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## Section 1

# General Information

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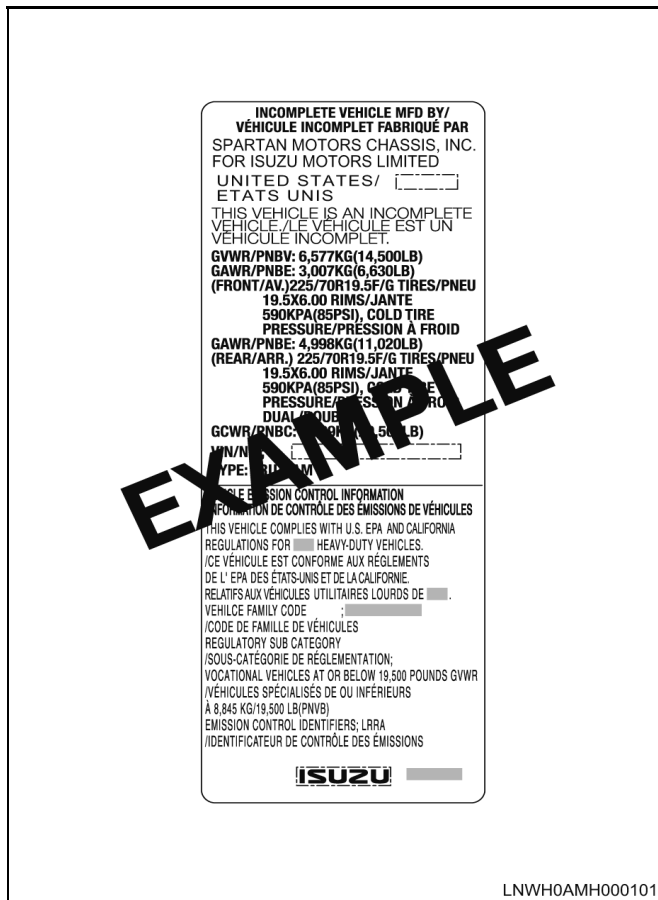
# General Information

## Introduction

### Vehicle Certification and Greenhouse Gas (GHG) Emissions Plate

The "Vehicle Certification and Greenhouse Gas (GHG) Emissions Plate" shows the manufacturer's gross vehicle weight rating (GVWR), the front and rear gross axle weight ratings (GAWRs), as well as the VIN and emissions information for your vehicle. This plate is located on the left side rear pillar panel below the striker (single cab) or on the left center pillar panel beside the shoulder seat belt anchor (crew cab).

The VIN is a legal identifier of your vehicle. It not only appears on the "Vehicle Certification and Greenhouse Gas (GHG) Emissions Plate", but also on the vehicle title and registration. The VIN specifically identifies a vehicle by code.

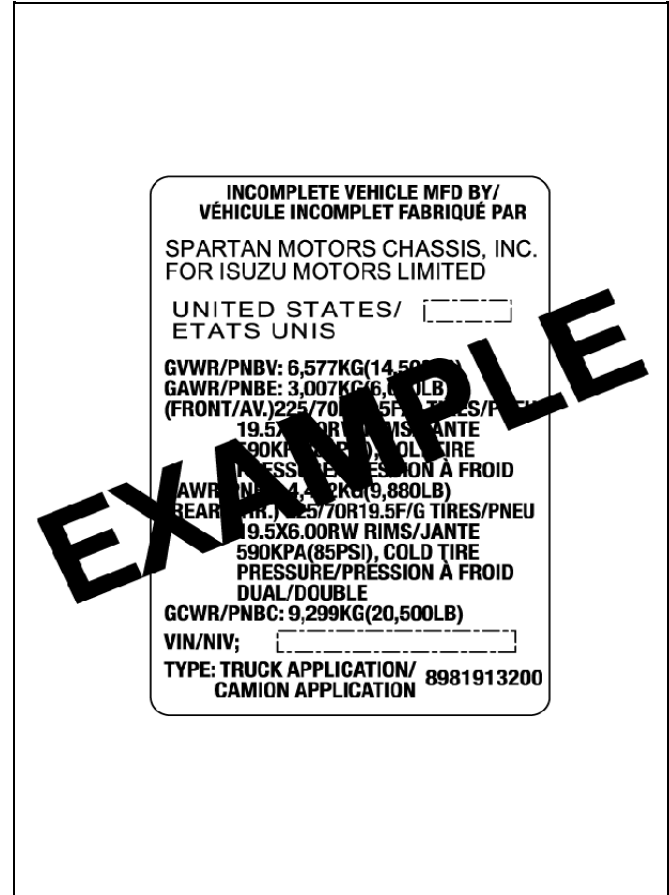


4554013

## Vehicle Identification

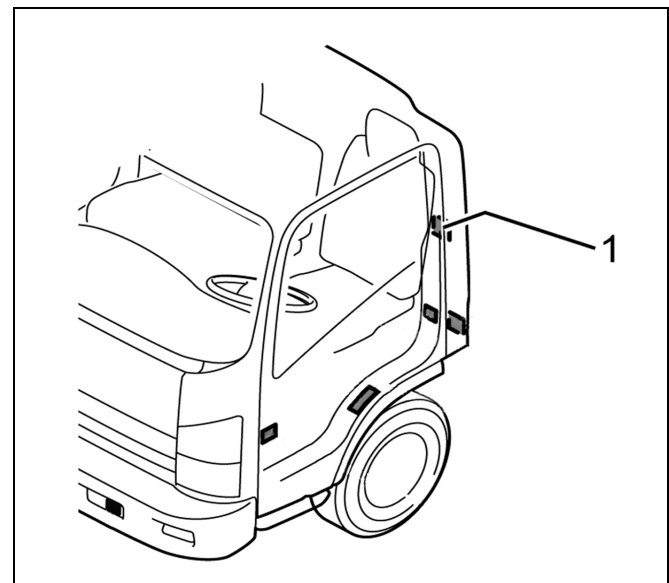
The VIN and Weight Rating Plate (1) lists the manufacturer, gross vehicle weight for the vehicle, maximum front end weight at ground, maximum rear end weight at ground, and the VIN (vehicle identification number). In the crew cab this plate is attached to the driver's side pillar above the shoulder seat belt bracket. In the single cab this plate is attached to the inside of the driver's side door frame.

The vehicle identification number is a legal identifier of your vehicle. It not only appears on the VIN plate, but also on the Vehicle Certificates of Title and Registration. The vehicle identification number specifically identifies a vehicle by code.



4554018

## VIN Derivative



4621025

## 1-4 General Information

The vehicle identification number (VIN) is located on a label on the driver side B-pillar (1).

### Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Country of Origin	J	Japan (JAL)
		5	United States (54D)
2	Manufacturer	A	Isuzu Motors Ltd.
		4	Spartan Motors Chassis Inc.
3	Make	L	Incomplete Vehicle — Medium and Heavy Duty
		D	Incomplete Vehicle
4	GVWR/Brake System/Body Style	B	10,001–14,000 lbs/Hydraulic/03–Regular Cab
		C	10,001–14,000 lbs/Hydraulic/43–Crew Cab
		B	14,001–16,000 lbs/Hydraulic/03–Regular Cab
		C	14,001–16,000 lbs/Hydraulic/43–Crew Cab
5	Make/Series	D	GM Chevrolet 3500 / 3500HD / 4500
6	Line/Cab Type	J	Non-Tilt Cab, BBC = 110 Inches
		W	Tilt Cab, BBC = 71 Inches
7	Chassis Type	1	4x2, 2 Axles, 1 Driving
8	Engine Type	B	L96 - ENGINE GAS, 8 CYL, 6.0L, SFI, E85 MAX, IRON, GM
		C	LC8 - ENGINE LPG/CNG, 8 CYL, V8, 6.0L, SFI, GEN 1, GMNA
		7	IZ3 - ENGINE DIESEL, 4 CYL, 3.0L, 4JJ1-TC 150HP
9	Check Digit	—	0~9, X - Calculated by POMS
10	Model Year	G	2017
11	Plant Location	S	When VIN position 1 is "1" (USA): Charlotte, Michigan
		7	Fujisawa, Japan
12	Model Combination	F	3500HD/4JJ1 Diesel/13,000 lbs
		8	3500 and 4500/Gas
13–17	Sequence Number	—	Positions 13 through 17 represent the number sequentially assigned by the manufacturer in the production process.

#### 6.0L Engine ID and VIN Derivative Location

Refer to Engine Identification.

#### 6L90 Transmission ID and VIN Derivative Location

Refer to Transmission Identification Information.

#### GVWR (Gross Vehicle Weight Rating)

The GVWR is the weight of a vehicle plus the weight of a vehicle's load. For the gross vehicle weight rating and the gross vehicle combined weight rating, refer to Model Explanation. For the gross vehicle weight rating range refer to the [Vehicle Identification on page 1-3](#) for VIN Chart.

#### RPO Code List

The RPO list contains RPOs available on this model. Also, refer to the Service Parts Identification label for a list of the RPOs used on each specific vehicle.

Option Code	Option Description
062	RATIO-5.12
068	RATIO-5.37
14B	TRIM COMBINATION-CLOTH, VERY DK GRAY (B) (97)
16U	PRIMARY COLOR-EXTERIOR, WHITE (02)152D
1WT	PACKAGE-WT OPTION 1
24J	SEAT BELT COLOR-RED, DRIVER SEAT ONLY
24K	SEAT BELT COLOR-RED, DRIVER AND PASSENGER SEAT
2TA	TIRE FRONT-LT215/85R16 E 115/112 L BW ALS VAR1
2TB	TIRE FRONT-225/70R19.5F 125/123L BW HWY VAR1
2TC	TIRE FRONT-225/70R19.5 G 125/123 L BW HWY VAR1.

Option Code	Option Description
3TA	TIRE REAR-LT215/85R16 E 115/112 L BW ALS VAR1
3TB	TIRE REAR-225/70R19.5F 125/123L BW HWY VAR1
3TC	TIRE REAR-225/70R19.5 G 128/126 L BW HWY VAR1
41U	PRIMARY COLOR-EXTERIOR, BLACK (8555)
46U	PRIMARY COLOR-EXTERIOR, DK GREEN (02)
47U	PRIMARY COLOR-EXTERIOR, DK BLUE MET (02)
69I	INTERIOR TRIM-VERY DK PEWTER (01)
74U	PRIMARY COLOR-EXTERIOR, CARDINAL RED (02)
86U	PRIMARY COLOR-EXTERIOR, YELLOW (02)
9B9	GOVERNOR-ELECTRONIC SPEED SENSOR - 70 MPH
9C2	GOVERNOR-ELECTRONIC SPEED SENSOR - 65 MPH
9D2	GOVERNOR-ELECTRONIC SPEED SENSOR - 58 MPH
9E2	GOVERNOR-ELECTRONIC SPEED SENSOR - 68 MPH
9W8	COVER-SEAT PROTECTOR
A1F	SEAT-FRT BKT, HIGH BACK, DRIVER & PASS
A1G	SEAT-FRT BKT, HIGH BACK, DRIVER ONLY AIR SUSPENSION & PASS
A31	WINDOW-POWER OPERATED, ALL DOORS (DO NOT USE ON NEW/MAJOR PROGRAMS)
ATG	LOCK CONTROL, ENTRY-REMOTE ENTRY, STANDARD RANGE
AU3	LOCK CONTROL-SIDE DR, ELEC
C42	HVAC SYSTEM-HEATER, OUTSIDE AIR, DELUXE
C60	HVAC SYSTEM-AIR CONDITIONER FRT, MAN CONTROLS
C7J	GVW RATING-13,000 LBS
C7L	GVW RATING-12,000 LBS
C7P	GVW RATING-16,000 LBS
C7S	GVW RATING-14,500 LBS
C7X	GVW RATING-17,950 LBS
CD7	WIPER SYS WINDSHIELD-PULSE, WET ARM
CSM	PLANT CODE-CHARLOTTE, MI, USA
DB5	MIRROR O/S-LH & RH, WIDE LOAD, INTEGRAL ARM
DB6	MIRROR O/S-LH & RH, WIDE LOAD, ELEC REMOTE CONTROL, LIGHTED, HEATED, INTEGRAL ARM
DB8	MIRROR O/S-LH & RH, WIDE LOAD, HEATED, INTEGRAL ARM
E01	STEPS-ASSIST
E8C	EQUIPMENT-CAN INTERFACE CONVERTER
EB4	WHEELBASE-109 INCH

Option Code	Option Description
EF7	COUNTRY-UNITED STATES OF AMERICA (USA)
EL5	WHEELBASE-212 INCH
EM2	WHEELBASE-200 INCH
FHO	VEHICLE FUEL-GASOLINE E10
FHX	VEHICLE FUEL-DIESEL B20
FL5	AXLE FRONT-6,830 LB (3,098 KG)
FL6	AXLE FRONT-7,275 LB (3,299 KG)
FL9	SUSPENSION FRONT-6,830 LB (3,098 KG), TAPERED LEAF
FM2	SUSPENSION FRONT-8,440 LB, 3,828 KG) TAPERED LEAF
FNJ	WHEELBASE-132.5 INCH / 3,365 MM
FNW	WHEELBASE-176 INCH
FU3	SUSPENSION REAR-9,880 LB (4,481 KG), MULTILEAF
FU4	SUSPENSION REAR-12,900 LB (5,851 KG), MULTILEAF
FU5	SUSPENSION REAR-14,308 LB (6,490 KG), MULTILEAF
FU6	SUSPENSION REAR-14,550 LB (6,559 KG), MULTILEAF
FUJ	PLANT CODE-FUJISAWA, JAPAN
FWH	WHEELBASE-150 INCH/3,815 MM
G7M	EQUIPMENT-AIR DEFLECTOR - OVER CAB
G86	AXLE-LIMITED SLIP
HNF	INTERIOR TRIM CONFIG-CLOTH, V DK PEWTER
GZG	GVW RATING-19,500 LBS
HNF	INTERIOR TRIM CONFIG-CLOTH, V DK PEWTER
HS6	AXLE REAR-11,020 LB (4,998 KG)
HS9	AXLE REAR-14,550LB (6,599 KG)
I17	ENGINEERING YEAR-2017
I1B	ENGINE-DIESEL, 4 CYL, 5.2L, 4HK1TC 215HP
IR7	TRANSMISSION-AUTO 6 SPD, HMD, A465
IX0	TRANSMISSION-AUTO 6 SPD, HMD, A460
IX2	SWITCH-DOME LAMP, REAR BODY
IZ3	ENGINE-DIESEL, 4 CYL, 3.0L, 4JJ1-TC 150HP
J69	BRAKE PARKING-MECHANICALLY OPERATED
JE5	BRAKE SYSTEM-PWR, ANTILOCK, FRT & RR WHL
K05	HEATER ENG-BLOCK
K34	CRUISE CONTROL-AUTOMATIC, ELECTRONIC
K40	ENGINE BRAKE-EXHAUST
K45	AIR CLEANER-HEAVY DUTY
K63	GENERATOR-110 AMP
KG3	GENERATOR-145 AMP

## 1-6 General Information

Option Code	Option Description
KG9	GENERATOR-140 AMP
KPG	CAP-DEF FILL, LOCKING
KPJ	ENGINE SHUTDOWN-AUTOMATIC
KPK	HEATER-OIL PAN
KQJ	ENGINE SHUTDOWN-AUTOMATIC, 3 MINUTE TIMER
KQN	ENGINE SHUTDOWN-AUTOMATIC, 5 MINUTE TIMER
KQS	CAP-DEF FILL, LOCKING, KEYED ALIKE
L96	ENGINE-GAS, 8 CYL, 6.0L, SFI, E85 MAX, IRON, GM
LC8	ENGINE-LPG/CNG, 8 CYL, V8, 6.0L, SFI, GEN 1, GMNA
MAH	MARKETING AREA-US, PUERTO RICO/USVI
MTE	PROVISIONS-FIRE EXTINGUISHER / SAFETY REFLECTOR KIT MOUNTING
MYD	TRANSMISSION-AUTO 6 SPD, HMD, 6L90
N33	STEERING COLUMN-TILT TYPE
N3R	STEERING WHEEL-URETHANE
N4C	CERTIFICATION-EMISSION, USA 50 STATE
N4E	EMISSION SYSTEM-USA, 50 STATE
NB5	EXHAUST SYSTEM-SINGLE
NC2	EXHAUST SYSTEM-SINGLE HORIZONTAL
NH2	FUEL TANK-113L, 30 GAL
NL7	FUEL TANK-FRONT, 25 GAL
NLX	TANK-FUEL, LH MOUNT, 33 GAL ADDITIONAL
NPV	EXHAUST SYSTEM-SINGLE VERTICAL MUFF & TAILPIPE CAB MOUNTED
PTO	ENGINE CONTROL-POWER TAKE OFF (PTO) CONTROLS
PTX	ENGINE CONTROL-POWER TAKE-OFF (PTO), CONTROLS - NONE
PWJ	WHEEL-16 X 6.0, K, STEEL, DESIGN 1
PWK	WHEEL-19.5 X 6.0, K STEEL, DESIGN 1
RQ2	VEHICLE APPLICATION-TRUCK SERVICE
RWL	CHASSIS DRIVE LINE-REAR WHEEL DRIVE (RWD)
TP6	BATTERY-750 CCA, 12V, (SINGLE)
TP7	BATTERY-750 CCA, 12V, (DUAL)
UAD	SPEAKER SYSTEM-2, FRONT, BASE
UDH	DISPLAY INSTRUMENT-DRIVER INFO (ONE COLOR GRAPHIC)
UIY	RADIO-AM STEREO/FM STEREO, CD, AUX INPUT, USB PORT
UIZ	RADIO-AM STEREO/FM STEREO, CD, AUX INPUT, USB PORT, BLUETOOTH
UL5	RADIO-(NONE)
UZF	ALARM B/U-ELECTRICAL
V22	GRILLE-RADIATOR, CHROME
V8D	VEHICLE STATEMENT-US

Option Code	Option Description
VT7	OWNERS MANUAL-ENGLISH LANGUAGE
VXT	VEHICLE TYPE-INCOMPLETE
WMH	VIN MODEL YEAR-2017
X88	MARKET BRAND-CHEVROLET
XWL	MIRROR PROVISIONS-102" MIRROR BRACKET
ZY1	COLOR COMBINATION-SOLID

## Section 2

# HVAC

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# Heating and Ventilation

## Schematic and Routing Diagrams



## Description and Operation Heating and Ventilation System

### Heater

After the engine warms up, the heater system uses the warm engine coolant to supply warm air to the vehicle interior.

Outside air is supplied to the vehicle interior through the heater core of the heater unit.

Temperature inside the vehicle is adjusted appropriately by controlling the mixture of air between the outside air and heater core.

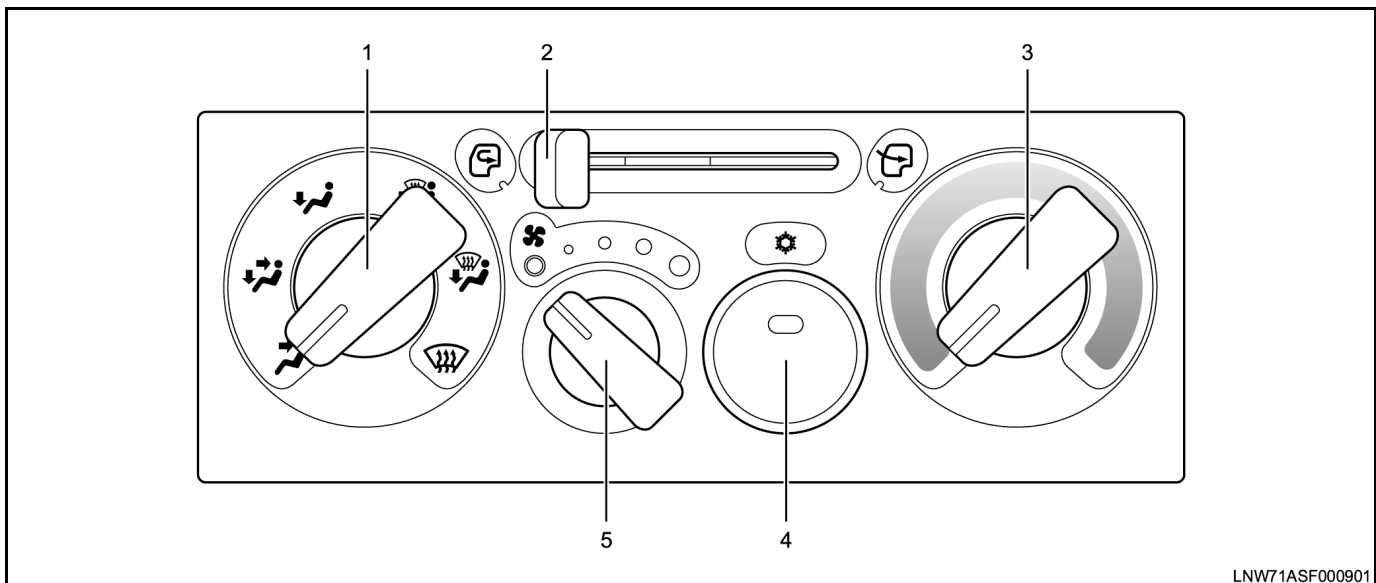
Temperature of the air that is supplied to the vehicle interior is controlled using the temperature control knob. This knob controls air temperature inside the vehicle by opening/closing the air mix door of the heater unit to control the amount of air that passes through the heater core.

Use the air selector knob to select an arbitrary air outlet inside the vehicle by altering the mode accordingly.

Use the air source selector lever to select "outside air intake" or "inside air circulation". Set this to "FRESH" to enable intake of outside air at all times. (Inside air will also be partially mixed.) Set the lever to "RECIRC" to enable inside air circulation without intaking outside air. Doing so speeds up heating of the vehicle interior by the heater, but this may cause fogging of the front window. To prevent fogging, set to "FRESH".

### Control Lever ASM

The control lever ASM enables selection of air outlet of the heater, temperature adjustment, and switching between inside and outside air of the blower ASM via the cable. The fan control is used to control the amount of air sent out at four levels from "Low" to "High", by a resistor.



LNW71ASF000901

4444755

### Legend

- |                               |   |
|-------------------------------|---|
| (1) Air Selector Knob         | (4) Air Conditioning Switch (with A/C)    |
| (2) Air-source Selector Lever | (5) Fan Control Knob (Fan Control Switch) |
| (3) Temperature Control Knob  |   |

## 2-6 Heating and Ventilation

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### Fan Control Knob (Fan Control Switch)

Use this knob to control the blower motor rotation via the resistor, thereby adjusting the amount of air to be supplied to defrost, foot and the ventilator.

The knob has four different setting positions.

1. LOW
2. MEDIUM LOW
3. MEDIUM HIGH
4. HIGH

### Air-source Selector Lever

Slide this lever to the left or right to select either "FRESH" or "RECIRC".

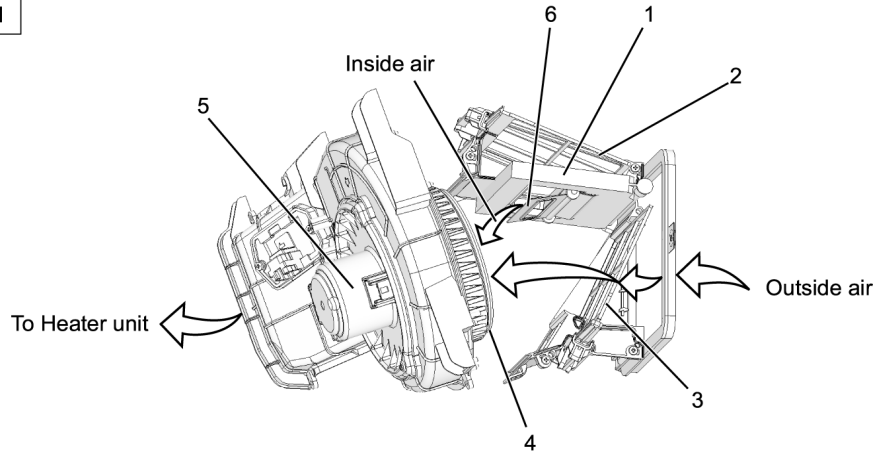
### Ventilation

If the air source select lever is moved to the "FRESH" position, a constant supply of outside air is introduced into the cabin. (For improved heating performance, a portion of the inside air is mixed with the air being introduced from outside by way of the blower ASM's inside air intake door.)

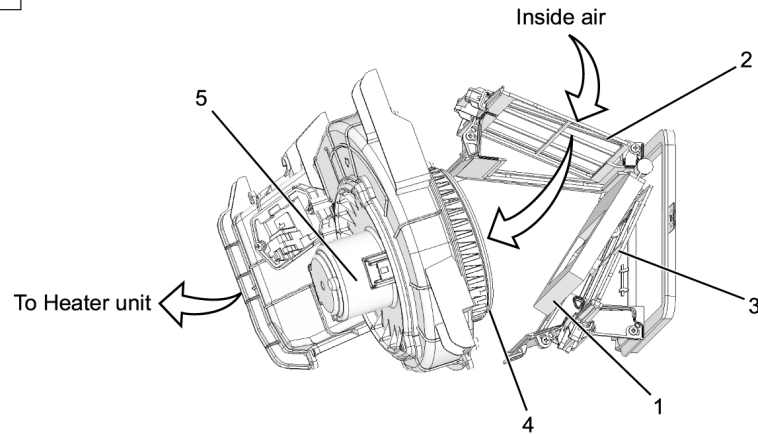
The blower fan brings outside air into the vehicle's cabin, and works to correctly maintain ventilation.

If the air source select lever is moved to the "RECIRC" position, the air inside the cabin is constantly circulated, without air from outside being introduced.

 FRESH



 RECIRC



LNW71ALF000601

4444772

**Legend**

- |                        |                            |
|------------------------|----------------------------|
| (1) Intake Door        | (4) Blower Fan             |
| (2) Inside Air Filter  | (5) Blower Motor           |
| (3) Outside Air Filter | (6) Inside Air Intake Door |

**Air Selector Knob**

The air select knob supplies air to the vehicle interior through the various outlets.

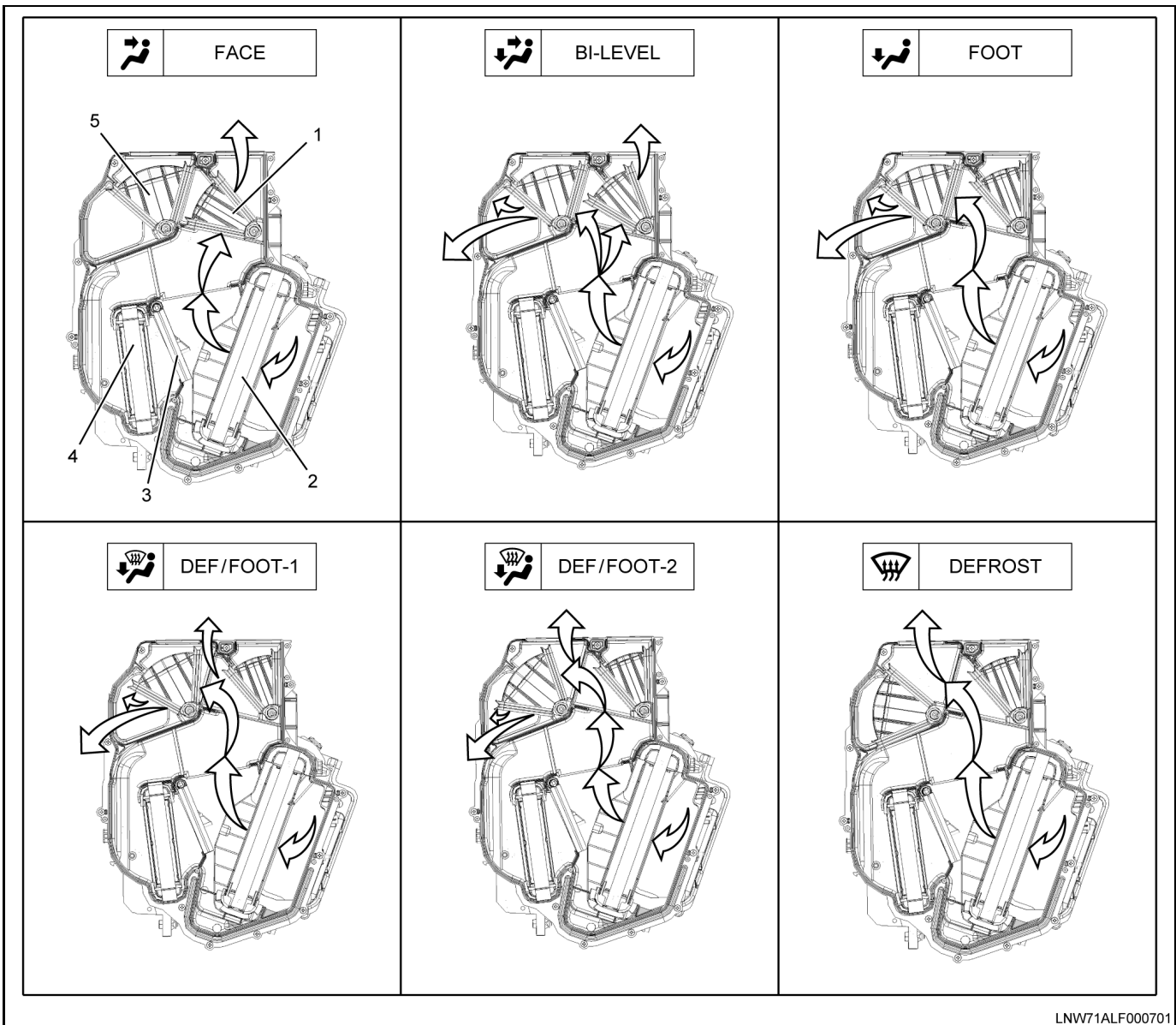
The vent blowing air changes due to an adjustment of the position of the two types of rotary style mode door inside the heater unit. These mode doors adjust the opening range of each vent from the heater unit, cut off the opening, and ventilate the door's interior, allowing for six different blow patterns to be selected.

- **FACE:** Setting to this position supplies air to the vehicle interior through the ventilation duct (1 and 2). Control the amount of air using the fan control knob (fan control switch).
- **BI-LEVEL:** Setting to this position supplies air to the vehicle interior by dividing air in the heater unit into two levels (1, 2 and 5). When the temperature

control knob is set to the center position, air that is supplied to the feet through the foot duct (5) is set to a higher temperature than the air that is supplied through the ventilation duct (1 and 2).

- **FOOT:** Setting to this position supplies the entire amount of air to the feet through the foot duct (5).
- **DEF/FOOT-1:** Setting to this position supplies a smaller amount of air to the feet (5) than the "FOOT" mode, and a small amount of air is supplied for defrosting (3 and 4).
- **DEF/FOOT-2:** Setting to this position increases the amount of air for defrosting (3 and 4) as compared with DEF/FOOT-1, and decreases the amount of air to be supplied to the feet (5).
- **DEFROST:** Setting to this position supplies a large proportion of the air to the front window (4) and a small amount of air to the side windows (3).

