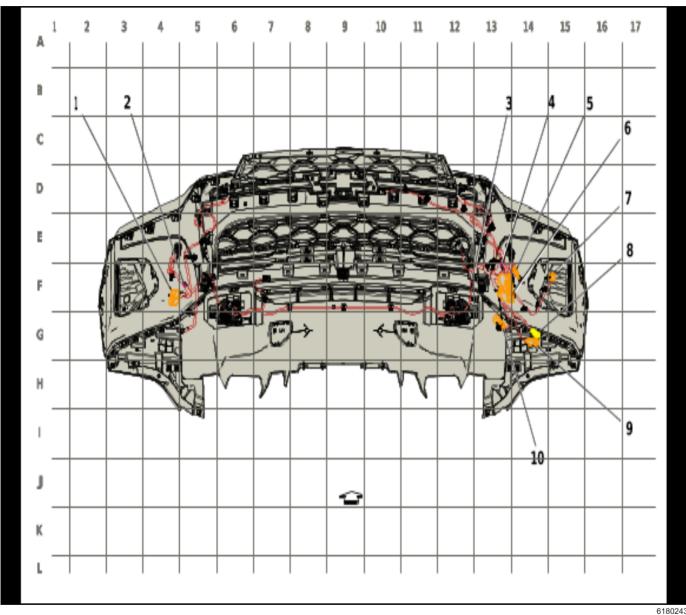
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool		
I	Not required	No Tool Required	No Tool Required		

# X955 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
_	_	Coax Cable	_	I	_	Rear Vision Camera Co- axial Video Signal	_	_	Coax Cable	_	I	_

# **Electrical Component Locator and Harness Routing Views Schematic and Routing Diagrams**

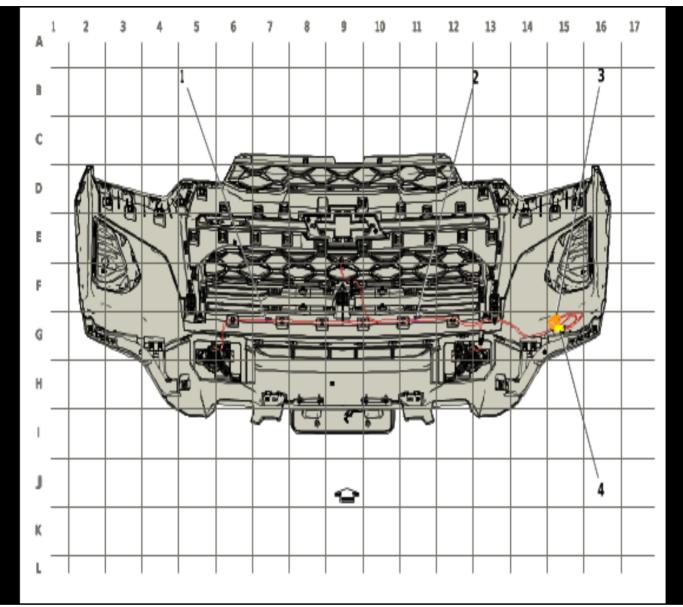
Harness Routing Views (Forward Lamp Harness Routing - Front Fascia)



- X150 Body Wiring Harness to Forward Lamp (1) Wiring Harness
- (2) J102 Forward Lamp Wiring Harness
- J103 Forward Lamp Wiring Harness (3)
- J104 Forward Lamp Wiring Harness (4)
- X156 Body Wiring Harness to Forward Lamp Wiring Harness (UV2/UXA) (5)
- X250R Body Wiring Harness to Forward Lamp Wiring Harness (6)

- X250J Windshield Washer Pump Extension (7) Wiring Harness to Forward Lamp Wiring Harness
- X195 Forward Lamp Wiring Harness to Front (8) Object Alarm Sensor Wiring Harness
- (9)X260 Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness
- (10)X250A Radiator Extension Harness to Forward Lamp Wiring Harness

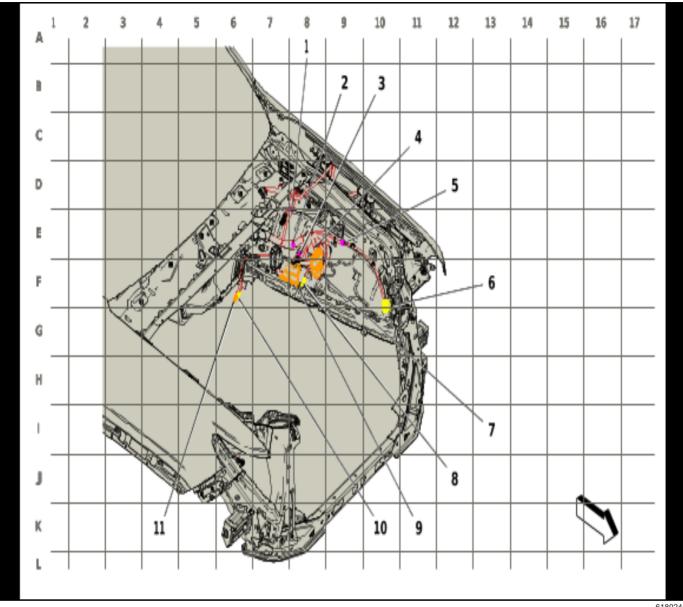
# **Harness Routing Views (Front Fascia Harness Routing)**



- (1) J101 Front Object Alarm Sensor Wiring
- J100 Front Object Alarm Sensor Wiring Harness (T40) (2)

- X260 Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness (3)
- X195 Forward Lamp Wiring Harness to Front Object Alarm Sensor Wiring Harness (4)

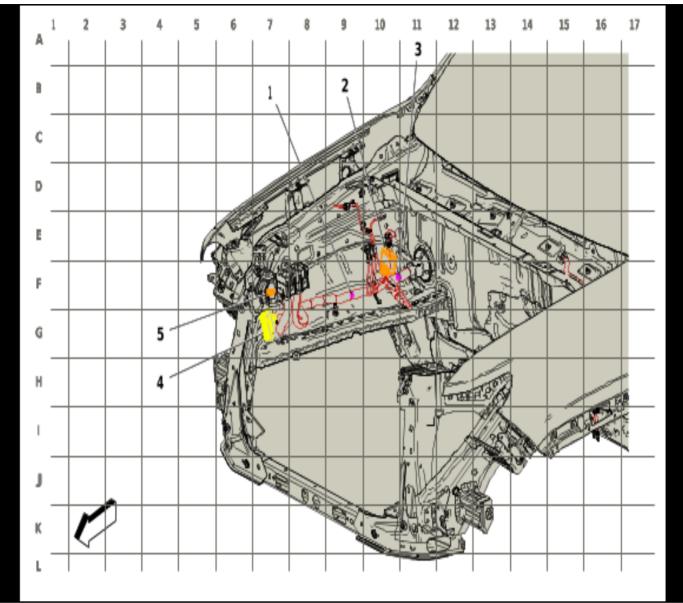
# Harness Routing Views (Body Harness Routing - Left Side of Engine Compartment)



- (1) J114 Body Wiring Harness
- (2) J113 Body Wiring Harness
- J112 Body Wiring Harness (3)
- (4) J110 Body Wiring Harness
- (5) J111 Body Wiring Harness
- (6) X150 Body Wiring Harness to Forward Lamp Wiring Harness
- X100 Chassis Wiring Harness to Body (7) Wiring Harness

- (8) X199 Chassis Wiring Harness to Body Wiring Harness
- X101 Body Wiring Harness to Chassis Wiring Harness (9)
- (10)X384 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)
- X383 Rearview Camera Wiring Harness (11) Jumper to Body Wiring Harness (UXA)

# Harness Routing Views (Body Harness Routing - Right Side of Engine Compartment)

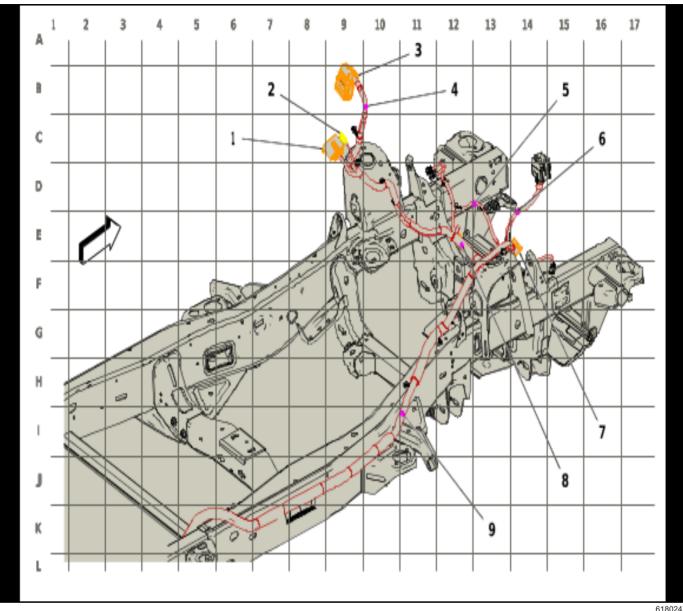


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- (1) J106 Body Wiring Harness
- (2) X201 Engine Wiring Harness to Body Wiring Harness
- (3) J105 Body Wiring Harness

- (4) X250R Body Wiring Harness to Forward Lamp Wiring Harness
- (5) X156 Body Wiring Harness to Forward Lamp Wiring Harness (UV2/UXA)

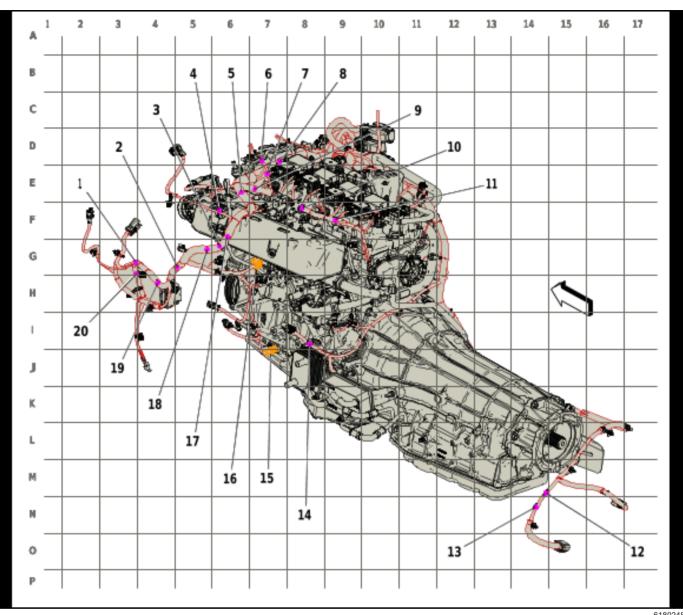
# **Harness Routing Views (Chassis Harness Routing - Front)**



- (1) X101 Body Wiring Harness to Chassis Wiring Harness
- X199 Chassis Wiring Harness to Body (2) Wiring Harness
- X100 Chassis Wiring Harness to Body (3) Wiring Harness
- (4) J109 Chassis Wiring Harness
- (5) J108 Chassis Wiring Harness

- (6) J115 Chassis Wiring Harness
- X204 Engine Wiring Harness to Chassis (7) Wiring Harness
- (8) X107 Chassis Wiring Harness to Power Steering Wiring Harness
- J116 Chassis Wiring Harness (9)

# Harness Routing Views (Engine Harness Routing - Left)

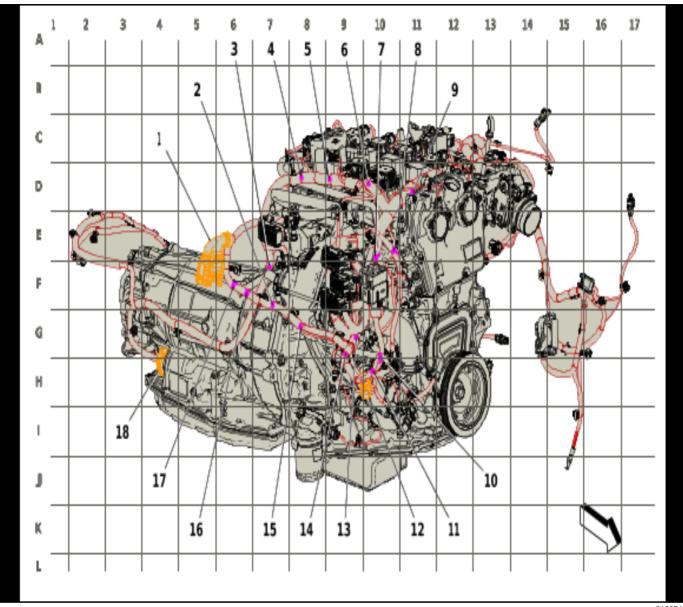


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	items
(1)	J151 Engine Wiring Harness
(2)	J149 Engine Wiring Harness
(3)	J147 Engine Wiring Harness
(4)	J142 Engine Wiring Harness
(5)	J141 Engine Wiring Harness
(6)	J136 Engine Wiring Harness
(7)	J135 Engine Wiring Harness
(8)	J132 Engine Wiring Harness
(9)	J138 Engine Wiring Harness
(10)	J140 Engine Wiring Harness
(11)	J143 Engine Wiring Harness
(12)	J145 Engine Wiring Harness

- (13)J146 Engine Wiring Harness
- J139 Engine Wiring Harness (14)
- X144 Engine Wiring Harness to Oil Pump Flow Control Solenoid Valve Harness (15)
- X160 Engine Wiring Harness to Fuel Injector (16)Wiring Harness
- J144 Engine Wiring Harness (17)
- (18)J148 Engine Wiring Harness
- (19)J150 Engine Wiring Harness
- J152 Engine Wiring Harness (20)

# **Harness Routing Views (Engine Harness Routing - Right Front)**

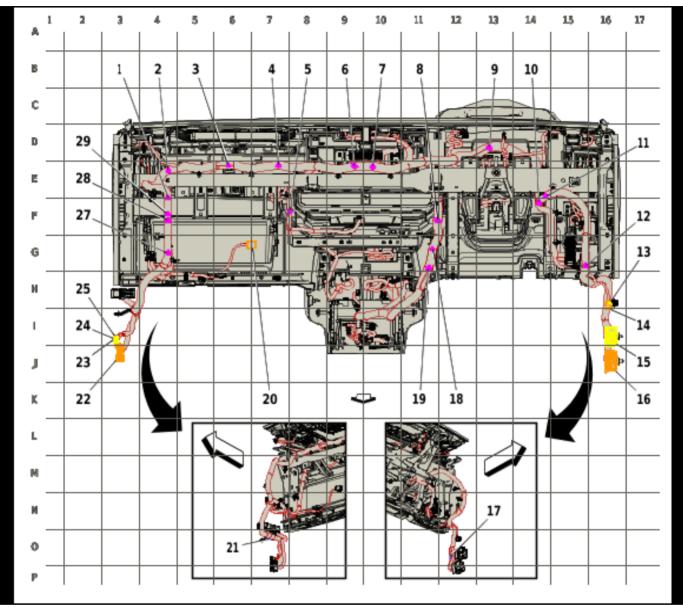


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- (1) X201 Engine Wiring Harness to Body Wiring Harness
- (2) J123 Engine Wiring Harness
- (3) J137 Engine Wiring Harness
- (4) J134 Engine Wiring Harness
- (5) J133 Engine Wiring Harness
- (6) J130 Engine Wiring Harness
- (7) J128 Engine Wiring Harness
- (8) J129 Engine Wiring Harness
- (9) J131 Engine Wiring Harness
- (10) J120 Engine Wiring Harness

- (11) J121 Engine Wiring Harness
- (12) X204 Engine Wiring Harness to Chassis Wiring Harness
- (13) J127 Engine Wiring Harness
- (14) J122 Engine Wiring Harness
- (15) J126 Engine Wiring Harness
- (16) J124 Engine Wiring Harness
- (17) J125 Engine Wiring Harness
- (18) X175 Engine Wiring Harness to Automatic Transmission Wiring Harness

## Harness Routing Views (Instrument Panel Harness Routing)



6180250

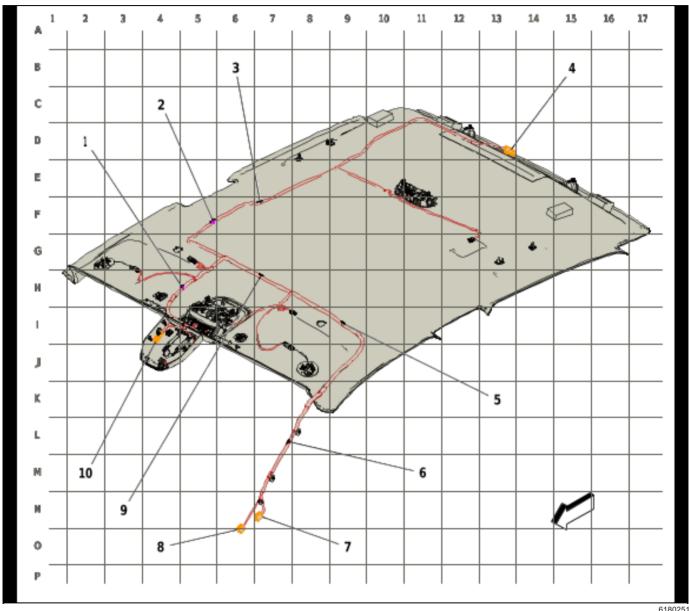
- J227 Instrument Panel Wiring Harness (1)
- (2)J228 Instrument Panel Wiring Harness
- (3) J225 Instrument Panel Wiring Harness
- (4) J224 Instrument Panel Wiring Harness
- (5)J223 Instrument Panel Wiring Harness
- (6)J222 Instrument Panel Wiring Harness
- (7)J219 Instrument Panel Wiring Harness
- J214 Instrument Panel Wiring Harness
- (8)
- (9)J211 Instrument Panel Wiring Harness J210 Instrument Panel Wiring Harness
- (10)
- (11)J209 Instrument Panel Wiring Harness J208 Instrument Panel Wiring Harness (12)
- (13)X380 Instrument Panel Wiring Harness to Body Wiring Harness (UV2/UXA-UVB)

- (14)X399 Instrument Panel Wiring Harness to Body Wiring Harness (UVB-UV2)
- X300 Body Wiring Harness to Instrument (15)Panel Wiring Harness
- X301 Body Wiring Harness to Instrument (16)Panel Wiring Harness
- (17)W24 Blunt Cut - Trailer Brakes Provision
- (18)J213 Instrument Panel Wiring Harness
- (19)J212 Instrument Panel Wiring Harness
- (20)X315 Instrument Panel Wiring Harness to Air Conditioning Wiring Harness
- (21)W25 Blunt Cut - Configurable/Accessory Relay
- X400 Instrument Panel Wiring Harness to (22)**Body Wiring Harness**
- X499C Body Wiring Harness to Instrument (23)Panel Wiring Harness (U2K)

- (24)X499A Body Wiring Harness to Instrument Panel Wiring Harness
- (25)X499B
- (27)J230 Instrument Panel Wiring Harness

- (28)J229 Instrument Panel Wiring Harness
- (29)J226 Instrument Panel Wiring Harness

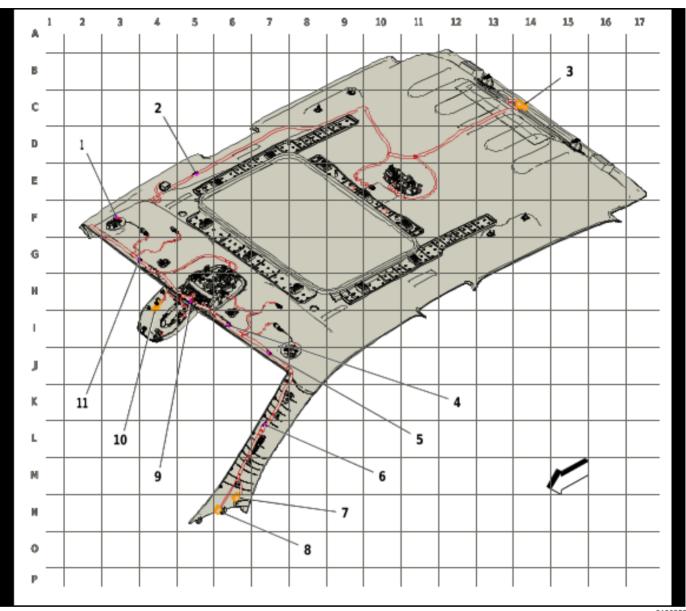
# Harness Routing Views (Headliner Harness Routing (- CAC))