## 2-8 Heating and Ventilation

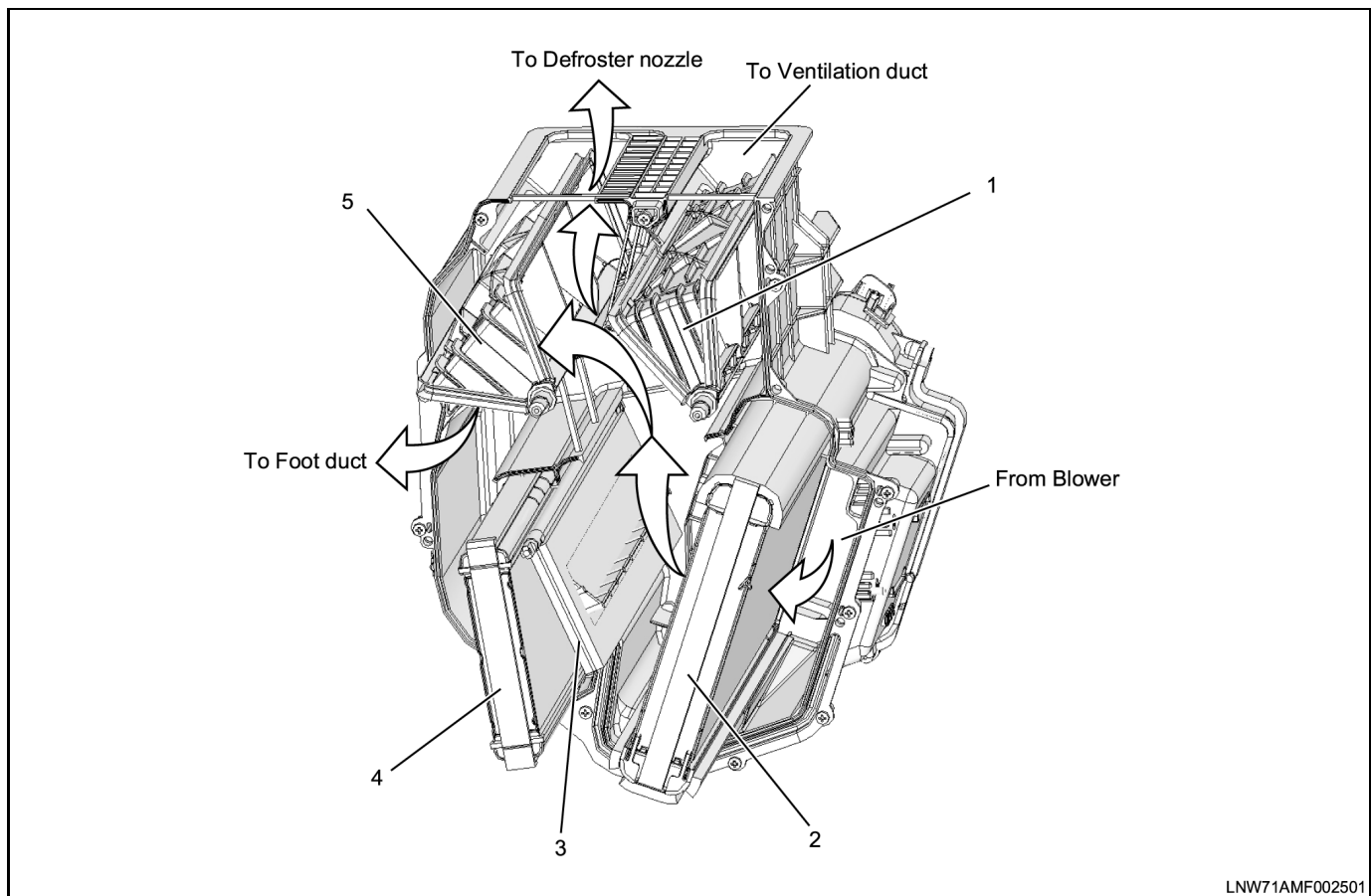


LNW71ALF000701

4444795

### Legend

- |                                |                          |
|--------------------------------|--------------------------|
| (1) Mode Door (FACE)           | (4) Heater Core          |
| (2) Evaporator Core (with A/C) | (5) Mode Door (FOOT/DEF) |
| (3) Air Mix Door               |                          |



LNW71AMF002501

4444799

**Legend**

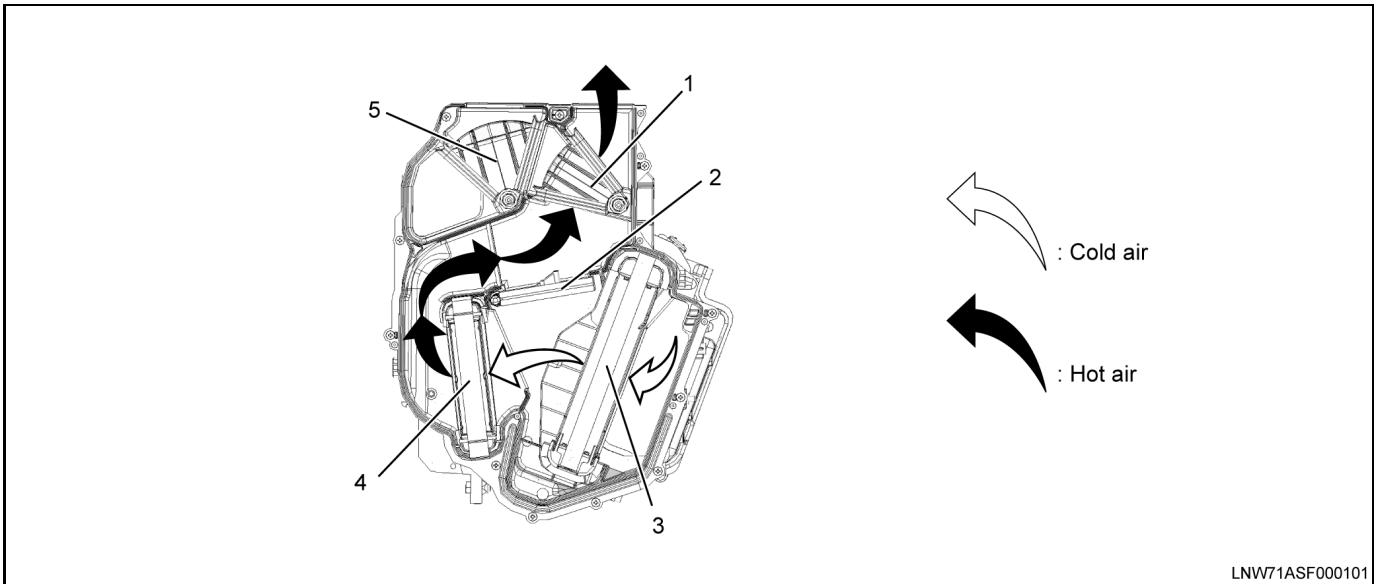
- |                                |                          |
|--------------------------------|--------------------------|
| (1) Mode Door (FACE)           | (4) Heater Core          |
| (2) Evaporator Core (with A/C) | (5) Mode Door (FOOT/DEF) |
| (3) Air Mix Door               |                          |

**Temperature Control Knob**

Setting the temperature control knob to the "MAX COLD" position closes the air mix door and shuts out air flow into the heater core. Setting the knob to the "MAX HOT" position opens the air mix door, thereby enabling heating of the vehicle interior via air through the heater core.

Setting the knob to the center position enables adjustment of the temperature inside the vehicle by increasing or decreasing the air supply to the heater core.

## 2-10 Heating and Ventilation



LNW71ASF000101

4444813

### Legend

- (1) Mode Door (FACE)
- (2) Air Mix Door
- (3) Evaporator Core (with A/C)

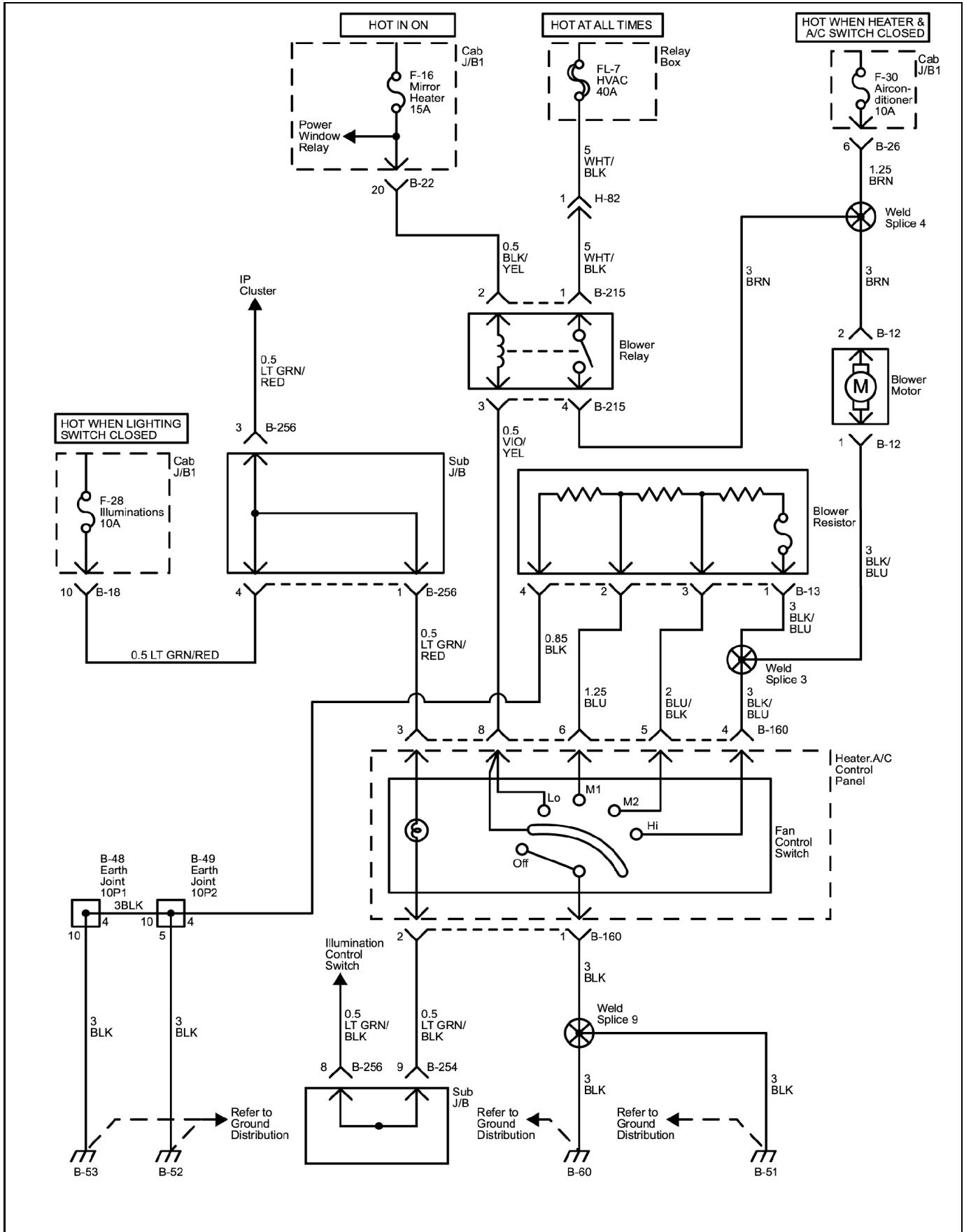
- (4) Heater Core
- (5) Mode Door (FOOT/DEF)

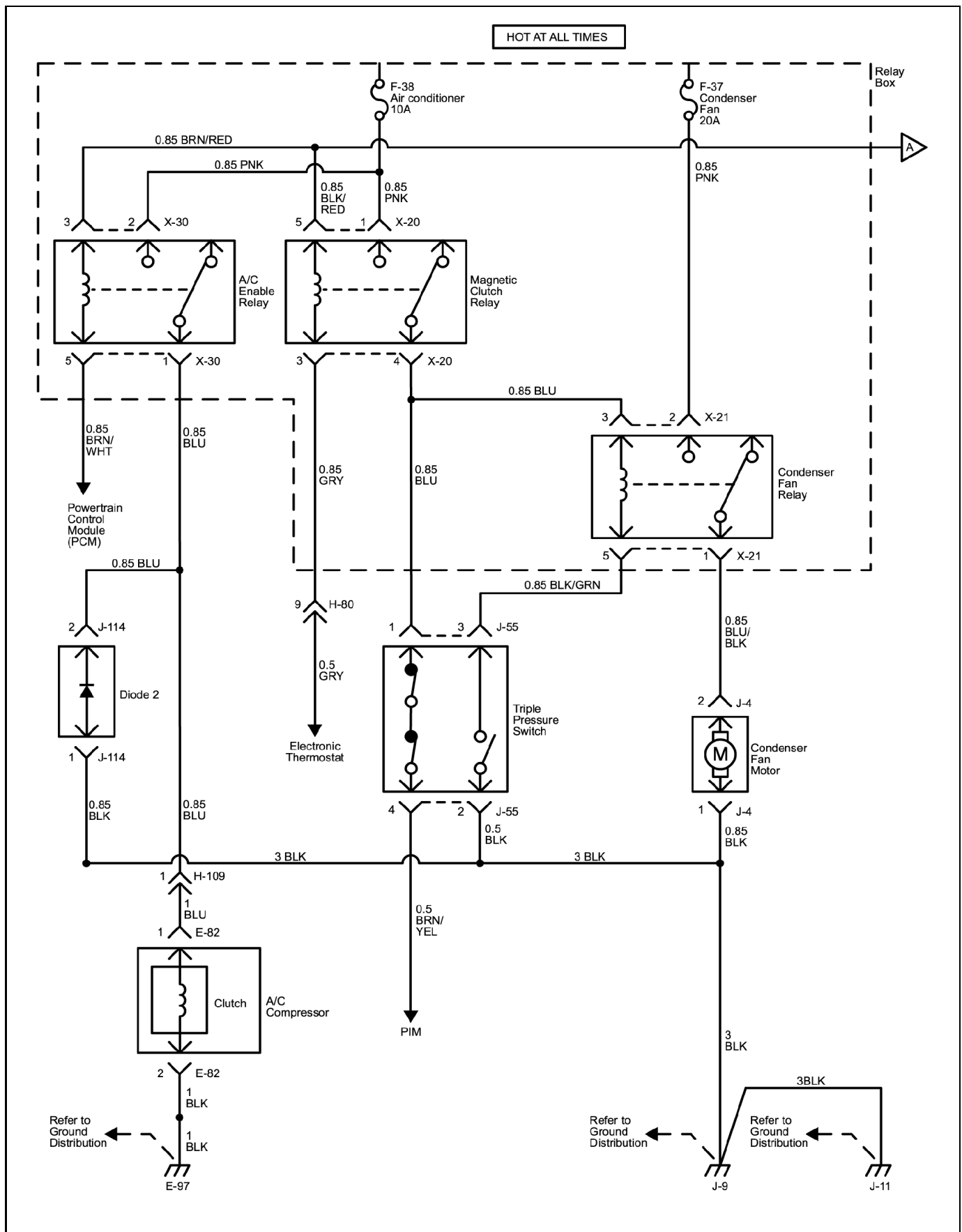


# Air Conditioning

## Schematic and Routing Diagrams

# Air Conditioning System Schematic





4554448



## Description and Operation

### Air Conditioning System

The manual air conditioner of this vehicle is made up of components such as the compressor, evaporator, condenser, A/C switch and fan control switch.

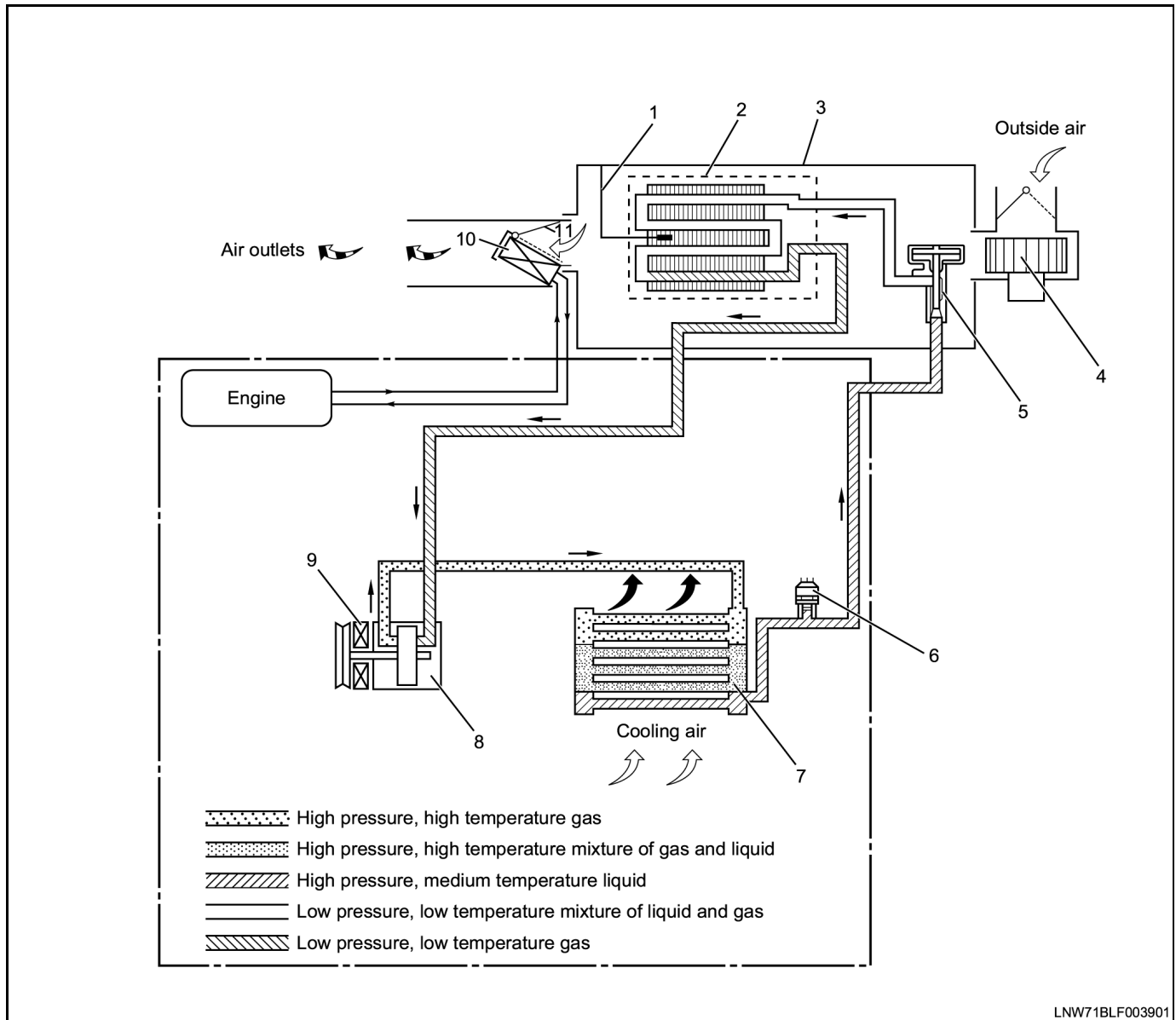
The air conditioner starts running upon the connection of the magnetic clutch when the engine is started and both the A/C and fan control switches are turned "ON". It stops running when either the fan control or A/C switch is turned OFF.

In addition to this switch, this vehicle also comes with features that may temporarily cut the air conditioner off via the system within the air conditioning cycle, such as the pressure switch that detects abnormal refrigerant pressure, the thermo switch to prevent freezing of the evaporator core and used for detecting the blow-off air temperature, and the thermo switch (to cut off air conditioner) that is installed in some vehicle models for detecting the engine water temperature.

When the air conditioner is running, the cycling switch end of the triple pressure switch detects the refrigerant pressure in the air conditioning cycle, and the condenser fan is activated to enhance heat dissipation of the condenser when the refrigerant pressure exceeds the preset pressure value.

Common items between the manual air conditioner and heater/ventilation are omitted in this section. Refer to the section on Heating and Ventilation for these items.

## Air Conditioning Cycle Configuration and Features



LNW71BLF003901

4445336

### Legend

- |                                |                                    |
|--------------------------------|------------------------------------|
| (1) Fin Sensor                 | (7) Condenser (Receiver/Tank Unit) |
| (2) Evaporator Core            | (8) Compressor                     |
| (3) Heater and Evaporator Unit | (9) Magnetic Clutch                |
| (4) Blower Motor               | (10) Heater Core                   |
| (5) Expansion Valve            | (11) Air Mix Door                  |
| (6) Pressure Switch            |                                    |

The air conditioning cycle possesses the four functions below, with the refrigerant circulating while changing repeatedly from liquid — gas — liquid.

### Evaporation

The refrigerant changes from liquid into gas in the evaporator.

Refrigerant that enters the evaporator in the mist form evaporates immediately. The refrigerant evaporates by taking the heat from the surrounding air of the evaporator core's cooling fin. With the heat taken, the

surrounding air that is cooled down is supplied by the blower fan into the vehicle to lower the temperature of the vehicle interior.

Liquid refrigerant supplied from the expansion valve and the evaporated refrigerant gas coexist in the evaporator, and the refrigerant changes from a liquid state into a gaseous state.

In order for the refrigerant to evaporate from a liquid into a vapor at a lower temperature, it is necessary to maintain a low pressure within the evaporator. To do so, the refrigerant gas is sucked into the compressor and discharged from the evaporator.

## Compression

The compressor compresses the refrigerant into a state such that it liquefies easily at room temperature.

The refrigerant gas in the evaporator is sucked into the compressor. This function maintains the refrigerant in the evaporator at a low pressure, such that liquid refrigerant continues to evaporate even when in a low-temperature state of close to 0°C (32°F). The refrigerant that is sucked into the evaporator is being compressed in the cylinder. This raises the pressure to a state that enables the refrigerant to liquefy more easily by external air at room temperature.

## Condensation

The refrigerant in the condenser is cooled down by external air, and changes from a vapor into a liquid. The high temperature and high pressure gas supplied from the compressor is cooled down and liquefied by the condenser and the external air, and the liquid is collected in the receiver dryer. The heat that is dissipated by the high temperature and high pressure refrigerant from the compressor into the outside air is known as condensing heat. This heat quantity is the sum of the heat taken by the refrigerant from the vehicle interior via the evaporator (evaporation heat) and the work performed during compression (converted to heat quantity).

## Expansion

The expansion valve lowers the pressure to facilitate evaporation of the liquid refrigerant.

Before the liquefied refrigerant is supplied to the evaporator, its pressure is lowered to ease evaporation. This process is known as expansion. The expansion valve also controls the flow of the liquid refrigerant while lowering the pressure. In other words, the amount of liquid refrigerant that is evaporated in the evaporator is determined by the amount of heat taken at the specified evaporating temperature (evaporating pressure). As such, it is important to adjust the refrigerant to an appropriate quantity.

## Compressor

A belt-driven, ten-cylinder swash plate type compressor (10S17) is used. Five double end pistons form the ten pumping chambers.

Refrigerant flow is controlled by reed valves and internal passages.

Front and rear cylinder heads hold the valves and plates to the main body and are secured by five through bolts.

The compressor is bolted to the right lower side of the engine.

The compressor is lubricated by compressor oil mixed with the refrigerant. An electrically actuated clutch and other controls determine compressor cycling. The rear head of the compressor is provided with pressure relief valve to prevent the malfunction of the compressor due to the abnormally high pressure of refrigerant.

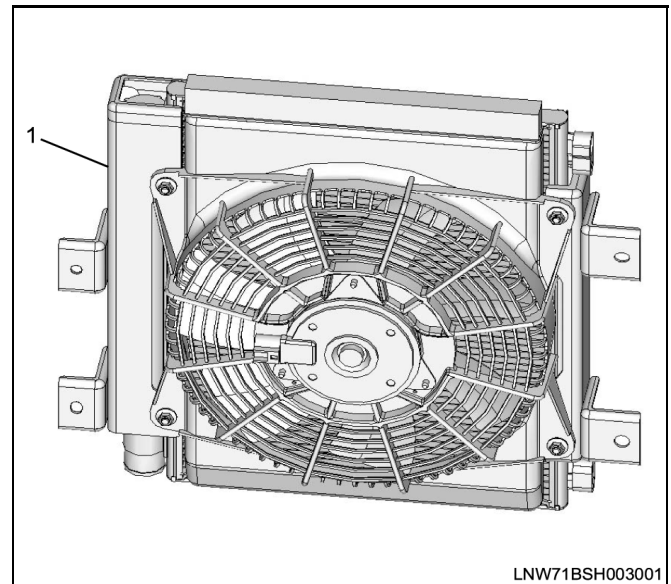
## Magnetic Clutch

The compressor is driven by the drive belt of the crank pulley. However, when the compressor is driven during start of the engine, this imposes a significant load on the engine, which is undesirable. As such, the magnetic clutch drives the compressor when the air conditioner is "ON" by transmitting power from the engine to it. Power transmission from the engine to the compressor is cut off when the air conditioner is "OFF".

## Condenser

The condenser forces the high temperature and high pressure refrigerant gas supplied from the compressor to cool down and liquefy via the condenser by outside air. Jamming of the condenser or blockage of air flow into the condenser's cooling fin may result in insufficient cooling capacity, increase the pressure of the refrigerant cycle and increase the load on the engine. When the condenser is functioning properly, the refrigerant discharge line of the condenser is usually colder than that of the intake line.

An electric fan is also installed to boost the cooling effect. This electric is switched "ON" or "OFF" via detection of the refrigerant pressure (by the triple pressure switch).



4445379

### Legend

(1) Condenser ASM (Receiver/Tank Unit)

## Receiver Dryer

The receiver dryer possesses the following functions.

- As the amount of refrigerant for circulation varies with the air conditioning cycle conditions, the air conditioning cycle stores an appropriate amount of refrigerant required for its smooth functioning according to changes in the circulation volume.
- Refrigerant gas in the form of gas bubbles are found inside the liquefied refrigerant from the condenser. The cooling capacity may deteriorate markedly if refrigerant containing gas bubbles is

## 2-18 Air Conditioning

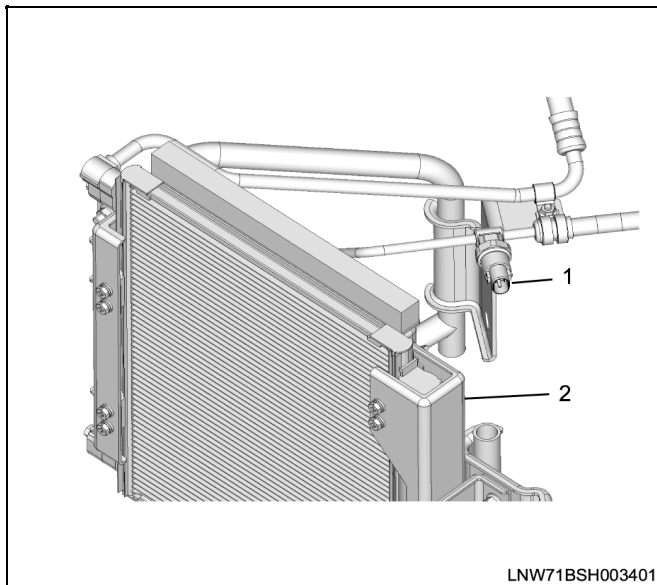
supplied to the expansion valve. As such, the liquid and gas bubbles are separated, and only the liquid is supplied to the expansion valve.

- Waste and water contained in the refrigerant in circulation are removed using the filter and dryer inside the receiver dryer.

Jamming of the receiver dryer may cause the air conditioner's performance to deteriorate. When jamming occurs at the inlet of the receiver dryer, the refrigerant pressure rises, while pressure lowers when jamming occurs at the outlet. In both cases, cooling can hardly take place. If the pipe at the outlet of the receiver dryer is unusually cold, this indicates that jamming has occurred.

### Pressure Switch

The pressure switch (triple pressure switch) is installed on the high pressure pipe, and is used to detect unusually high refrigerant pressure (high pressure switch) and prevent compressor seizing (low pressure switch) due to refrigerant leakage by turning the magnetic clutch to "ON" or "OFF" at the preset pressure. A cycling switch is also available, which is used for the "ON" and "OFF" control (intermediate pressure switch) of the condenser fan.



LNW71BSH003401

4445442

#### Legend

- (1) Pressure Switch
- (2) Condenser

- Low pressure control (low pressure switch)  
Compressor
  - "ON" :  $225 \pm 30$  kPa ( $32 \pm 4$  psi)
  - "OFF" :  $196 \pm 20$  kPa ( $28 \pm 3$  psi)
- Intermediate pressure control (intermediate pressure switch)  
Condenser fan
  - "ON" :  $1520 \pm 98$  kPa ( $220 \pm 14$  psi)
  - "OFF" :  $1230 \pm 98$  kPa ( $178 \pm 14$  psi)
- High pressure control (high pressure switch)

### Compressor

- "ON" : reduce pressure by  $590 \pm 196$  kPa ( $85 \pm 28$  psi) with respect to the OFF value
- "OFF" :  $3140 \pm 196$  kPa ( $455 \pm 28$  psi)

### Evaporator

The evaporator changes the liquid refrigerant that is supplied from the expansion valve in mist form into a gas via heat exchange with the air that is supplied from the blower motor.

Vaporization heat that is generated when the liquid refrigerant evaporates into vapor cools down the evaporator and evaporator core fin, which in turn cools down the air that is supplied from the blower motor.

Moisture in the air is cooled and forms water droplets, and the vehicle is dehumidified by removing these droplets from the vehicle.

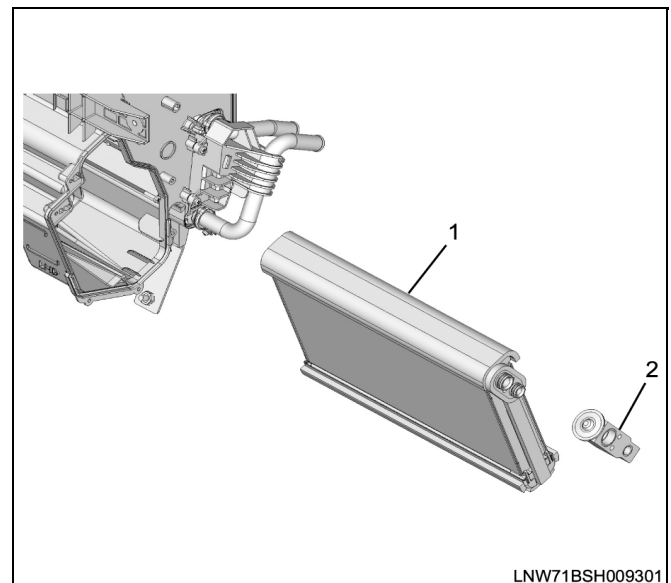
### Expansion Valve

The expansion valve is installed to the inlet of the evaporator via a uniform external pressure.

The high pressure liquid refrigerant supplied from the receiver dryer undergoes a squeezing action when it passes through the expansion valve, which changes it into a low pressure liquid refrigerant in mist form before it is supplied to the evaporator core.

This expansion valve is made up of a thermo sensor (Temperature-sensitive rod), diaphragm, ball valve, and spring adjustment screw etc. The thermo sensor (Temperature-sensitive rod) controls the flow of coolant by operating the diaphragm through the evaporator outlet's temperature change.

The expansion valve can also be used to adjust refrigerant flow as it ensures efficient capacity utilization of the various devices in the air conditioning cycle. As such, abnormality of the expansion valve will cause both the outlet pressure and inlet pressure values to drop, thus resulting in an insufficient cooling capacity of the evaporator.



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#### Legend

- (1) Evaporator Core



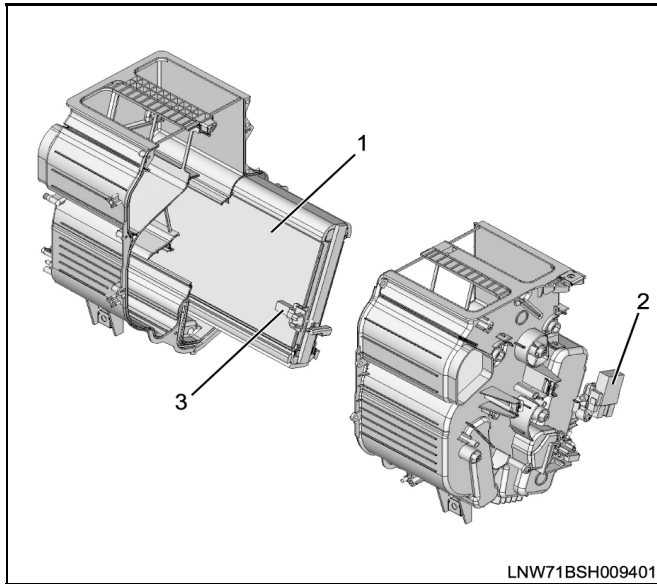
(2) Expansion Valve

**Thermo Switch**

The thermo switch employs an amplifier (electronic thermostat) and a thermistor (fin sensor) to reduce the operating noise level.

The fin sensor is installed to the outlet of the evaporator core, and is used to detect the temperature of the air that passes through the evaporator core.

The OFF value is 1.8°C (35.2°F), and the ON value is 2.8°C (37.0°F) with respect to the OFF value.



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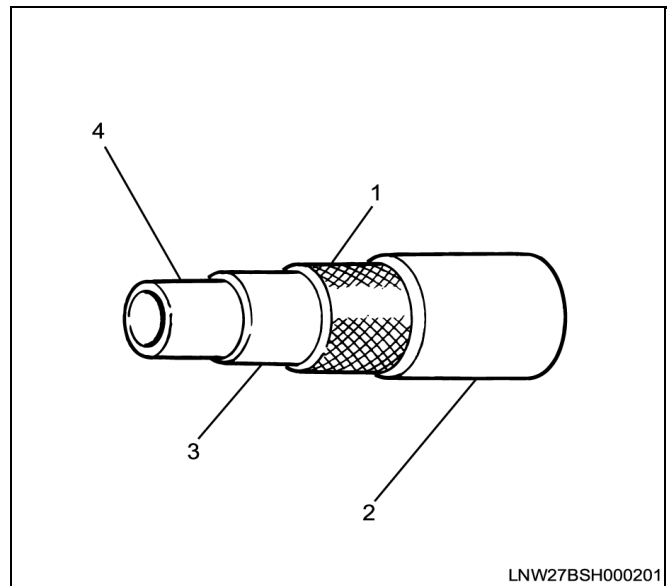
**Legend**

- (1) Evaporator Core
- (2) Electronic Thermostat
- (3) Fin Sensor

**Refrigerant Pipe**

The following phenomena are observed when jamming occurs in the refrigerant pipe.

1. Low pressure hose: when jamming occurs in the low pressure hose, the compressor's inlet pressure as well as outlet pressure drop, and cooling capacity is lost.
  2. High pressure hose: When jamming occurs in the high pressure hose, leakage from the discharge line will usually occur.
  3. High pressure pipe: when jamming occurs in the high pressure pipe, pressure at both the outlet and inlet ends will drop, resulting in insufficient cooling.
- The high pressure and low pressure flexible hoses employ a low leakage hose that is equipped with nylon at the innermost end of the hose.