- J363 Headlining Wiring Harness (1)
- J364 Headlining Wiring Harness (2)
- J365 Headlining Wiring Harness (3)
- X500 Roof Wiring Harness to Body Wiring (4)
- J361 Headlining Wiring Harness (5)
- (6) J360 Headlining Wiring Harness

- X402C Roof Wiring Harness to Body Wiring (7) Harness
- (8) X401 Roof Wiring Harness to Body Wiring Harness
- (9) J362 Headlining Wiring Harness
- X402D Inside Air Moisture and Windshield (10)Temperature Sensor Jumper to Roof Wiring Harness (CJ2)

# Harness Routing Views (Headliner Harness Routing (CAC))

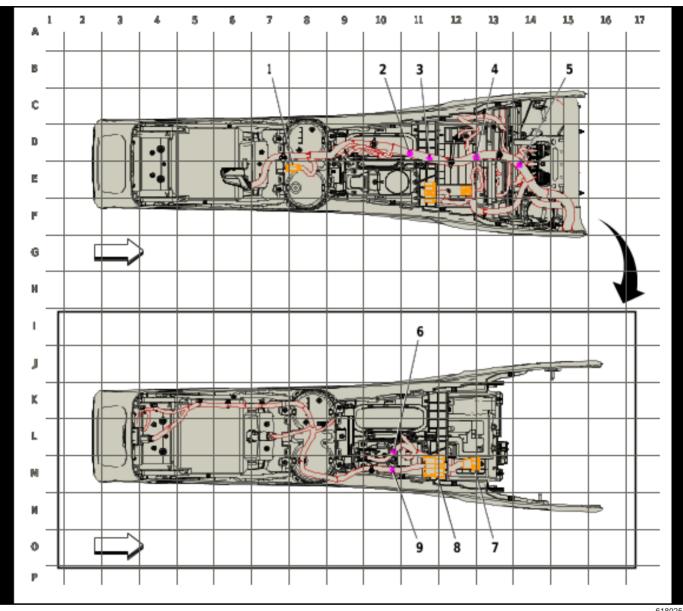


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- (1) J362 Headlining Wiring Harness
- (2) J364 Headlining Wiring Harness
- (3) X500 Roof Wiring Harness to Body Wiring Harness
- (4) J366 Headlining Wiring Harness (CAC)
- (5) J365 Headlining Wiring Harness
- (6) J360 Headlining Wiring Harness
- (7) X402C Roof Wiring Harness to Body Wiring Harness

- (8) X401 Roof Wiring Harness to Body Wiring Harness
- (9) J363 Headlining Wiring Harness
- (10) X402D Inside Air Moisture and Windshield Temperature Sensor Jumper to Roof Wiring Harness (CJ2)
- (11) J361 Headlining Wiring Harness

# Harness Routing Views (Floor Console Harness Routing)

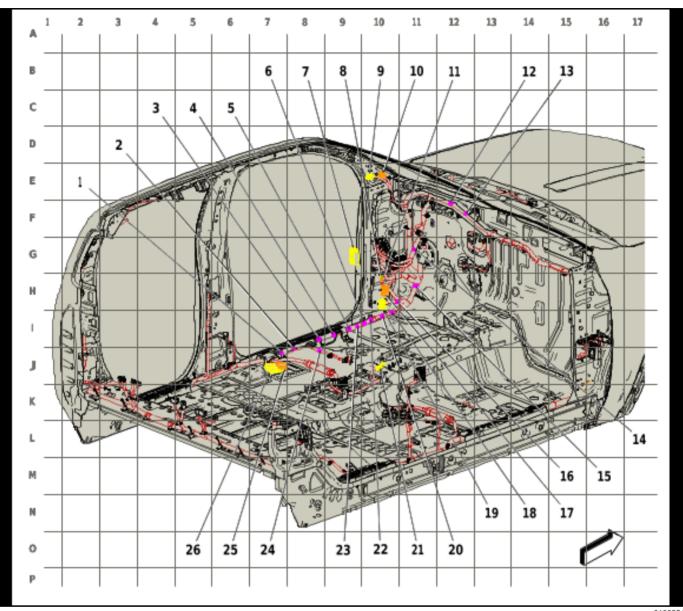


- (1) X367 Instrument Panel Wiring Harness to **Body Wiring Harness**
- J218 Instrument Panel Wiring Harness (2)
- J217 Instrument Panel Wiring Harness (3)
- (4) J216 Instrument Panel Wiring Harness
- (5) J215 Instrument Panel Wiring Harness
- (6) J331 Front Floor Console Wiring Harness

- X304 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness (7) **Extension Harness**
- X305 Instrument Panel Wiring Harness to (8) Front Floor Console Wiring Harness
- J330 Front Floor Console Wiring Harness (9)

#### 6-508

### Harness Routing Views (Body Harness Routing - Left Front of Passenger Compartment)



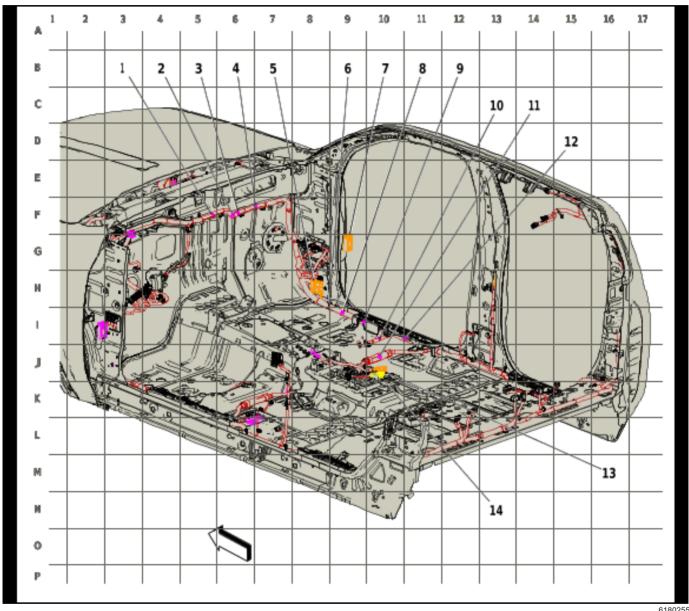
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- (1) J312 Body Wiring Harness
- (2) J311 Body Wiring Harness
- (3) J309 Body Wiring Harness
- (4) J308 Body Wiring Harness
- (5) J307 Body Wiring Harness
- (6) J305 Body Wiring Harness
- (7) X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver
- (8) X399 Instrument Panel Wiring Harness to Body Wiring Harness (UVB-UV2)
- (9) X402C Roof Wiring Harness to Body Wiring Harness
- (10) X401 Roof Wiring Harness to Body Wiring Harness
- (11) X380 Instrument Panel Wiring Harness to Body Wiring Harness (UV2/UXA-UVB)

- (12) J201 Body Wiring Harness
- (13) J202 Body Wiring Harness
- (14) J300 Body Wiring Harness
- (15) J207 Body Wiring Harness
- (16) J301 Body Wiring Harness
- (17) X300 Body Wiring Harness to Instrument Panel Wiring Harness
- (18) J302 Body Wiring Harness
- (19) X301 Body Wiring Harness to Instrument Panel Wiring Harness
- (20) J303 Body Wiring Harness
- (21) X367 Instrument Panel Wiring Harness to Body Wiring Harness
- (22) J304 Body Wiring Harness
- (23) J306 Body Wiring Harness

- (24)J310 Body Wiring Harness
- (25)X302A Front Seat Wiring Harness - Driver to **Body Wiring Harness**
- (26)X302B Front Seat Wiring Harness - Driver to **Body Wiring Harness**

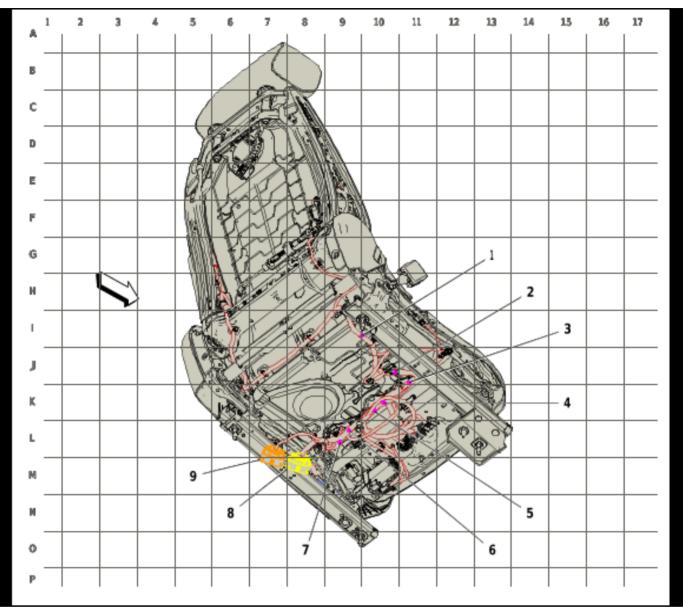
# Harness Routing Views (Body Harness Routing - Right Front of Passenger Compartment)



- (1) J203 Body Wiring Harness
- (2)J204 Body Wiring Harness
- (3)J205 Body Wiring Harness
- (4) J206 Body Wiring Harness
- (5)X400 Instrument Panel Wiring Harness to **Body Wiring Harness**
- (6)J320 Body Wiring Harness
- (7)X404 Body Wiring Harness to Front Side Door Door Wiring Harness - Passenger
- (8)J321 Body Wiring Harness

- (9) J322 Body Wiring Harness
- (10)J324 Body Wiring Harness
- (11)J325 Body Wiring Harness
- (12)J323 Body Wiring Harness
- X402A Front Seat Wiring Harness -(13)Passenger to Body Wiring Harness
- (14)X402B Front Seat Wiring Harness -Passenger to Body Wiring Harness

# **Harness Routing Views (Front Seat Wiring Harness - Driver Routing)**

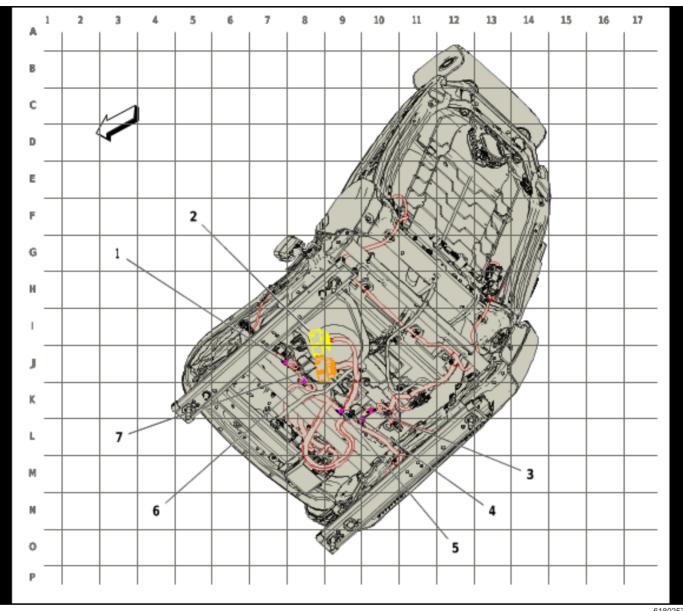


6180256

- (1) J345 Front Seat Wiring Harness Driver
- (2) J346 Front Seat Wiring Harness Driver
- (3) J344 Front Seat Wiring Harness Driver
- (4) J343 Front Seat Wiring Harness Driver
- (5) J342 Front Seat Wiring Harness Driver
- (6) J341 Front Seat Wiring Harness Driver

- (7) J340 Front Seat Wiring Harness Driver
- (8) X302A Front Seat Wiring Harness Driver to Body Wiring Harness
- (9) X302B Front Seat Wiring Harness Driver to Body Wiring Harness

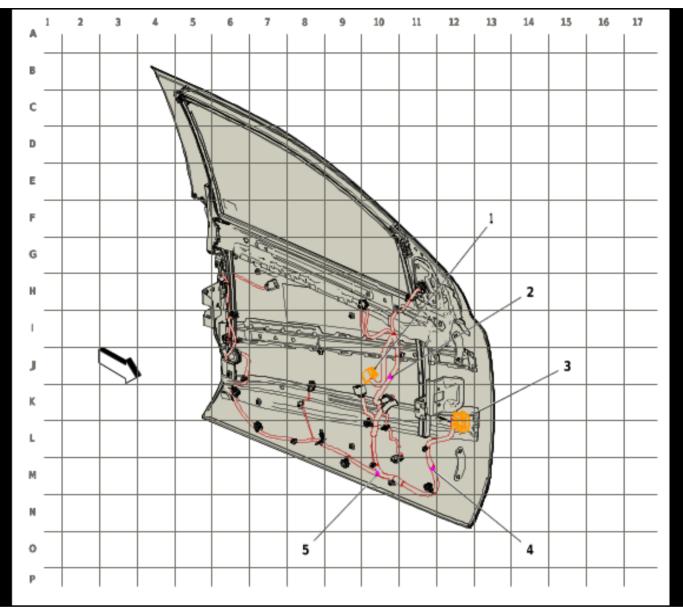
# Harness Routing Views (Front Seat Wiring Harness - Passenger Routing)



6180257

- (1) J348 Front Seat Wiring Harness - Passenger
- X402B Front Seat Wiring Harness -Passenger to Body Wiring Harness (2)
- J349 Front Seat Wiring Harness Passenger (3)
- (4) J351 Front Seat Wiring Harness - Passenger
- (5) J350 Front Seat Wiring Harness - Passenger
- J347 Front Seat Wiring Harness Passenger (6)
- X402A Front Seat Wiring Harness Passenger to Body Wiring Harness (7)

# Harness Routing Views (Driver Door Harness Routing (UQ3))

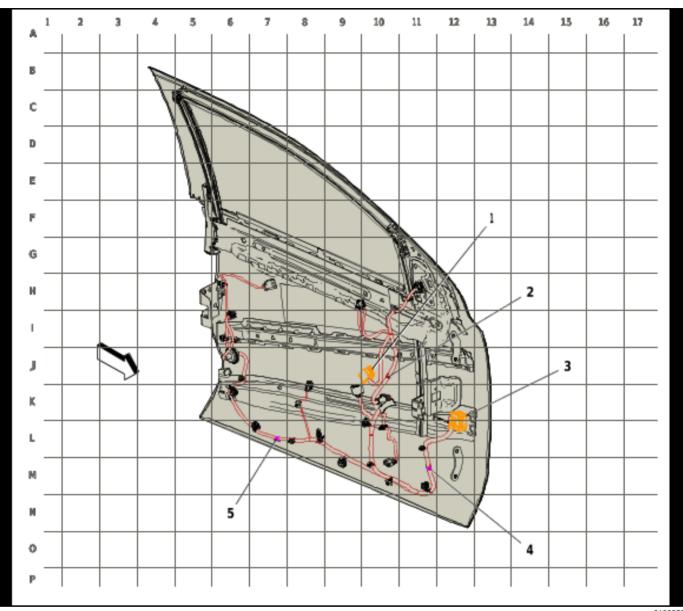


# 6180258

- (1) X393 Front Side Door Door Wiring Harness -Driver to Front Side Door Door Lock Door Wiring Harness - Driver
- (2) J500 Front Side Door Door Wiring Harness Driver
- (3) X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver

- (4) J501 Front Side Door Door Wiring Harness Driver
- (5) J502 Front Side Door Door Wiring Harness Driver

# Harness Routing Views (Driver Door Harness Routing (UQA))

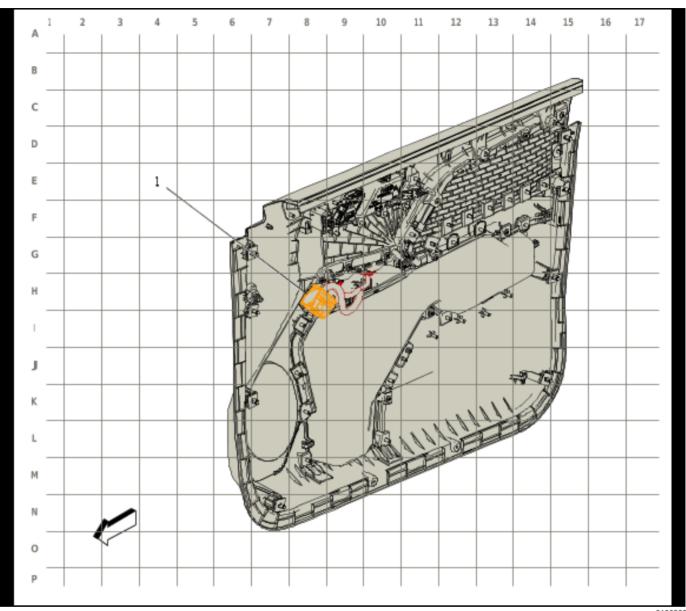


6180259

- X393 Front Side Door Door Wiring Harness -Driver to Front Side Door Door Lock Door Wiring Harness Driver (1)
- (2) J500 Front Side Door Door Wiring Harness -
- X303 Body Wiring Harness to Front Side Door Door Wiring Harness Driver (3)

- (4) J501 Front Side Door Door Wiring Harness -
- J502 Front Side Door Door Wiring Harness Driver (5)

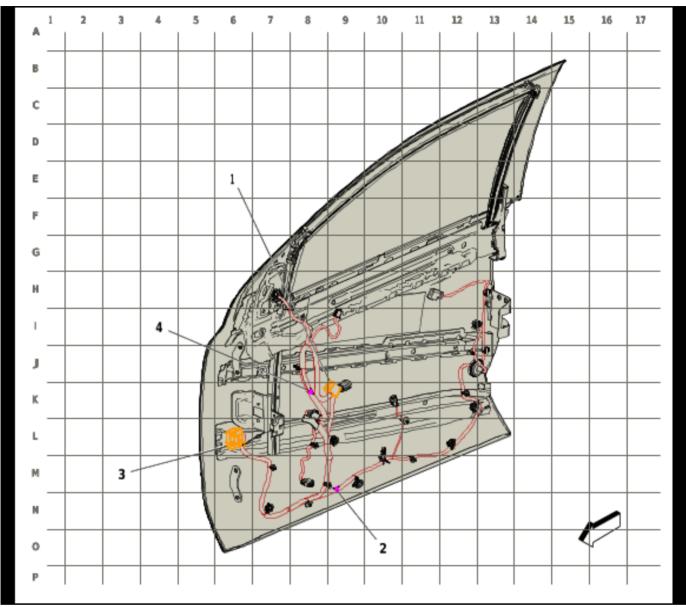
# **Harness Routing Views (Driver Door Trim Harness Routing)**



#### Items

X393 Front Side Door Door Wiring Harness -Driver to Front Side Door Door Lock Door Wiring Harness - Driver (1)

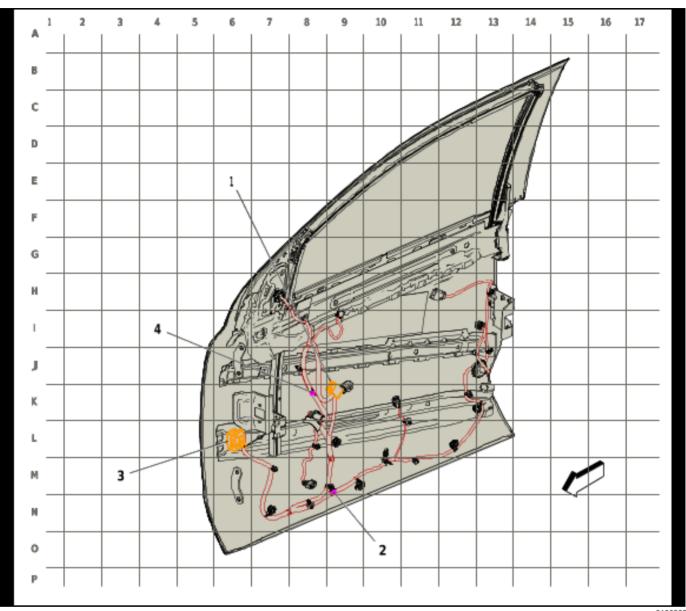
# Harness Routing Views (Passenger Door Harness Routing (UQ3))