LNW27BSH000201

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**Legend**

- (1) Polyester (Reinforcement Layer)
- (2) Exterior Rubber Layer
- (3) Interior Rubber Layer
- (4) Nylon (Resin Layer)

**BLANK**

## Section 3

# Engine/Propulsion

<b>Engine Electrical</b> .....	<a href="#">3-3</a>
<b>Specifications</b> .....	<a href="#">3-3</a>
Cranking System General Information .....	<a href="#">3-3</a>
Charging System General Information .....	<a href="#">3-4</a>
<b>Description and Operation</b> .....	<a href="#">3-4</a>
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Starting System Description .....	<a href="#">3-6</a>
Battery Description and Operation .....	<a href="#">3-7</a>
Charging System Description and Operation ....	<a href="#">3-8</a>
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**BLANK**

# Engine Electrical

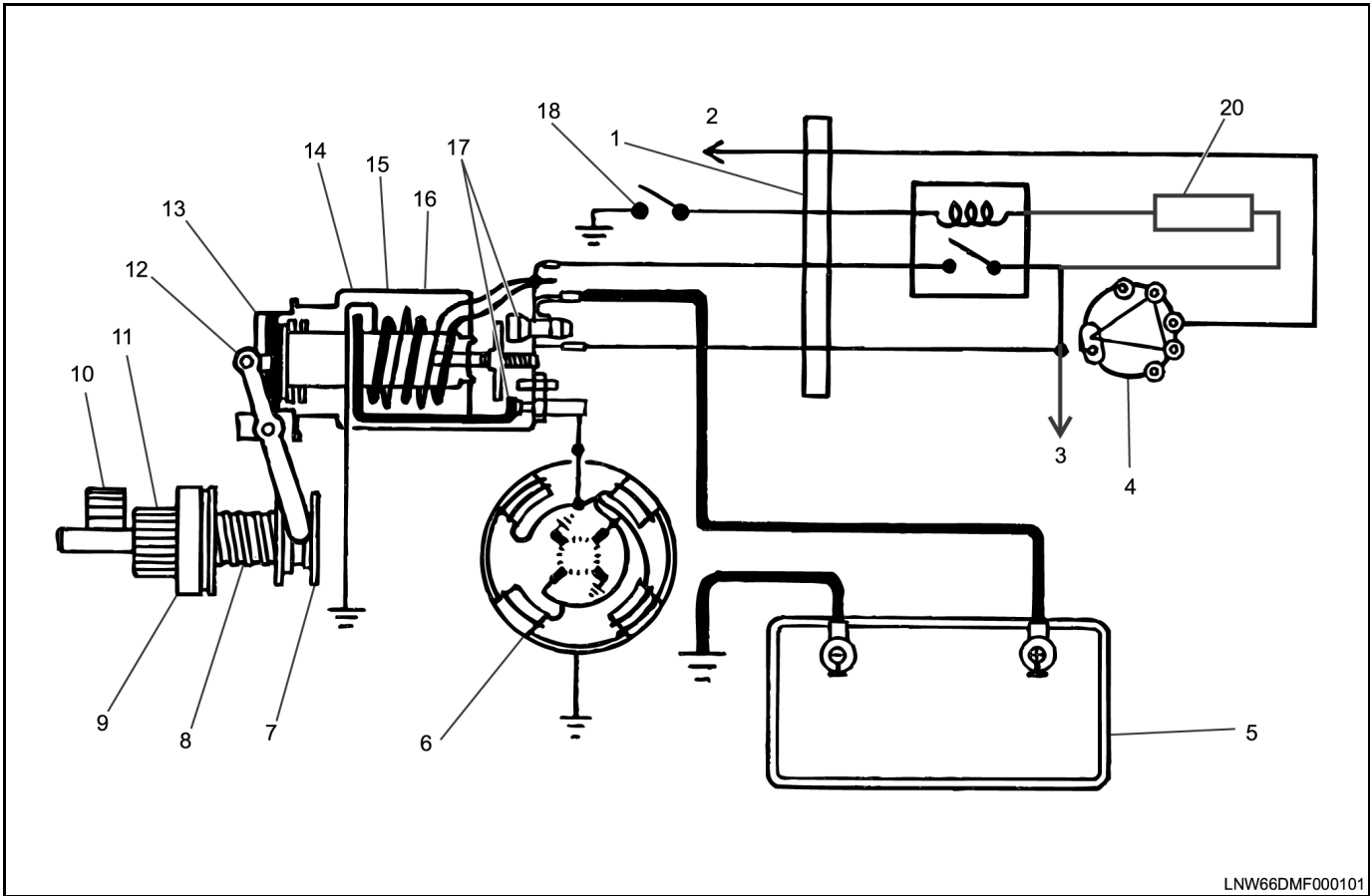
## Specifications Cranking System General Information

### Service Precaution

**Caution:** When fasteners are removed, always reinstall them at the same location from which they were removed. If a fastener needs to be replaced, use the correct part number fastener for that application. If the correct part number fastener is not available, a fastener of equal size and strength (or stronger) may be used. Fasteners that are not reused, and those requiring thread locking compound, will be called out. The correct torque values must be used when installing fasteners that require it. If the above conditions are not followed, parts or system damage could result.

### General Description — Cranking Circuit

The basic cranking circuit consists of the battery, starter motor, ignition (engine control) switch, inhibitor switch and related electrical wiring.



### Legend

- |                                   |                               |
|-----------------------------------|-------------------------------|
| (1) Bulkhead Connector            | (6) Starter Motor             |
| (2) To Distributor "BAT" Terminal | (7) Shift Collar              |
| (3) BAT                           | (8) Pinion Compression Spring |
| (4) Ignition Switch               | (9) Clutch                    |
| (5) Battery                       | (10) Flywheel                 |

## 3-4 Engine Electrical

---

(11)	Pinion	(16)	Solenoid
(12)	Shift Lever	(17)	Solenoid
(13)	Plunger	(18)	Inhibitor Switch
(14)	Hold in Coil	(19)	Starter Relay
(15)	Pull in Coil	(20)	PCM

---

### Charging System General Information

#### Service Precaution

**Caution:** When fasteners are removed, always reinstall them at the same location from which they were removed. If a fastener needs to be replaced, use the correct part number fastener for that application. If the correct part number fastener is not available, a fastener of equal size and strength (or stronger) may be used. Fasteners that are not reused, and those requiring thread locking compound, will be called out. The correct torque values must be used when installing fasteners that require it. If the above conditions are not followed, parts or system damage could result.

#### General Description

The charging system is an IC integral regulator charging system and its main components are connected as shown in figure. The regulator is a solid state type and it is mounted along with the brush holder assembly inside the generator installed on the rear end cover. The generator does not require particular maintenance such as voltage adjustment. The rectifier connected to the stator coil has nine diodes to transform A.C. voltage into D.C. voltage. This D.C. voltage is connected to the output terminal of generator.

### Description and Operation

#### Charging System Description

##### General Procedure

**Caution:** When fasteners are removed, always reinstall them at the same location from which they were removed. If a fastener needs to be replaced, use the correct part number fastener for that application. If the correct part number fastener is not available, a fastener of equal size and strength (or stronger) may be used. Fasteners that are not reused, and those requiring thread locking compound, will be called out. The correct torque values must be used when installing fasteners that require it. If the above conditions are not followed, parts or system damage could result.

### Battery Reference

#### Description

Refer to Battery Description.

#### Diagnosis of Battery

Refer to Battery Diagnosis.

#### On-Vehicle Service: Battery

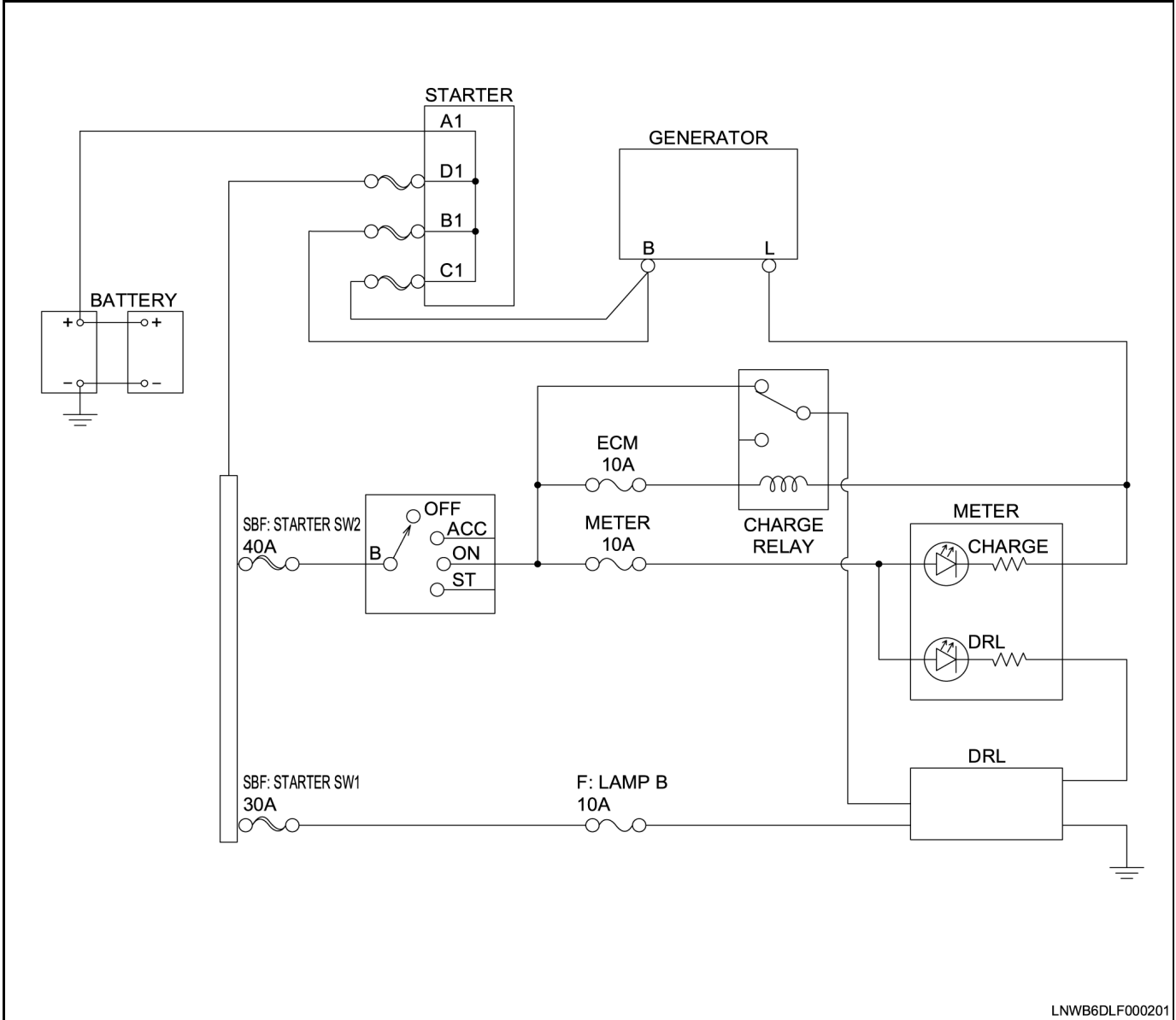
Refer to Battery Charging.

### Charging System

#### General Description

The main charging system components are the batteries, the generator and the battery discharge indicator lamp circuit. The generator is a 140-amp, self-discharge rectifying type with a built-in regulator. The battery indicator lamp is mounted in the instrument panel. For more details on this circuit refer to Instrument Panel (IP) Cluster.

Circuit Diagram

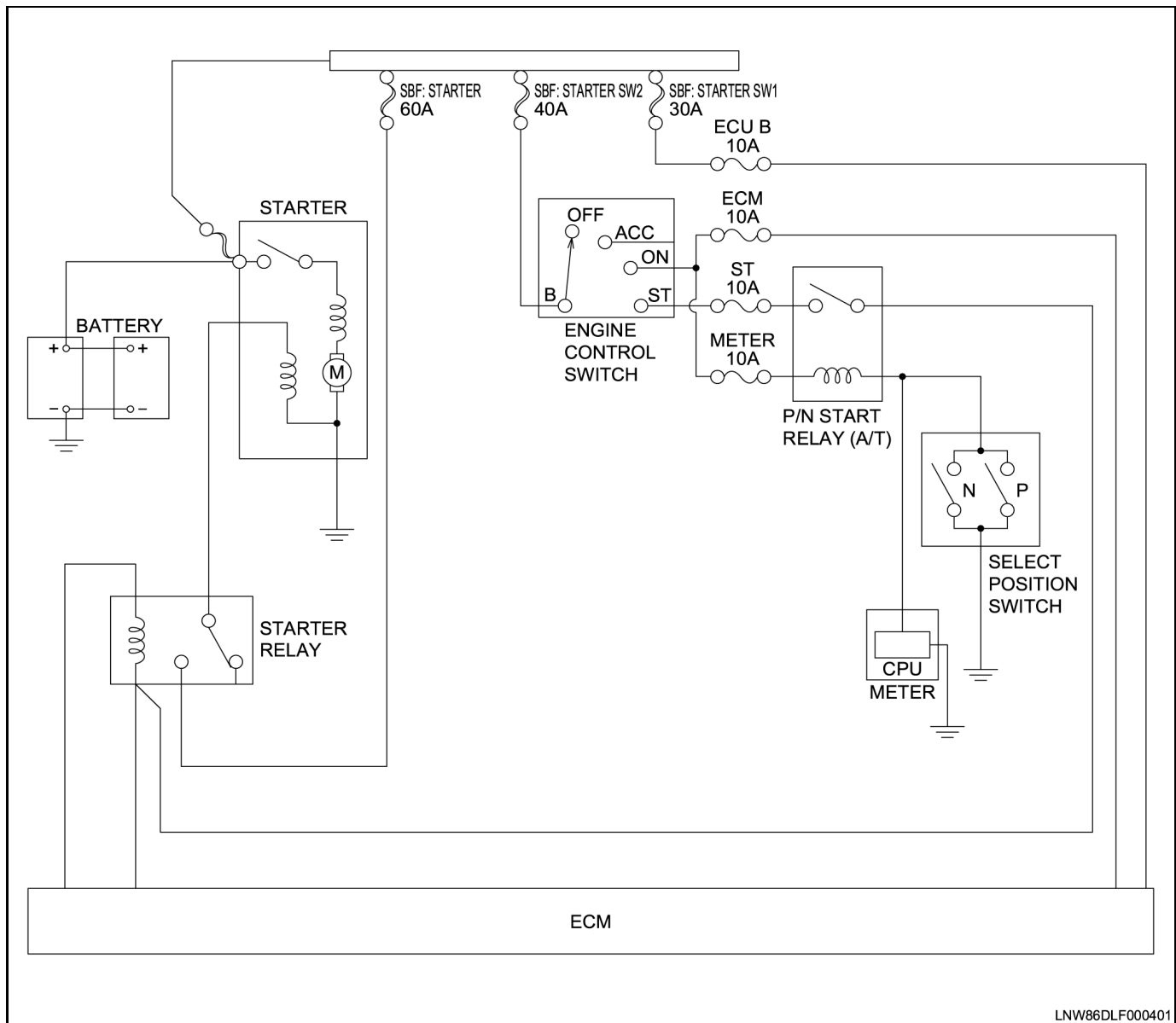


Maintenance

The most common indication of charging system troubles is an undercharged or overcharged battery. Since the battery itself may be defective, the first step should be to check its condition. Refer to Battery Diagnosis. In the case of an undercharged battery, check for battery drain caused by grounds or by accessories left turned on.

Keep the generator and all other electrical system terminals clean and tight. A loose or badly corroded terminal connection will create excessive resistance in the system and result in hard starting, dim lights etc. Inspect the generator system at regular intervals and correct any potential causes of trouble before vehicle performance is affected.

## Starting System Description Circuit Diagram



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### Starter Relay

The starter is a 3 kilowatt, reduction drive model.

The gear housing and armature end bearing housings are aluminum. The brush assembly has replaceable brushes. The commutator bars are mica insulated and are undercut.

The starter circuit starts at the batteries. The battery cable goes to the large terminal on the starter.

From that terminal wires lead to the engine control switch and the starter relay.

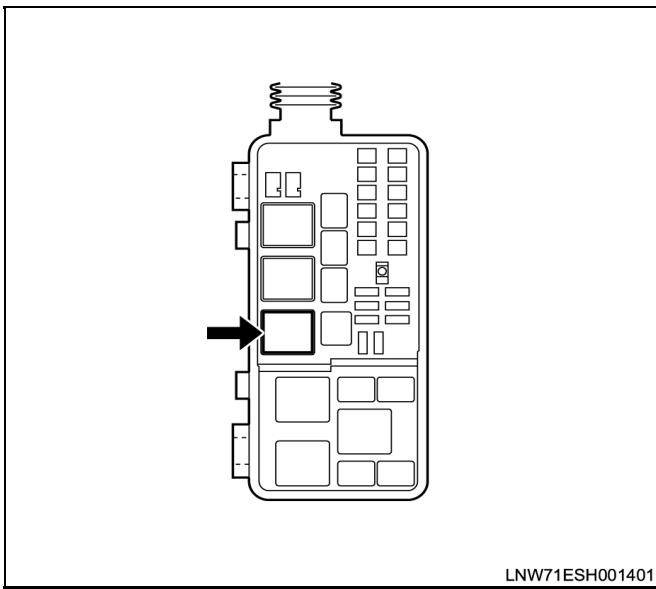
From the engine control switch the starter circuit goes through fuses and the transmission neutral switch to the starter relay. When the engine control switch is turned to start and the transmission neutral switch is closed, the starter relay closes to complete the circuit

from the batteries to the starter solenoid. The starter circuit is also connected to the Engine Control Module (ECM).

The ECM operates when the engine control switch is turned to the "ON" position.

The starter relay is located on the frame at the left rear side of the cab.









4498906

### Maintenance

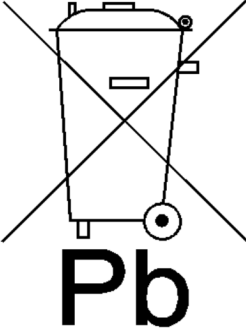
Keep the starter's exterior clean. Remove corrosion from the terminals, leads, and connectors.

Tighten the starter to engine mounting bolts and the electrical cable retaining nuts.

### Battery Description and Operation

<b>▲ DANGER/POISON</b>		
<p><b>SHIELD EYES</b> EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY</p> 	<p><b>NO SPARKS, FLAME OR SMOKING</b></p> 	<p><b>SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS</b></p> 
<p>PROTÉGER LES YEUX GAZ EXPLOSIF PEUT RENDRE AVEUGLE OU BLESSER</p>	<p>TENIR ÉLOIGNÉ DES ÉTINCELLES, DES FLAMMES. NE PAS FUMER</p>	<p>L'ACIDE SULFURIQUE PEUT RENDRE AVEUGLE OU PROVOQUER DES BRÛLURES GRAVES</p>
<p><b>FLUSH EYES IMMEDIATELY WITH WATER</b> GET MEDICAL HELP FAST</p>		<p><b>RINCER LES YEUX IMMÉDIATEMENT À L'EAU</b> CONSULTER IMMÉDIATEMENT UN MÉDECIN</p>
<p><b>KEEP OUT OF REACH OF CHILDREN. DO NOT TIP. DO NOT OPEN BATTERY.</b></p>	<p><b>TENIR HORS DE LA PORTÉE DES ENFANTS. NE PAS INCLINER. NE PAS OUVRIR LA BATTERIE.</b></p>	

**PROPOSITION 65 WARNING**  
BATTERY POSTS, TERMINALS, AND RELATED ACCESSORIES CONTAIN LEAD AND LEAD COMPOUNDS, CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND REPRODUCTIVE HARM. WASH HANDS AFTER HANDLING.



**Pb**

754326

**Warning: Batteries produce explosive gases. Batteries contain corrosive acid. Batteries supply levels of electrical current high enough to cause burns. Therefore, in order to reduce the risk of personal injury while working near a battery, observe the following guidelines:**

- Always shield your eyes.
- Avoid leaning over the battery whenever possible.
- Do not expose the battery to open flames or sparks.

- Do not allow battery acid to contact the eyes or the skin.
  - Flush any contacted areas with water immediately and thoroughly.
  - 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.

## 3-8 Engine Electrical

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

The battery specification label, example below, contains information about the following:

- The test ratings
- The original equipment catalog number
- The recommended replacement model number

### Battery Description and Operation

CCA 750	LOAD TEST 375
REPLACEMENT MODEL Freedom	

### Battery Ratings

A battery has 2 ratings:

- Reserve capacity or Amp hours
- Cold cranking amperage

When a battery is replaced use a battery with similar ratings. Refer to the battery specification label on the original battery or refer to Battery Usage.

### Amp Hours

The amp hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amp hour rating is cumulative, so in order to know how many constant amps the battery will output for 20 hours, you have to divide the amp hour rating by 20. Example: If a battery has an amp 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 amp hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

### Reserve Capacity

Reserve capacity is the amount of time in minutes it takes a fully charged battery, being discharged at a constant rate of 25 amperes and a constant temperature of 27°C (80°F) to reach a terminal voltage of 10.5 volts. Refer to Battery Usage for the reserve capacity rating of the original equipment battery.

### 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 volts. Refer to Battery Usage for the cold cranking amperage rating for this vehicle.

### Charging System Description and Operation

#### Generator

The DR-44 generator is non-repairable. They are electrically similar to earlier models. The generator(s) feature the following major components:

- The delta stator
- The rectifier bridge
- The rotor with slip rings and brushes
- A conventional pulley
- Dual internal fans
- A voltage regulator

The fan cool the slip ring and the frame.

The D stands for air-cooled Dual internal fan; the 44 denotes the outside diameter of the stator laminations in millimeters, over 100 millimeters. The generator is rated at 145 amperes.

The generator features permanently lubricated bearings. Service should only include the tightening of mounting components. Otherwise, the generator is replaced as a complete unit.

#### Regulator

The voltage regulator controls the field current of the rotor in order to limit system voltage. The regulator switches the current on and off at a rate of 400 cycles per second in order to perform the following functions:

- Radio noise control
- Obtain the correct average current needed for proper system voltage control

At high speeds, the on-time may be 10 percent with the off-time at 90 percent. At low speeds, the on-time may be 90 percent and the off-time 10 percent.

## Battery Charging System Indicators

The IPC illuminates the battery indicator when the following occurs:

- The PIM detects that the generator output is less than 11 volts or greater than 16 volts. The IPC receives a ground signal from the charge relay to turn on the charge indicator.
- The ignition is on, with the engine off.

## Starting System Description and Operation

The PG-260L is a non-repairable starter motor. It has pole pieces that are arranged around the armature within the starter housing. When the solenoid windings are energized, the pull-in winding circuit is completed to ground through the starter motor. The hold-in winding circuit is completed to ground through the solenoid. The windings work together magnetically to pull in 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. At the same time, the plunger closes the solenoid switch contacts in the starter solenoid. Full battery voltage is then 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 as battery voltage is now 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, the pinion gear overrun sprag protects the armature from excessive speed until the switch is opened.

When the ignition switch is placed in the Start position, a discrete 12-volt signal is supplies to the powertrain interface module (PIM) notifying it that the ignition is in the Start position. The PIM then sends a message to the engine control module (ECM) via the GMLAN data communication circuits notifying it that CRANK has been requested. The ECM verifies proper security message from the PIM and verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies a ground signal to the control circuit of the start relay. When this occurs, battery positive voltage is supplies through the switch side of the start relay to the S terminal of the starter solenoid.

When the ignition switch is released from the CRANK position, voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now in the opposite 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, cause the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter motor is turned off.

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## Section 4

# Transmission

<b>Automatic Transmission - 6L90</b> .....	<a href="#">4-3</a>
<b>Description and Operation</b> .....	<a href="#">4-3</a>
Shift Lock System Description and Operation .....	<a href="#">4-3</a>

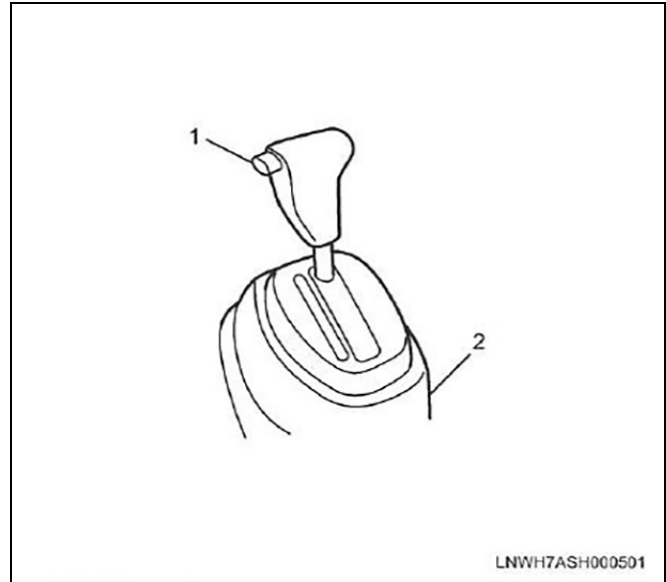
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# Automatic Transmission - 6L90

## Description and Operation Shift Lock System Description and Operation

Shifting from the P position to the R position of the shift lever is possible if the shift lever position is P, the key position is ON, and the stoplight switch is ON. For the operating patterns other than the above, operating from the P position to the R position is not possible because of the shift lock. Shift lock is performed by locking the shift lever button (1).

**Note:** The shift lock solenoid (2) becomes not energized when the shift lever button is fully pressed

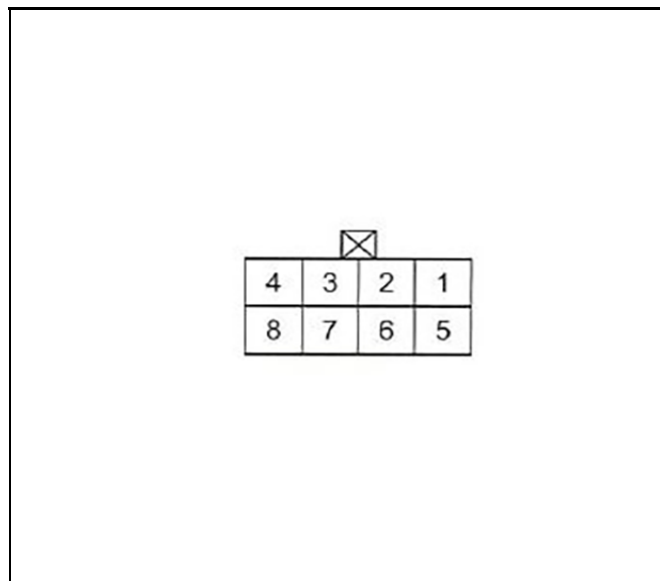


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Shift Lock Operating Condition	Conditions		
	Key Position	Lever Position	Stoplight Switch (Brake Pedal Operation)
Not possible for operating from P position to R position (Shift lock solenoid not energized)	LOCK	P position	OFF
	ACC		ON
	ON		OFF
Possible for operating from P position to R position (Shift lock solenoid energized)	ON		ON

## Shift Lock Solenoid Connector Terminals



4944581

Terminal Number	Connection
1	—
2	STP
3	ON
4	ACC
5	—
6	KLS+
7	—
8	GND

## Shift Lock Release Mechanism

When the shift lock is activated, a mechanism that can release the shift lock mechanically is set. Refer to Shift Lock System.

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## Section 5

# Cab and Chassis Electrical

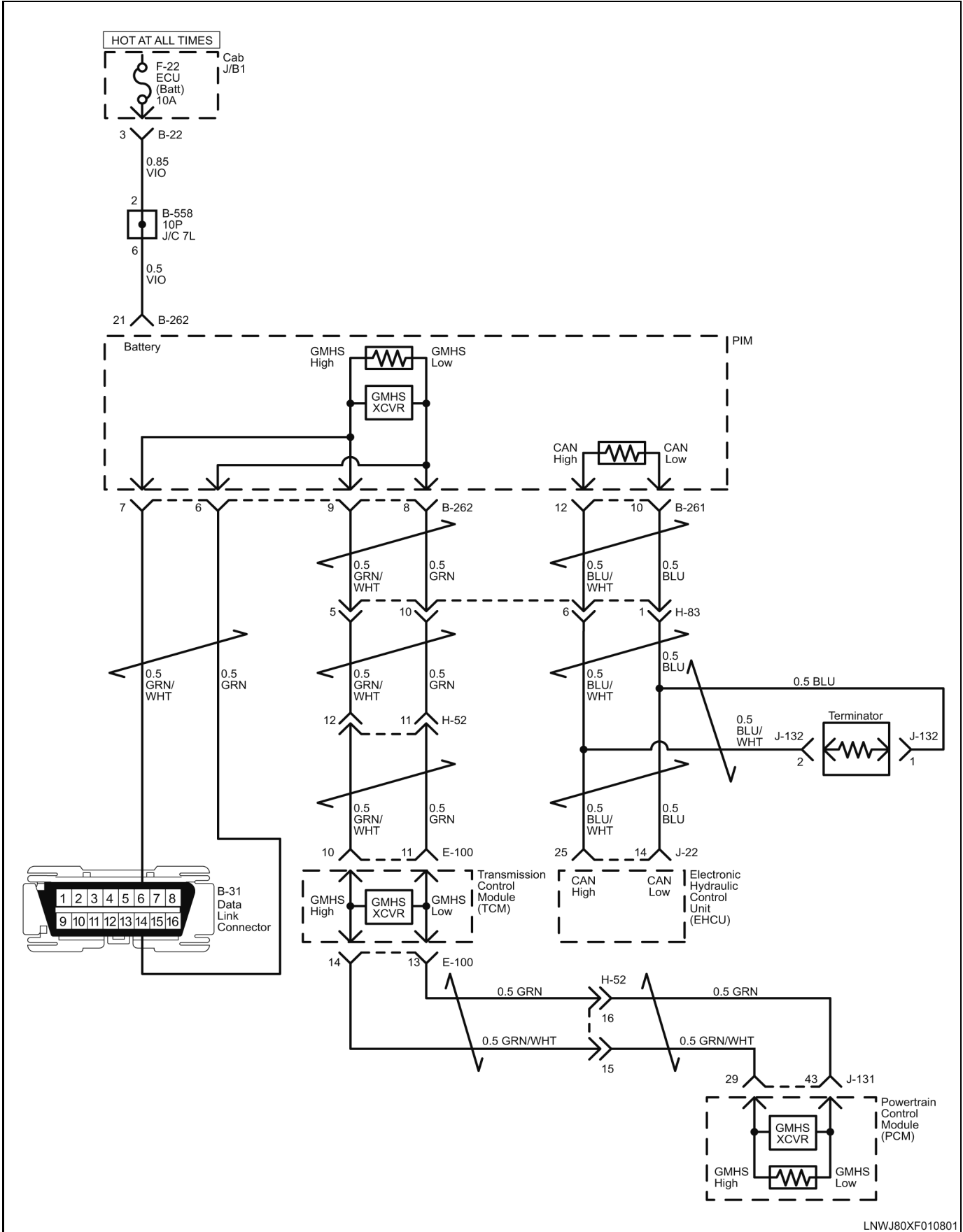
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# Cab and Chassis Electrical

## Schematic and Routing Diagrams

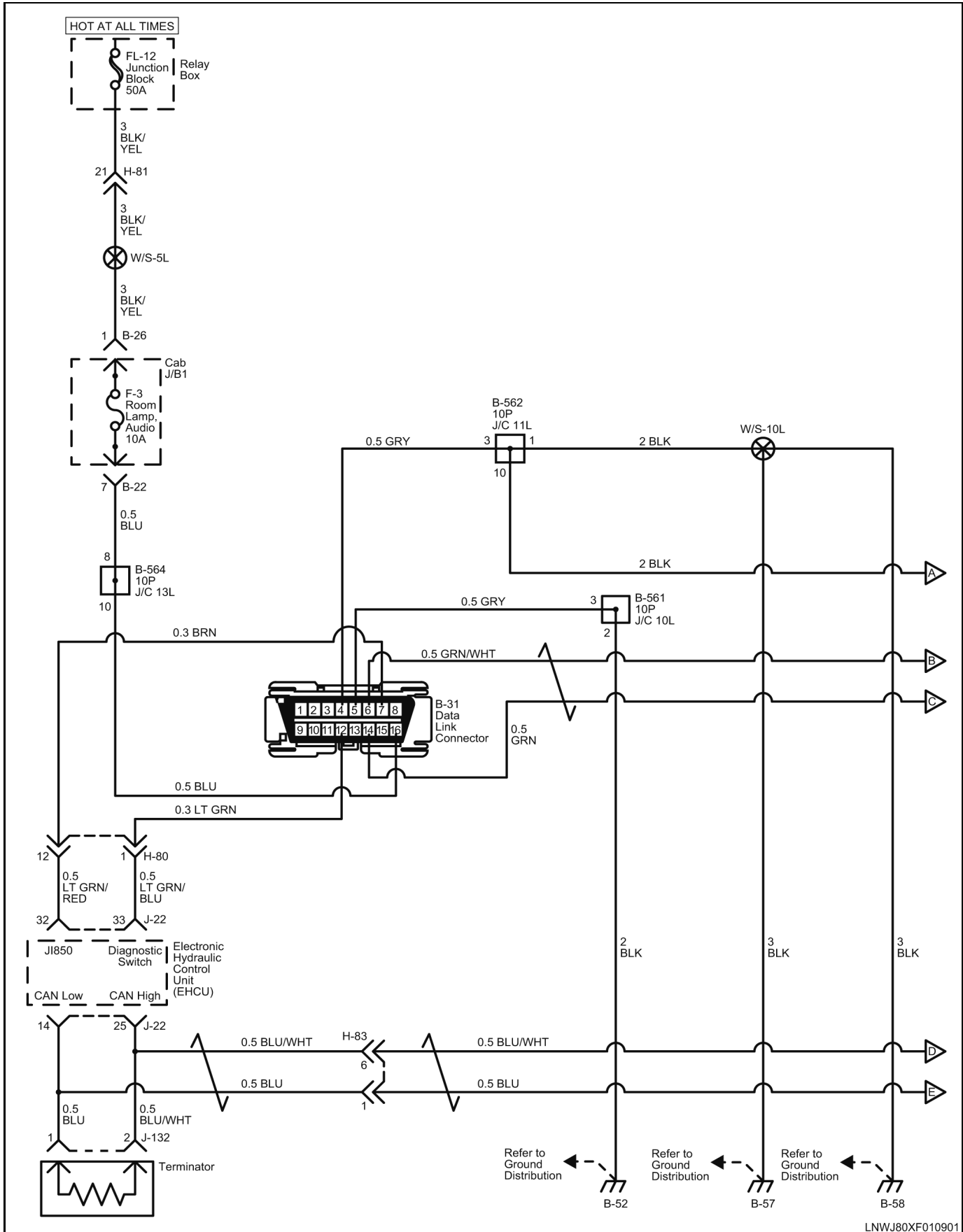
Controller Area Network (CAN) Schematics



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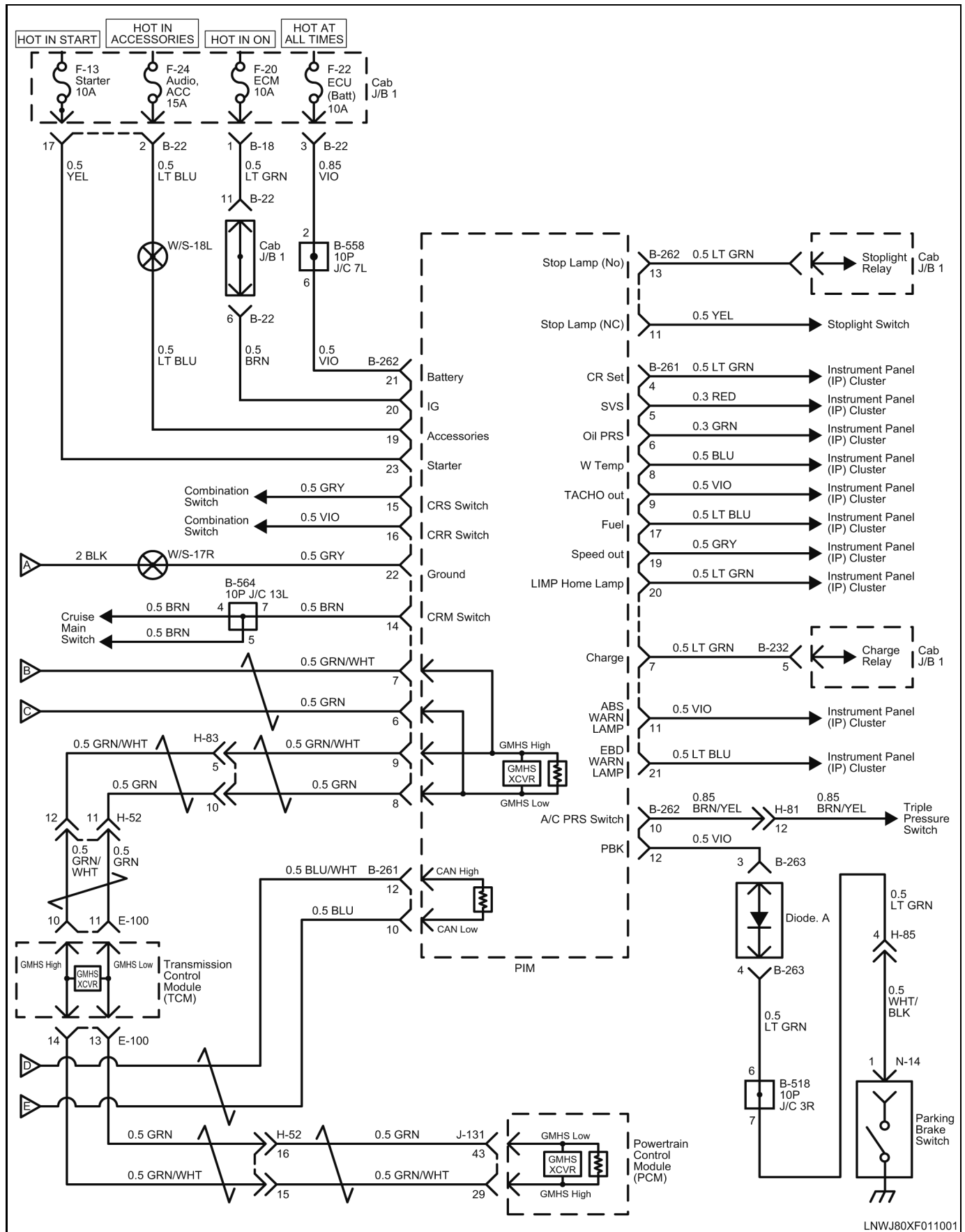
# Data Link Connector Schematics



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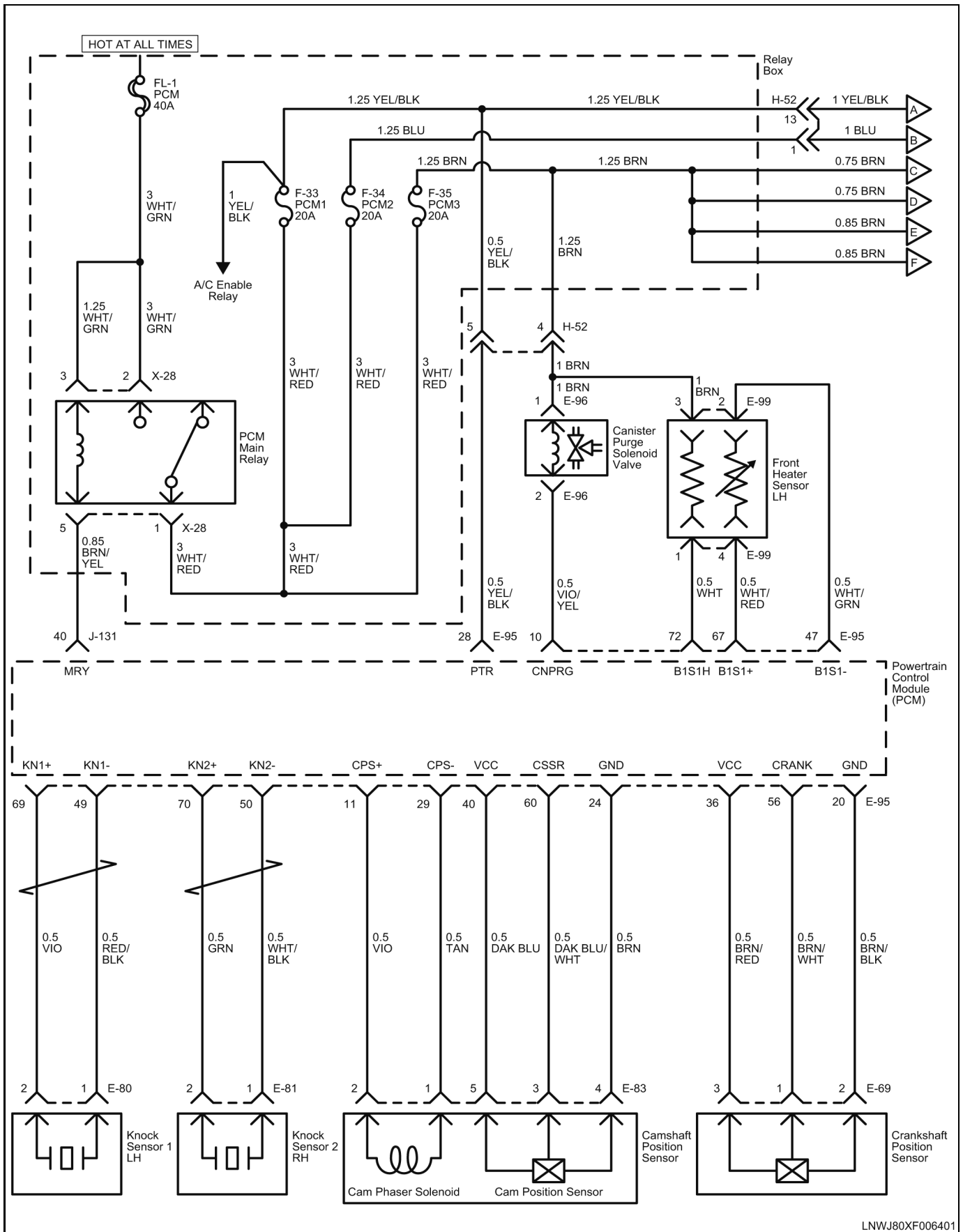
# 5-6 Cab and Chassis Electrical



LNWJ80XF011001  
4958038

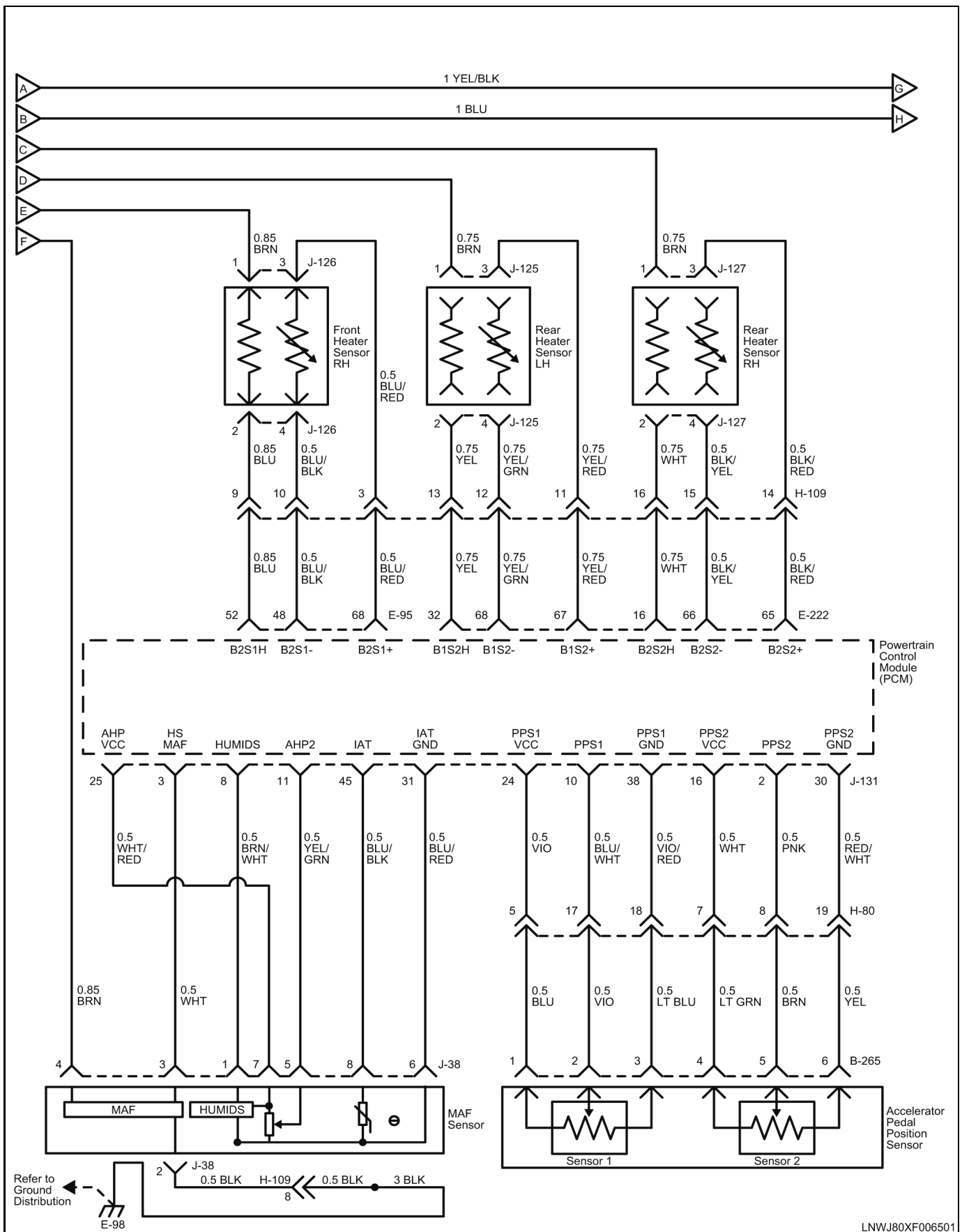


# 5-8 Cab and Chassis Electrical



4957002

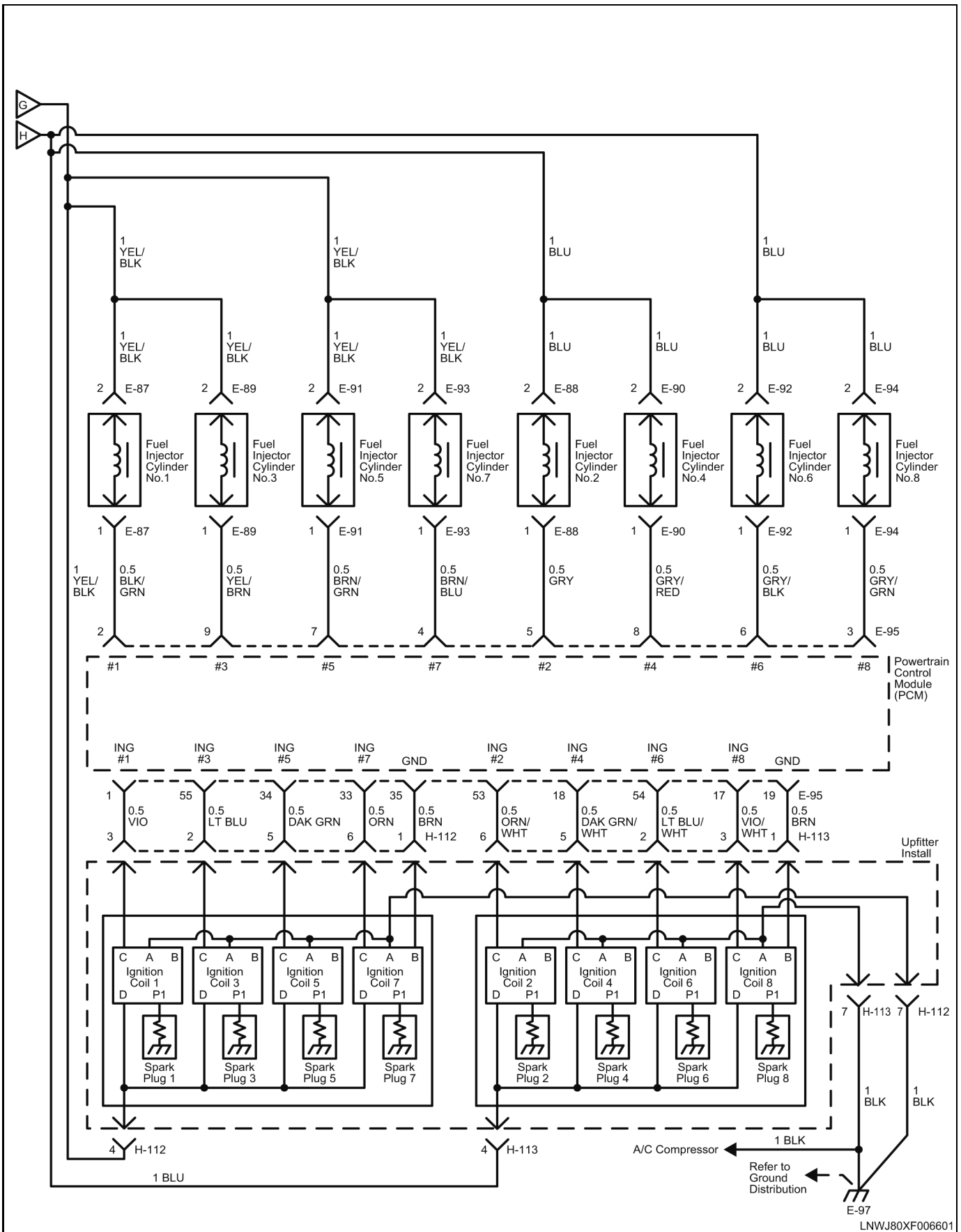




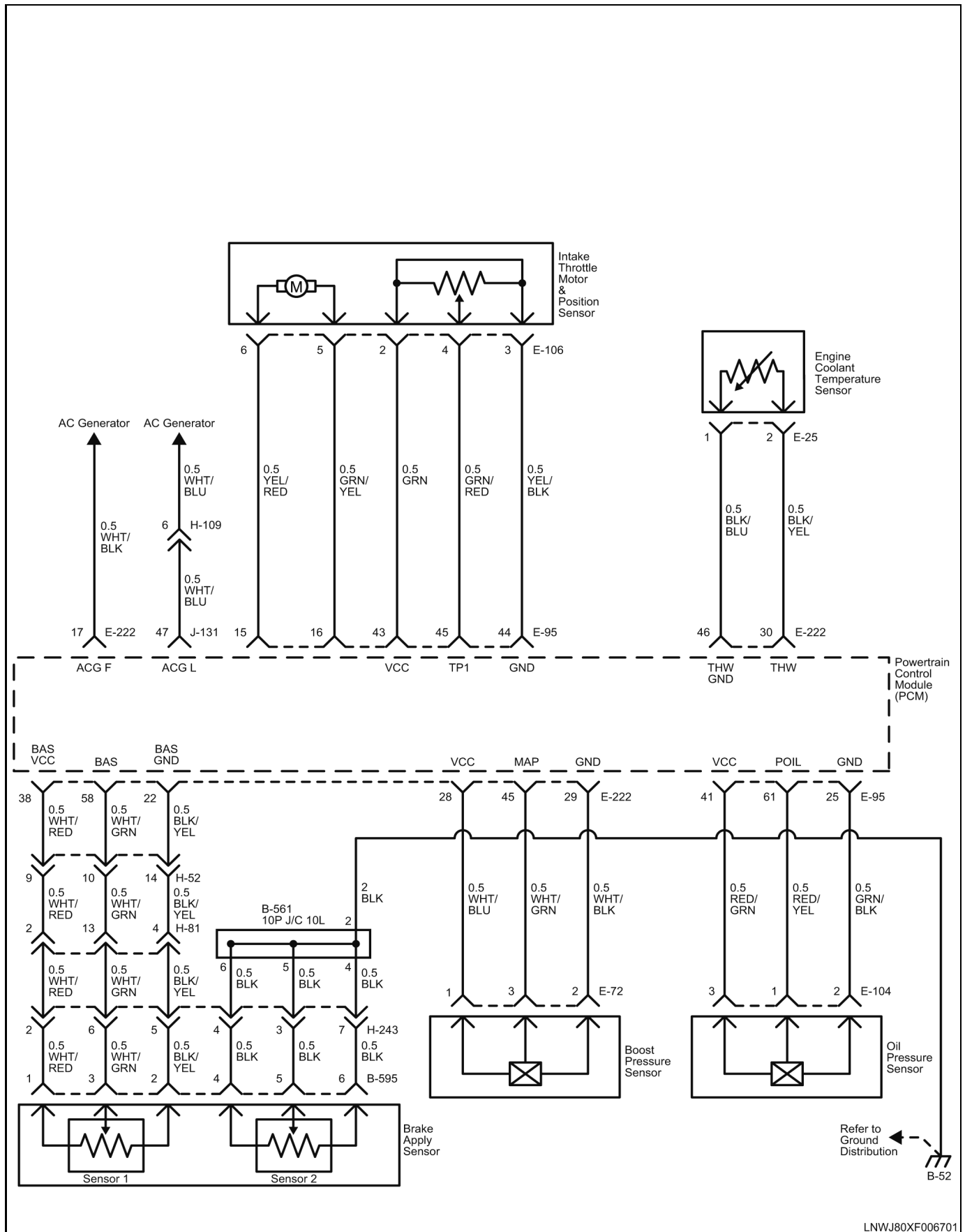
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4957013

5-10 Cab and Chassis Electrical



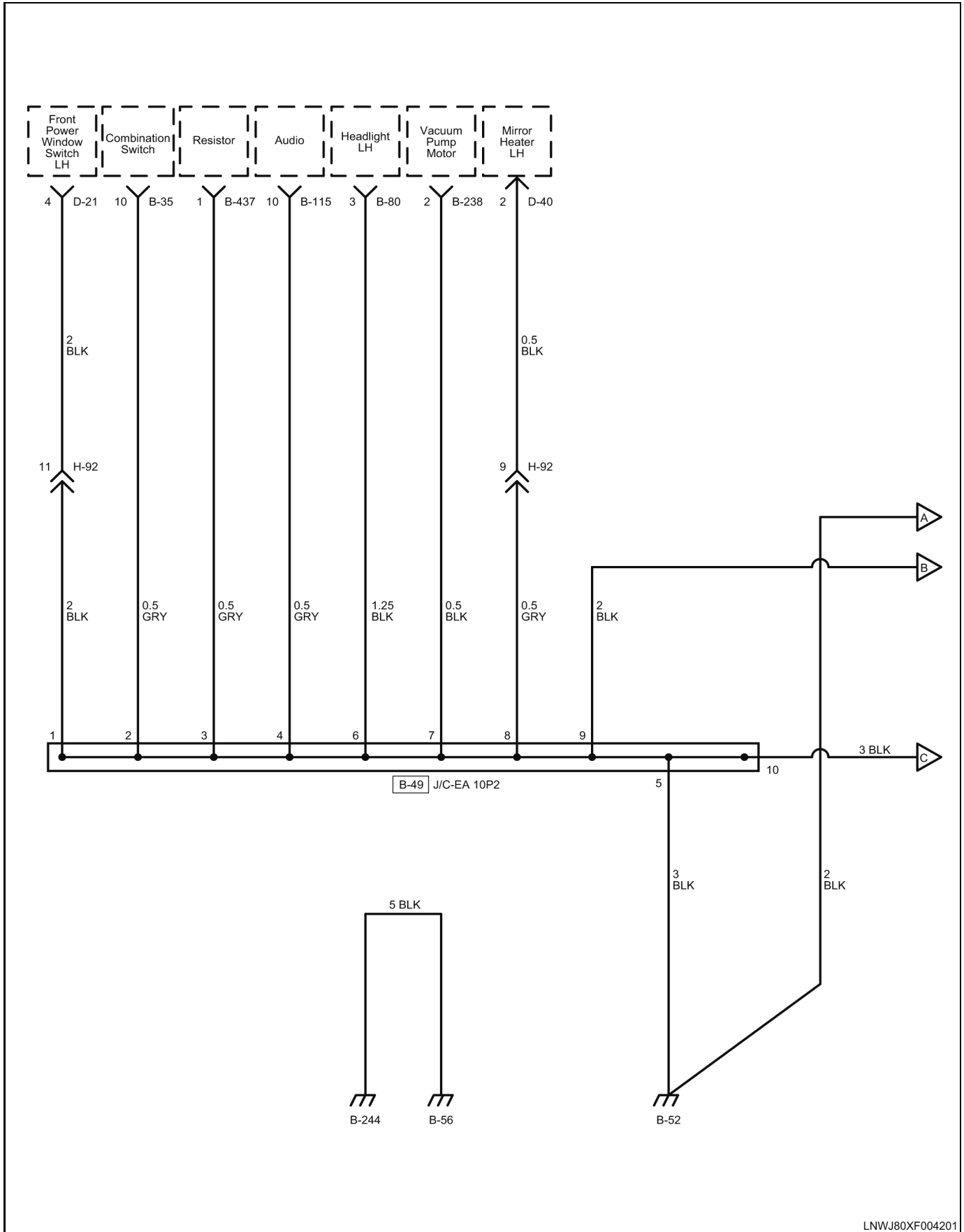
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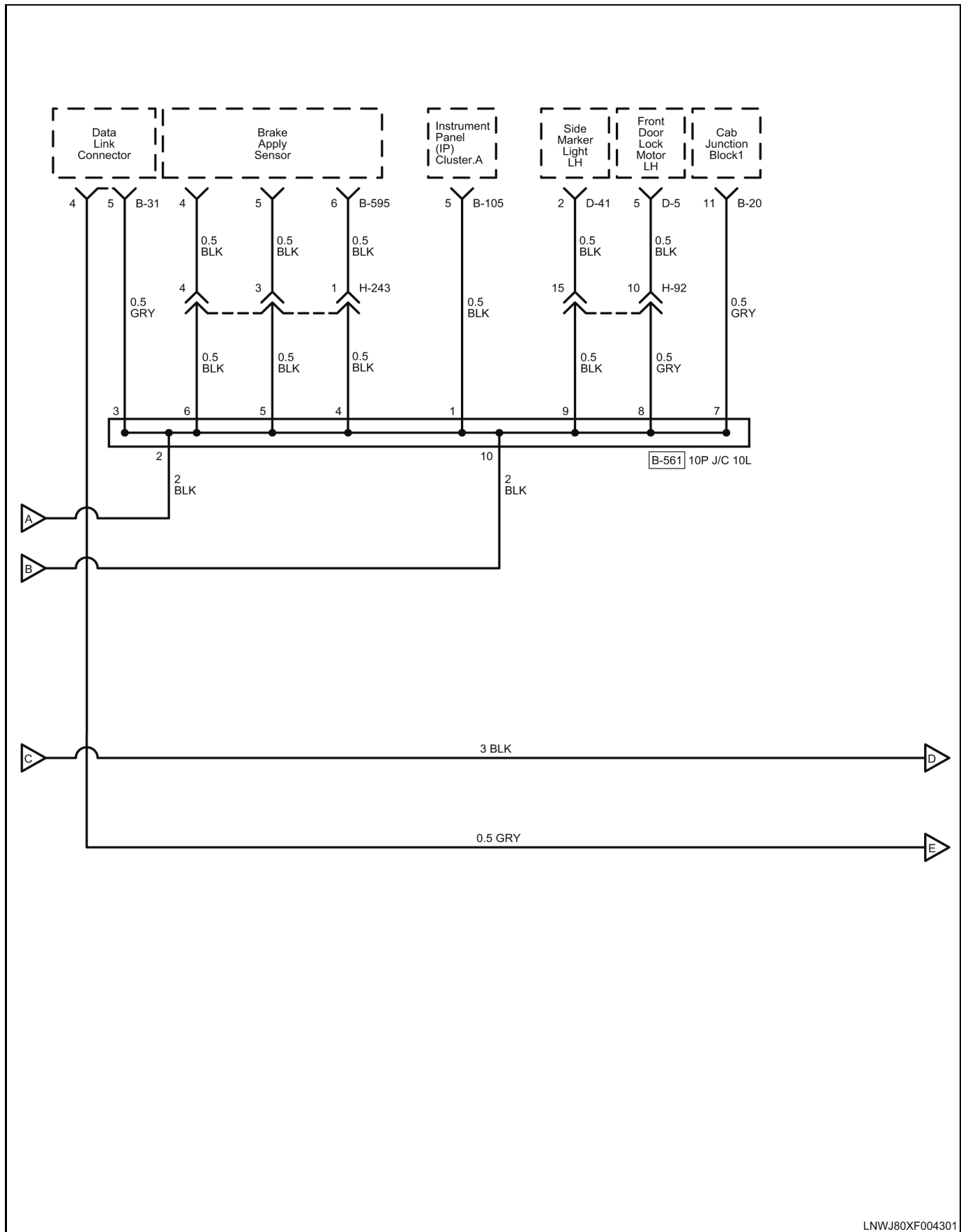
4957033

# Ground Distribution Schematics



LNWJ80XF004201

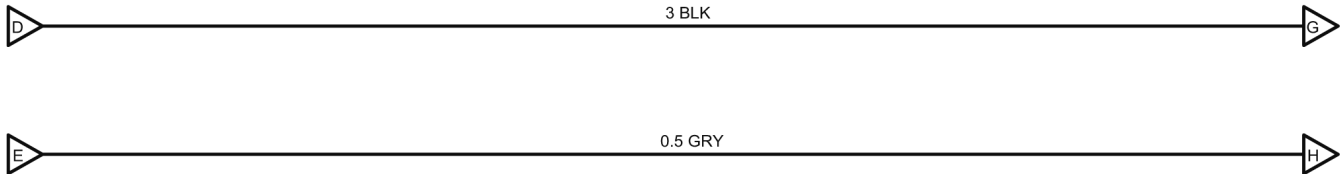
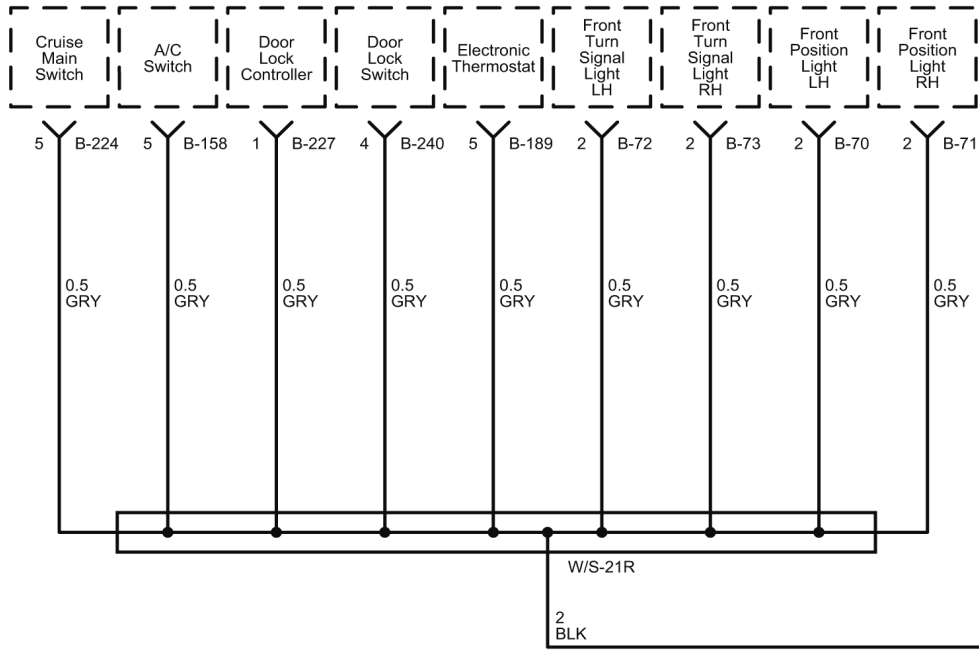
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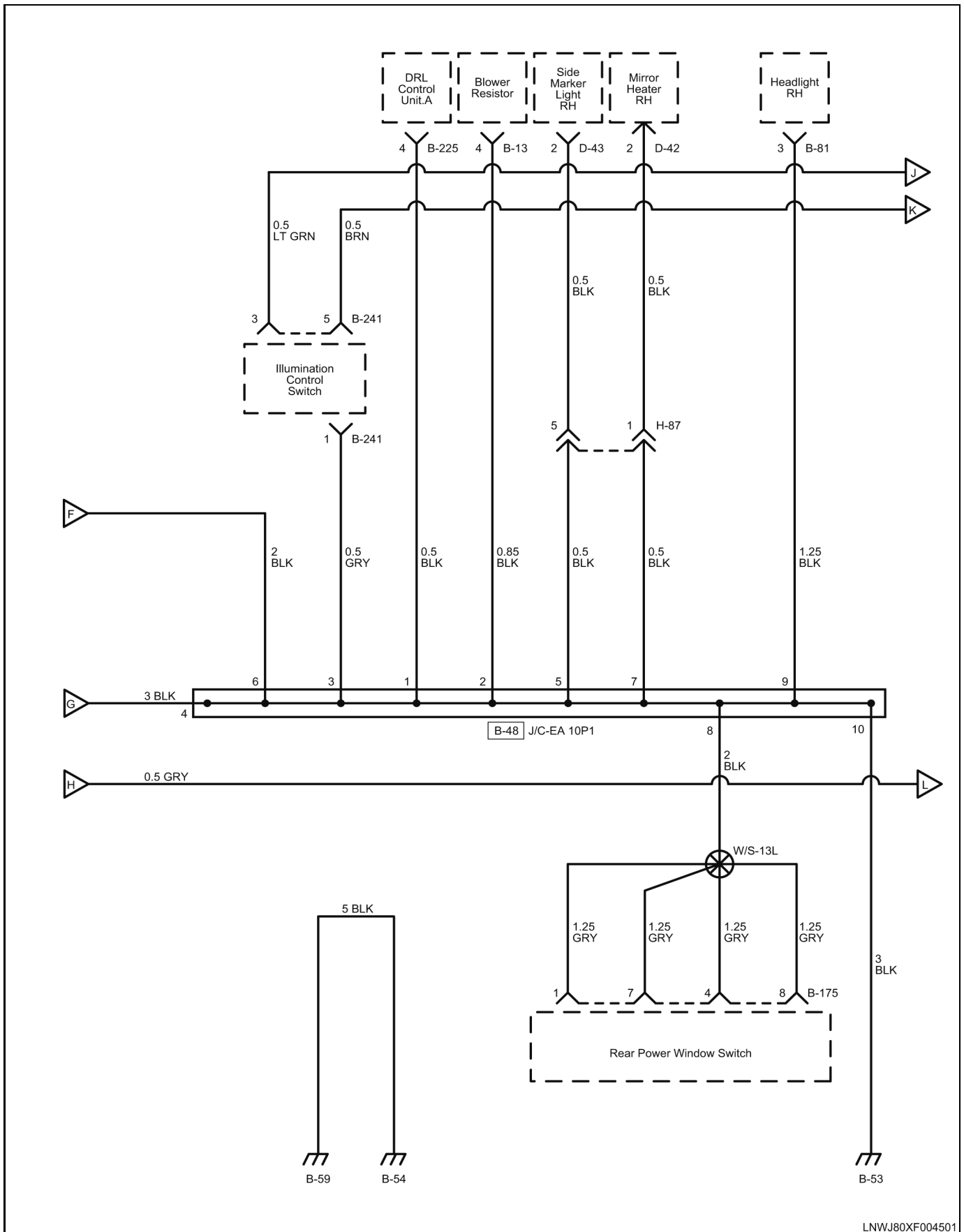
4956657