#### 618026

- (1) X494 Front Side Door Door Wiring Harness -Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger
- (2) J601 Front Side Door Door Wiring Harness Passenger
- (3) X404 Body Wiring Harness to Front Side Door Door Wiring Harness - Passenger
- (4) J600 Front Side Door Door Wiring Harness Passenger

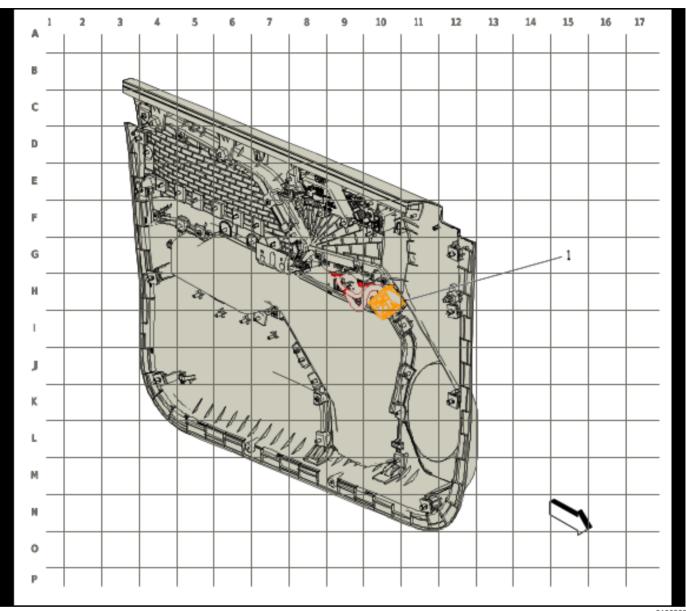
# Harness Routing Views (Passenger Door Harness Routing (UQA))



# 6180262

- X494 Front Side Door Door Wiring Harness -Passenger to Front Side Door Door Lock Door Wiring Harness Passenger (1)
- (2) J601 Front Side Door Door Wiring Harness -Passenger
- X404 Body Wiring Harness to Front Side Door Door Wiring Harness Passenger (3)
- J600 Front Side Door Door Wiring Harness Passenger (4)

# Harness Routing Views (Passenger Door Trim Harness Routing)

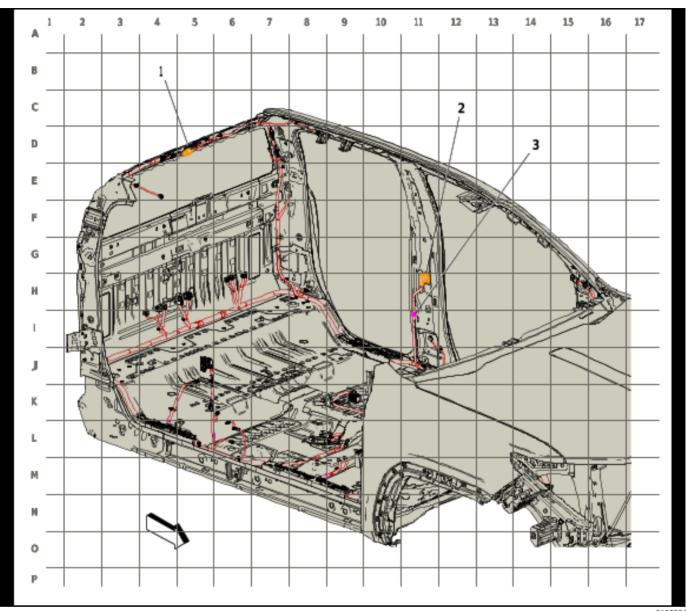


6180263

#### Items

(1) X494 Front Side Door Door Wiring Harness -Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger

# Harness Routing Views (Body Harness Routing - Left Rear of Passenger Compartment)



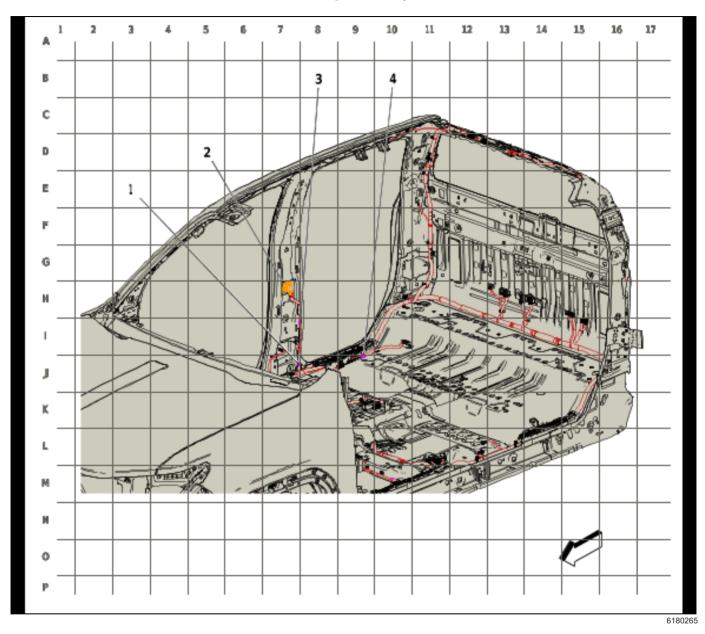
3180264

#### Items

- (1) X500 Roof Wiring Harness to Body Wiring Harness
- (2) X503 Rear Side Door Door Wiring Harness -Left to Body Wiring Harness

(3) J313 Body Wiring Harness

# Harness Routing Views (Body Harness Routing - Center and Right of Passenger Compartment)

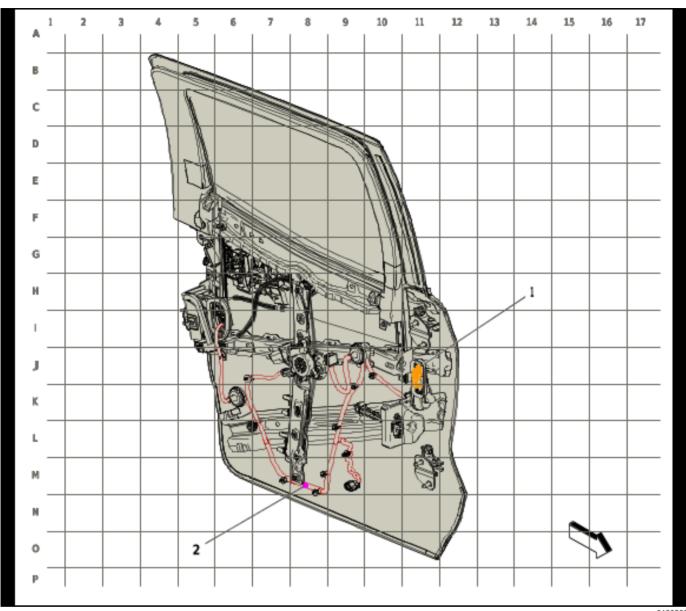


#### Items

- (1) J326 Body Wiring Harness
- (2) X604 Rear Side Door Door Wiring Harness Right to Body Wiring Harness
- (3) J327 Body Wiring Harness

(4) J328 Body Wiring Harness

# **Harness Routing Views (Left Rear Door Harness Routing)**

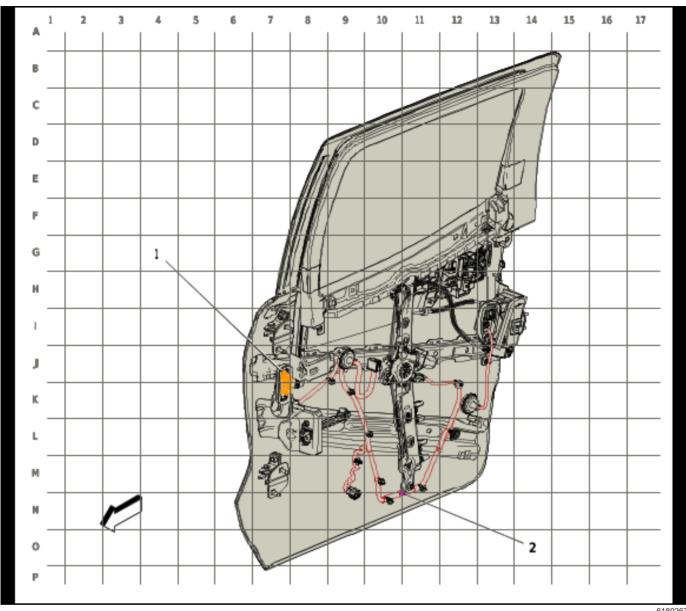


6180266

#### Items

(1) X503 Rear Side Door Door Wiring Harness -Left to Body Wiring Harness (2) J700 Rear Side Door Door Wiring Harness

# **Harness Routing Views (Right Rear Door Harness Routing)**



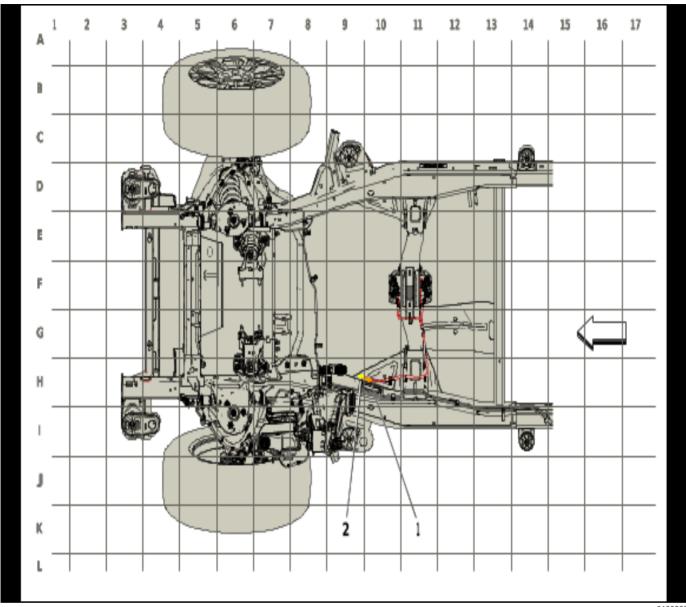
6180267

### Items

X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness (1)

J800 Rear Side Door Door Wiring Harness - Right (2)

# Harness Routing Views (Vehicle Underbody Camera Harness Routing (UXA))

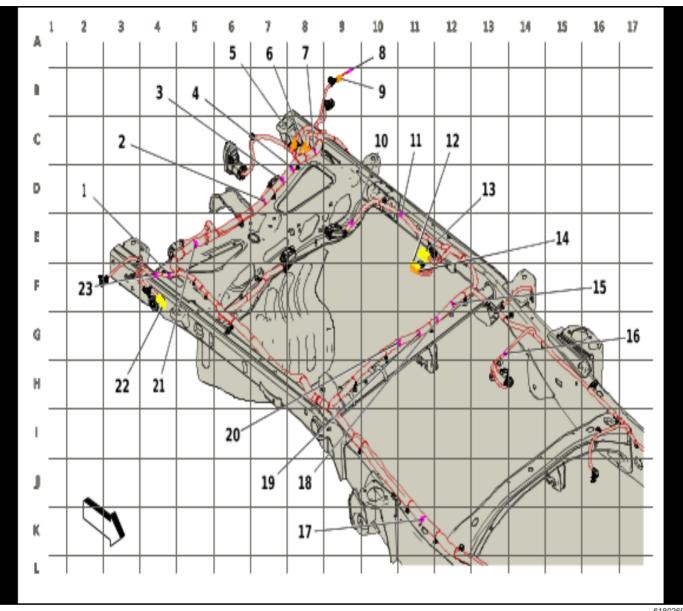


### Items

X372 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA) (1)

X371 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring (2) Harness (UXA)

# Harness Routing Views (Chassis Harness Routing - Rear)

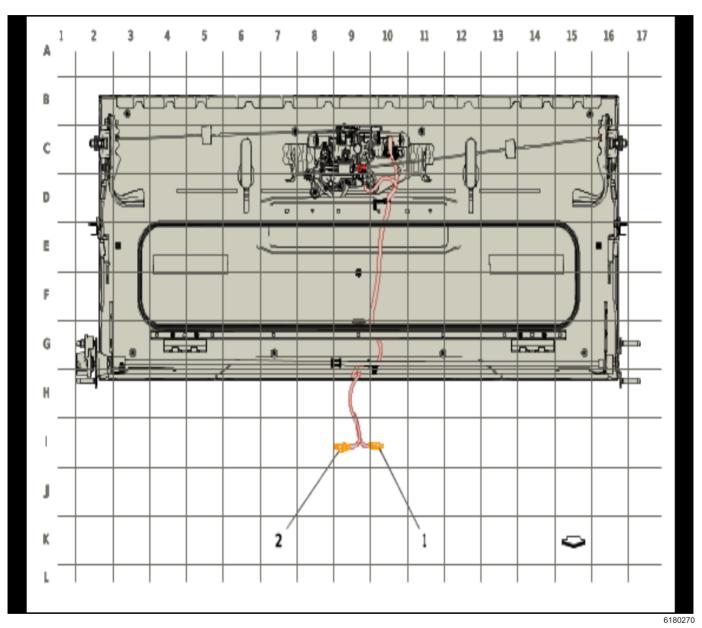


- J408 Chassis Wiring Harness (1)
- J411 Chassis Wiring Harness (2)
- (3) J412 Chassis Wiring Harness
- (4) J414 Chassis Wiring Harness
- X933 Chassis Wiring Harness to Rear Object (5) Alarm Sensor Wiring Harness
- (6)X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness
- (7) J415 Chassis Wiring Harness
- W26 Blunt Cut Cargo Lamps Provision (8)
- X382 Chassis Wiring Harness to Chassis (9)Wiring Harness (S0Y)
- (10)J410 Chassis Wiring Harness
- J409 Chassis Wiring Harness (11)

- (12)X777 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness (0)
- (13)X904A Chassis Rear Wiring Harness Extension Harness to Chassis Wiring
- (14)X788 Chassis Wiring Harness to Chassis Rear Wiring Harness Extension Harness (Ğ94)
- (15)J404 Chassis Wiring Harness
- J416 Chassis Wiring Harness (16)
- J400 Chassis Wiring Harness (17)
- J403 Chassis Wiring Harness (18)
- (19)J402 Chassis Wiring Harness
- J401 Chassis Wiring Harness (20)
- J407 Chassis Wiring Harness (21)

- (22) X820 Body Rear Wiring Harness to Chassis Wiring Harness (KC9/KCA)
- (23) J413 Chassis Wiring Harness

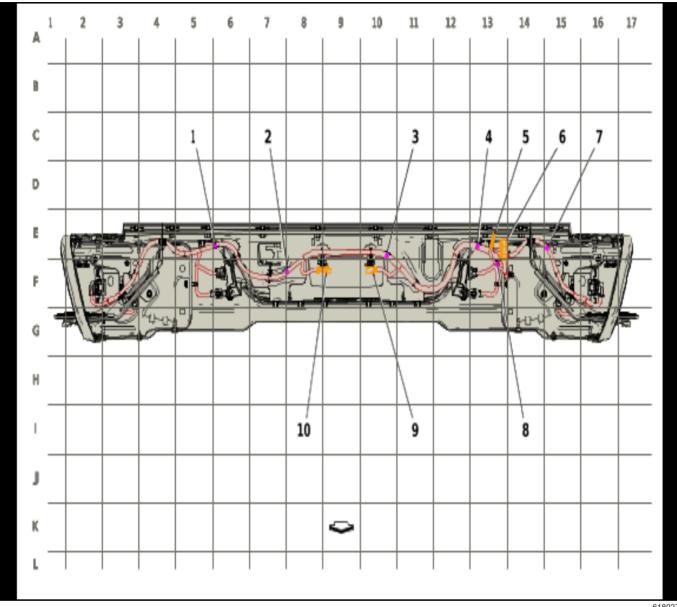
# Harness Routing Views (Endgate Harness Routing (A91 / UVB))



#### Items

(1) X955 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness (2) X950 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness

### Harness Routing Views (Rear Fascia Harness Routing)



#### Items

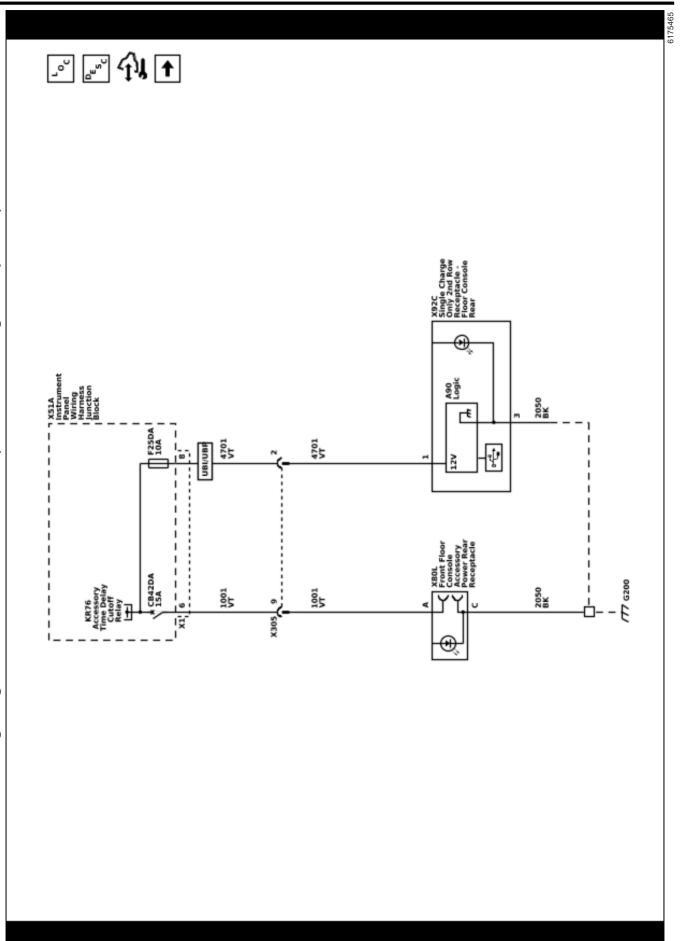
- J900 Rear Object Alarm Sensor Wiring (1)
- J901 Rear Object Alarm Sensor Wiring (2)
- (3) J902 Rear Object Alarm Sensor Wiring
- (4) J903 Rear Object Alarm Sensor Wiring Harness
- (5) X933 Chassis Wiring Harness to Rear Object Alarm Sensor Wiring Harness