# 5-14 Cab and Chassis Electrical



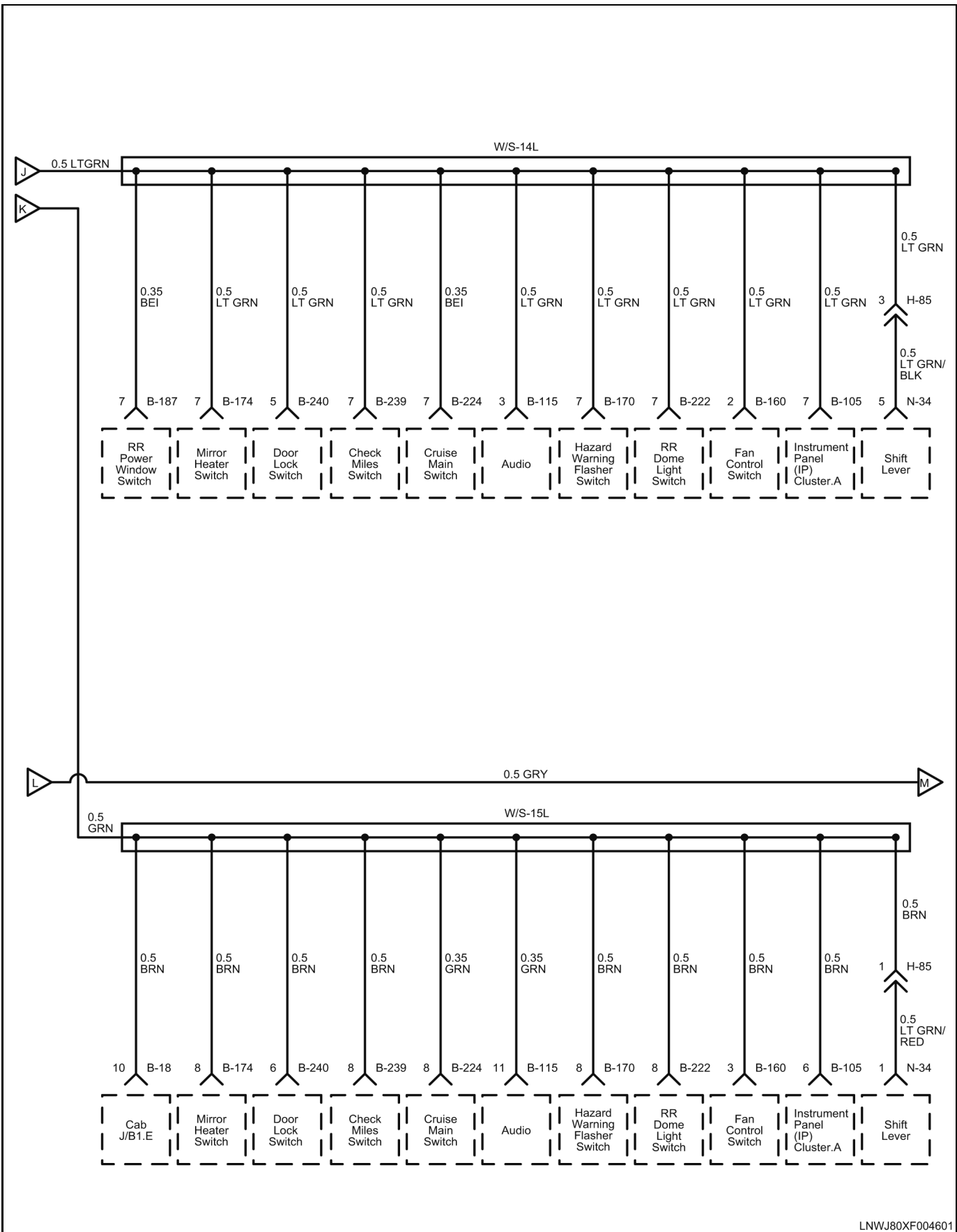
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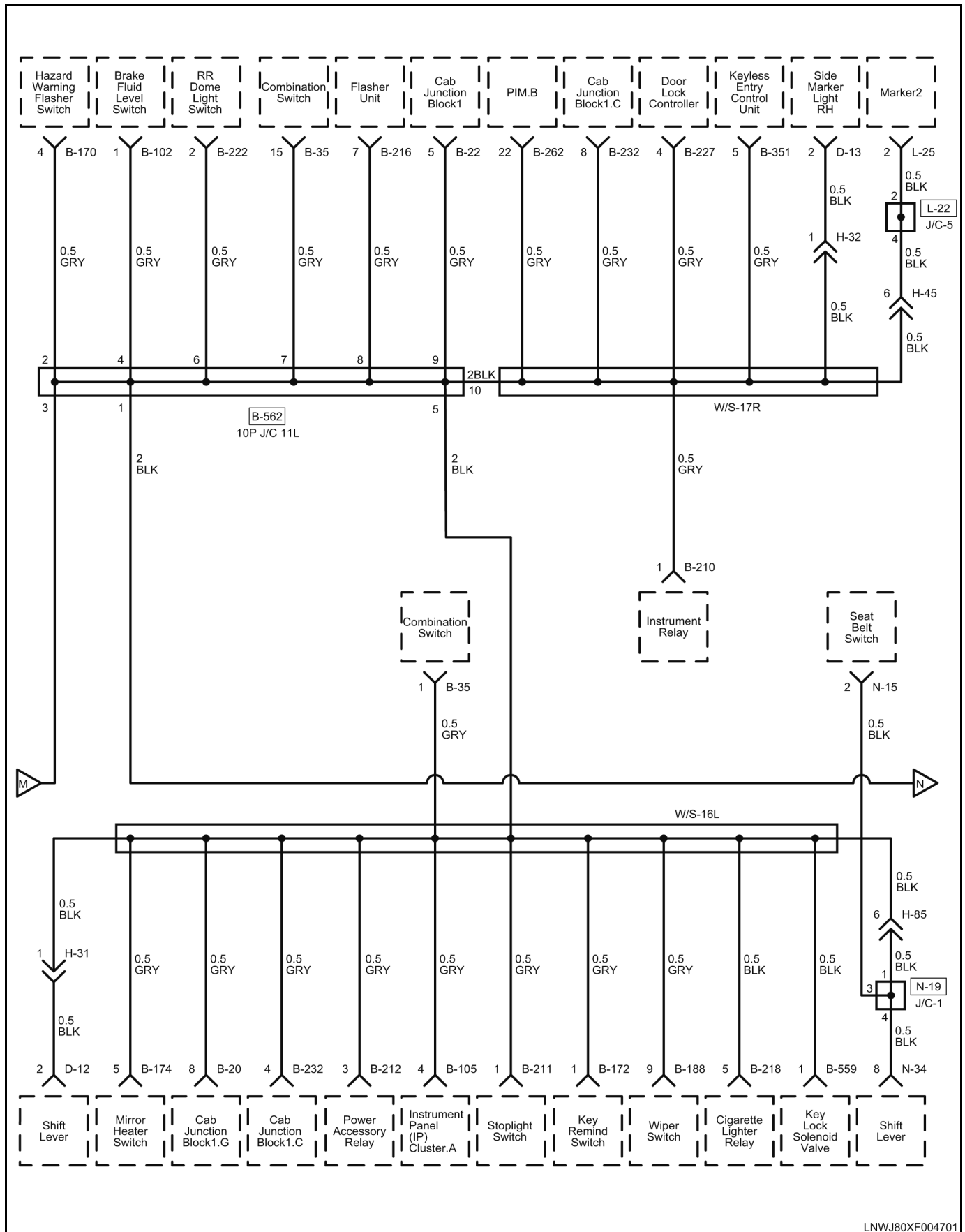
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5-16 Cab and Chassis Electrical



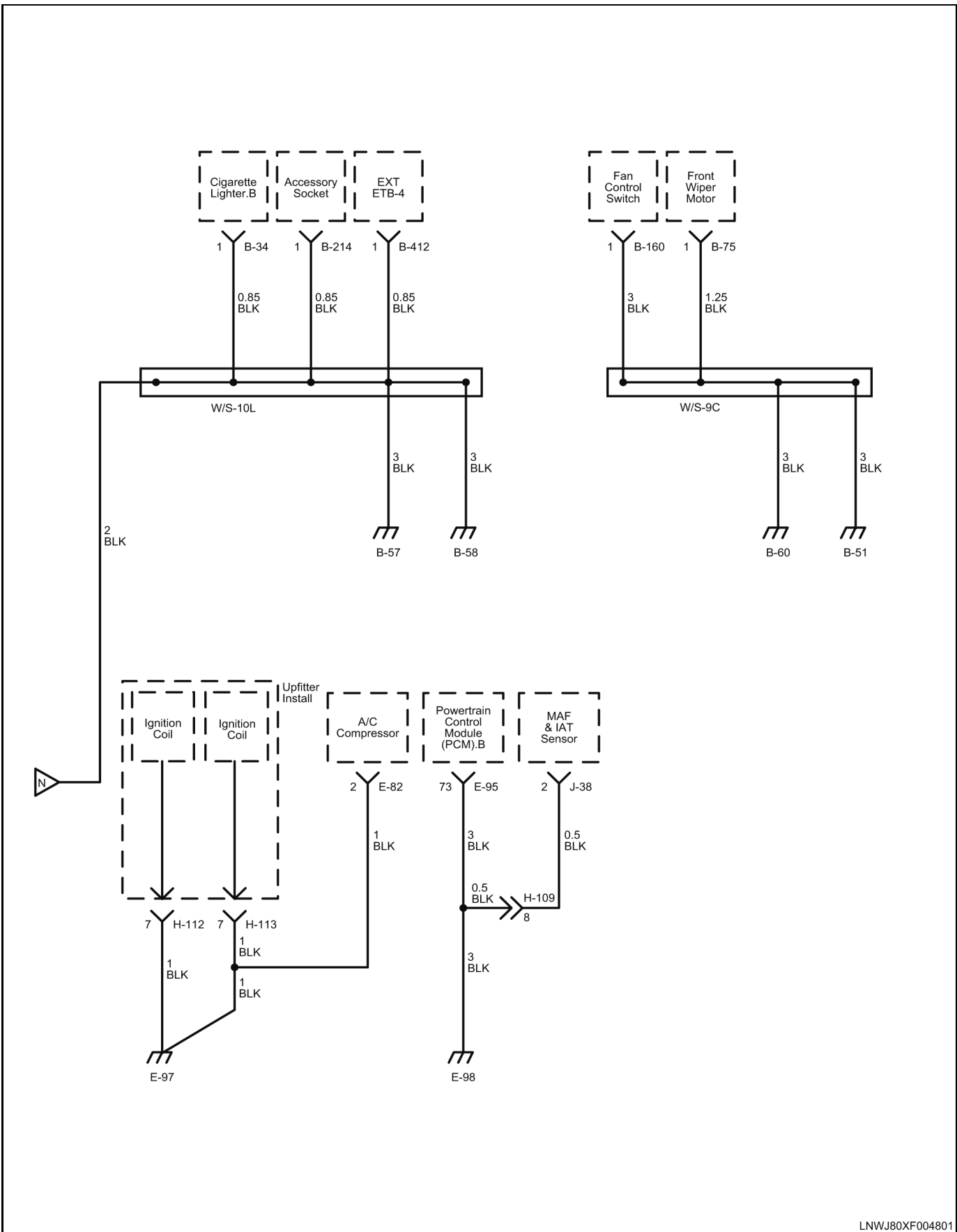
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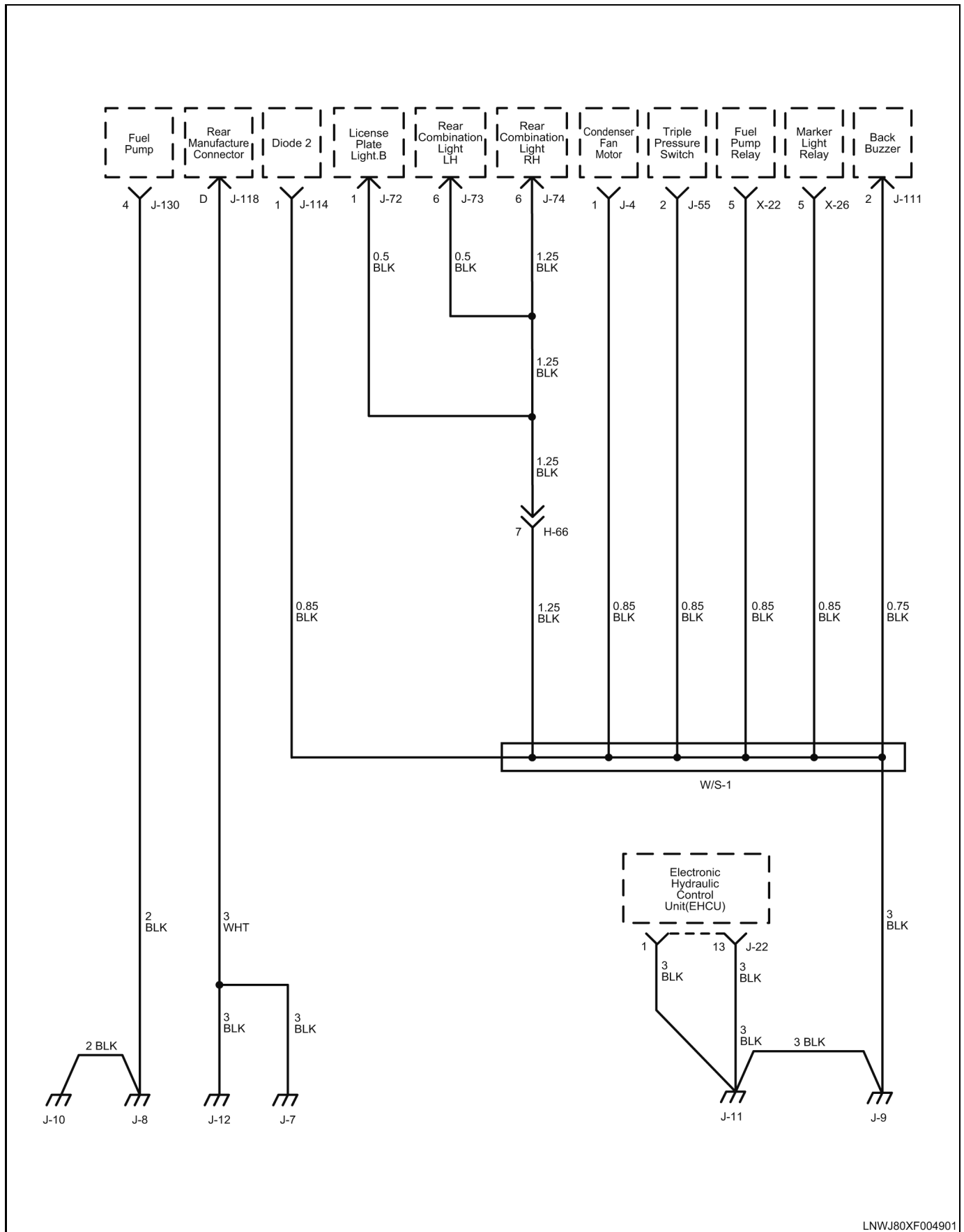
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# 5-18 Cab and Chassis Electrical



LNWJ80XF004801

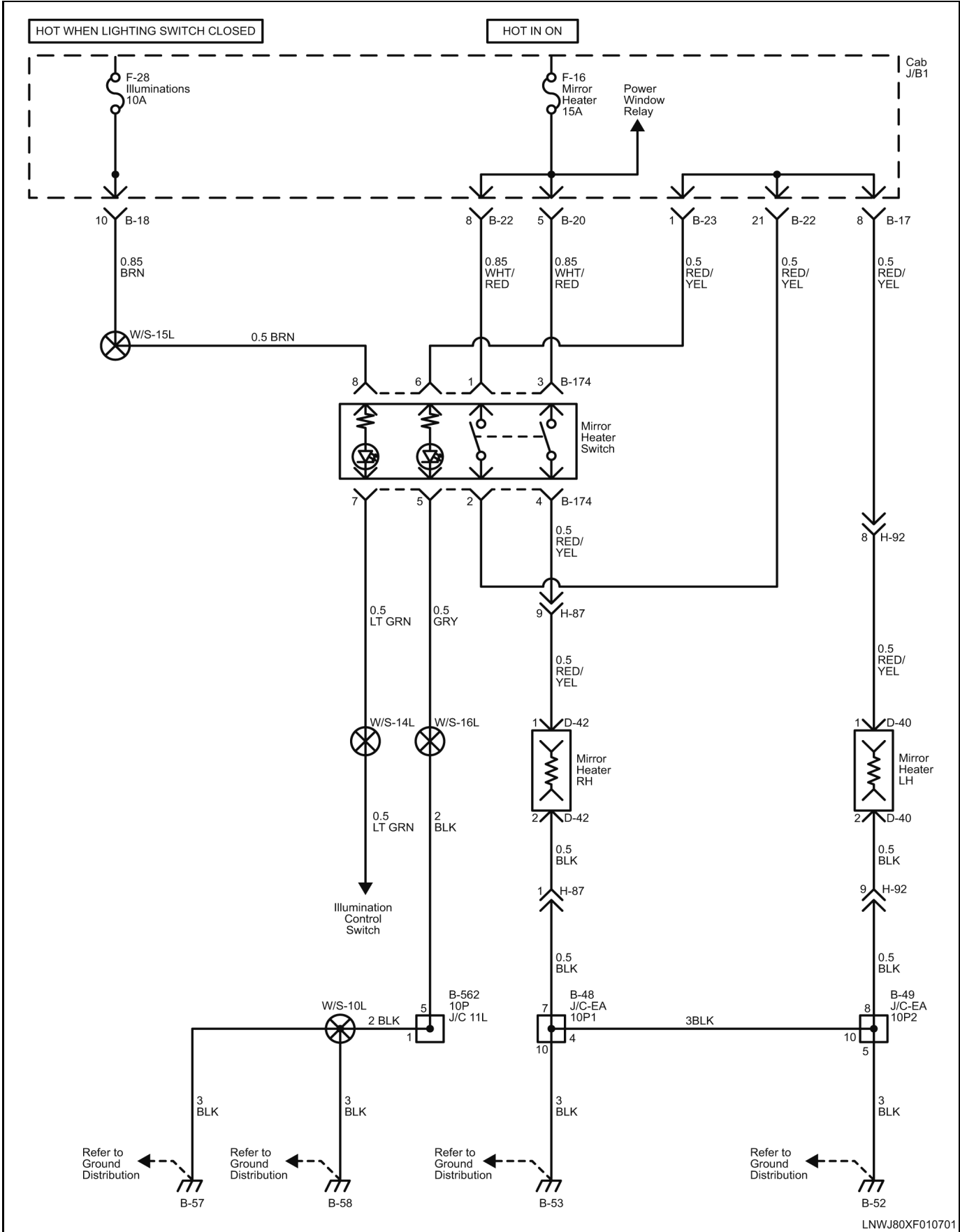
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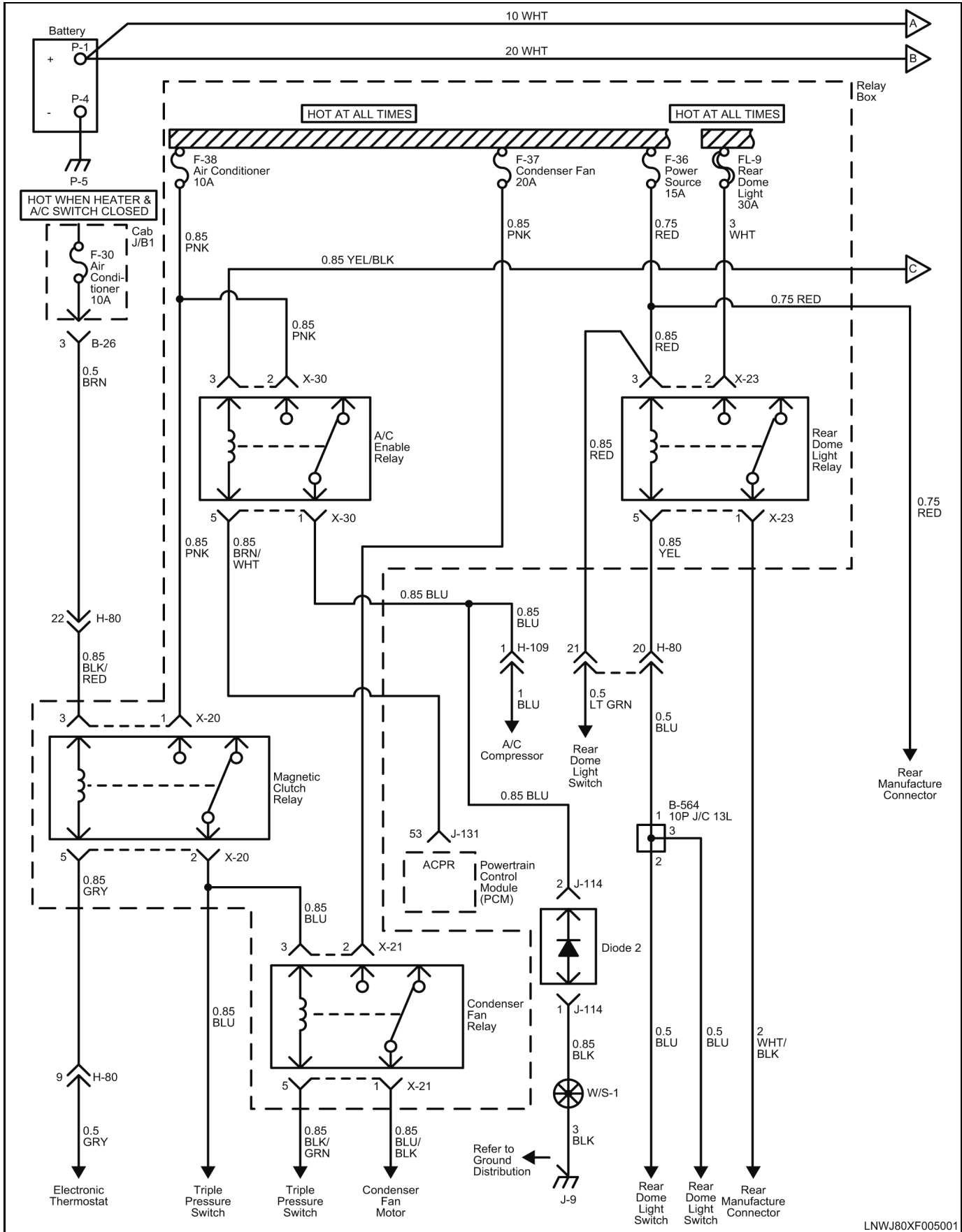
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Heated Mirror Schematics



4957923

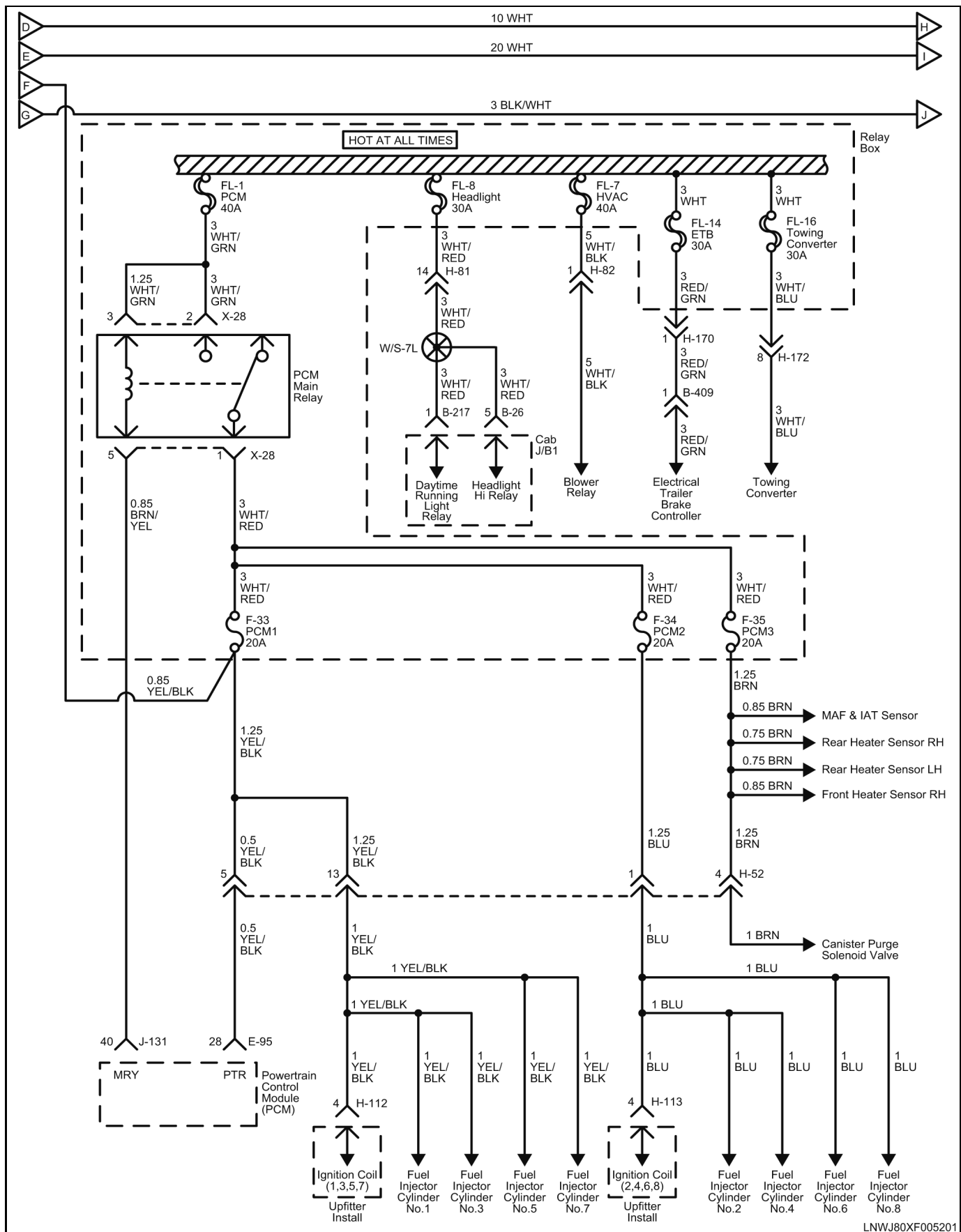
Power Distribution Schematics (Chassis)



LNWJ80XF005001

4956883

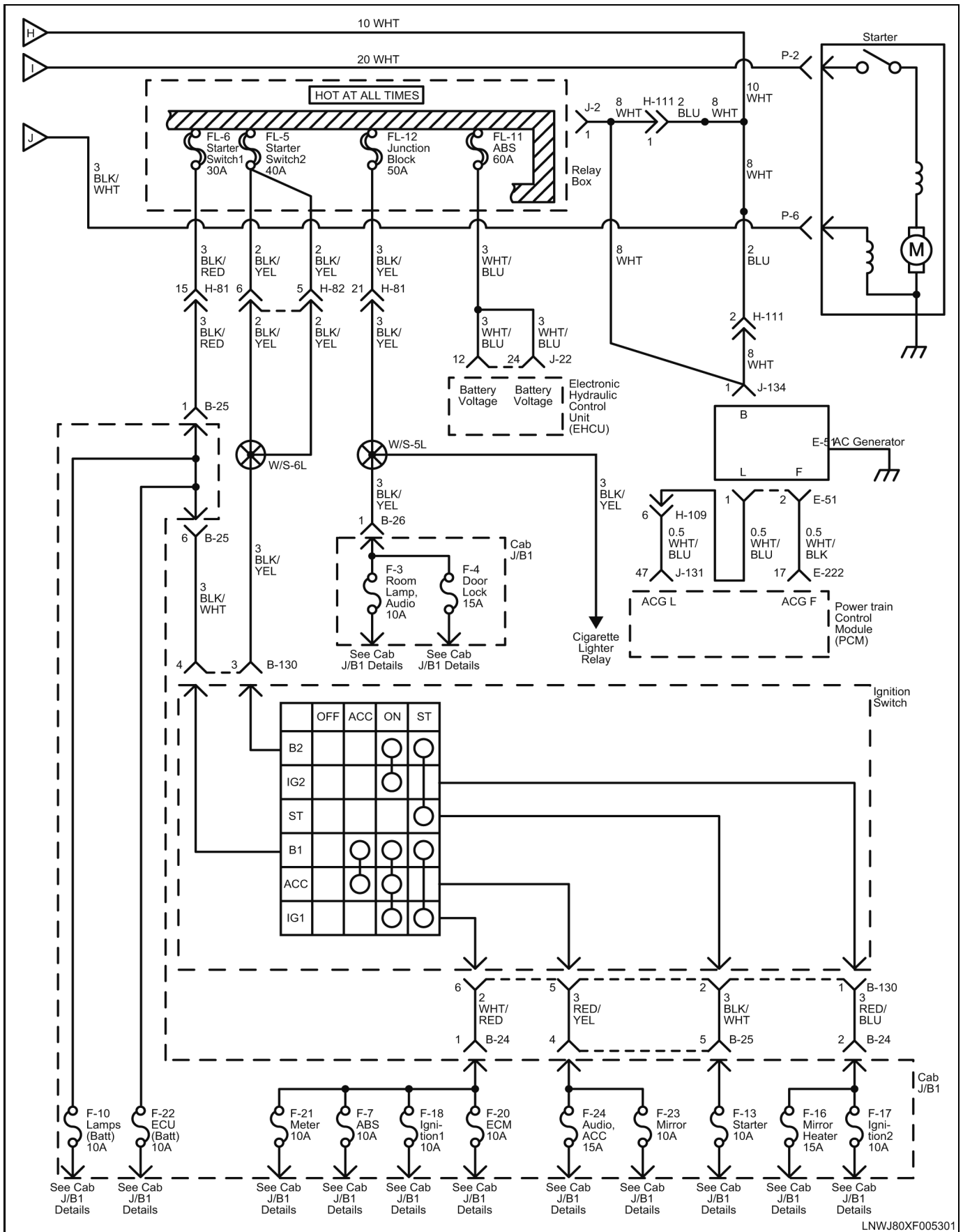




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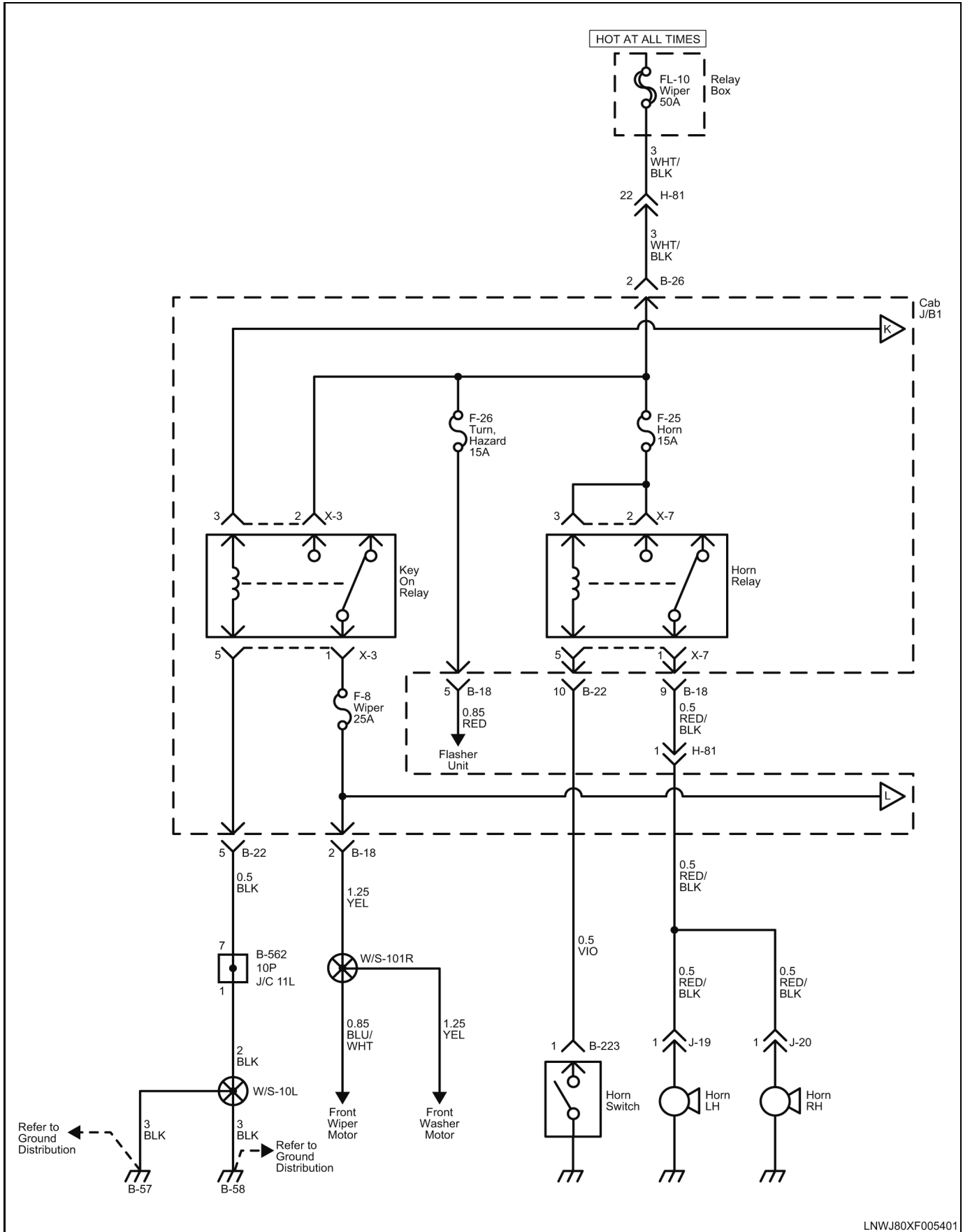
5-24 Cab and Chassis Electrical



LNWJ80XF005301  
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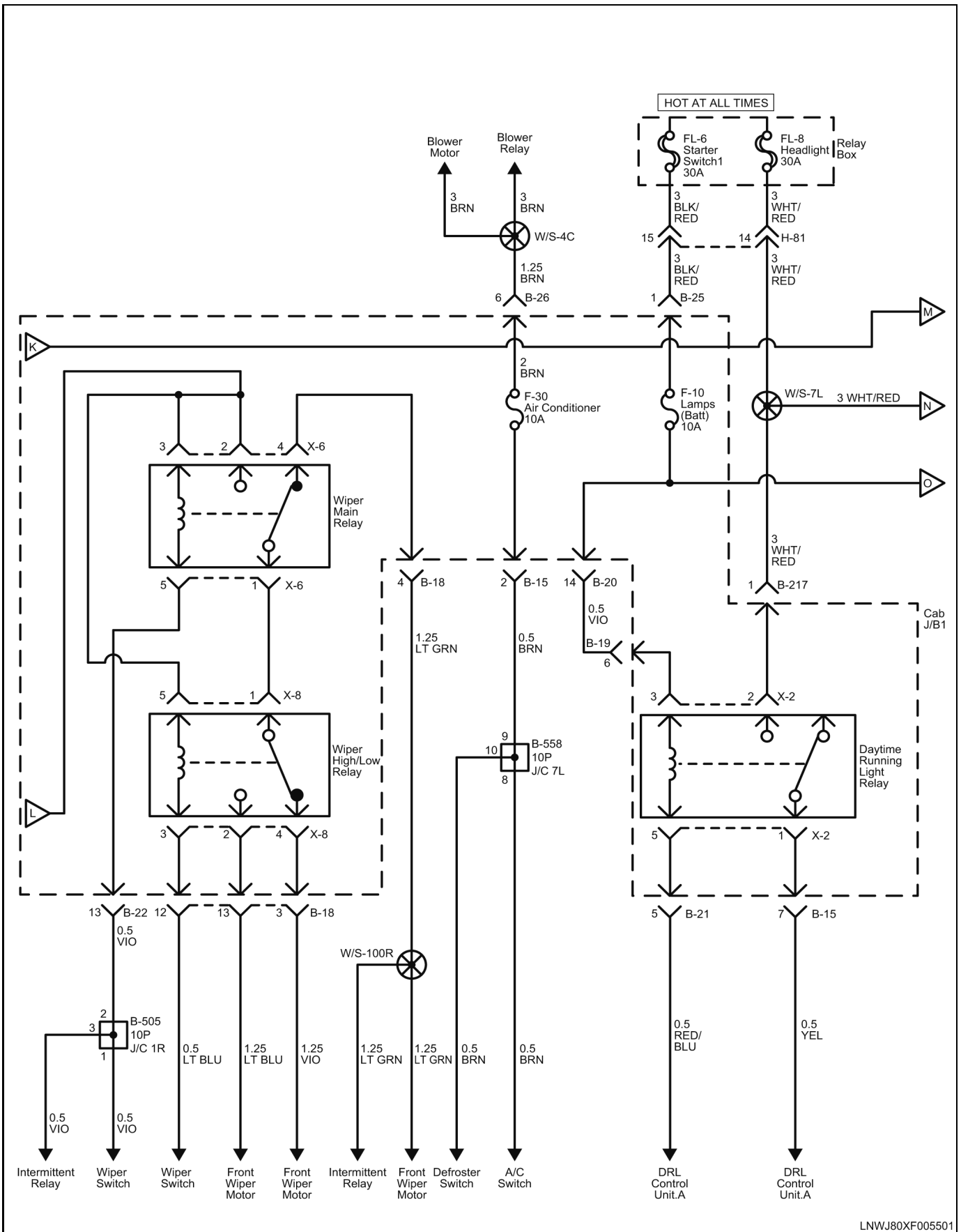
Power Distribution Schematics (Cab)



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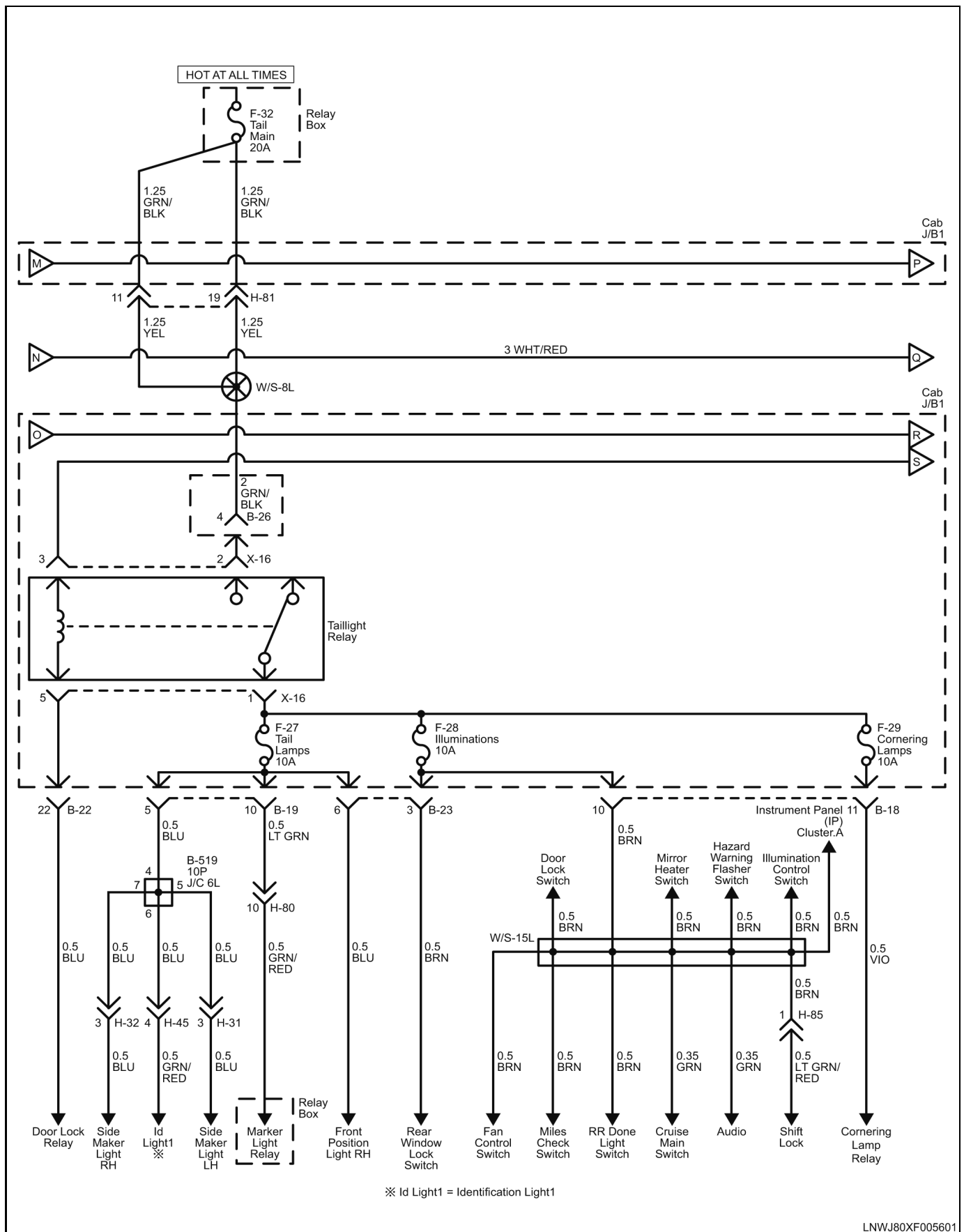
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5-26 Cab and Chassis Electrical



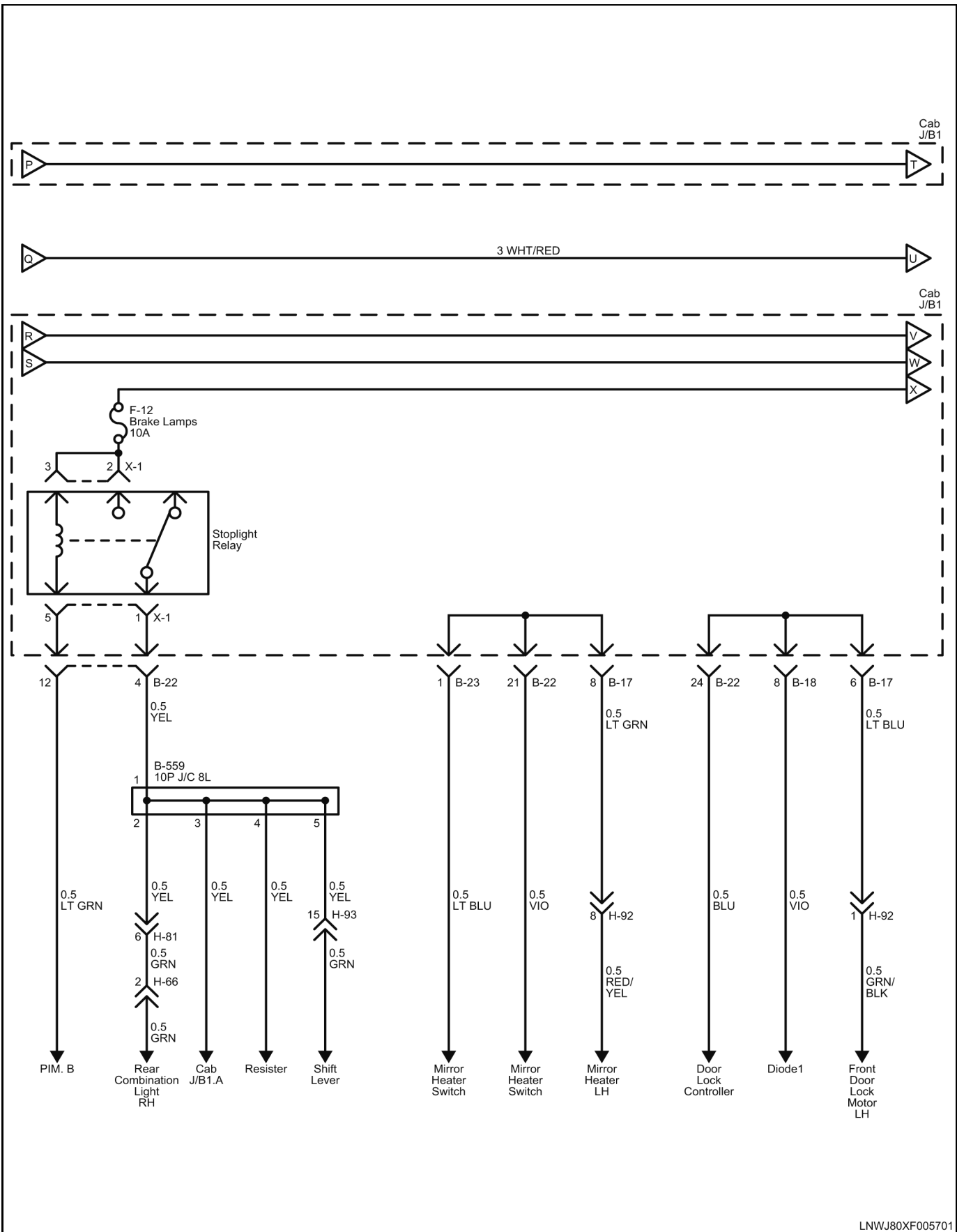
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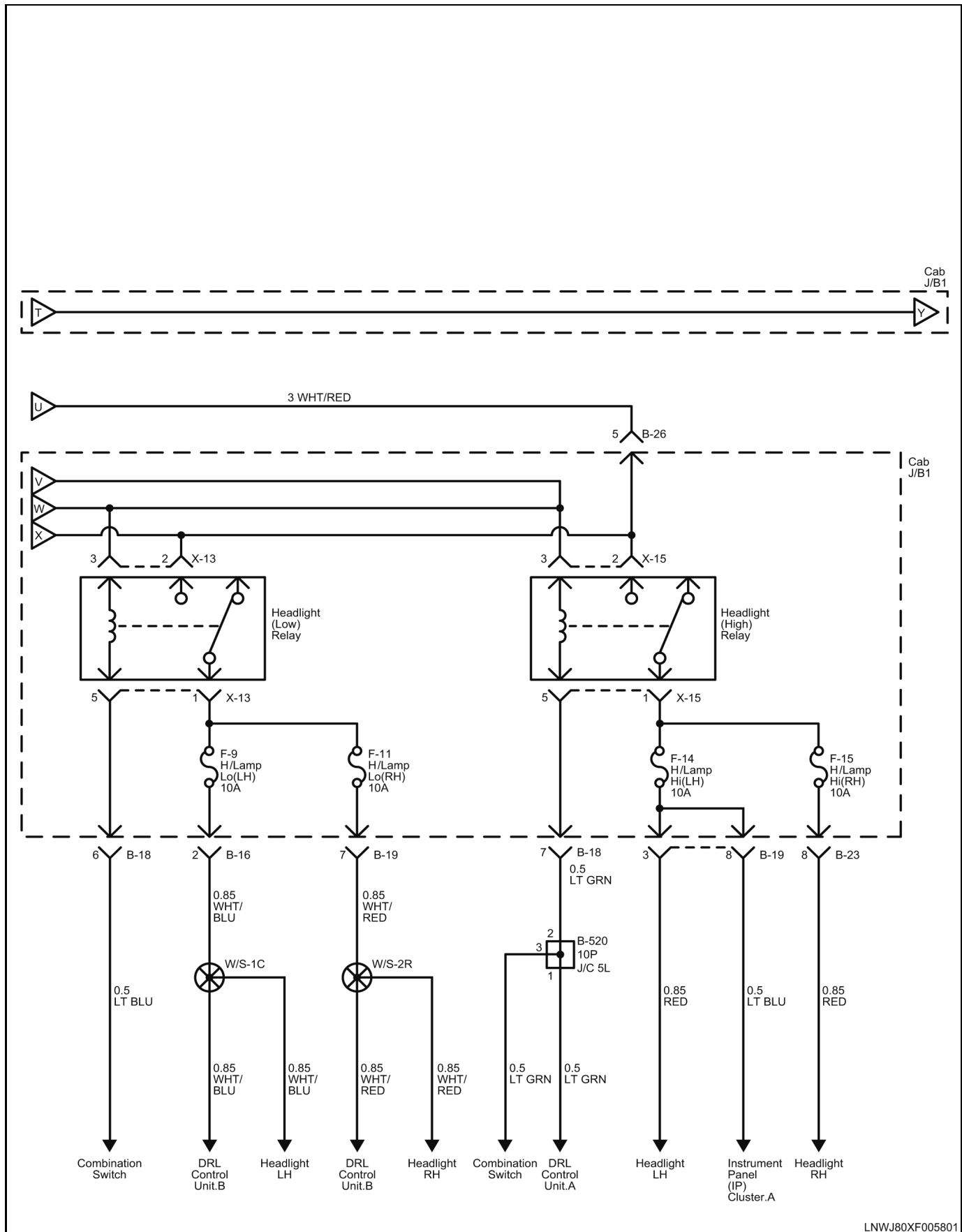
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5-28 Cab and Chassis Electrical



LNWJ80XF005701

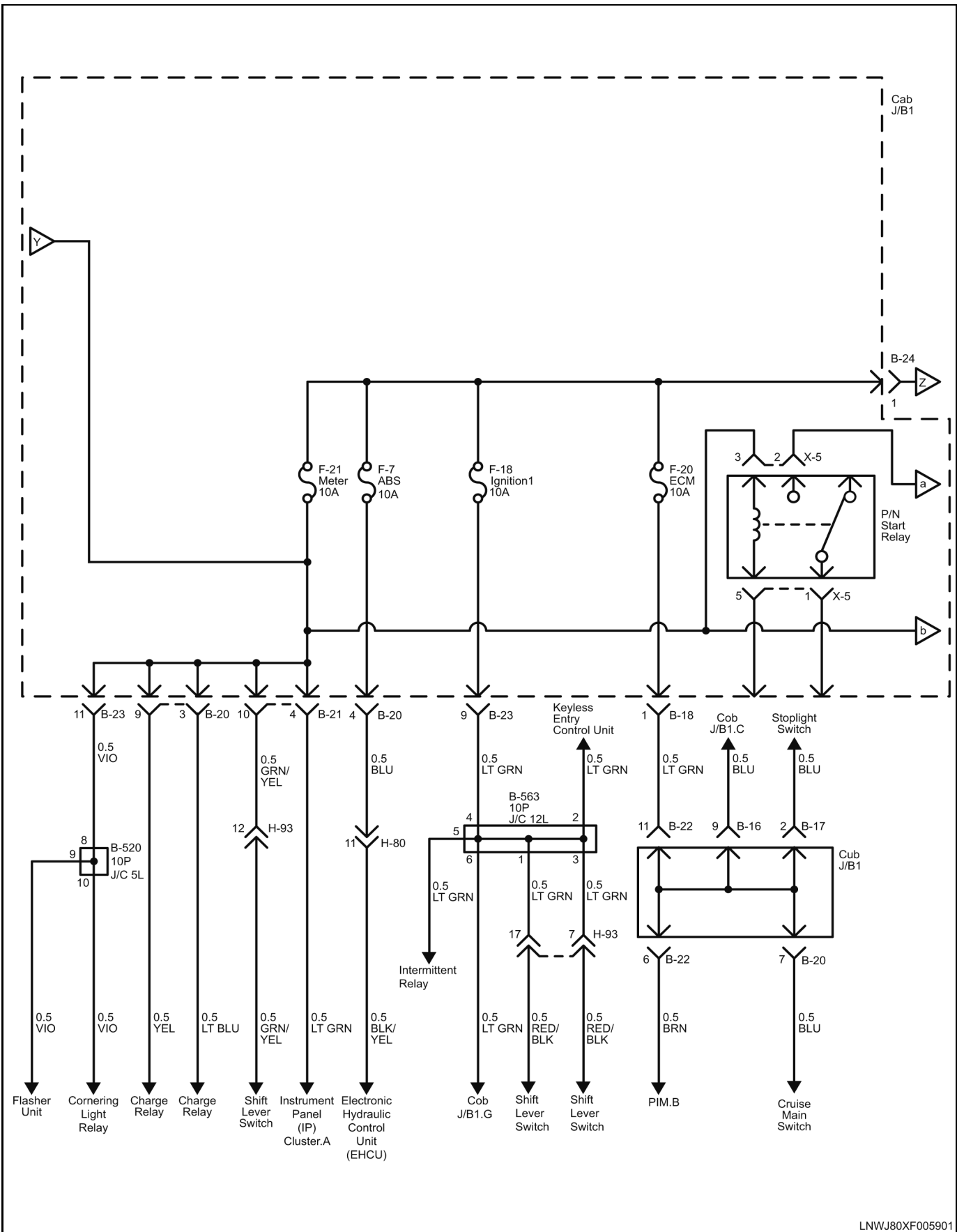
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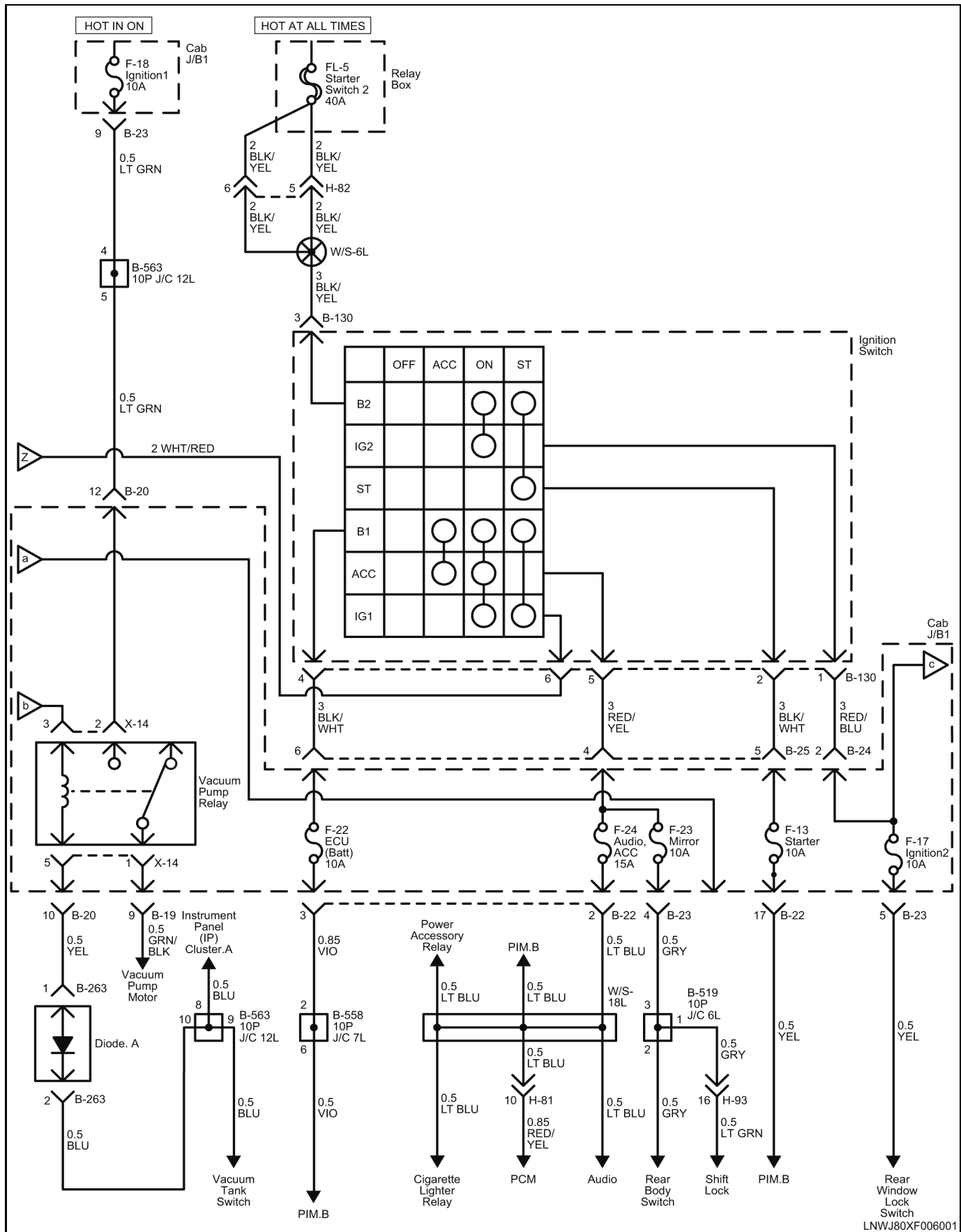
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5-30 Cab and Chassis Electrical

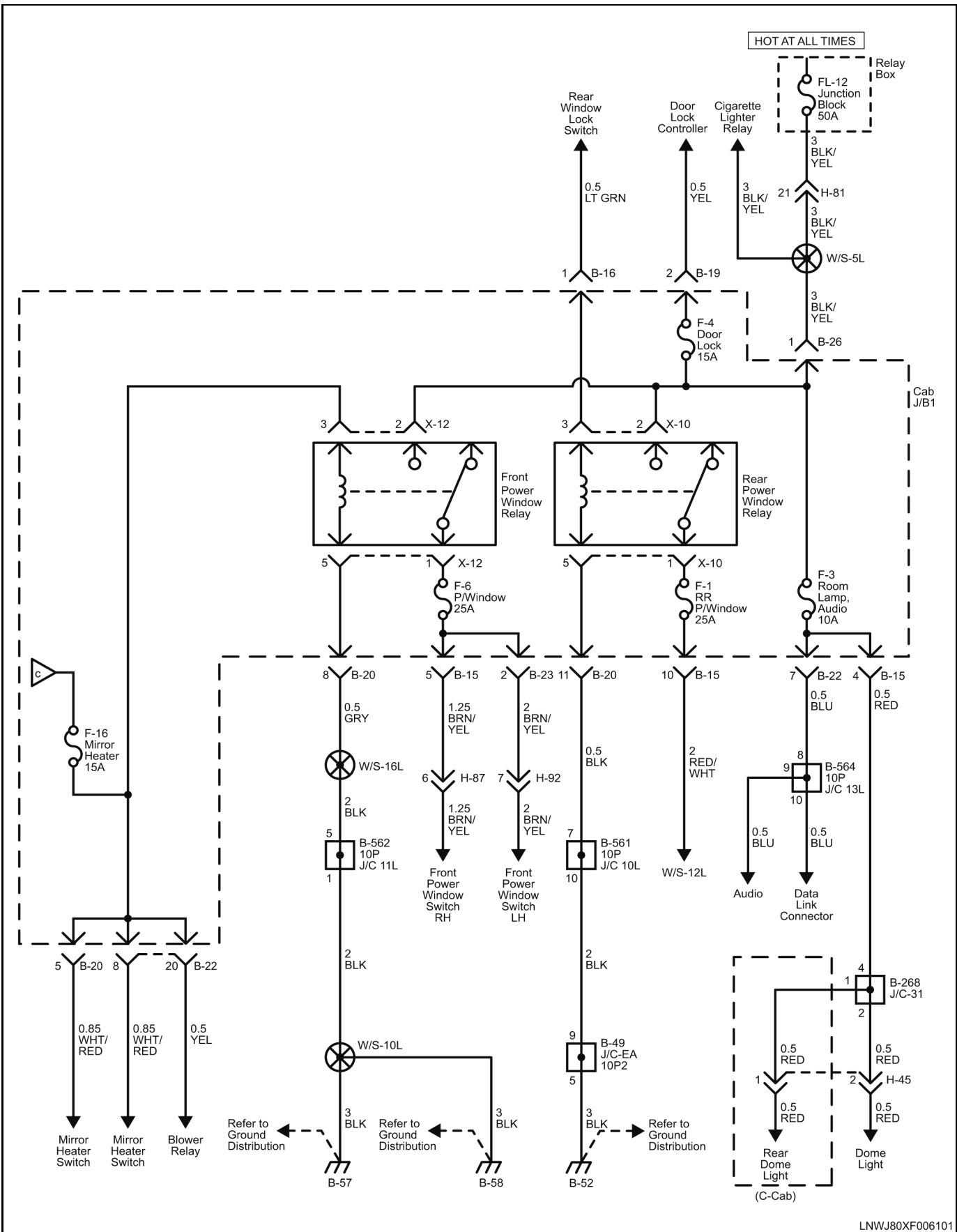


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LNWJ80XF006001  
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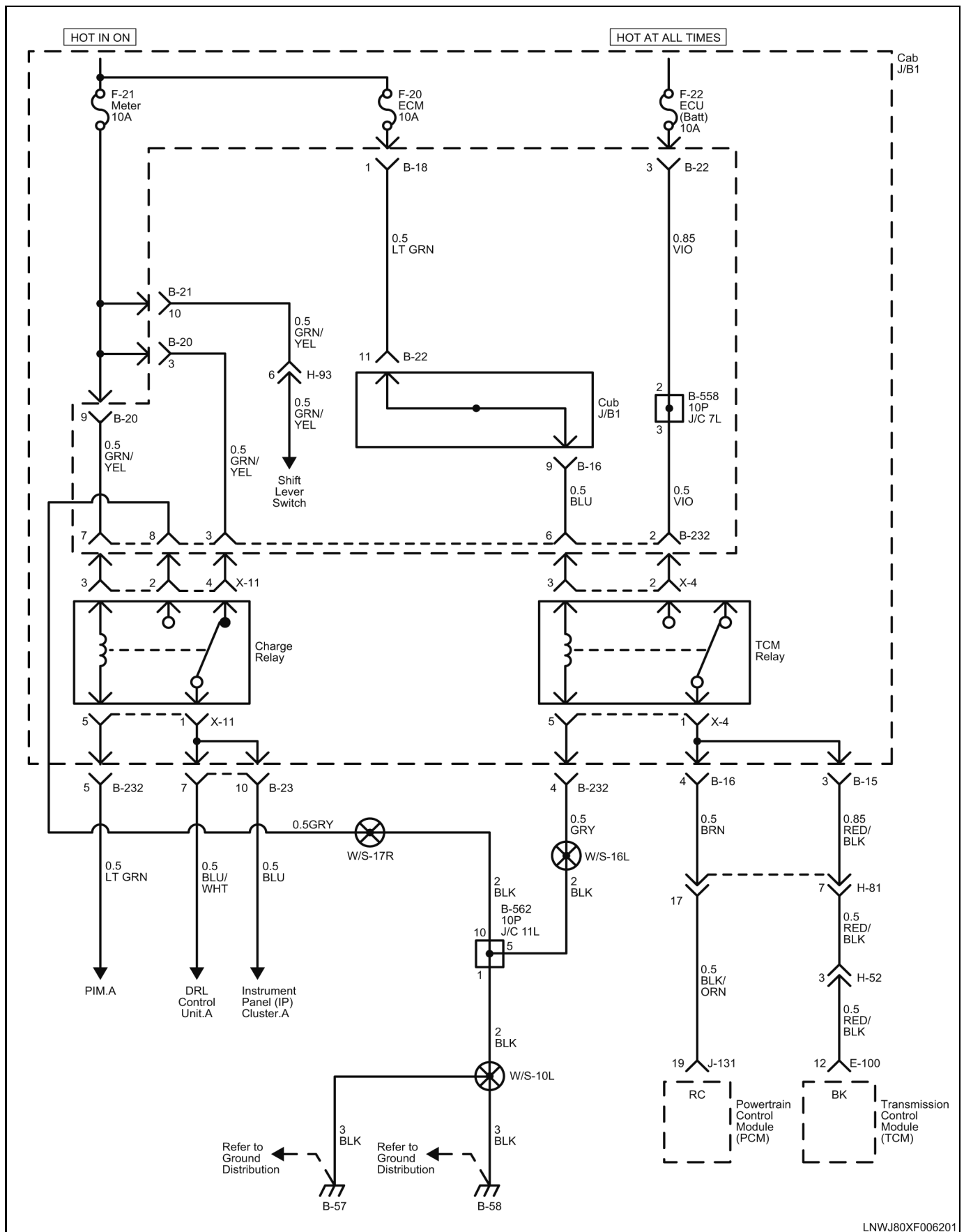
5-32 Cab and Chassis Electrical



LNWJ80XF006101

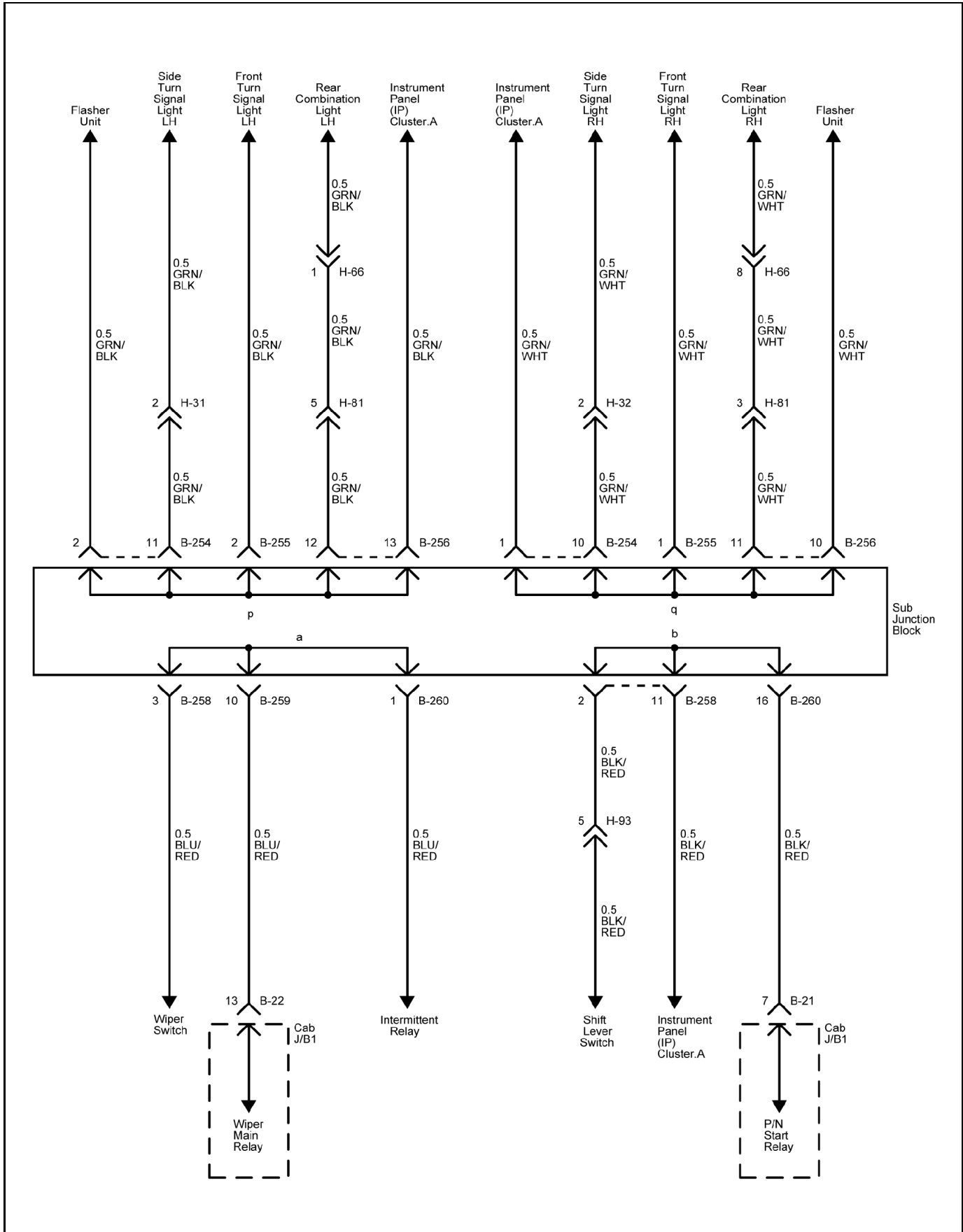
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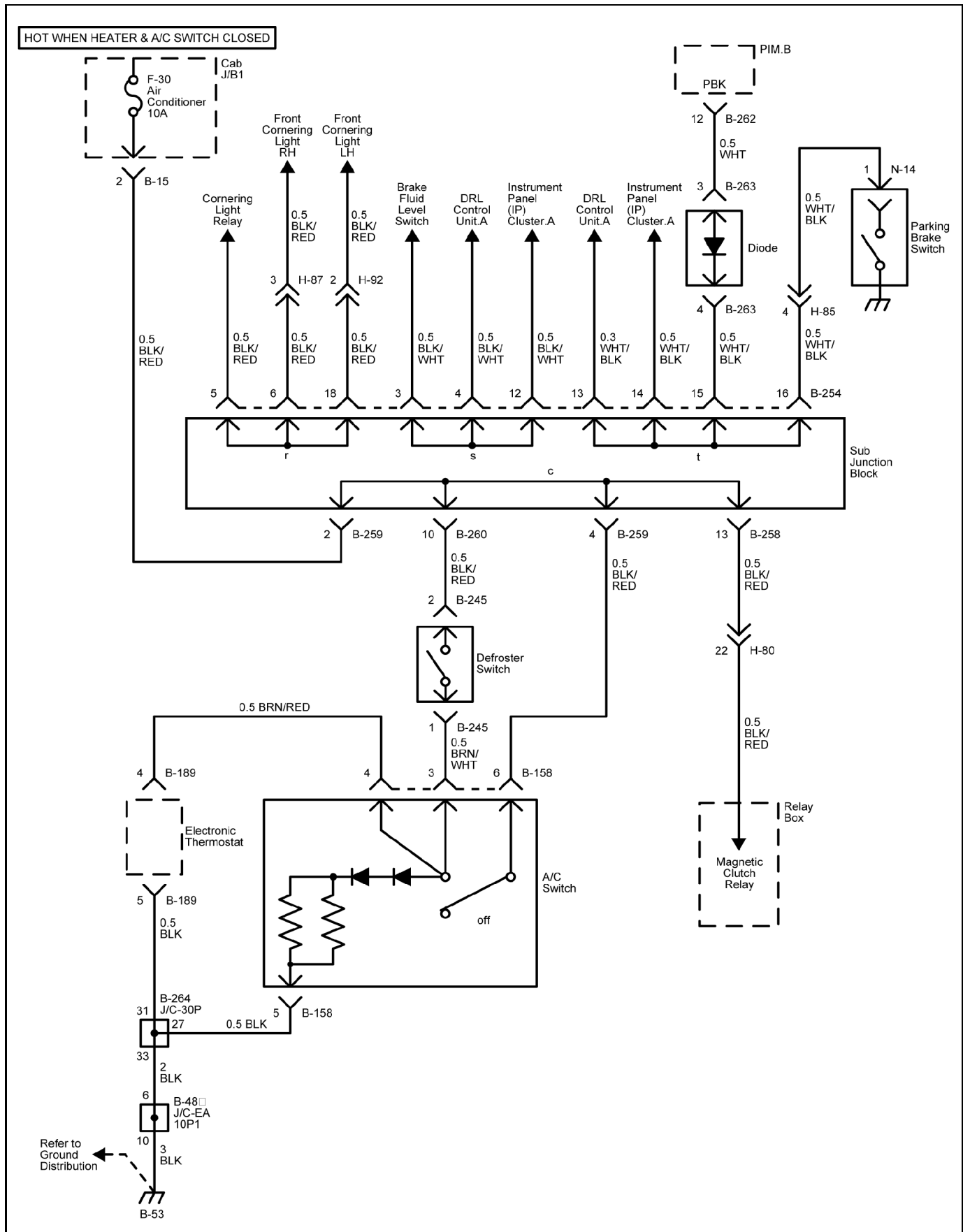