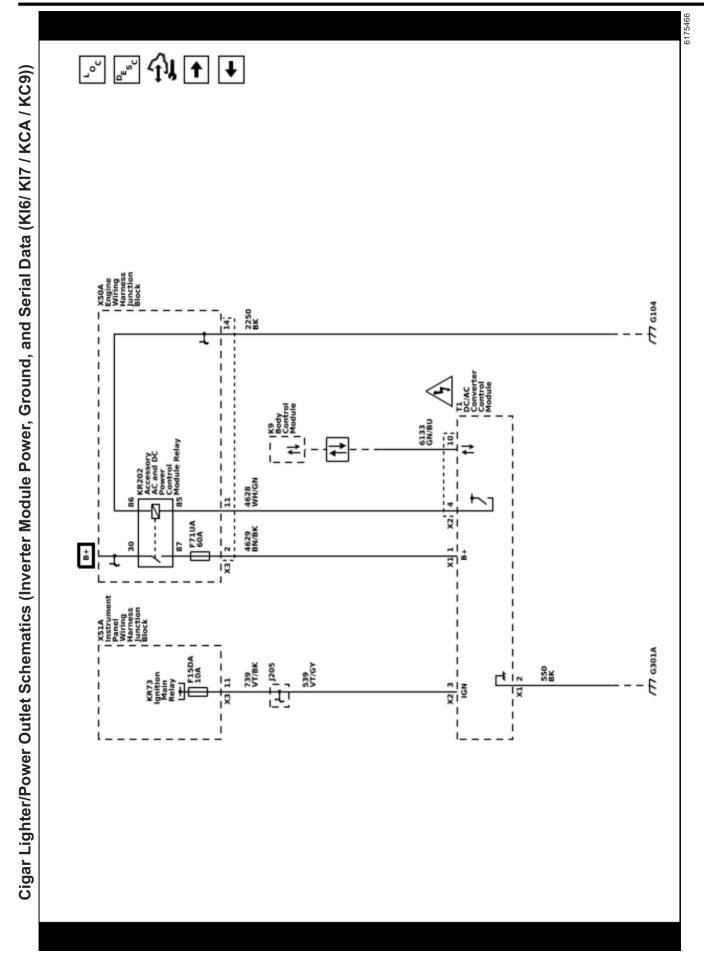
- (6) X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness
- J905 Rear Object Alarm Sensor Wiring (7) Harness
- (8) J904 Rear Object Alarm Sensor Wiring Harness
- X955 Liftgate Jumper Wiring Harness to (9)Rear Object Alarm Sensor Wiring Harness
- X950 Liftgate Jumper Wiring Harness to (10)Rear Object Alarm Sensor Wiring Harness

### **Power Outlets**

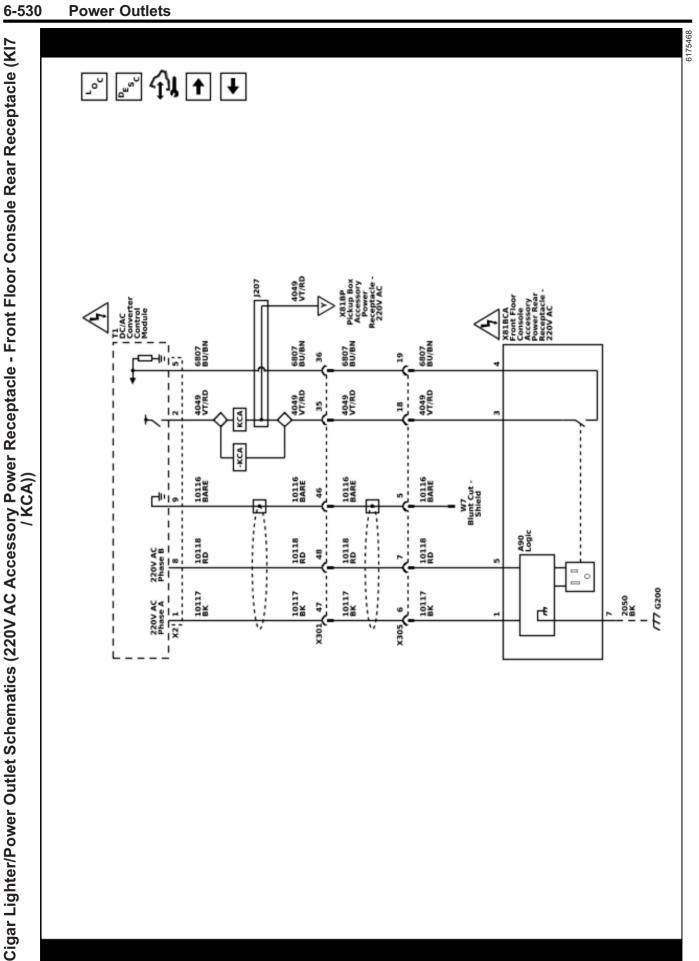
### **Schematic and Routing Diagrams**

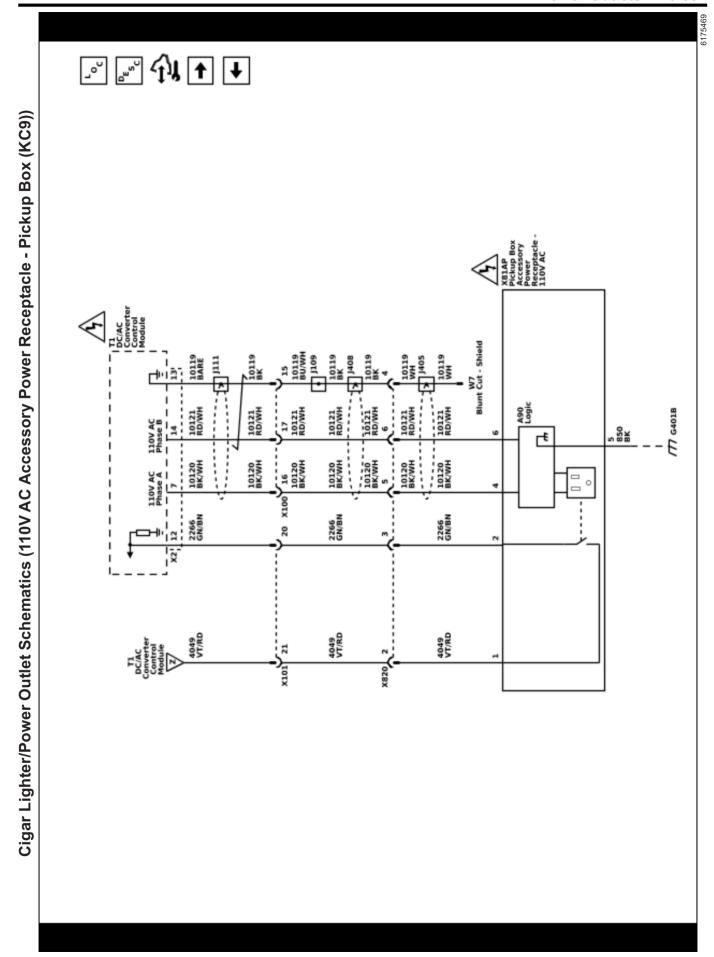




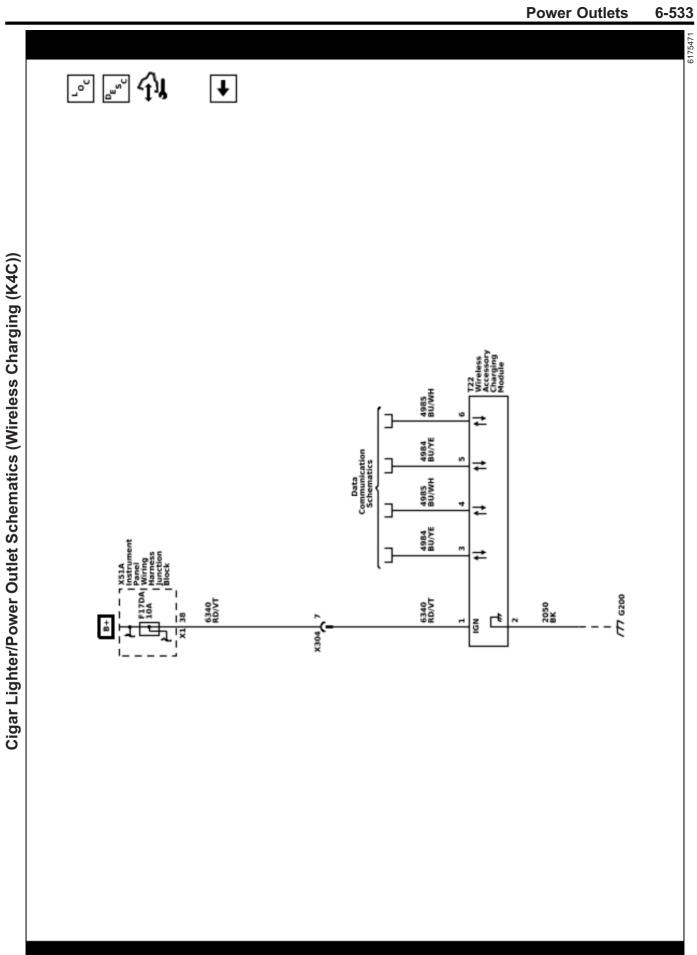


Cigar Lighter/Power Outlet Schematics (110V AC Accessory Power Receptacle - Front Floor Console Rear Receptacle (KI6 / KC9)) \_~ \_~ <del>(</del>}\, **+** \ VT/RD VT/RD BARE A90 Logic RD RD RD RD 777 6200 BK BK BK BK









### Description and Operation Mobile Device Wireless Charger Description and Operation

# Mobile Device Wireless Charging System

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), Wireless Power Consortium (WPC) Standard, or Alliance for Wireless Power (A4WP), meaning that it is equipped with a PMA, WPC, or A4WP 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 5W to 15W of power as requested by the compatible device. 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. Due to differences in objects, a foreign object detection protocol is employed to detect a non-compliant device and hold power transfer initiation until the non-compliant object has been removed and a compliant object has been detected. 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 by displaying a lightning bolt over the phone icon. 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

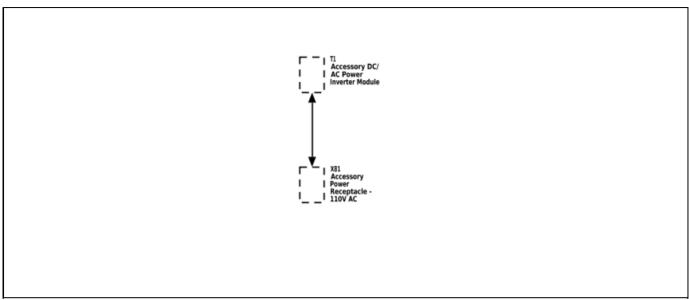
# 12 Volt Power Outlet Receptacle Description and Operation

The 12 V accessory power receptacles are supplied with power by the accessory relay.

The vehicle is fitted with a cigarette lighter and/or with a 12 V accessory power receptacle. The cigarette lighter and accessory power outlets are controlled by an ignition operated relay. The accessory power receptacle and cigarette lighter are operational when the ignition is turned to either the On or the Accessories positions. To operate the cigarette lighter, press in the lighter knob. When the element is hot, the lighter automatically pops out and is ready for use.

# 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

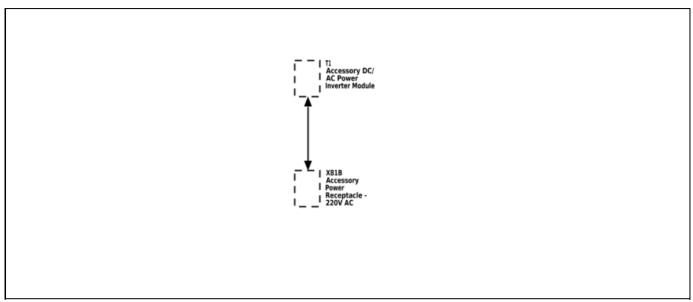
The accessory DC/AC power inverter module will turn OFF if the current in the  $110\,V$  circuit is greater than  $3.8\,A$  for  $1\,s$ , or  $2.5\,A$  for  $10\,s$ . The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a  $3\,s$  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.

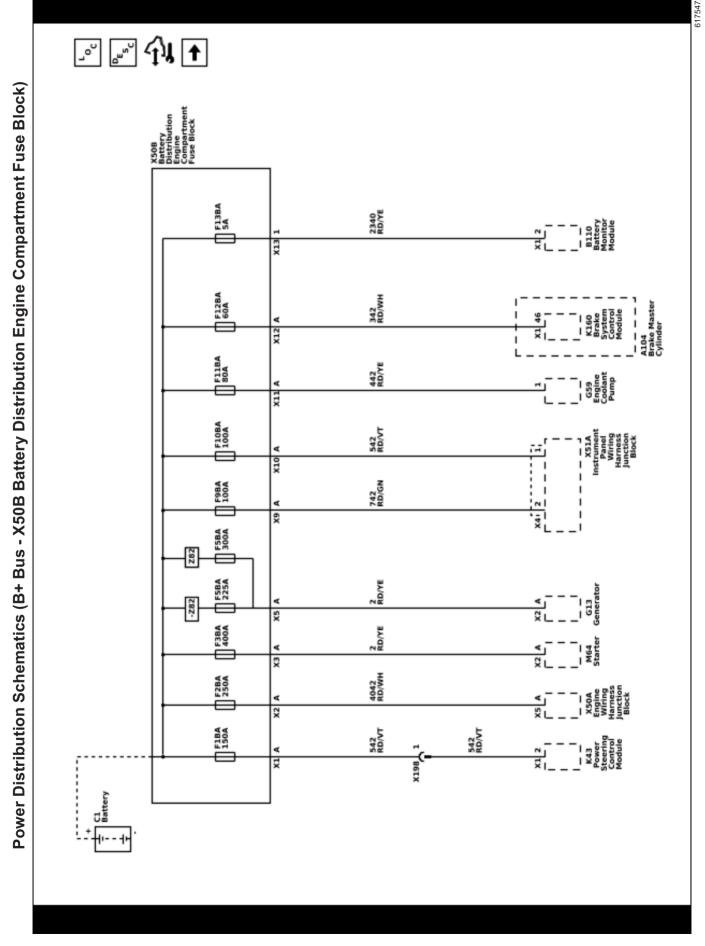
### 230 Volt Power Outlet Receptacle Internal Shutdown

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.

# USB Receptacle Description and Operation (USS)

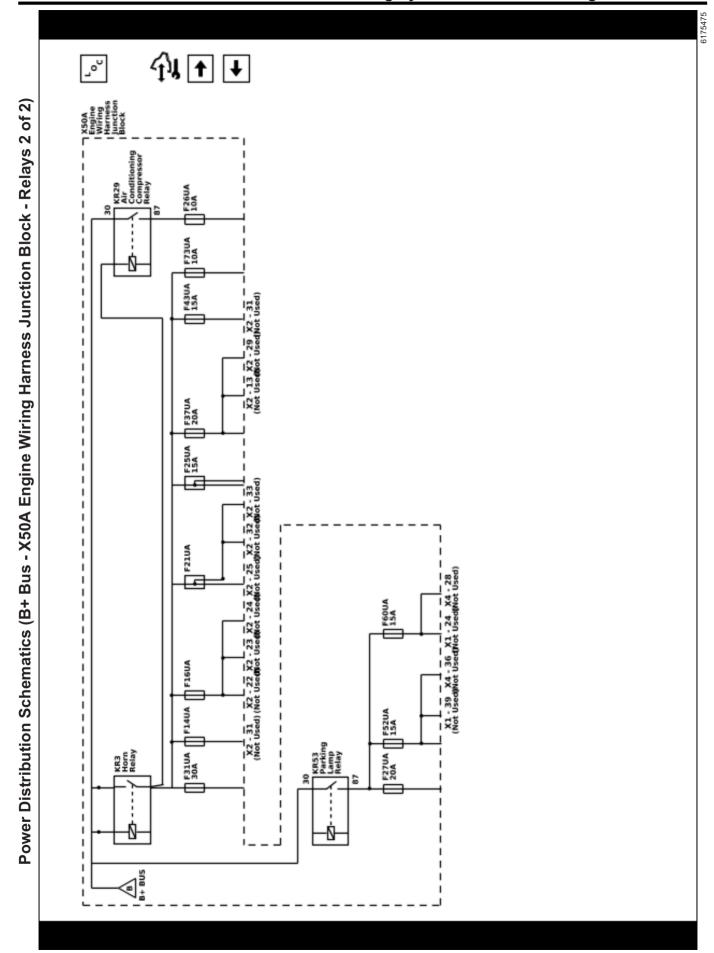
The vehicle is fitted with USB charge port receptacles at the rear of the floor console. These USB receptacles are for charging devices only. The USB receptacles are controlled by an ignition operated relay and are operational when the ignition is turned to either the On or the Accessories positions.

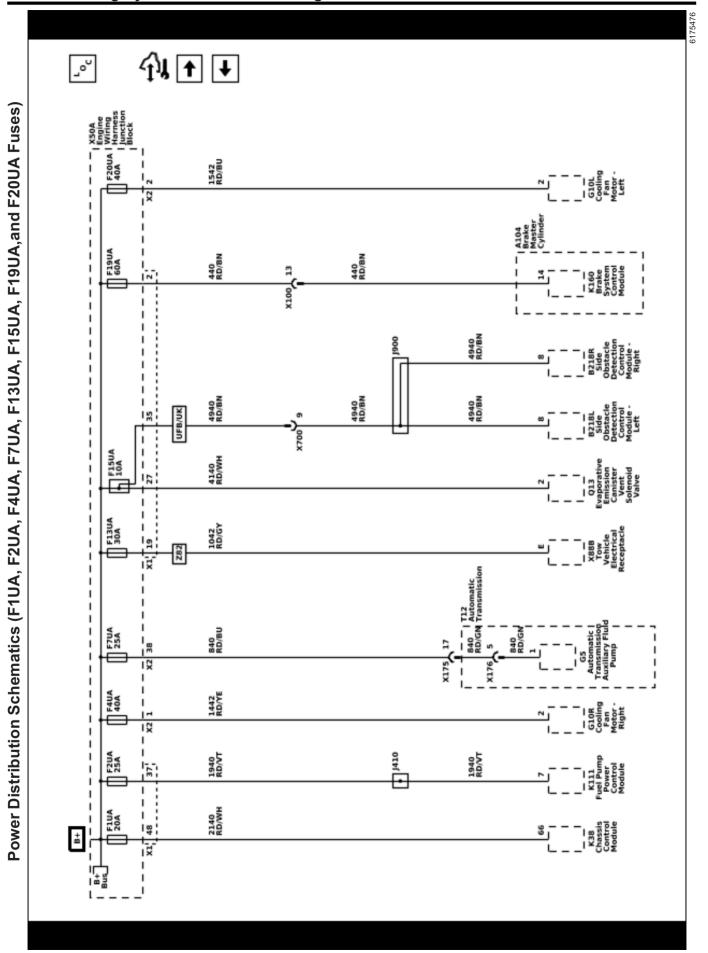
### Wiring Systems and Power Management Schematic and Routing Diagrams

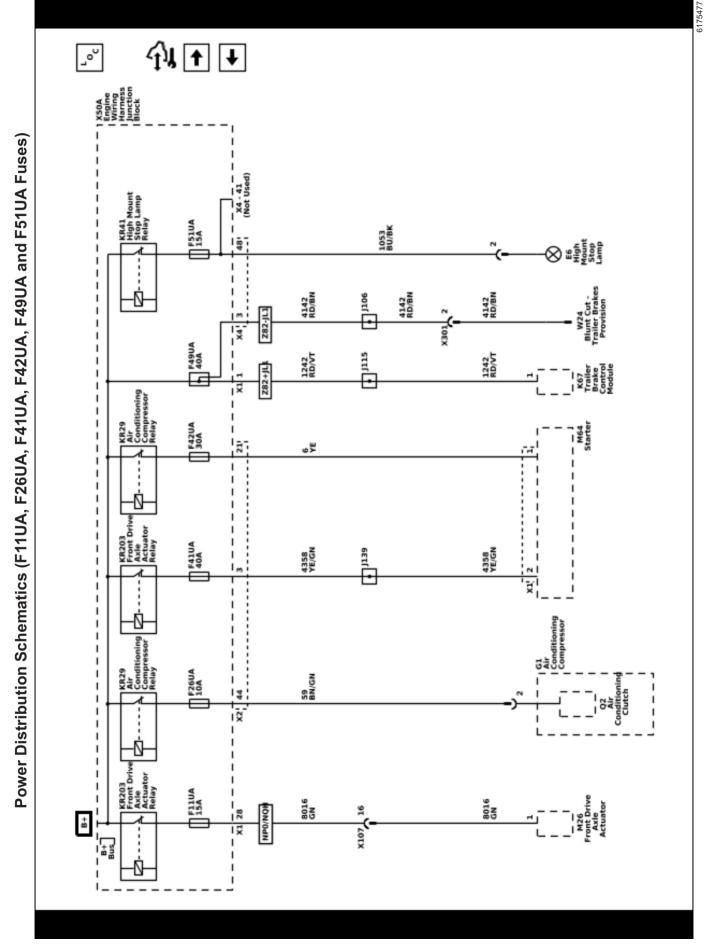


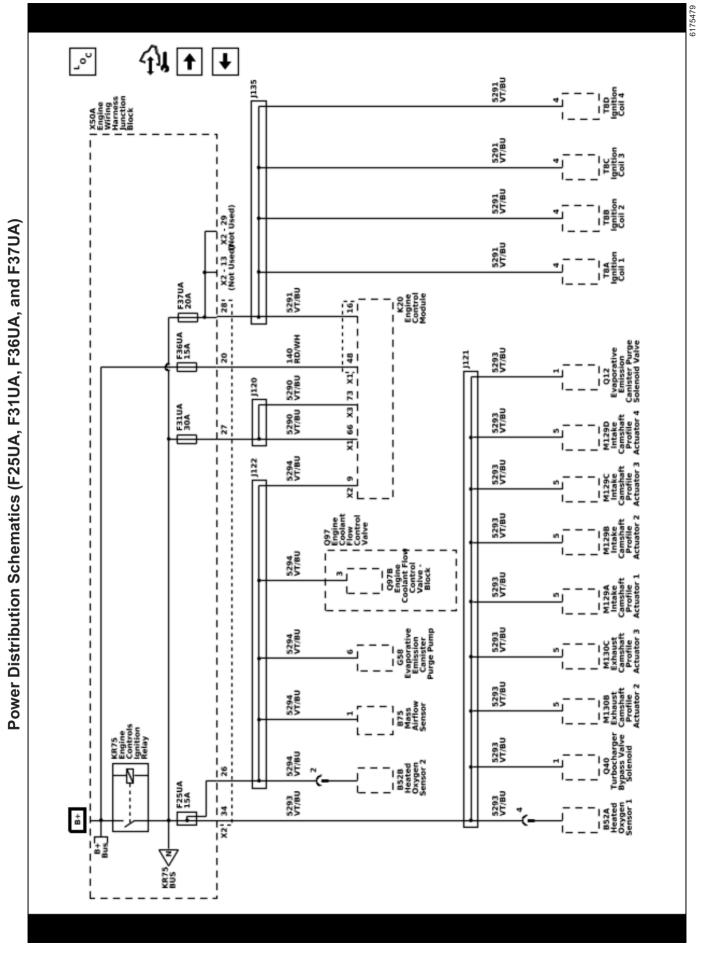


**∱**4 → ړەد Power Distribution Schematics (B+ Bus - X50A Engine Wiring Harness Junction Block - Relays 1 of 2) KR204 Camera Washer Fluid Pump Relay -Underbody Cameras F42UA 30A ģ KR27C Engine Restart Relay F41UA 40A KR12C Windshield Wiper Motor Speed Contro KR63R Trailer Stop/Turn Signal Lamp Relay - Right KR3 Horn Relay F39UA F86UA 15A Ò ACCESSORY AC and DC Power Control Module Relay KR128 Windshield Wiper Motor Relay (KI6/KI7) F71UA 60A FS1UA 15A F38UA 10A F58UA 30A Ň 

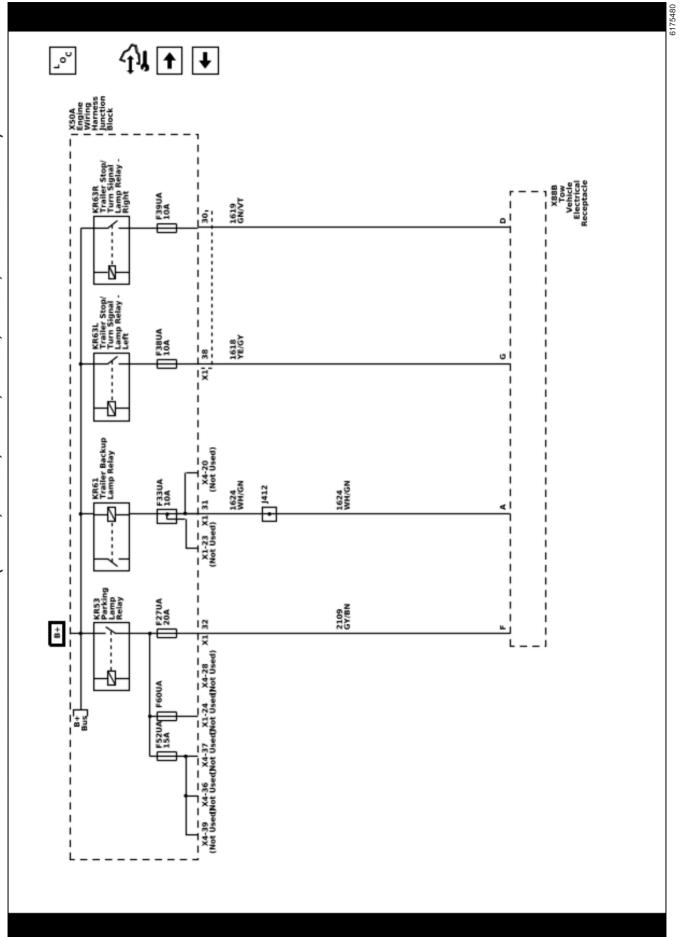




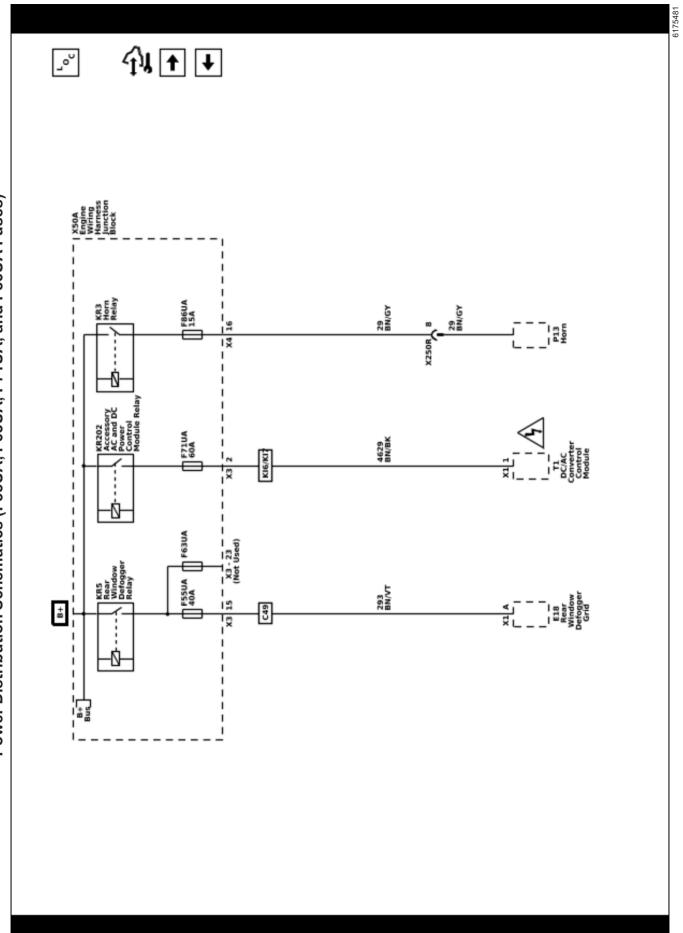


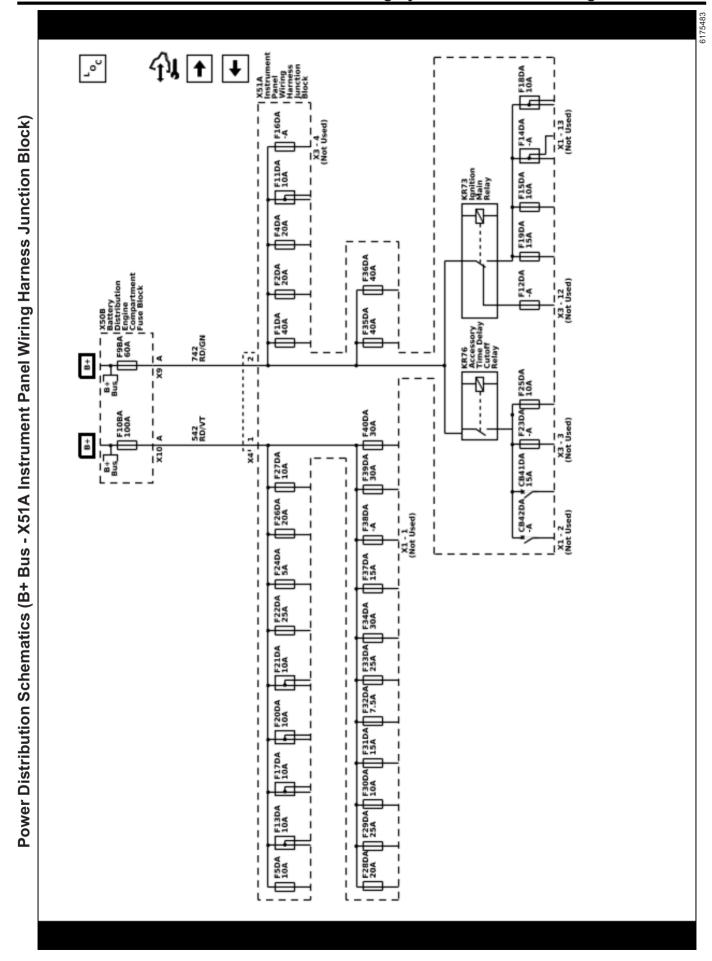


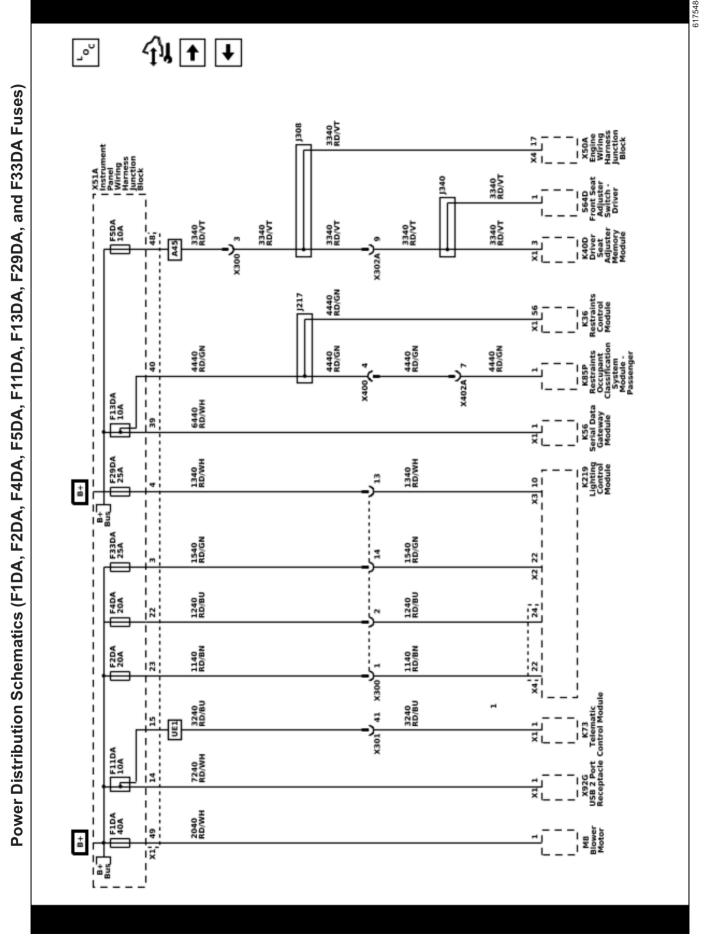
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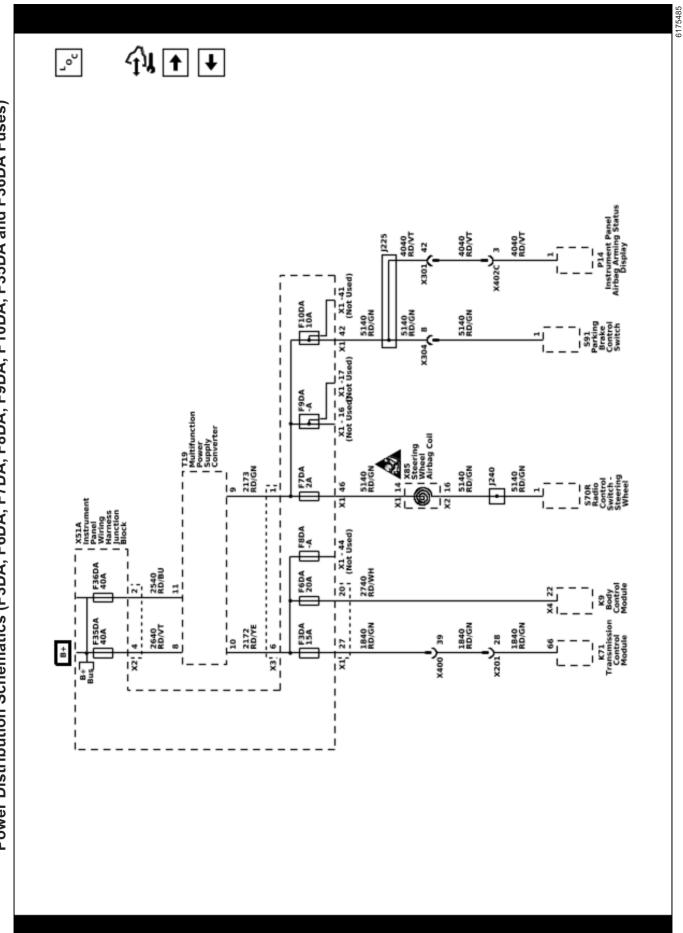