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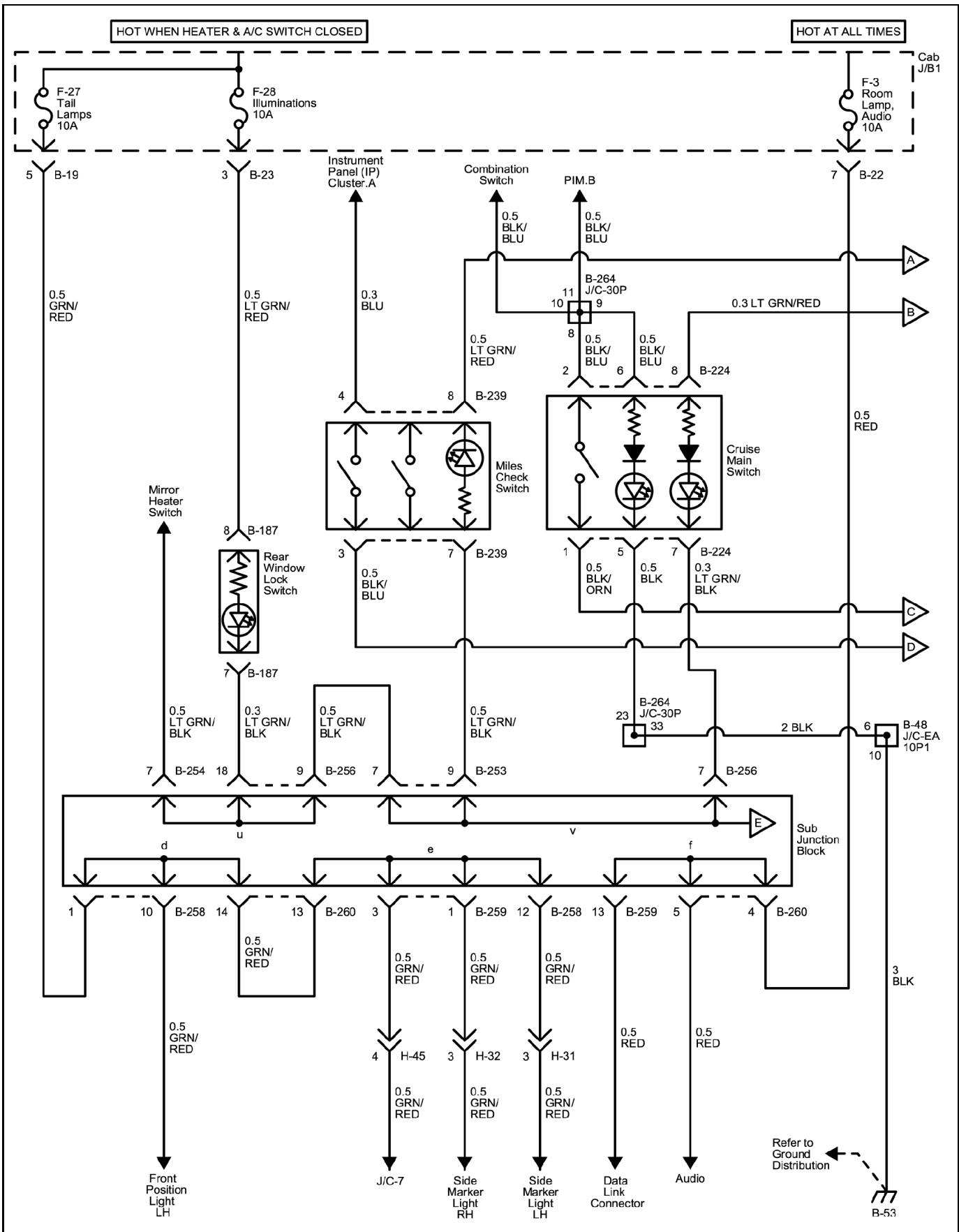
Sub Junction Block Schematics



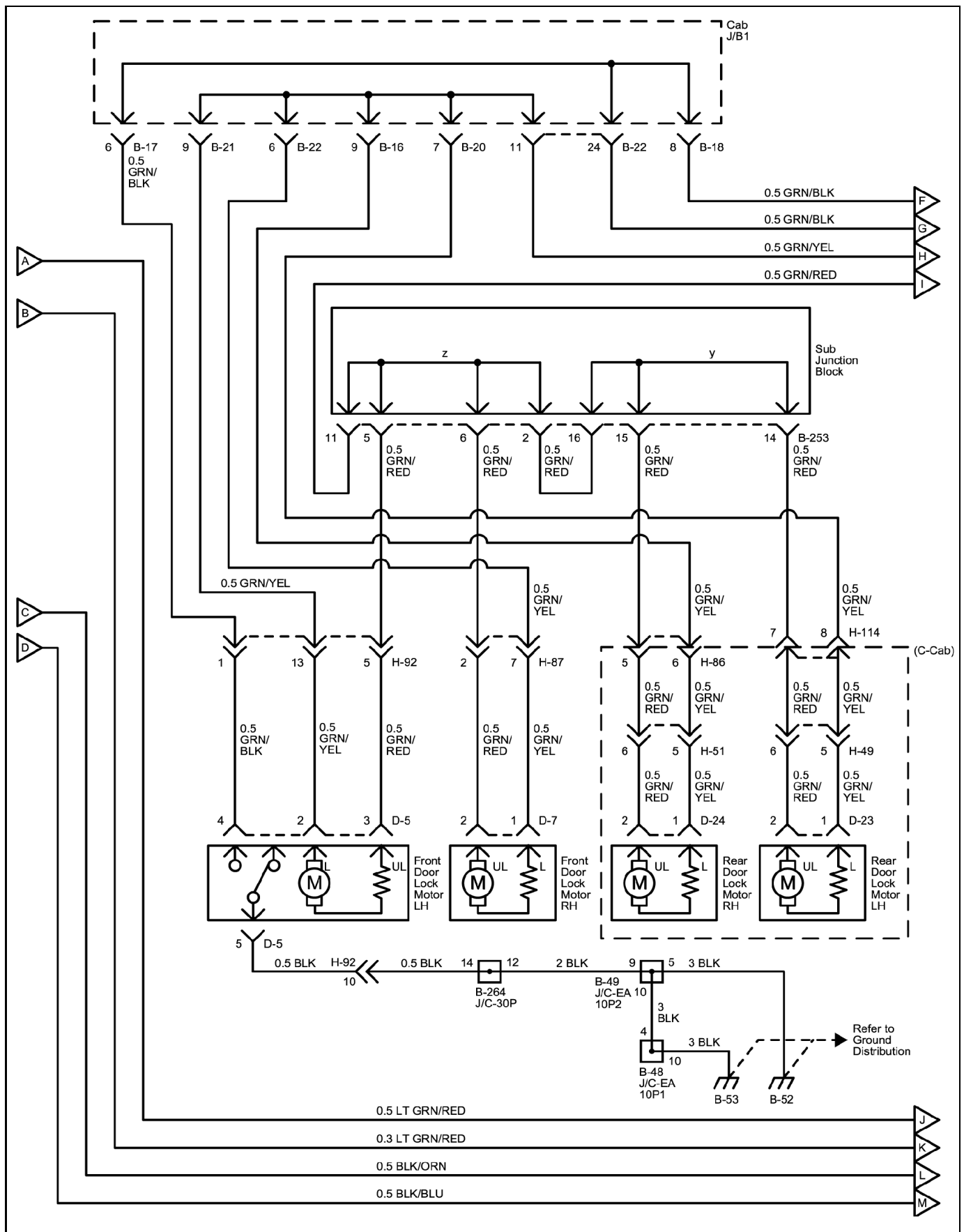


4557693

5-36 Cab and Chassis Electrical

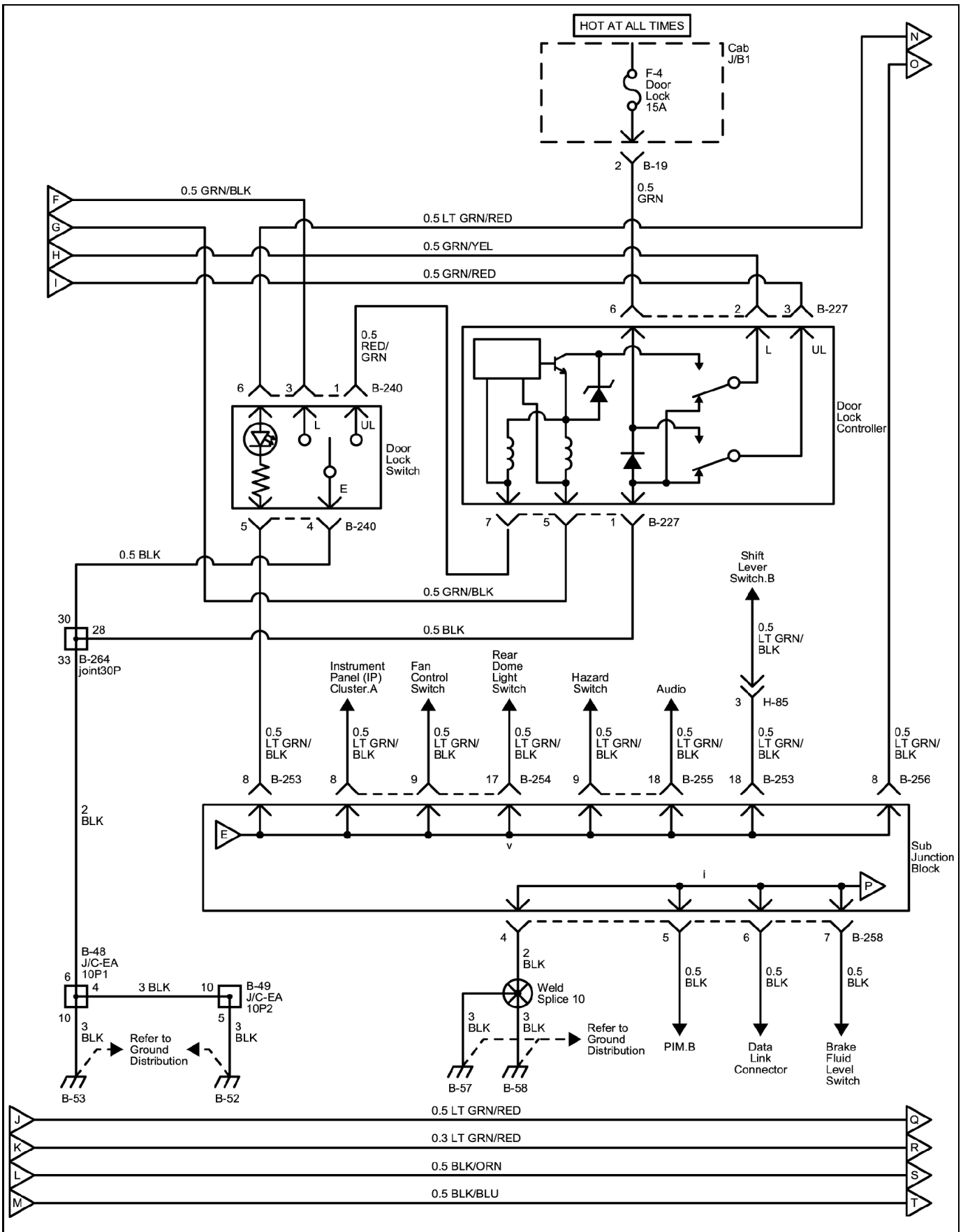


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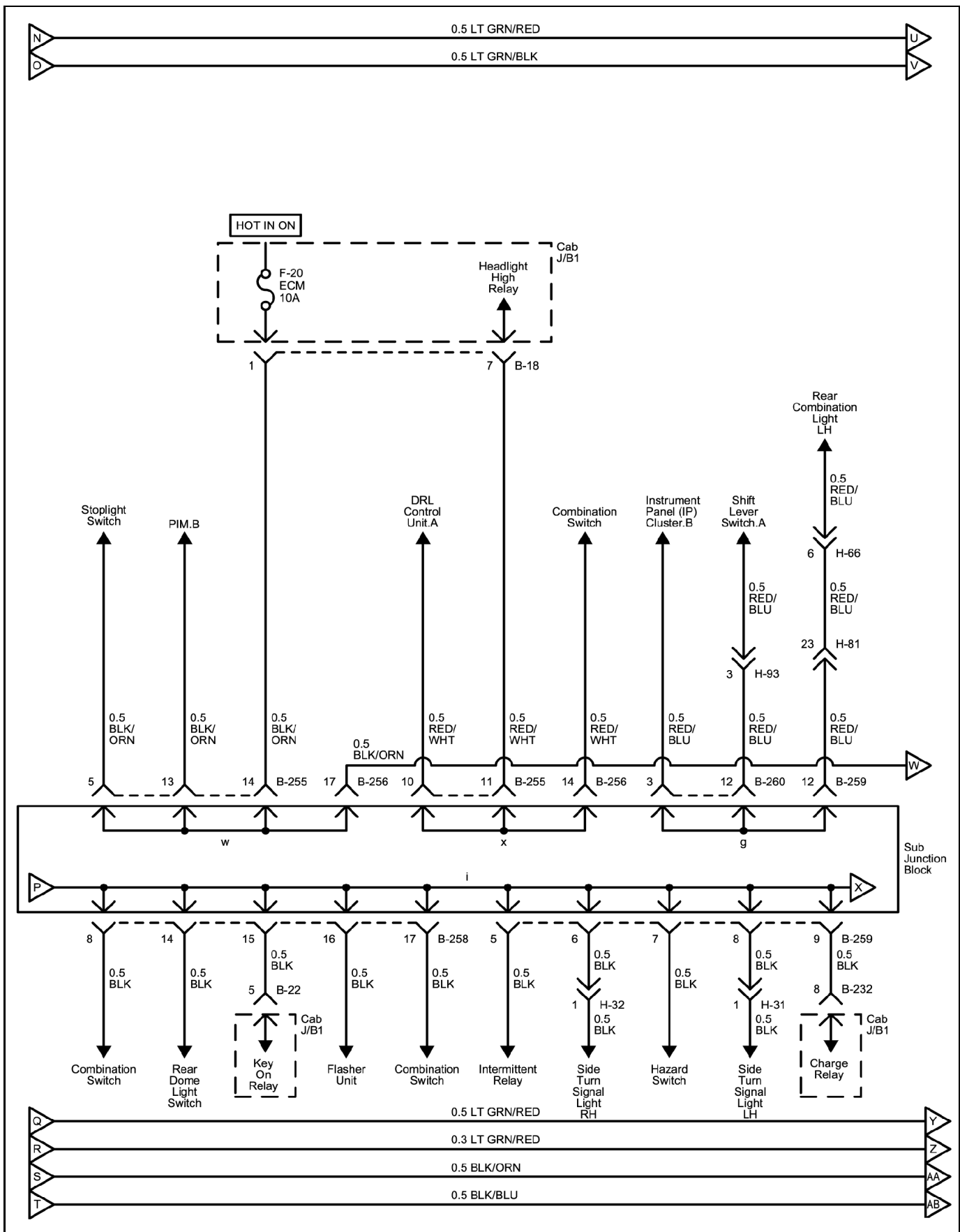


4557696

5-38 Cab and Chassis Electrical

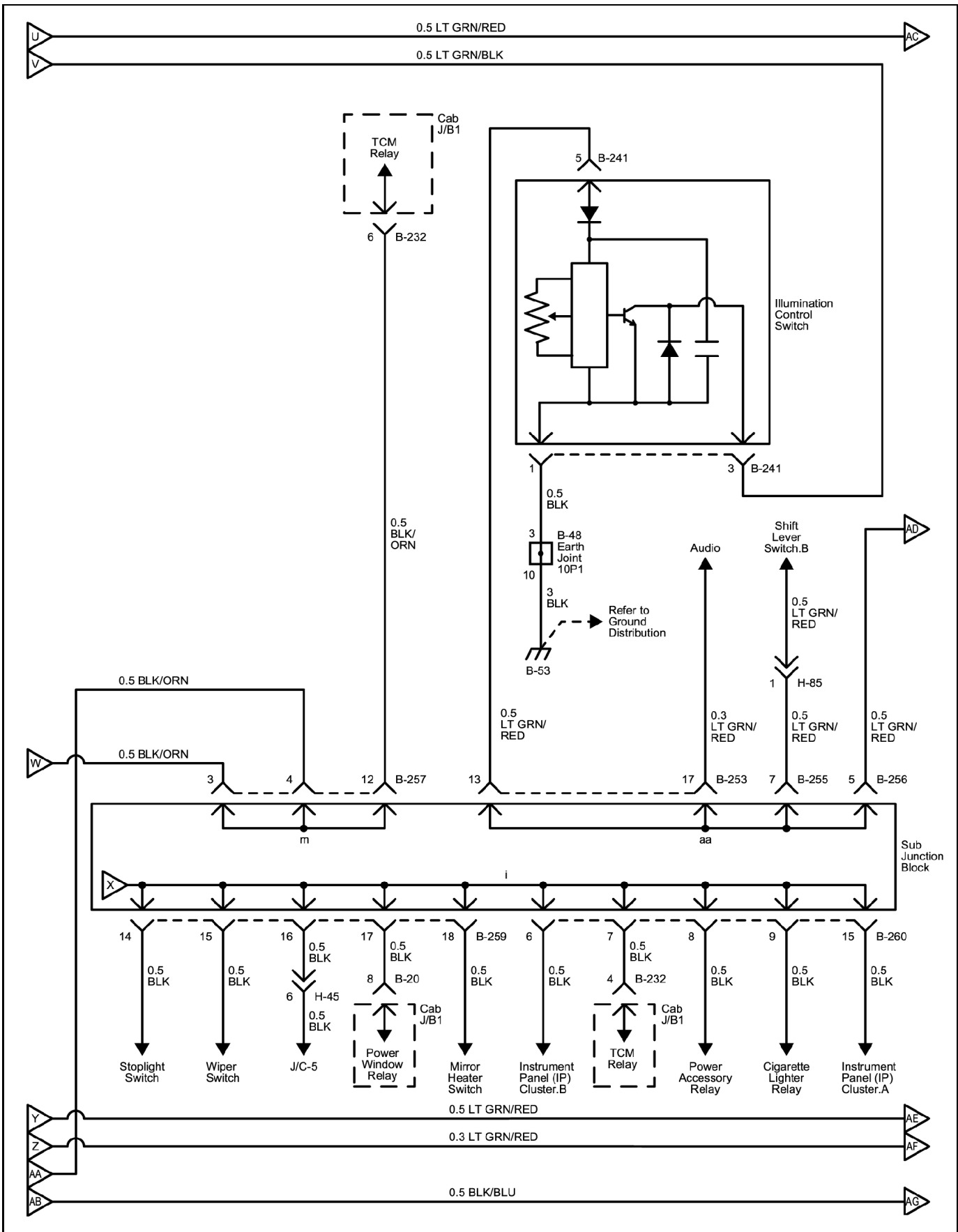


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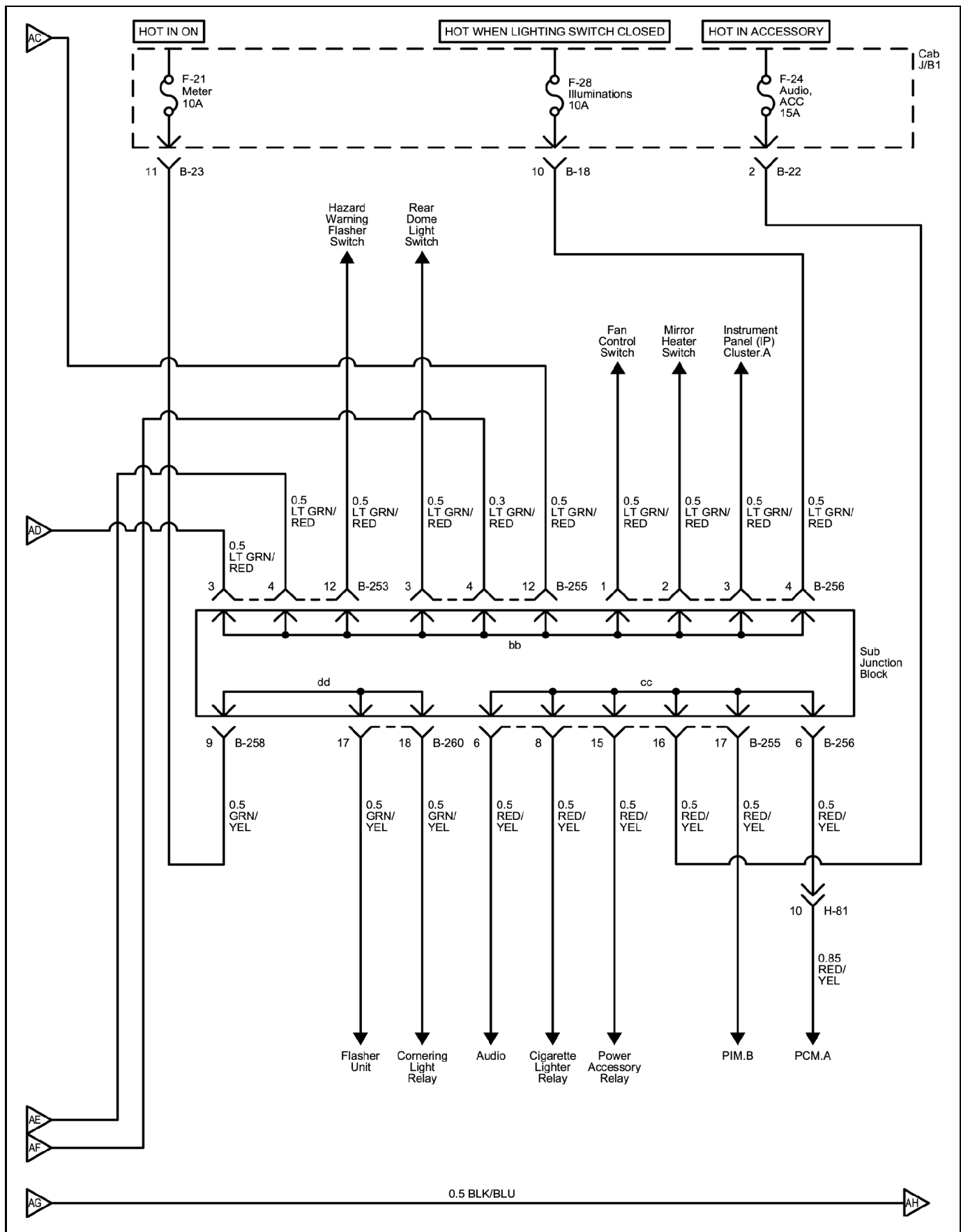
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5-40 Cab and Chassis Electrical



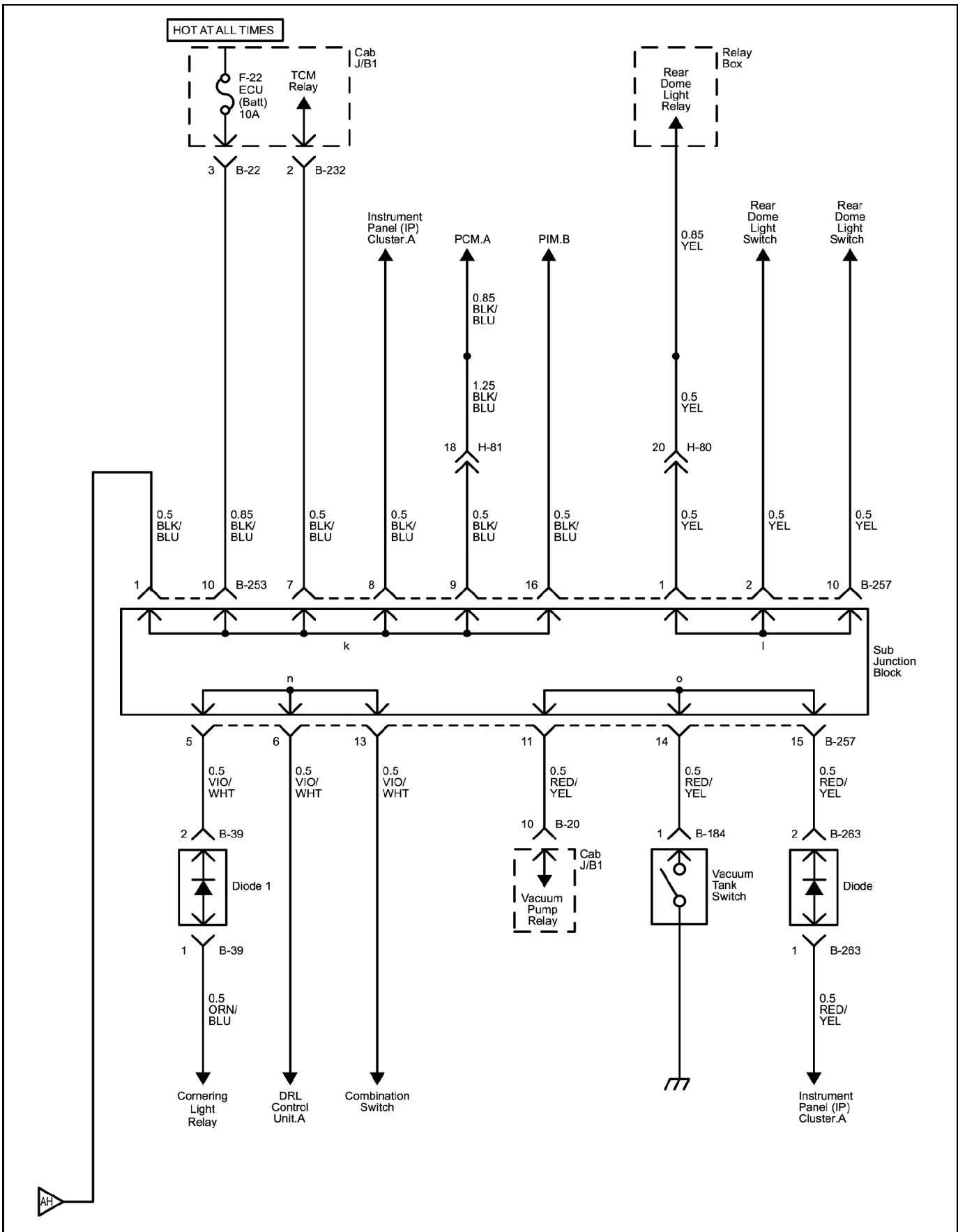
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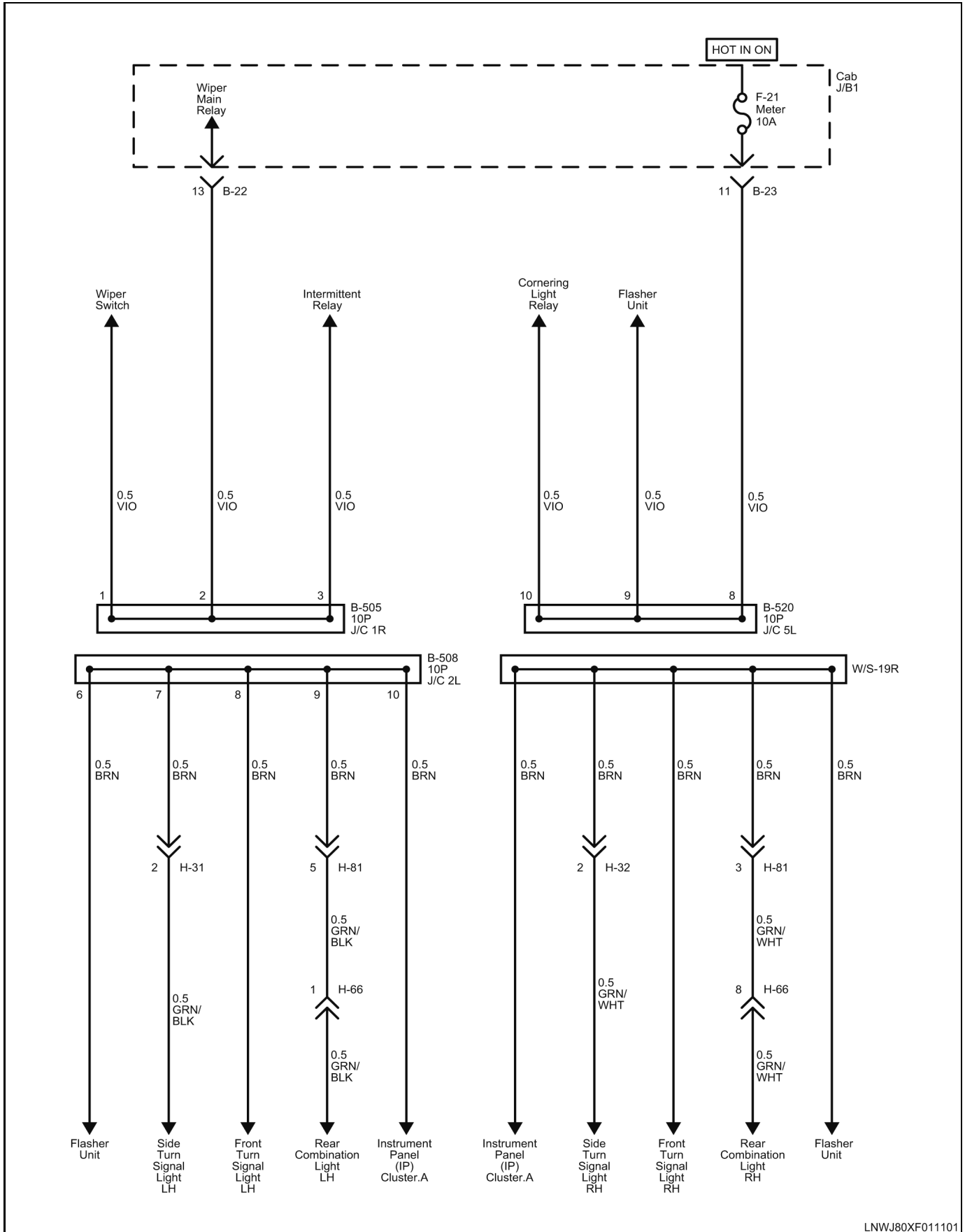
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5-42 Cab and Chassis Electrical