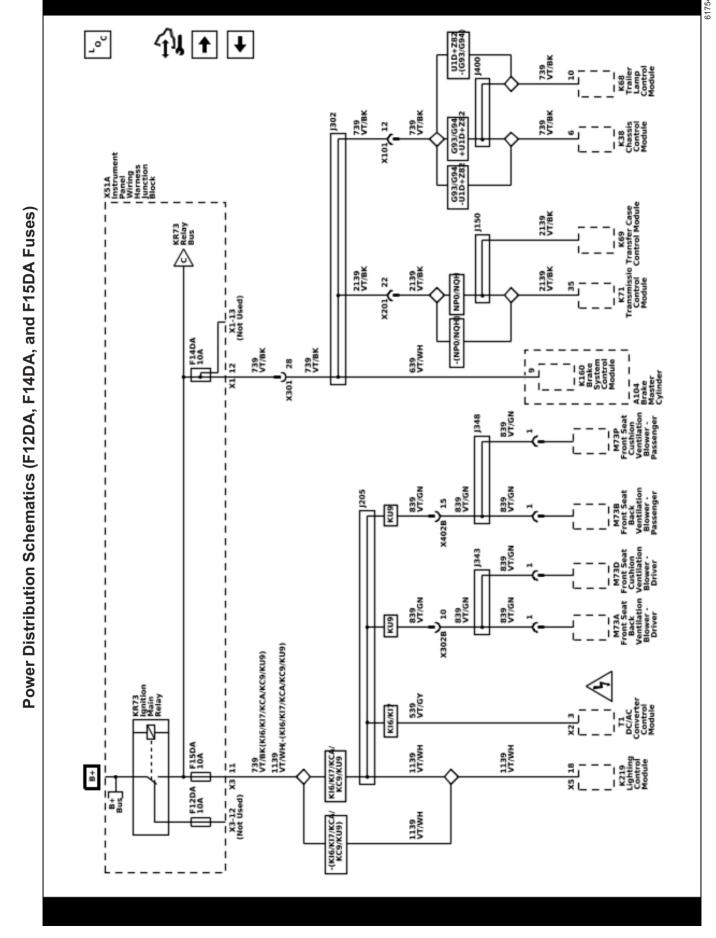




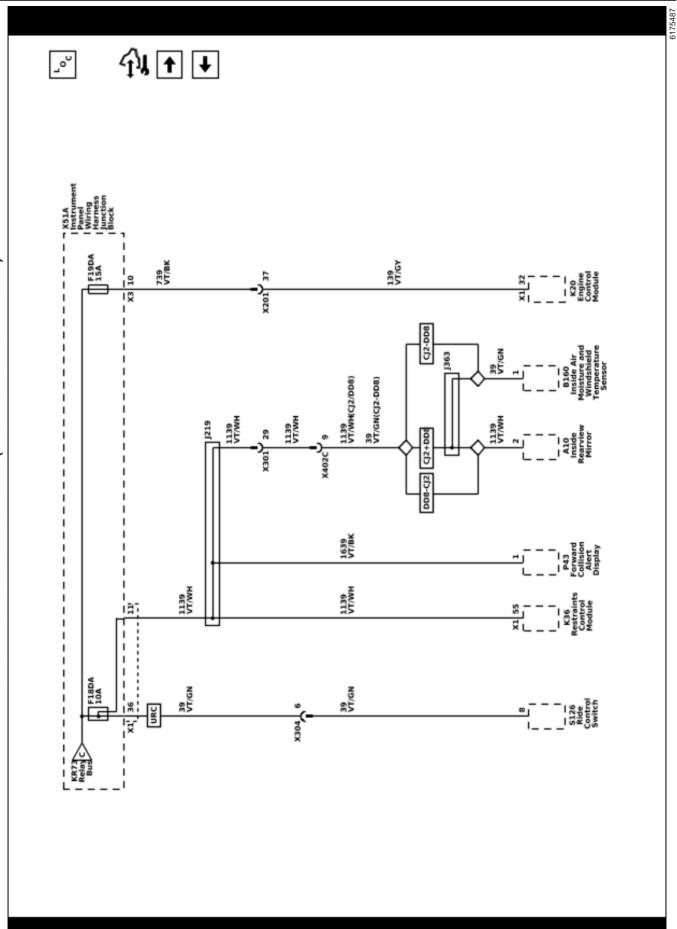




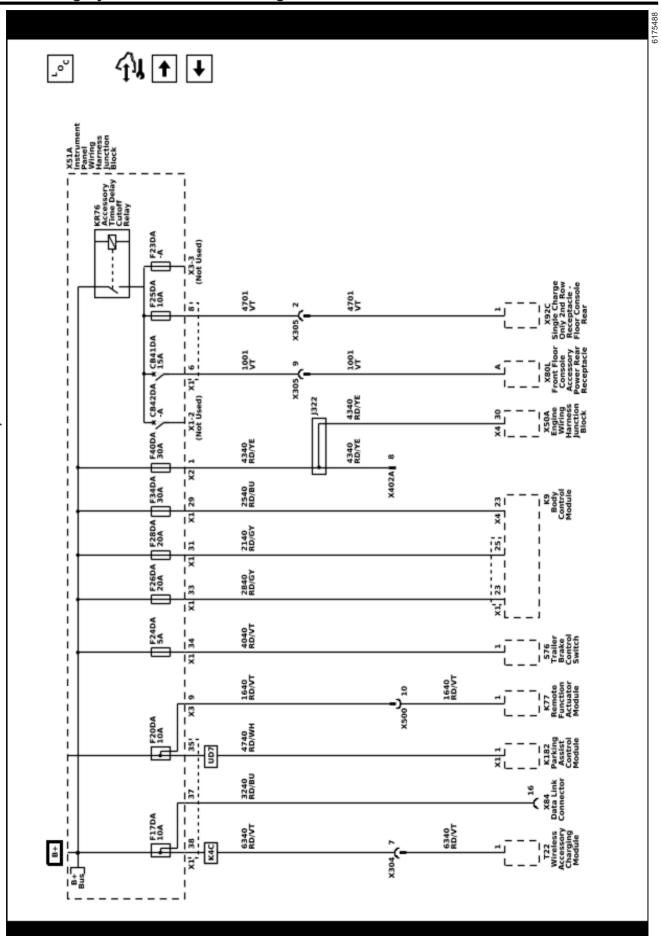


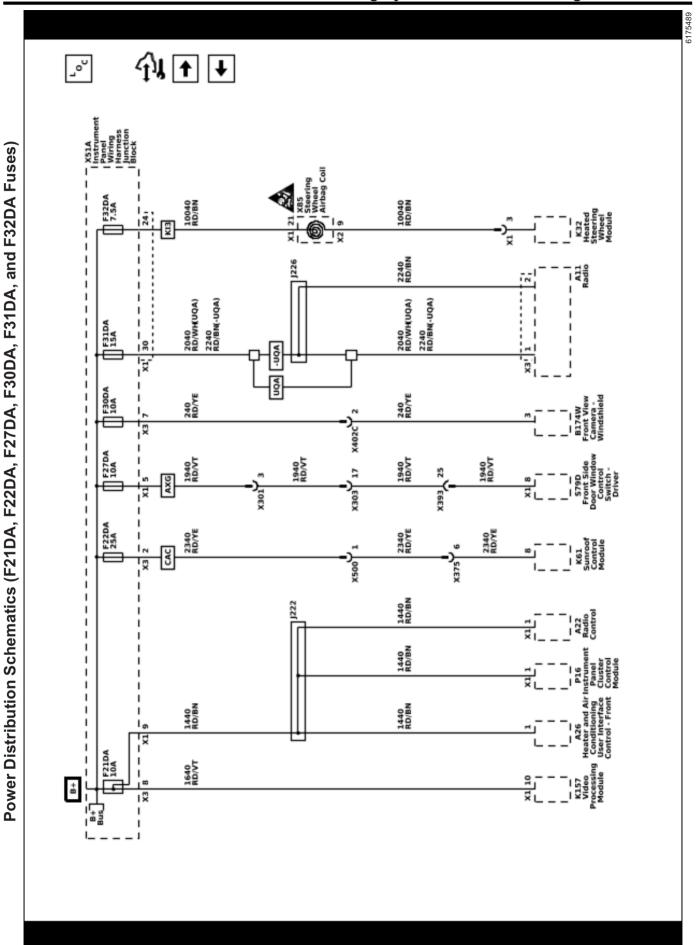


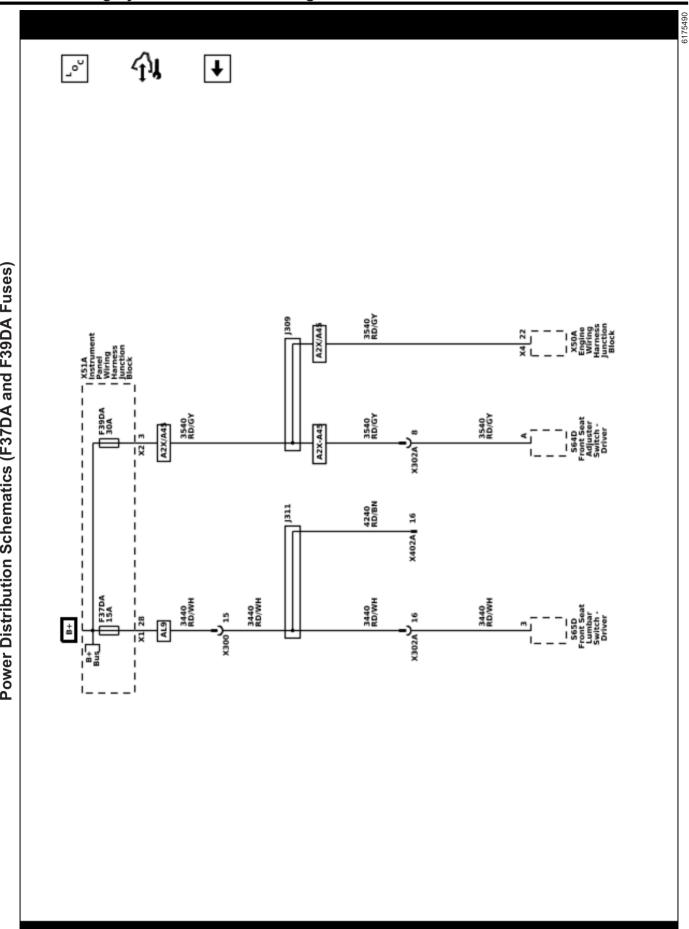


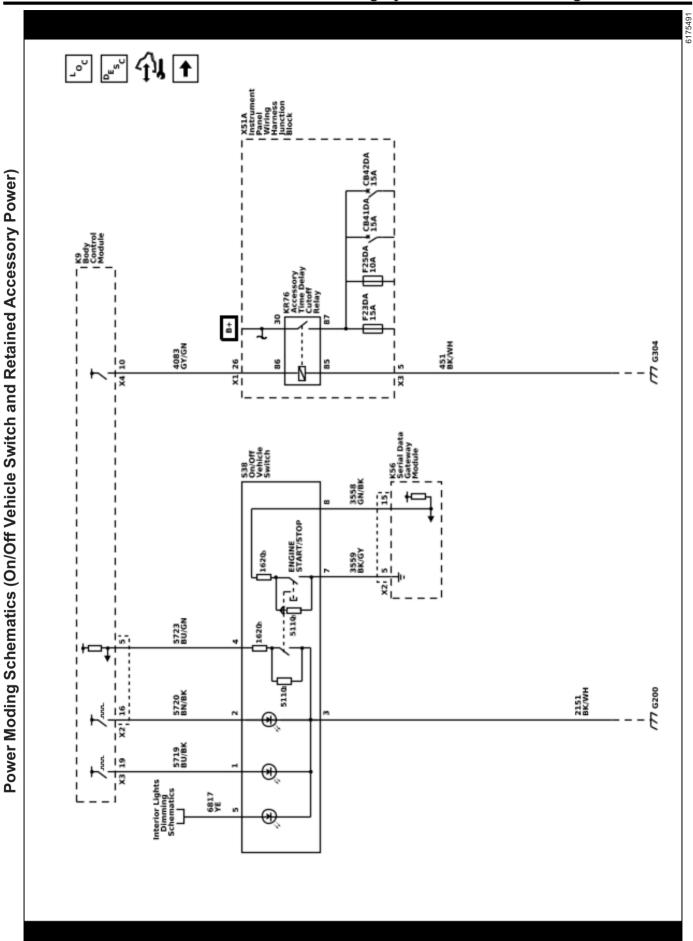


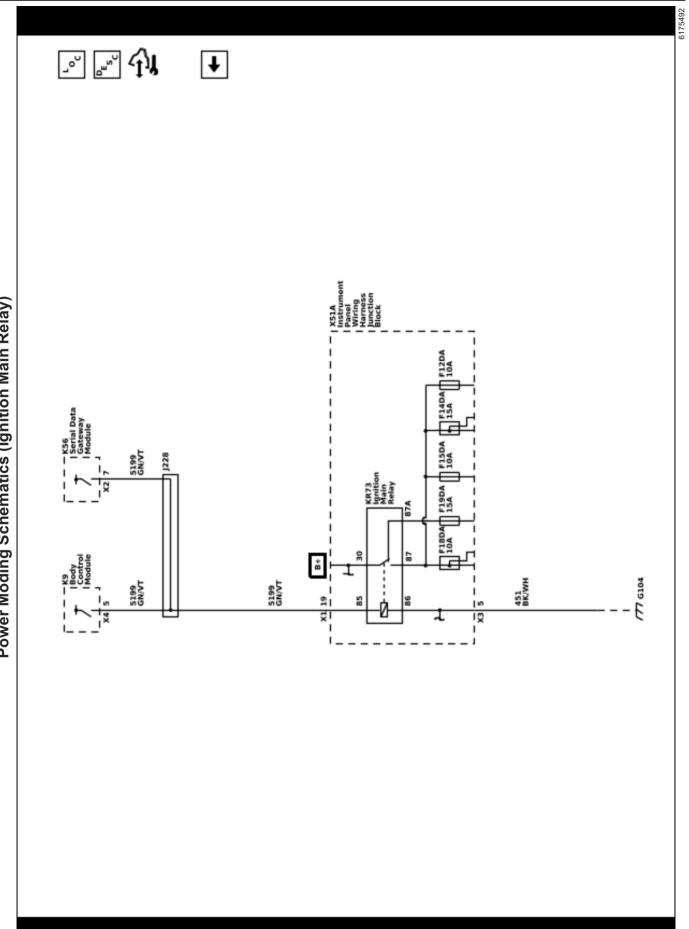
Power Distribution Schematics (F17DA, F20DA, F23DA, F24DA, F25DA, F26DA, F28DA, F34DA, F40D, CB41DA, and CB42DA Fuses)

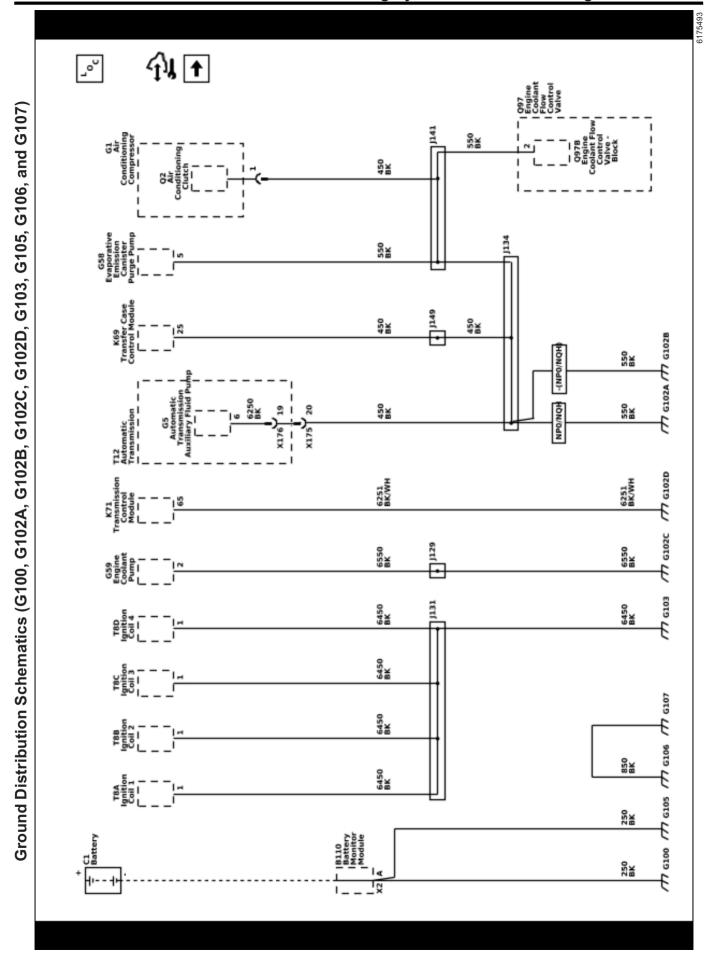


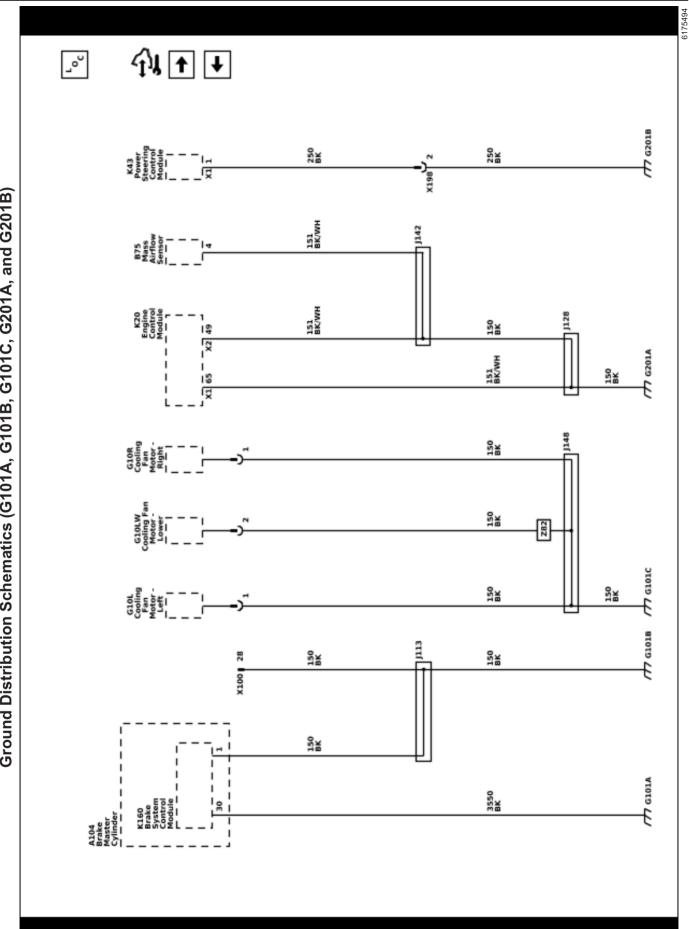




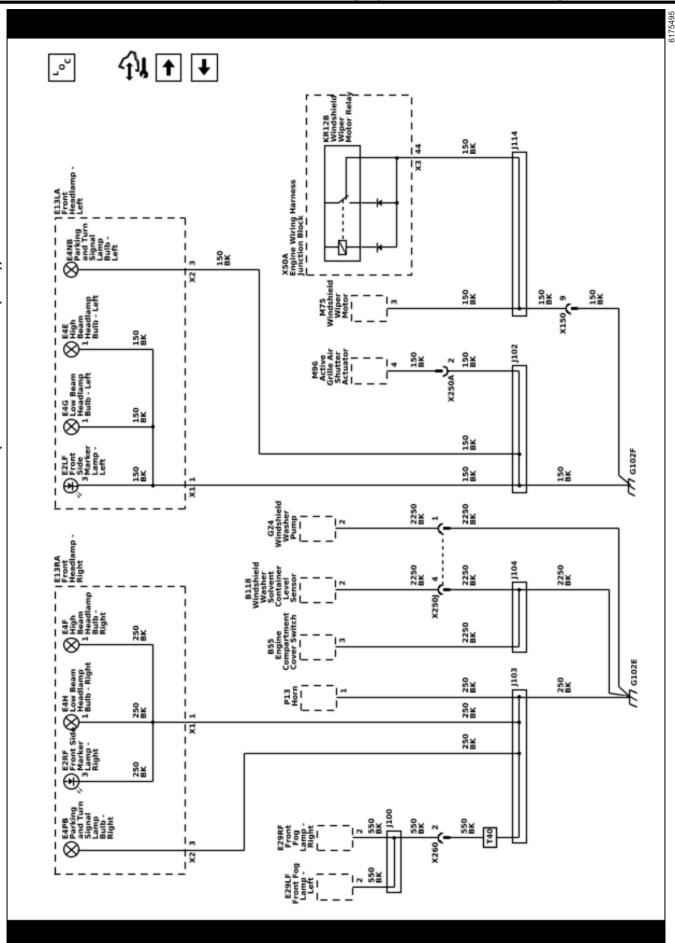


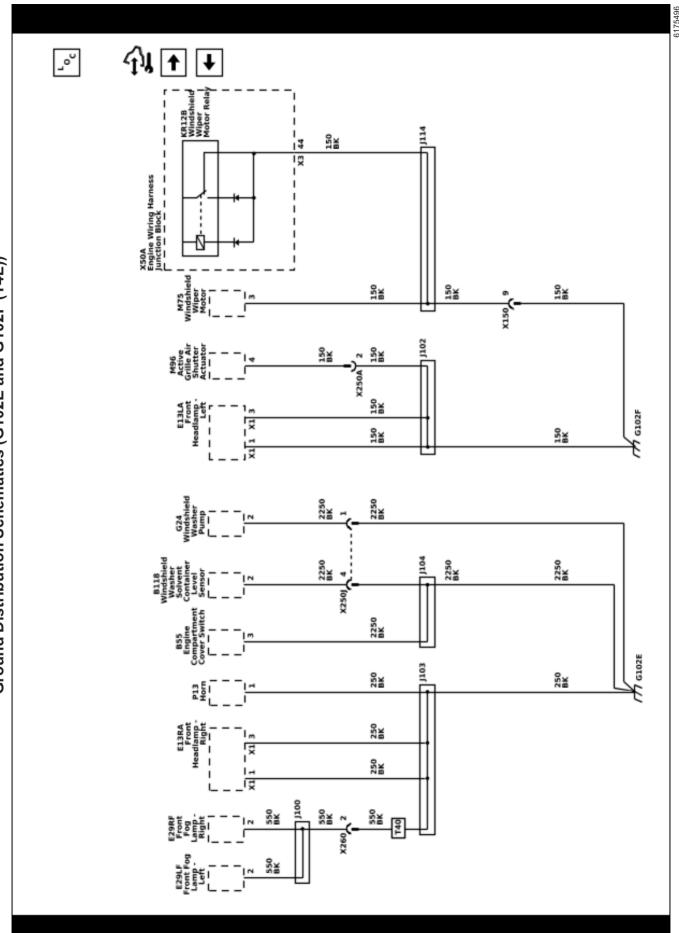




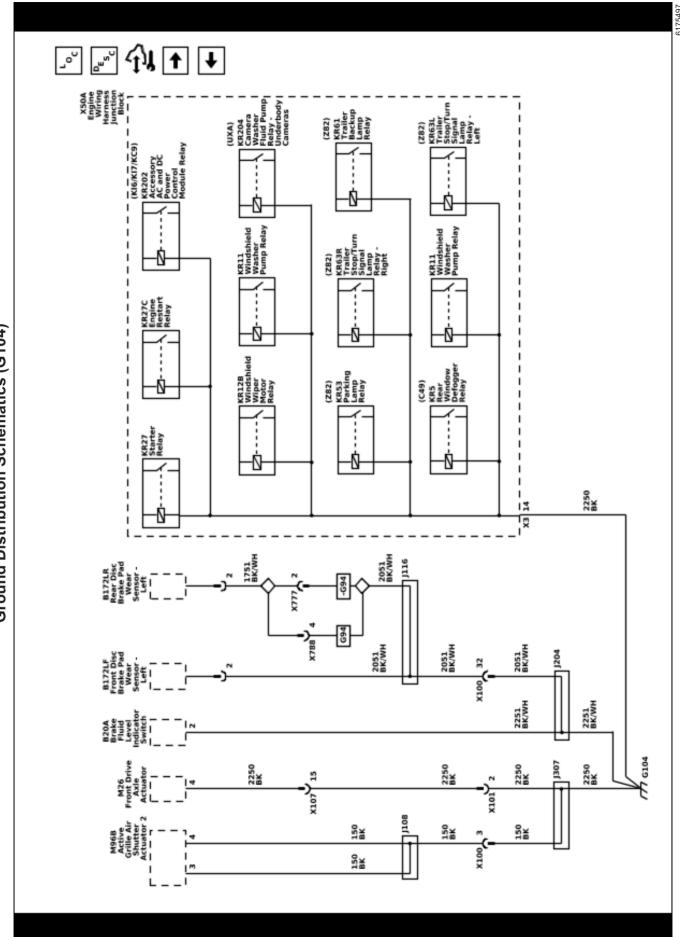


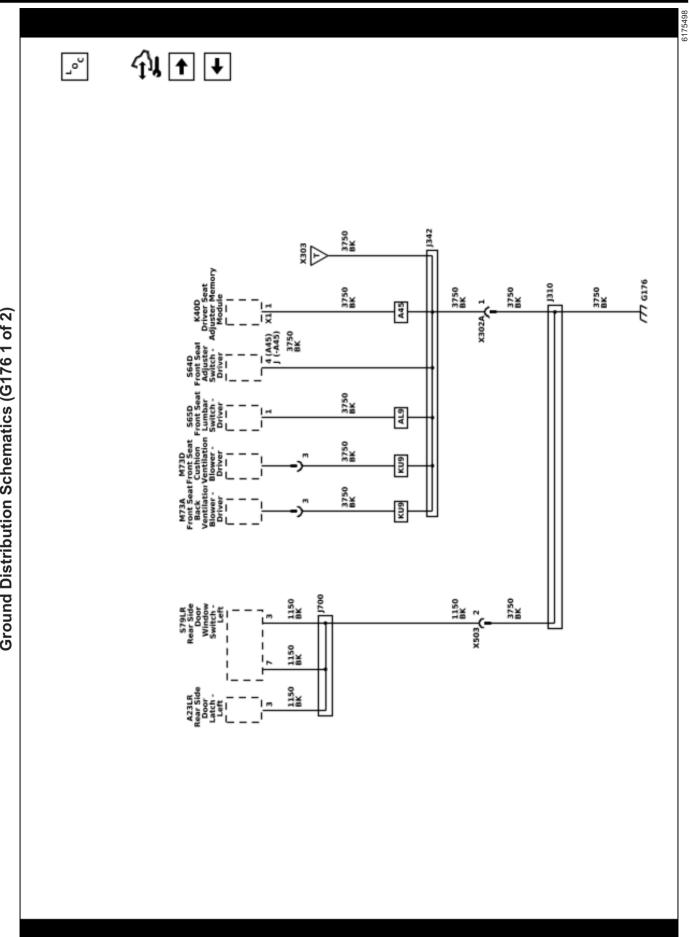


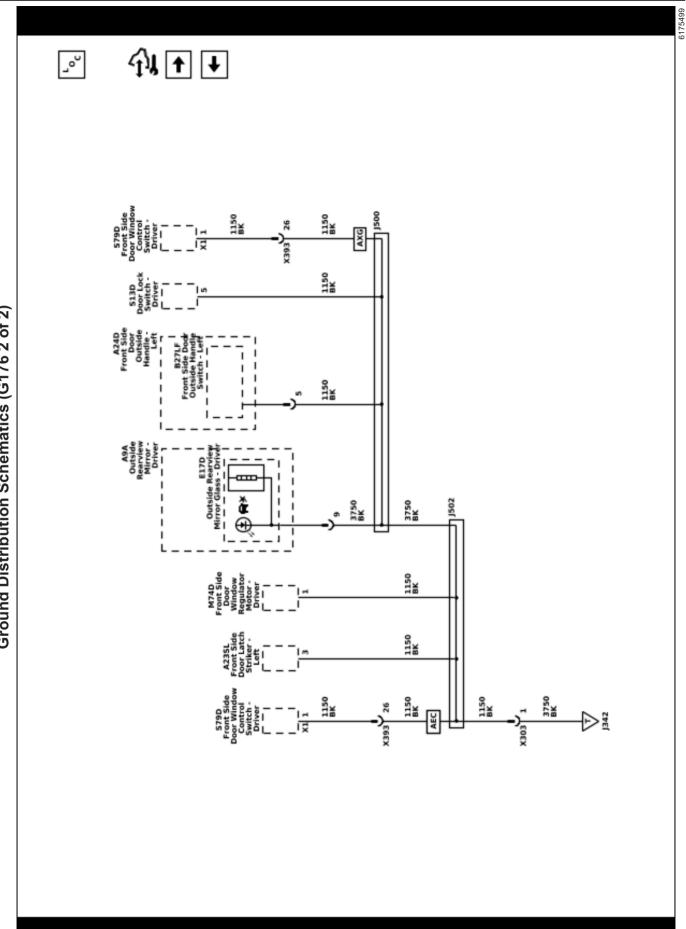


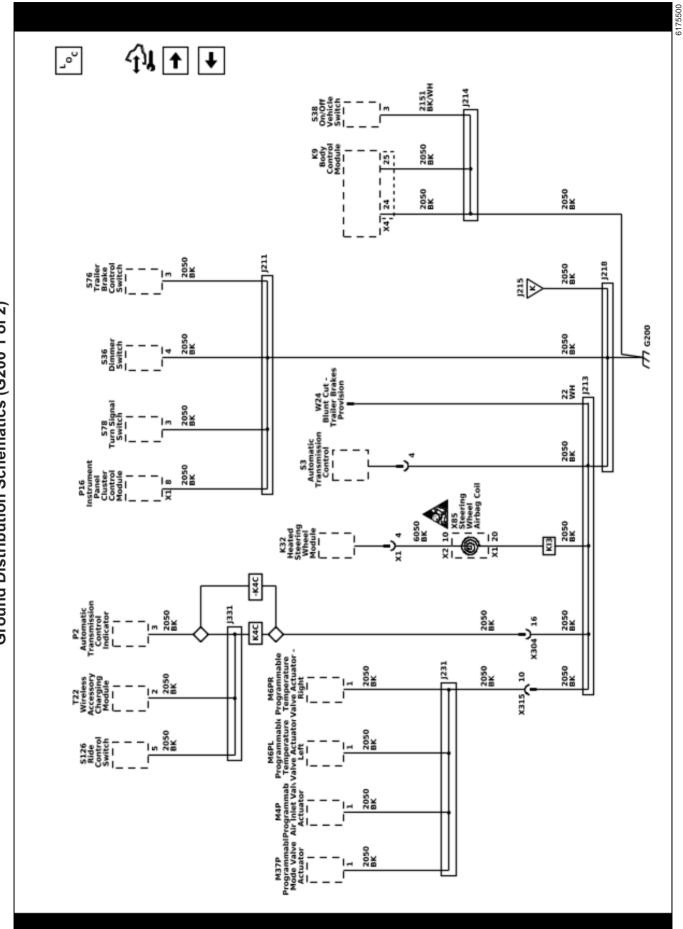


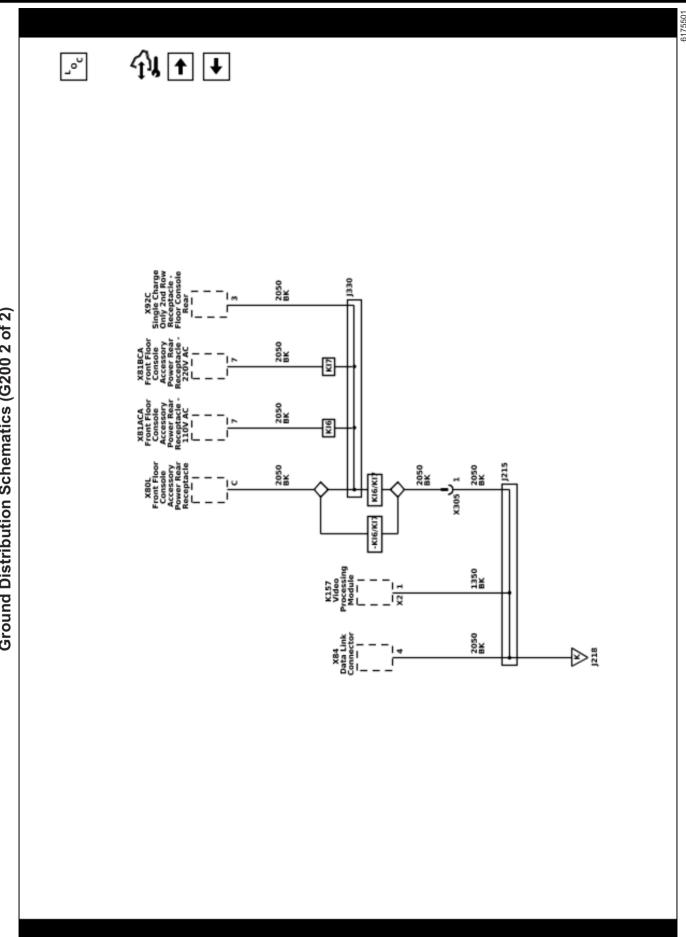


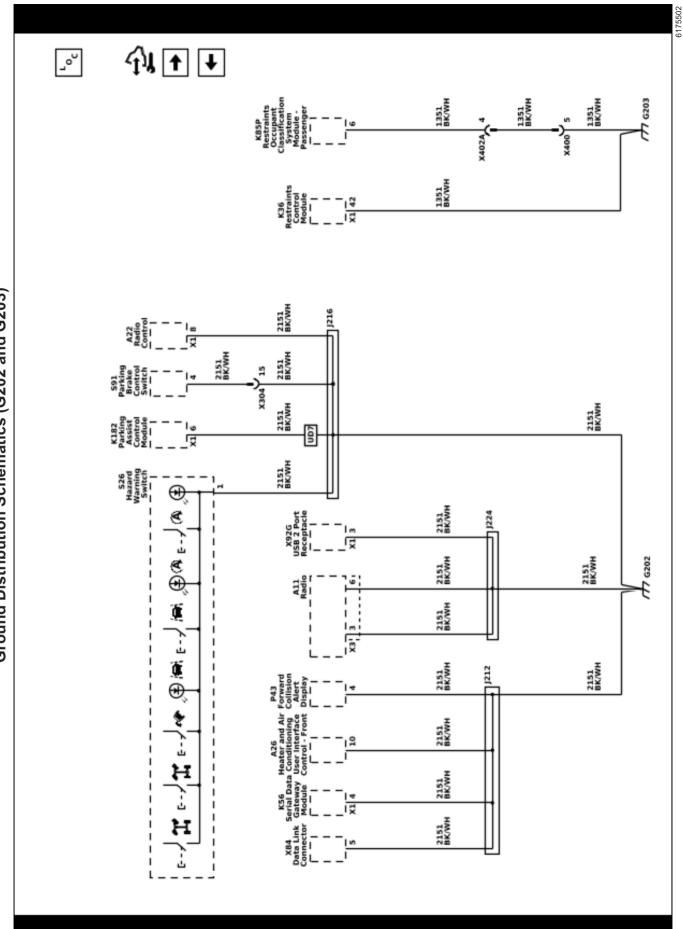


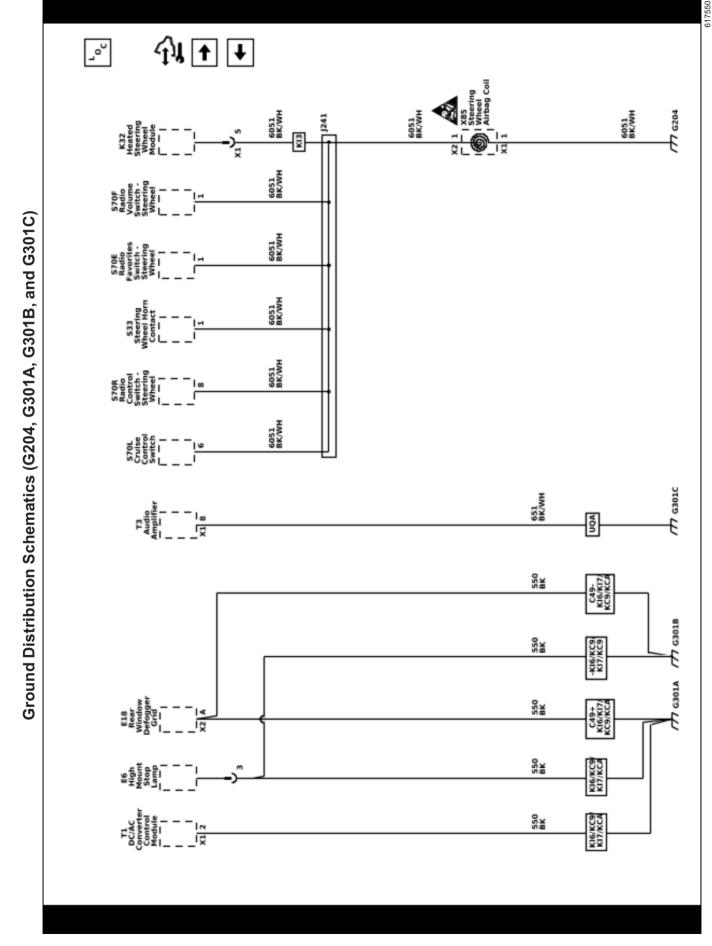


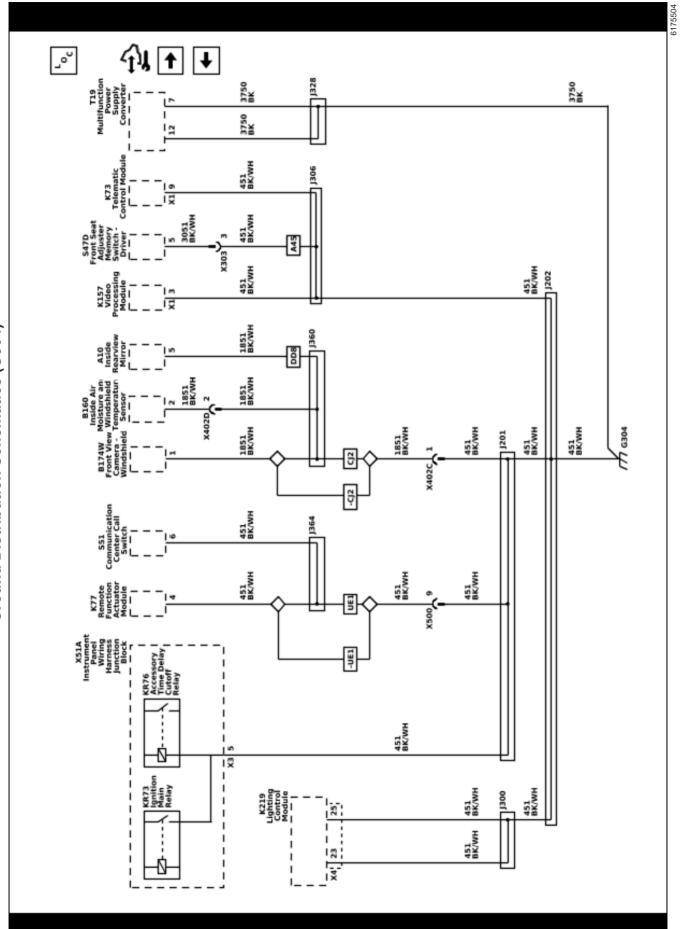




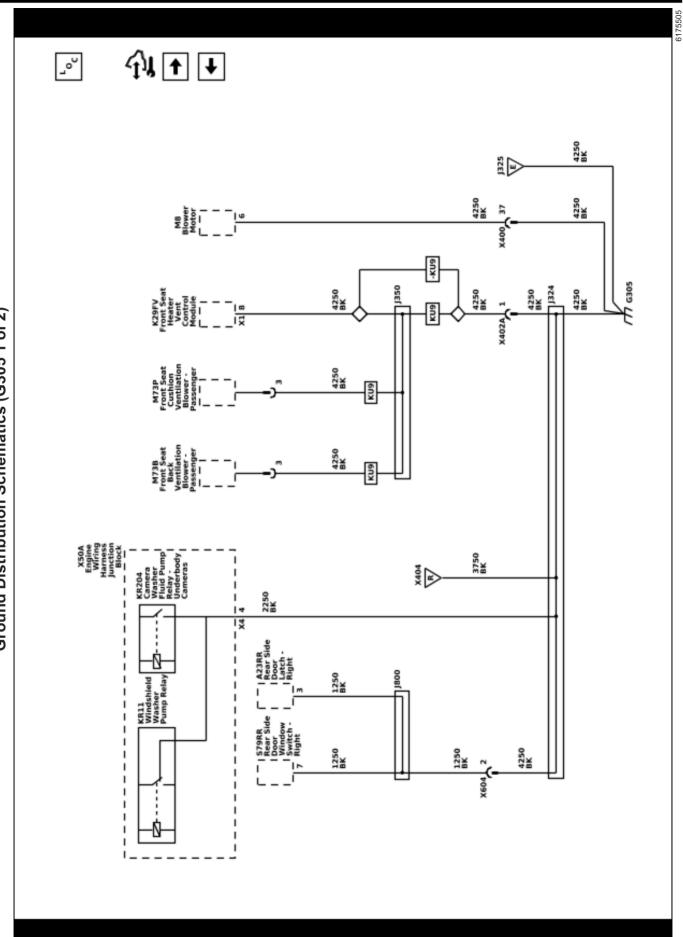


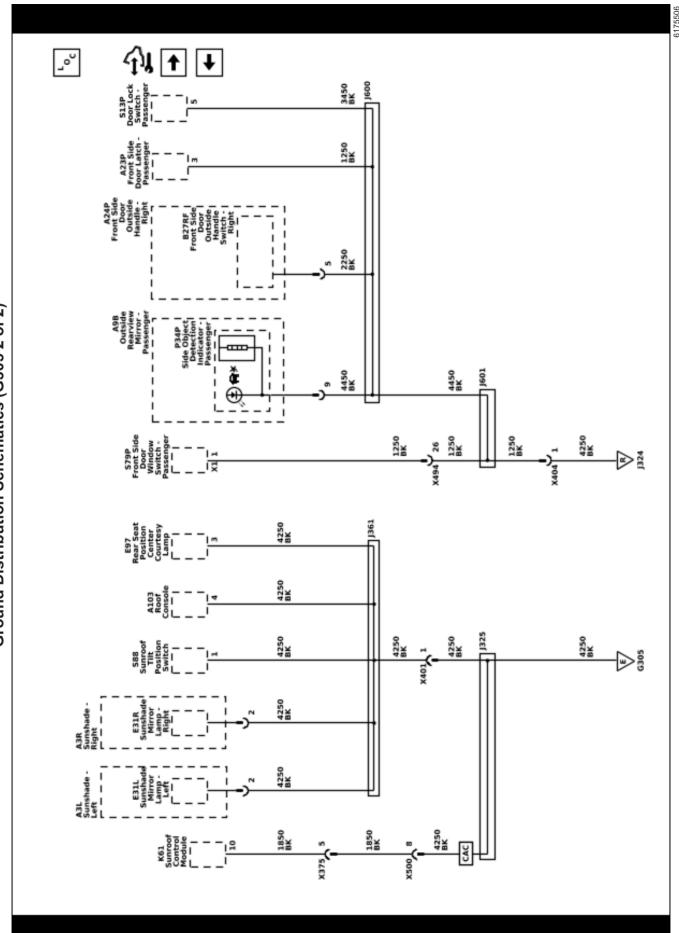




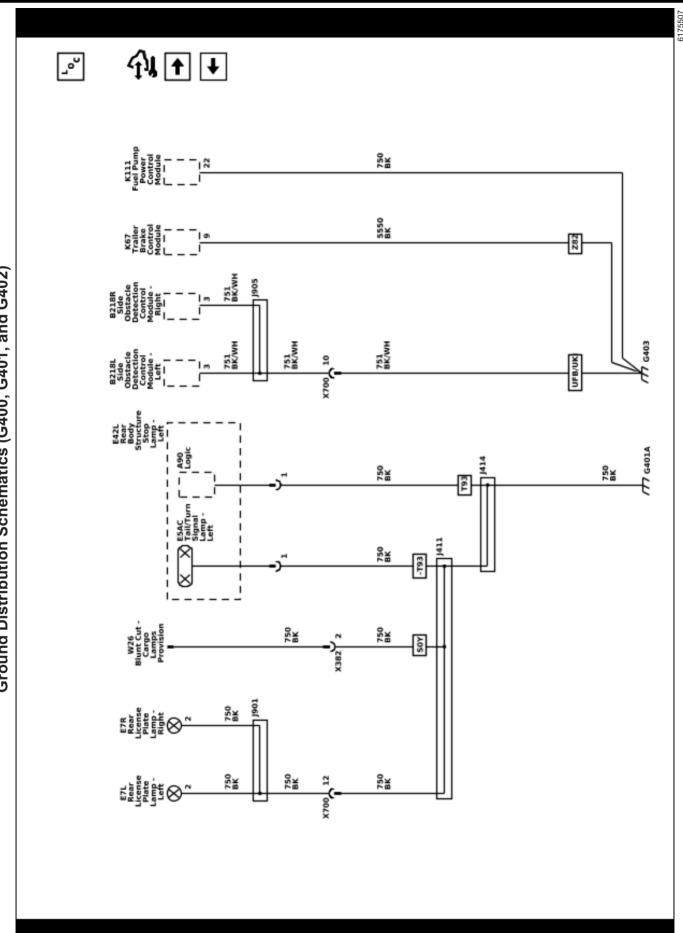


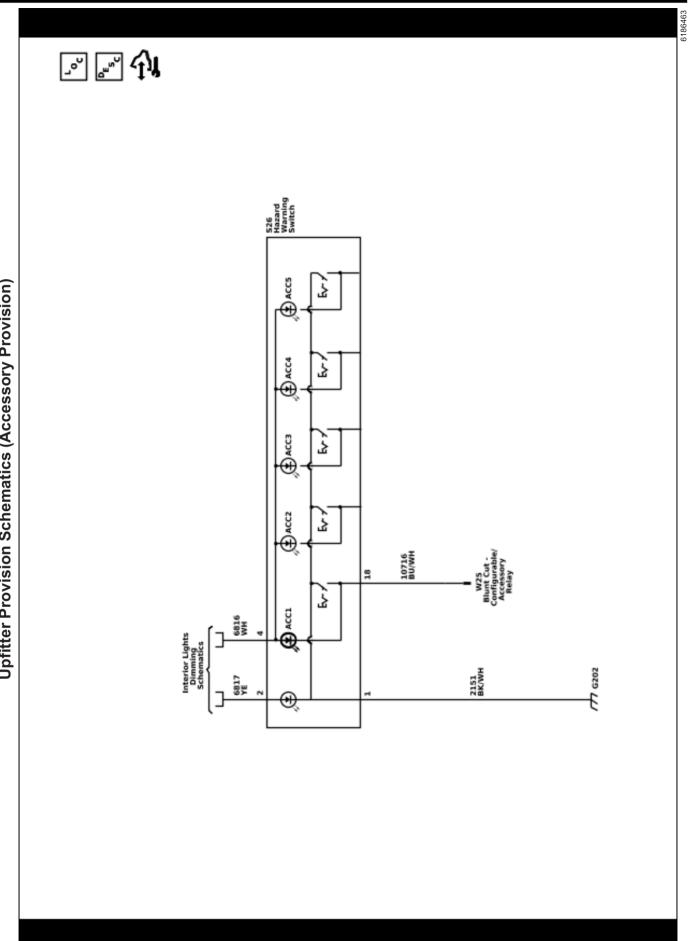












# Description and Operation Power Mode Description and Operation

#### **Serial Data Power Mode Master**

The K9 Body Control Module (BCM) is the Power Mode Master and the K56 Serial Data Gateway Module is the Back-Up Power Mode Master.

The Power Mode Master uses various vehicle status conditions and inputs to determine the desired vehicle power mode state. The Power Mode (Off, Accessory, Run, Propulsion, Start) is communicated to other modules via Serial Data and other electrical signals in order to provide the proper feature operation for the appropriate power mode.

If the Power Mode Master cannot control or determine the correct Power Mode, the Backup Power Mode Master will take over and become the vehicle Power Mode Master and place the vehicle into the proper Power Mode by communicating with other modules via Serial Data to provide the proper electrical signals to provide the proper feature operation for the appropriate power mode.

#### S38 On/Off Vehicle Switch

There are 5 power modes to convey driver intent:

- OFF A low power mode that allows maximum stand time until next start
- ACCY Allows use of certain features that require operator authorization (Power windows for example). Propulsion is specifically disallowed.
- RUN All features enabled except propulsion (motive force)
- · PROPULSION All features enabled
- START This will transition to PROPULSION, including turning off non-essential loads to provide additional power for starting.

#### **Power Mode States**

Customer Action	Expected Vehicle Power Mode	S38 Vehicle On/Off Switch BCM Scan Tool Parameter	S38 Vehicle On/Off Switch Voltages
Vehicle OFF, S38 On/ Off Vehicle Switch not pressed, Transmitter in Range	Vehicle Off Mode	Inactive	
Vehicle OFF, S38 On/ Off Vehicle Switch not pressed, Transmitter out of Range/Away from vehicle	Vehicle Off Mode	Inactive	1.4 – 3.0 V (Switch Pressed)
Vehicle in any Power Mode EXCEPT OFF, then Press the S38 On/ Off Vehicle Switch Foot On or Off the Brake Pedal, Transmitter in Vehicle	Vehicle Off Mode	Active (pushed) / Inactive (not pushed)	3.35 – 4.26 V (Switch Released) 4.5 — 5.0 V (Switch Disconnected)
Vehicle in Propulsion Mode, momentarily Press and Release the S38 On/Off Vehicle Switch Foot On or Off	Run Mode, With DIC Message No Remote Detected Press Brake to Restart	Active (pushed) Inactive (not pushed)	

#### Power Mode States (cont'd)

Fower Mode States (Cont d)				
Customer Action	Expected Vehicle Power Mode	S38 Vehicle On/Off Switch BCM Scan Tool Parameter	S38 Vehicle On/Off Switch Voltages	
the Brake Pedal, Transmitter out of Range/Away from vehicle		1001 Parameter		
Vehicle Off Power Mode, then Press the S38 On/Off Vehicle Switch for less than 5 s with foot Off the Brake Pedal; Transmitter in Vehicle	Vehicle Accessory Mode	Active (pushed) / Inactive (not pushed)		
Vehicle Off Power Mode, then S38 On/Off Vehicle Switch with foot On the Brake Pedal; Transmitter in Vehicle	Vehicle Start/ Propulsion Mode (vehicle cranks then engine running (for Internal Combustion Engine) or Propulsion System Active for EV) power mode timeout is enabled	Active (pushed) / Inactive (not pushed)		
Vehicle Off Power Mode, then S38 On/Off Vehicle Switch with foot On the Brake Pedal for 5 to 10 s; Transmitter in Vehicle	Vehicle Start/ Propulsion Mode (vehicle cranks then Propulsion Mode Active) power mode timeout will be disabled.	Active (pushed) / Inactive (not pushed)		
Vehicle OFF Power Mode, then Press and Hold the S38 On/Off Vehicle Switch for 5 s with foot Off the Brake Pedal; Transmitter in Vehicle	Vehicle Run Mode (Ignition ON without the Propulsion system Active)	Active (pushed) / Inactive (not pushed)		
Vehicle OFF Power Mode, then Press and Hold the S38 On/Off Vehicle Switch for 5 s with foot Off the Brake Pedal; Transmitter in Vehicle	Vehicle Start/ Propulsion Mode (vehicle cranks then Propulsion Active) power mode timeout is disabled	Active (pushed) / Inactive (not pushed)		
Vehicle Propulsion Mode with vehicle speed detected above 4 km/h (2.5 MPH) press and hold S38 On/Off Vehicle Switch for 2 s or press and release it 2 times within 5 S.	Vehicle will transition from Propulsion Mode to Run Mode (Ignition On Propulsion system Inactive).	Active (pushed) / Inactive (not pushed)		
NOTE: If the tran	nsmitter is not moved for	more than 1 hour it will b	ecome inactive	

NOTE: If the transmitter is not moved for more than 1 hour it will become inactive.

#### **Service Mode**

Service Mode is the Run Power Mode with power mode timeout disabled. This can only be done with the Service Tool.

#### **Automatic Power Mode Timeouts**

**Note:** If the Transmitter/Fob remains stationary and is not moved for one hour, it will go to sleep and may create a fob not in range condition.

This system is designed to prevent batteries from going dead in the event the ignition is left on while unattended, it is also designed to shut the vehicle off if left running unattended. After a Power Mode timeout, the Power Mode Master is responsible for shutting down the or transitioning the vehicle into the low parasitic sleep state "OFF" Power Mode. This Power Mode timeout strategy uses Vehicle Speed, Vehicle Power Mode, Parked Status and other Vehicle Conditions to make the timeout determination.

#### **Accessory Power Mode**

The Accessory Power Mode will timeout after approximately 5 minutes. The timer will Start once the system has determined it is in the Accessory Power Mode status. After the timer expires the Power Mode will change to the OFF Power Mode.

#### **Run Power Mode**

if the conditions listed below are met the Run Power Mode will timeout after approximately 40 minutes if the transmitter is in range, or 20 minutes if the transmitter is out of range. The timer will Start once the system has determined it is in the Run Power Mode status and all of the following conditions are met. After the timer expires the Power mode will change to OFF Power Mode.

If any of the following conditions are not met and/or if there is a change in the Brake Pedal or Clutch Pedal status, the Run Mode timeout timer will be disabled, and the timer will restart after all of the conditions are met again.

- Vehicle in Run Mode (Vehicle powered up S38 On/ Off Vehicle Switch Green indicator on Propulsion Mode Inactive)
- Propulsion is Inactive
- · Vehicle in Park.
- Vehicle Speed is 0 KM/MPH.
- Fast Idle is inactive (If Equipped).
- PTO Remote Start Status is inactive (If Equipped).
- Particulate Filter Cleaning Status is Inactive (if Equipped)
- S38 Vehicle On/Off switch was held for more than 5 to 10 seconds while starting the vehicle the actual time may vary based on model and/or year.

#### **Propulsion Power Mode**

If the following conditions listed below are met the Propulsion Power Mode will timeout after approximately 30 minutes if the transmitter is in range, or 15 minutes if the transmitter is out of range. The timer will Start once the system has determined it is in the Propulsion Power Mode status and all of the following conditions are met. After he timer expires the Power mode will change to the OFF Power Mode.

The Propulsion Power Mode timeout can be disabled with then vehicle in Off Power Mode, apply and continue to hold the brake pedal, then press and hold the S38 Vehicle On/Off switch for 5 to 10 seconds (the actual time may vary based on model and/or year). A DIC message will be displayed when Power Mode timeout is disabled.

If any of the following conditions are not met and/or if there is a change in the Brake Pedal or Clutch Pedal status, the Propulsion Mode timeout timer will be disabled, and the timer will restart after all of the conditions are met again.

- Vehicle in Propulsion Mode (Propulsion Active).
- Vehicle in Park.
- Vehicle Speed is 0 KM/MPH.
- · Fast Idle is Inactive (If Equipped).
- PTO Remote Start Status is inactive (If Equipped).

- Particulate Filter Cleaning Status is Inactive (if Equipped)
- S38 Vehicle On/Off switch was held for more than 5 to 10 seconds while starting the vehicle the actual time may vary based on model and/or year.

#### **Relay Controlled Power Mode**

The BCM uses discrete push button switch inputs, transmitter in range status, current power mode state, and brake pedal position state to distinguish the correct power mode (Off, Accessory Mode, Run Mode, Start/ Propulsion Mode). The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay remains on for a timed period after the Ignition Mode is OFF. Refer to Retained Accessory Power Description and Operation on page 6-579 for more information on the retained accessory power function.

#### **Push Button Start**

The ignition mode switch has 2 LEDs that indicate the vehicle power mode Amber for Accessory Mode and Green for Run or Start/Propulsion Modes. When the vehicle is in the OFF mode, both LED's will be OFF. Momentarily pressing the S38 On/Off Vehicle Switch button once, brake pedal not applied, the vehicle will enter into the Accessory Mode and the Amber LED will illuminate. The Accessory Mode will timeout after approximately 5 min to help reduce battery drain. With the ignition OFF, brake pedal not pressed, then pressing and holding the S38 On/Off Vehicle Switch for 5 s will place the vehicle in Run Mode (Ignition ON without the Propulsion Mode Active). The vehicle will stay powered up for approximately 40 minutes if the transmitter is in range, or 20 minutes if the transmitter is out of range, and the Green LED will illuminate.

With the ignition OFF brake pedal pressed, then press and release the iS38 On/Off Vehicle Switch, the vehicle will enter Start/Propulsion Mode and the Green LED will illuminate, the engine will crank and the engine will be running for Internal combustion engines (ICE), or Propulsion mode will go Active on Electric Vehicles (EV). The Propulsion Mode will timeout after approximately 30 minutes if the transmitter is in range, or 15 minutes if the transmitter is out of range. The timer will stop when the vehicle is shifted out of PARK or the brake pedal is pressed and released, the timer will reset after the vehicle is placed back in PARK with the Propulsion Mode Active.

Both LED's have the voltage supplied from the body control module (BCM). The ignition mode switch sends the ignition mode switch status to the passive entry passive start module (PEPS) and to the BCM. The PEPS module sends a redundant signal to the BCM with the ignition mode switch status.

#### **Transport Mode**

Transport Mode is designed to reduce the parasitic load of some modules during shipping and/or during vehicle storage. Some features may be disabled or have

reduced functionality while Transport Mode is ON. Transport Mode is enabled and disabled by either of the following methods:

- With the Scan Tool Diagnostics > Body Control Module > Control Functions > Power Mode.
- Turning the hazard flashers ON, apply and hold the brake pedal, then press and hold the ignition mode switch for greater than 15 s. For vehicles equipped with a DIC a message Transport Mode On when it is enabled and Transport Mode Off when it is disabled will be displayed for a predetermined amount of time. For vehicles equipped without a DIC, the battery indicator light will constantly flash on the Instrument Cluster when Transport Mode is enabled.

#### **Battery Saver Mode**

There are 7 different Battery Saver Modes. Battery Saver Modes 1 to 3 occur in Accessory and Run Power Modes (vehicle on propulsion system Inactive) if the battery voltage drops below approximately 11.5 V. Battery Saver Modes 4 to 7 occur in the Off Power Mode only. Battery Saver Modes 4 to 7 may set DTC's.

- Battery Saver Mode 1: DIC message "Battery Low, Start Vehicle", 4 chimes
- Battery Saver Mode 2: DIC message "Battery Low, Start Vehicle", Load Shed Level 3 is activated
- Battery Saver Mode 3: DIC message "Battery Low, Start Vehicle", Radio/Infotainment shut off, Load Shed Level 3 active
- Battery Saver Mode 4: Battery Saver Mode Ignition Off – Parasitic Current draw of 100 mA or greater
- Battery Saver Mode 5: Battery Saver Mode Ignition Off – Parasitic Current draw of 1 A or greater
- Battery Saver Mode 6: Battery Saver Mode Ignition Off – Battery Voltage less than 12.0 V
- Battery Saver Mode 7: Battery Saver Mode Ignition Off – Battery Voltage less than 11.6 V

#### **Load Shedding**

Prior to Load shedding Idle Boost will occur, the idle speeds will be increased by 25 to 300 RPM to help maintain a normal battery voltage. Idle Boost may be noticeable to the driver. If the battery voltage continues to drop below a normal state then load shedding will go active and it will start to reduce electric loads for components that will not impact the safe operation of vehicle. At load shed levels 2 and 3 a DIC message will be displayed "Reducing Features To Save Battery". When load shedding is active the customer may begin to notice features starting to have reduced functions or may become inoperative. Examples of affected loads are radio, HVAC blower(s) front and rear (if equipped), heated/ventilated seats, heated mirrors, rear defogger and other devices with heavy electrical draws. Idle Boost and load shed levels can be observed with the scan tool.

#### **Idle Boost 1**

Idle is increased by 25-100 RPM and generally is not noticeable to most drivers.

#### Idle Boost 2

Idle is increased by 50–200 RPM and generally is not noticeable to most drivers.

#### Idle Boost 3

Idle is increased by 100–300 RPM and may be noticeable to most drivers.

#### Load Shed Level 1

Reduces load current by 25%.

#### Load Shed Level 2

Reduces load current by 50%.

#### Load Shed Level 3

Electric loads for components that will not impact the safe operation of vehicle will be turned Off.

#### **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
- 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:

- · 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

#### **Retained Accessory Power**

The Retained Accessory Power (RAP) & Interruptible RAP (IRAP) Circuits are controlled by the K9 Body Control Module (BCM). The BCM is the Power Mode Master, it utilizes various Vehicle inputs to determine the Vehicle Power Mode and sends this information via Serial Data and providing associated electrical signals to the entire vehicle for proper feature operation.

The BCM monitors the vehicles power modes, and door ajar/open switch status to determine whether the retained accessory power should be initiated and remain active or be terminated. The RAP output is optional based on the vehicles option contents. When utilized, the RAP Output control can be used to control

a RAP Relay, it may provide direct power, or s serial data message to vehicle devices/modules from the BCM.

# Retained Accessory Power Relay Coil Control Circuit (If Equipped)

The BCM keeps the device or relay (if equipped) energized during all power modes, except Off-Awake and Crank. The device(s) remain active for approximately 10 min after the Vehicle is placed into the OFF Power Mode, provided none of the doors are opened.

Retained accessory power will end when one of the following conditions are met:

 The BCM receives an input from any door ajar switch indicating the opening of the door after the OFF Power Mode is achieved.

**Note:** If the BCM is receives a door open/ajar active signal when the vehicle is placed into the OFF Power Mode, the retained accessory power will not initiate.

 The BCM internal timer for the retained accessory power expires after approximately 10 min.

Systems powered by the retained accessory power control circuit during the retained accessory power mode are as follows:

**Note:** The vehicle may not be equipped with all components as listed below.

- 12 V Accessory Power Receptacle
- · Cigarette Lighter Receptacle
- Window Switches
- Sunroof Control Module (If Equipped)
- Sunroof Switch (If Equipped)
- · Mobile Device Wireless Charger Module
- Mobile Telephone Control Module (If Equipped)
- Traffic Data Receiver (If Equipped)
- Transmission Shift Lever Position Indicator (w/ floor mounted console gear shift)

# 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 that will turn the radio off during retained accessory power is the driver door open/ajar switch. The USB Ports will function the same as the radio.

# 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 and the vehicle is placed in the OFF Power Mode, the VCIM will remain in RAP mode, and keep the radio in RAP mode until the call is terminated.

#### **Interruptible Retained Accessory Power**

The Power Mode Master (PMM) Controls components as needed If equipped with a RAP relay, the BCM controls the Retained Accessory Power with an exception, Interruptible Retained Accessory Power (IRAP) is deactivated during transmitter authentication. During Transmitter Authentication the PMM will deactivate components including IRAP to prevent Radio Frequency (RF) Interference (RFI) that may cause a "NO REMOTE DETECTED" message to be displayed on the drivers information center.

**Note:** If transmitter Authentication occurs while in Run or Propulsion Modes, it is normal to for IRAP to be interrupted momentarily (i.e. items connected to auxiliary power ports or chargers may momentarily go off then come back on).

If a remote transmitter was not been previously detected, Transmitter Authentication can occurs under any of the following conditions:

- The drivers side front door is opened.
- · The drivers side rear door is opened.
- The S38 Vehicle On/Off Switch is pressed.

### Section 7

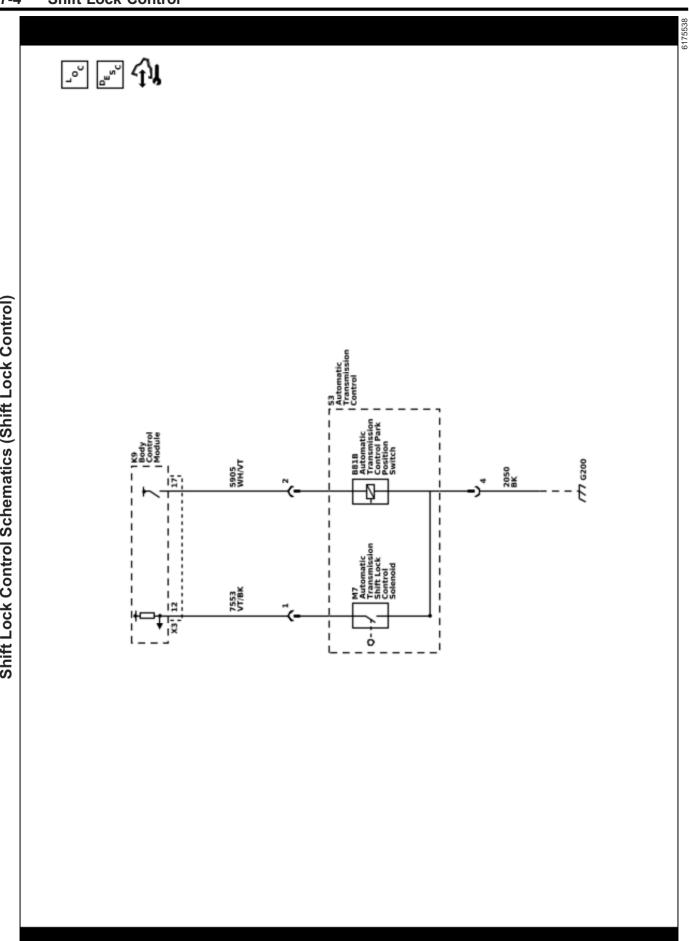
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### **Shift Lock Control**

### **Schematic and Routing Diagrams**



### 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 7-6

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**NO TRANSLATION**