4557703

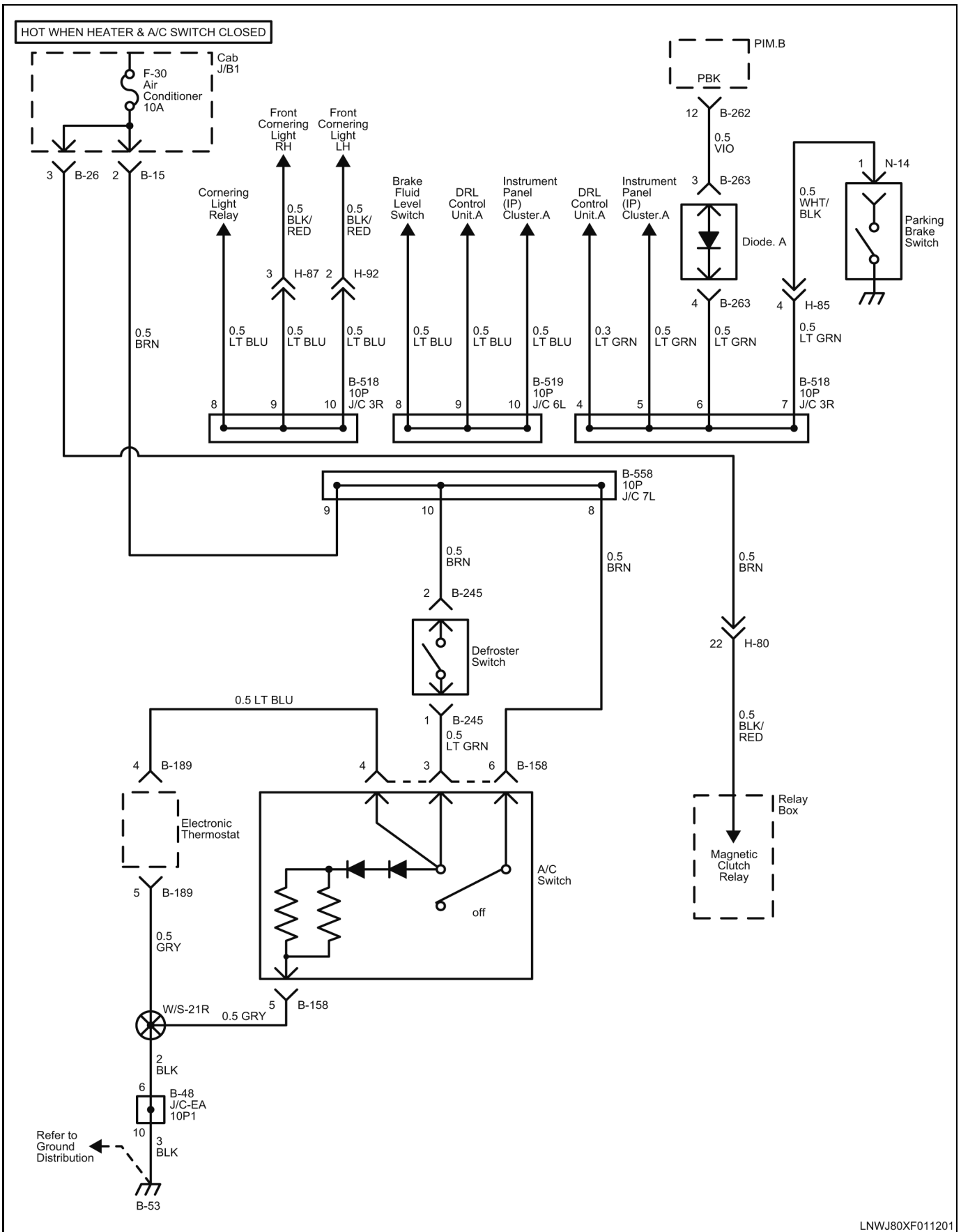
# 10P Joint Connector Schematics



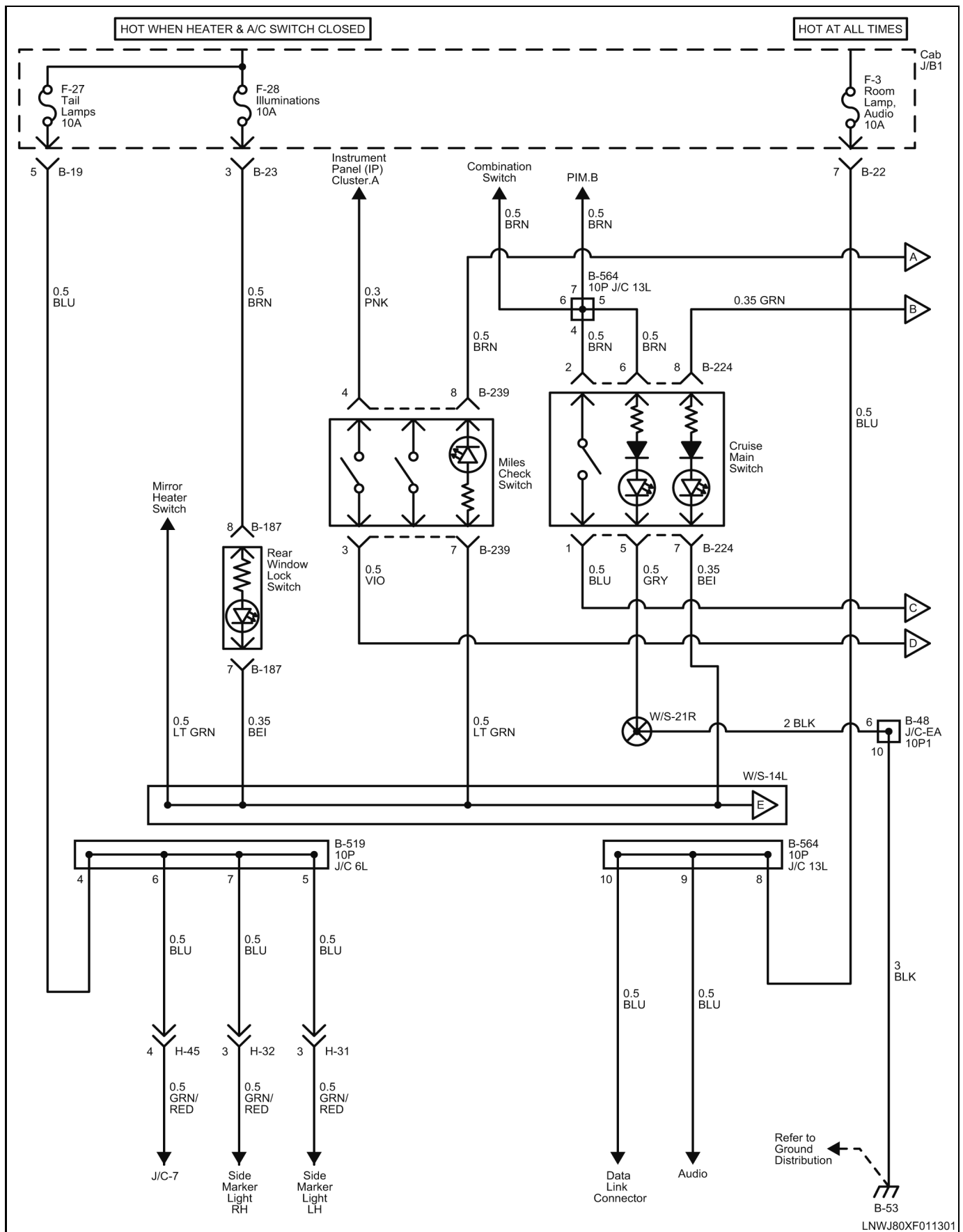
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4958055

5-44 Cab and Chassis Electrical



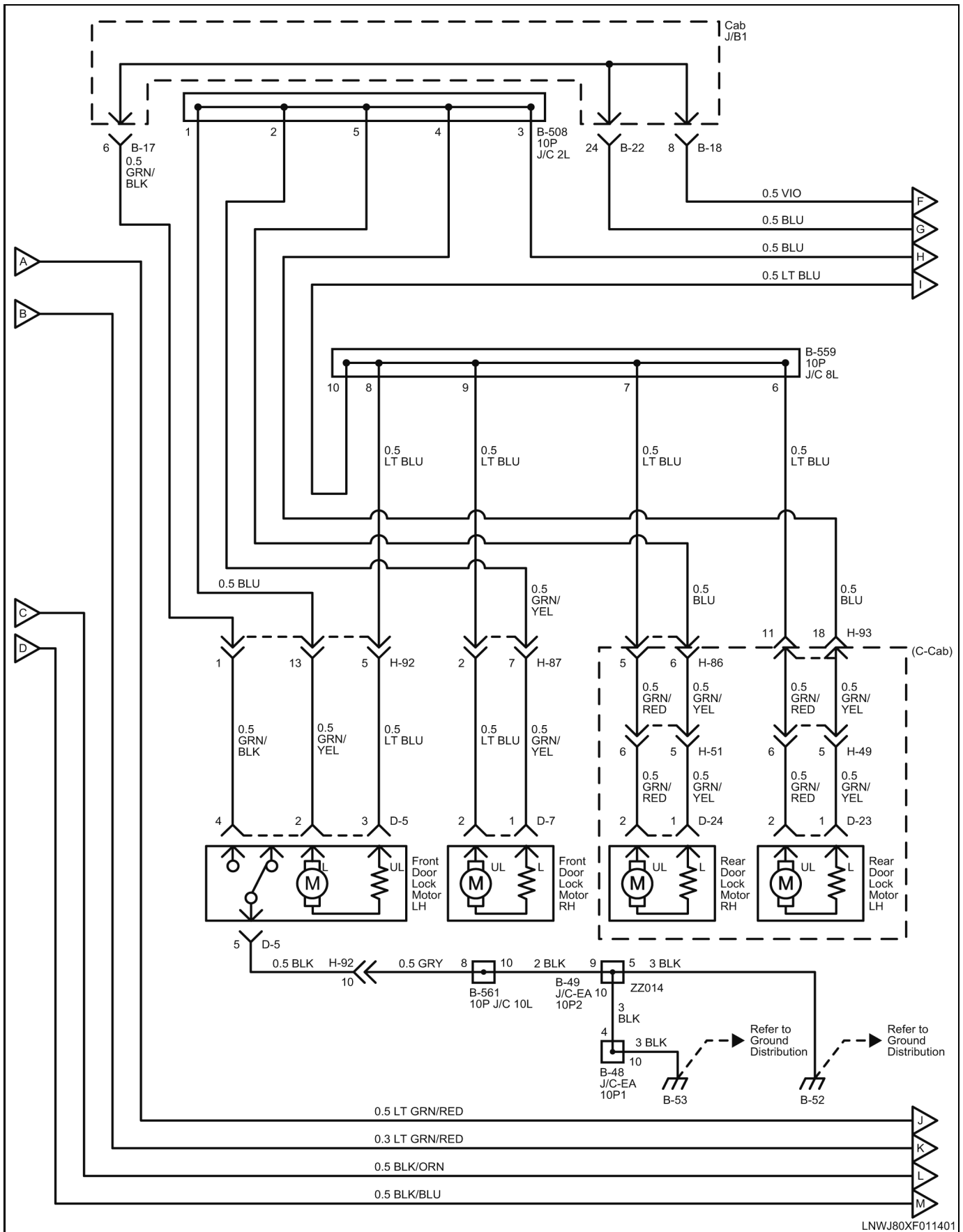
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LNWJ80XF011301

4958072

5-46 Cab and Chassis Electrical

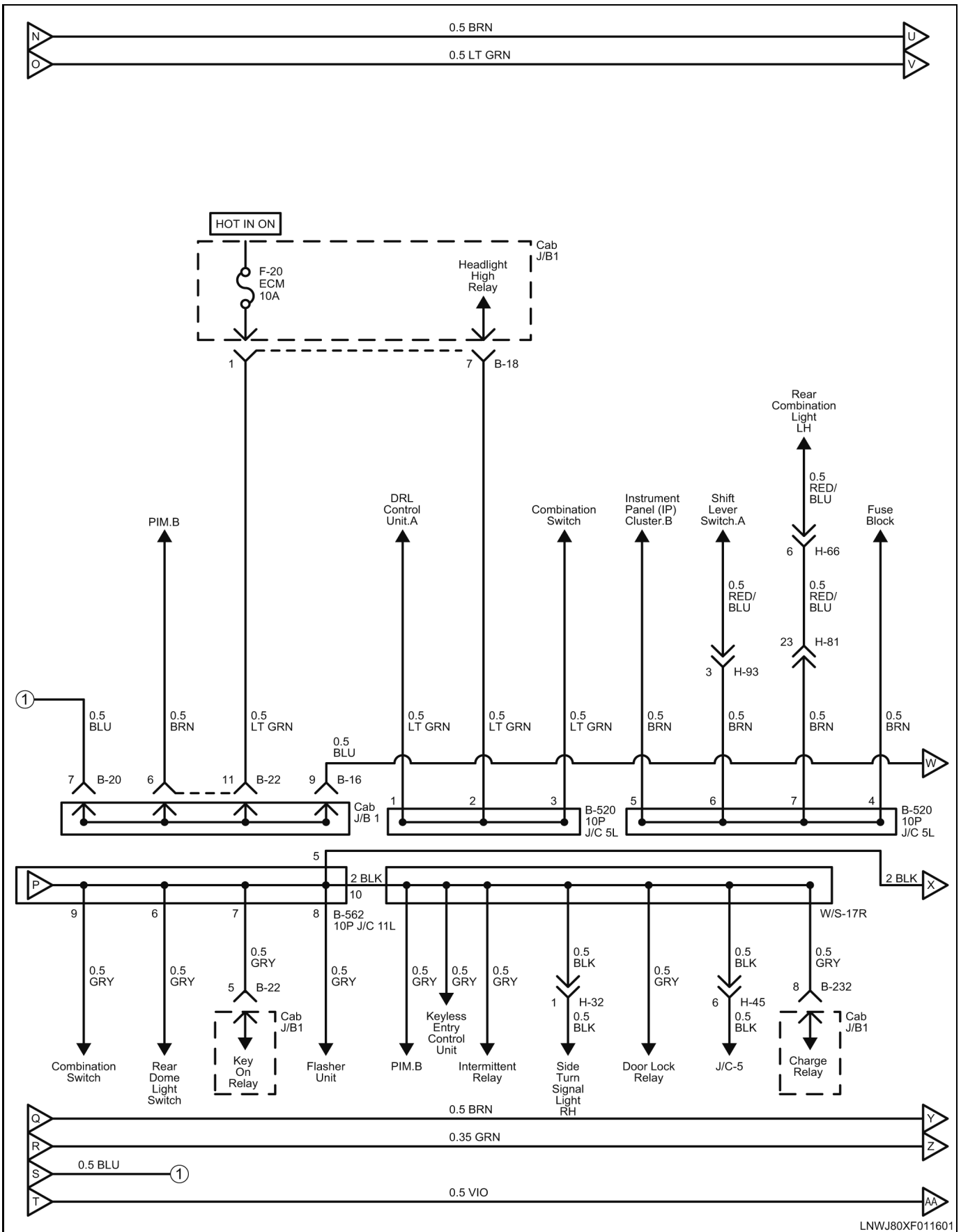


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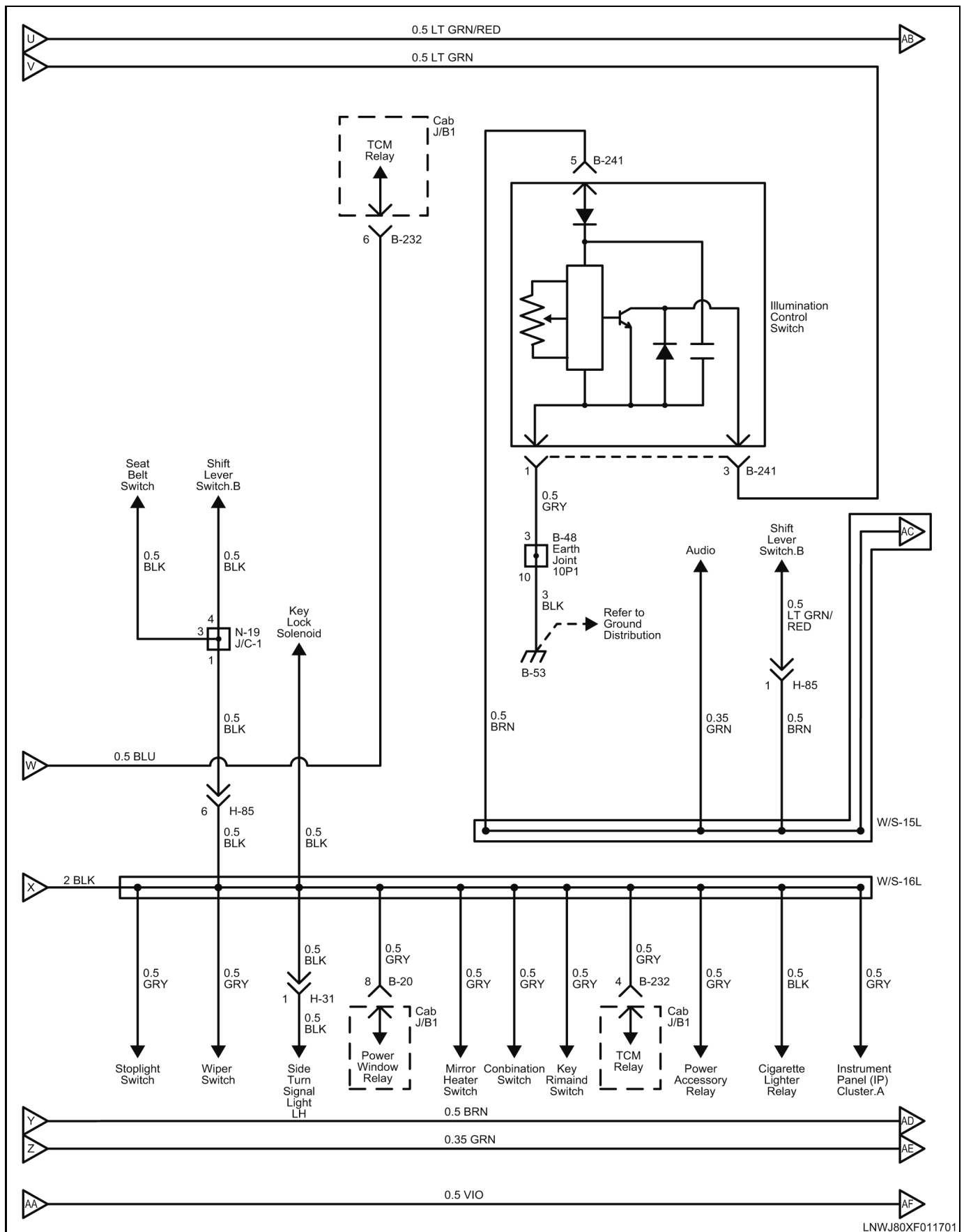


5-48 Cab and Chassis Electrical



LNWJ80XF011601  
4958126

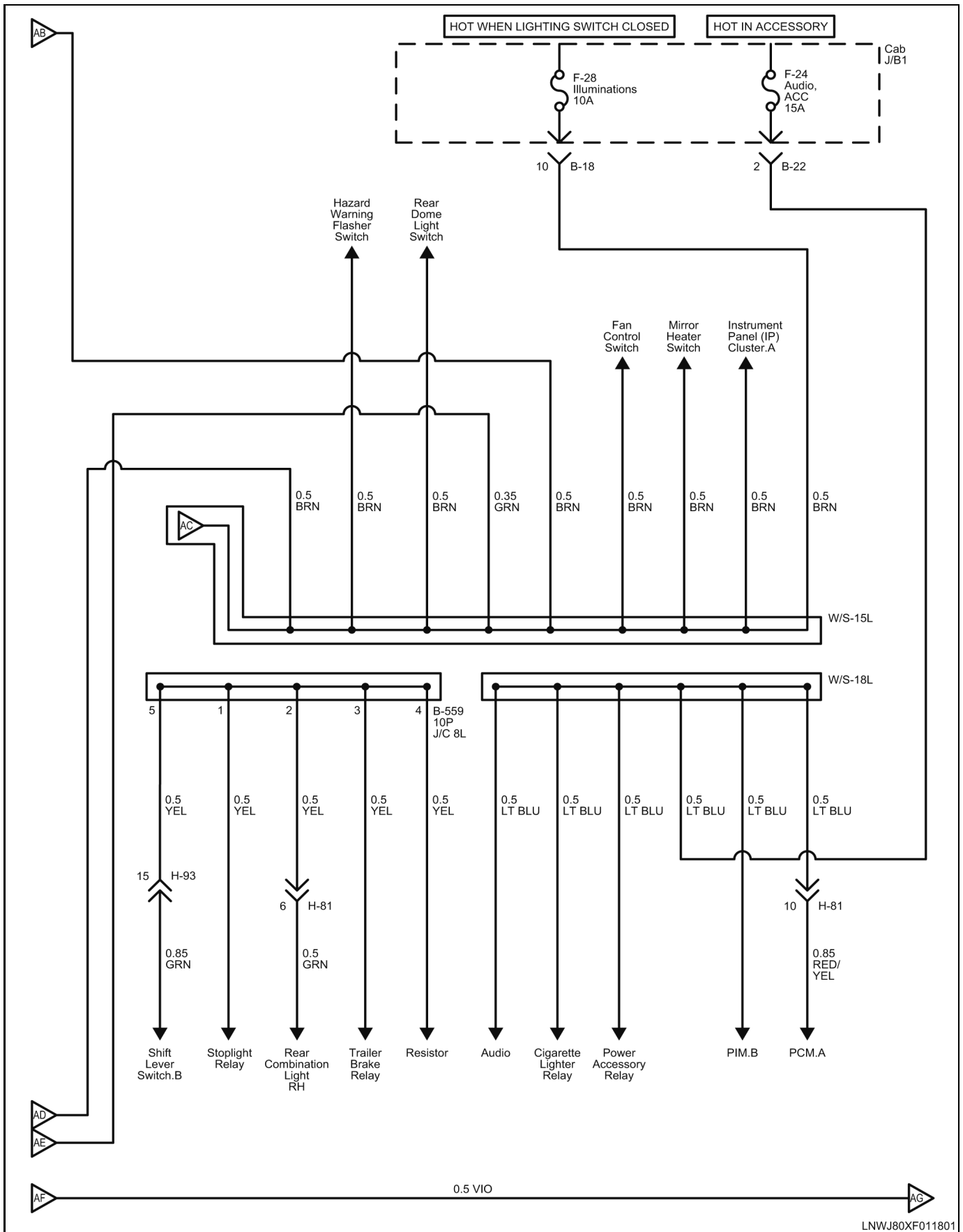




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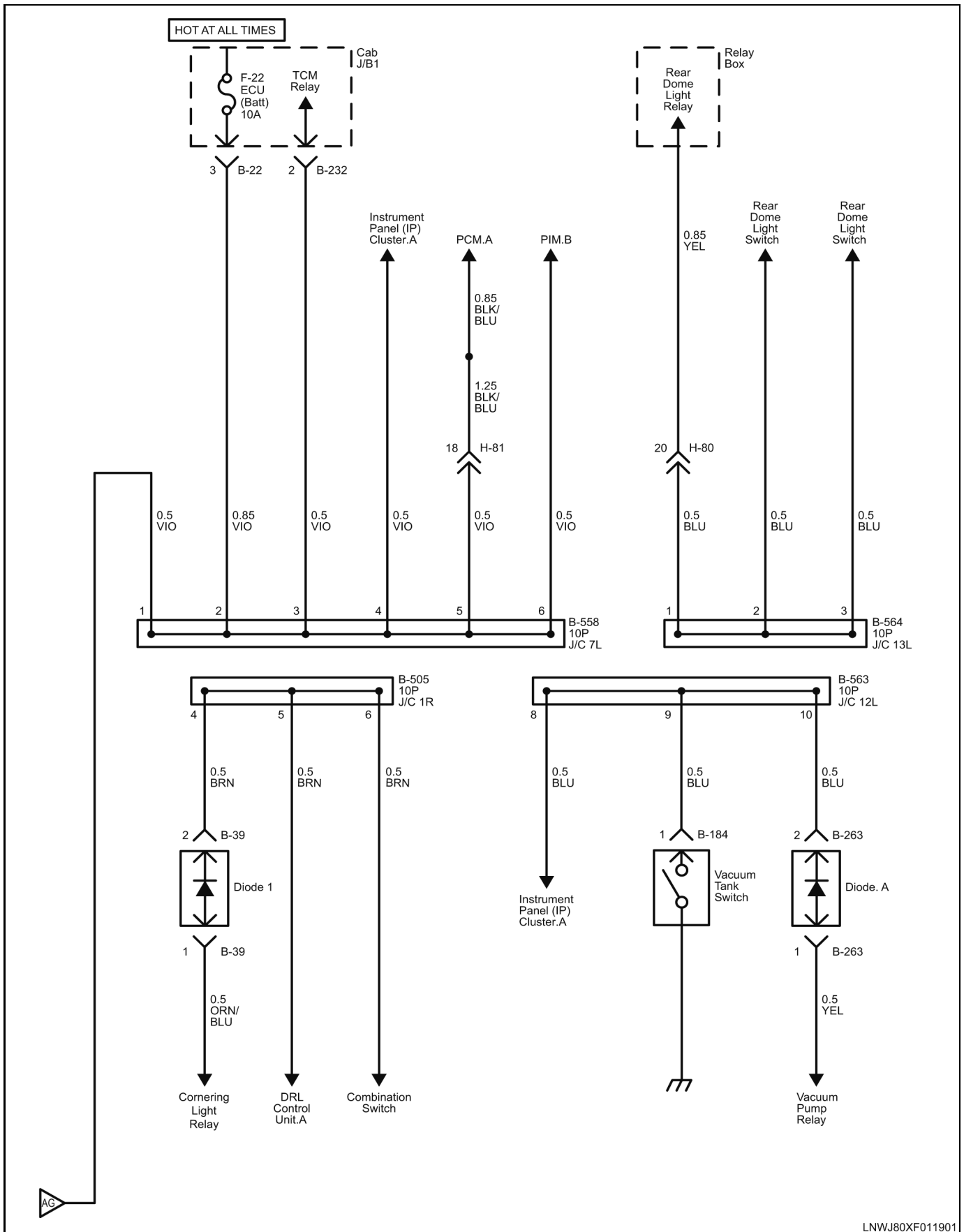
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5-50 Cab and Chassis Electrical



LNWJ80XF011801

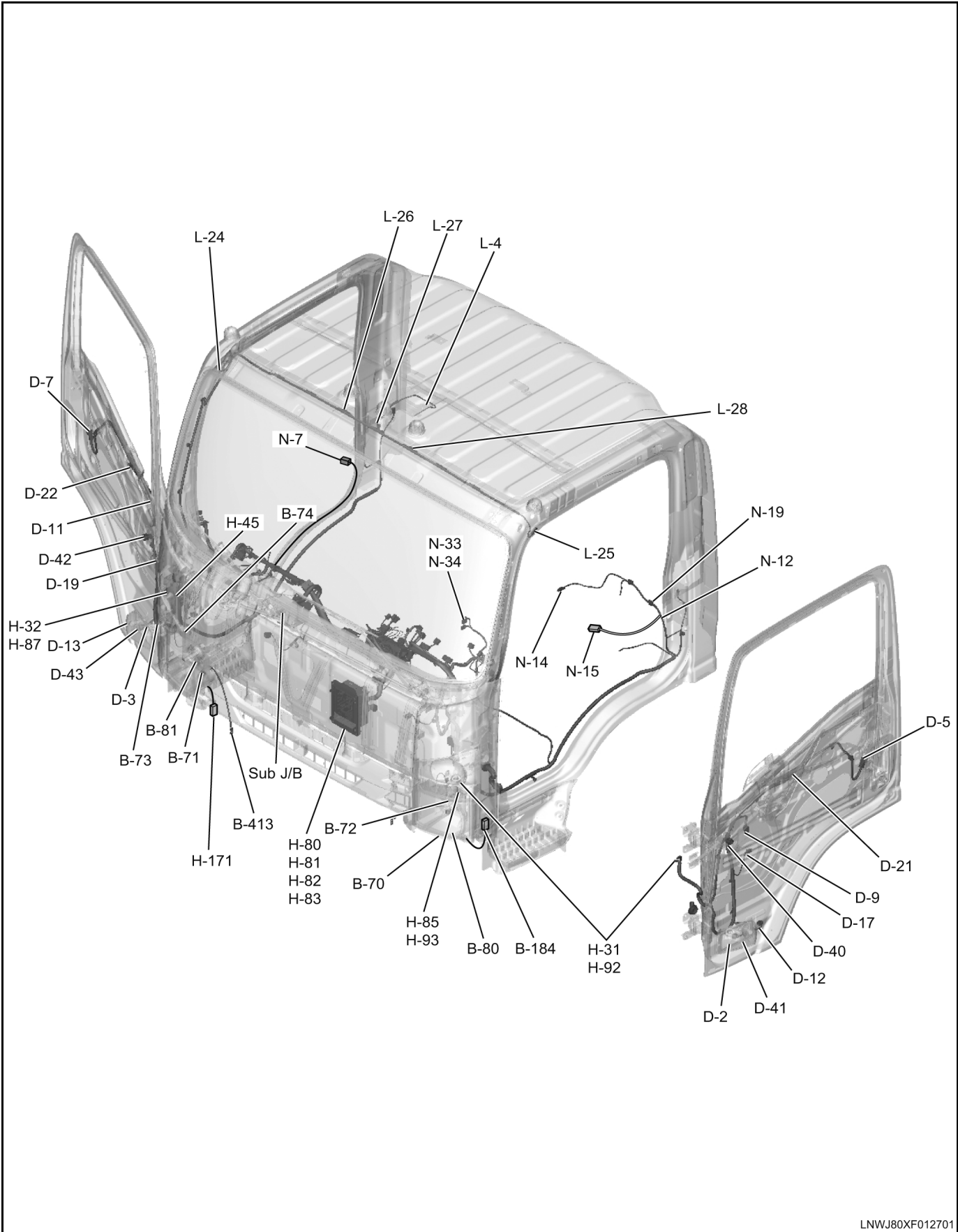
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LNWJ80XF011901

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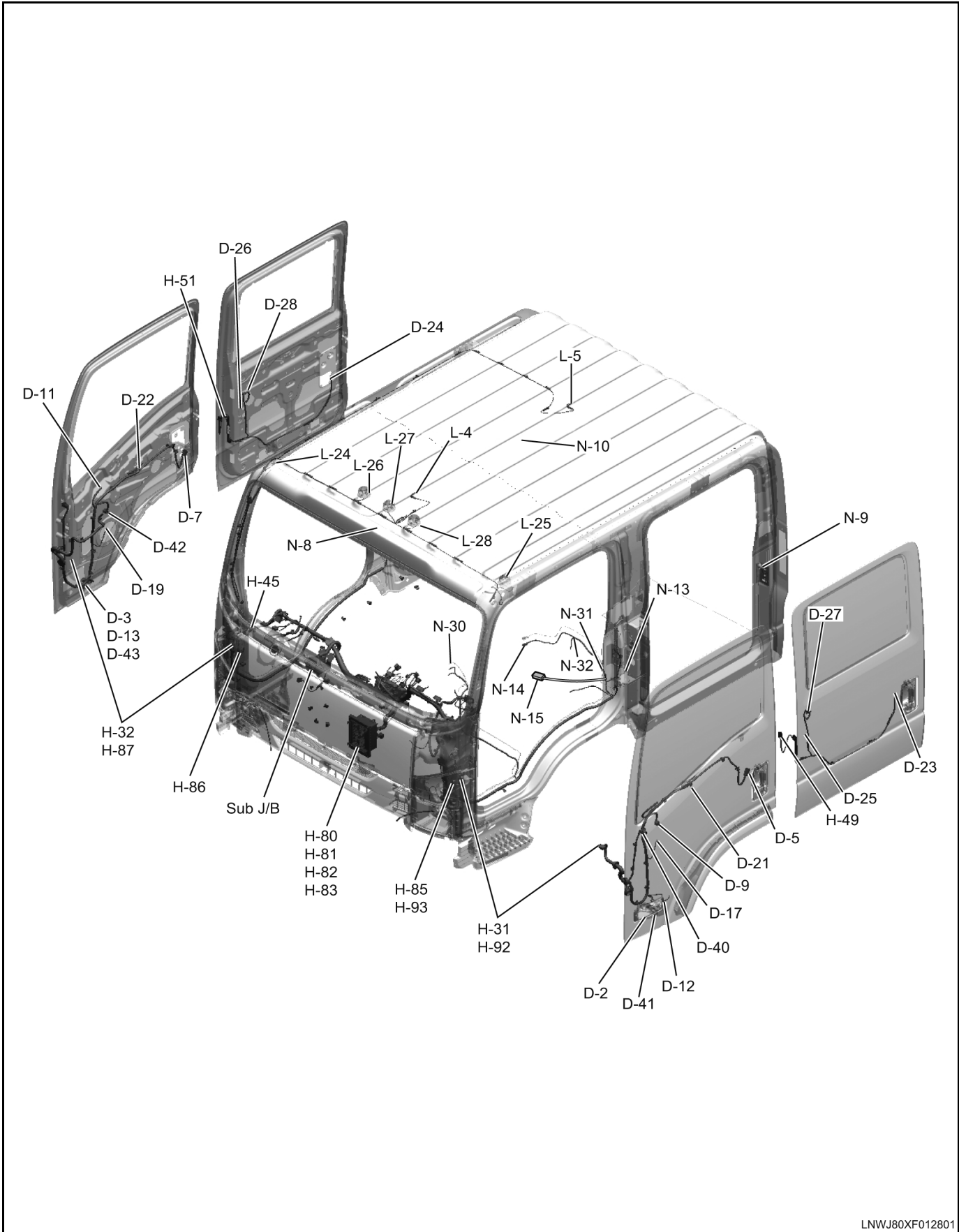
Harness Routing Views (Cab Harness (S-CAB) Routing)



LNWJ80XF012701

4956736

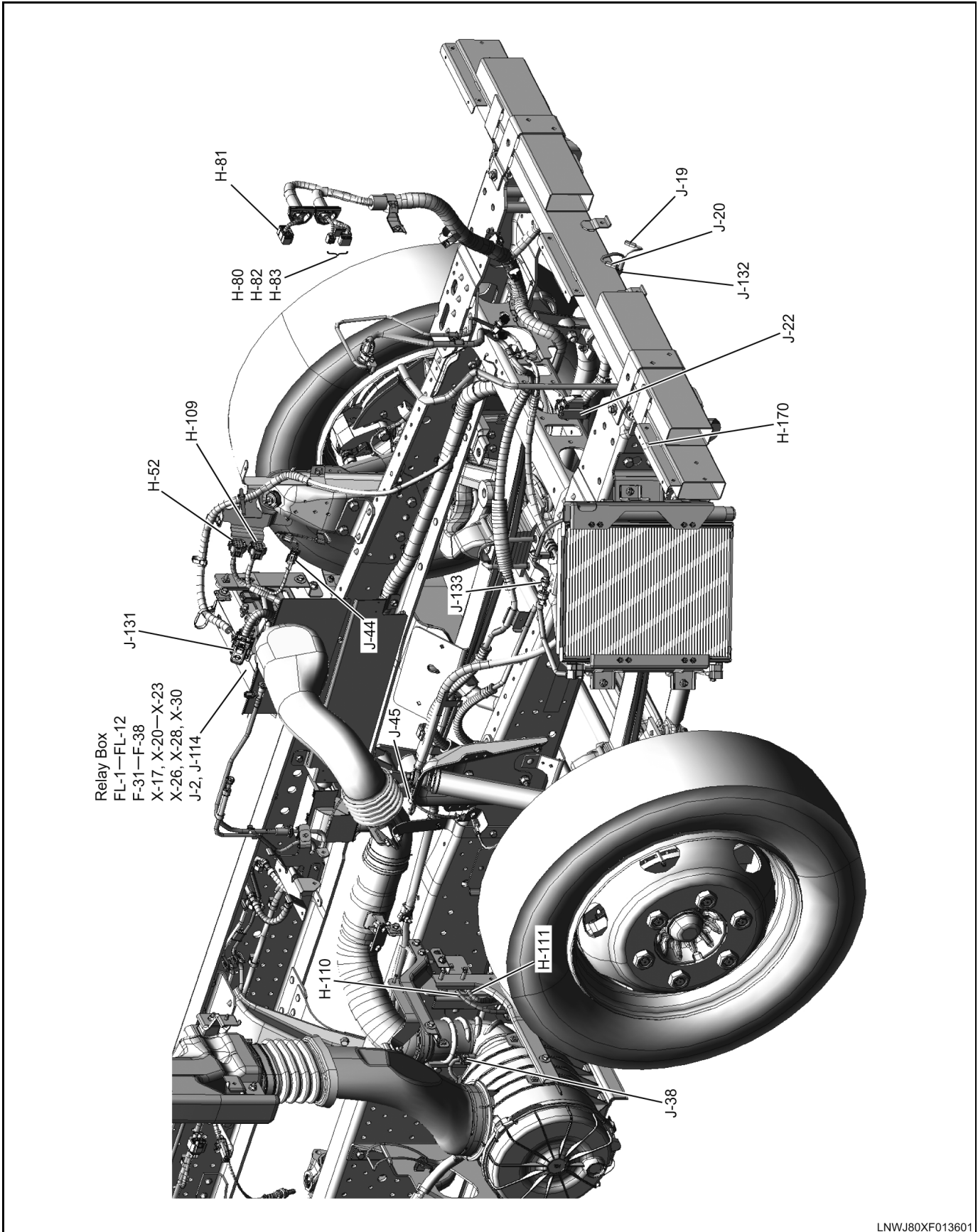
### Harness Routing Views (Cab Harness (C-CAB))



LNWJ80XF012801

4956746

Harness Routing Views (Frame Harness Routing (1 of 6))

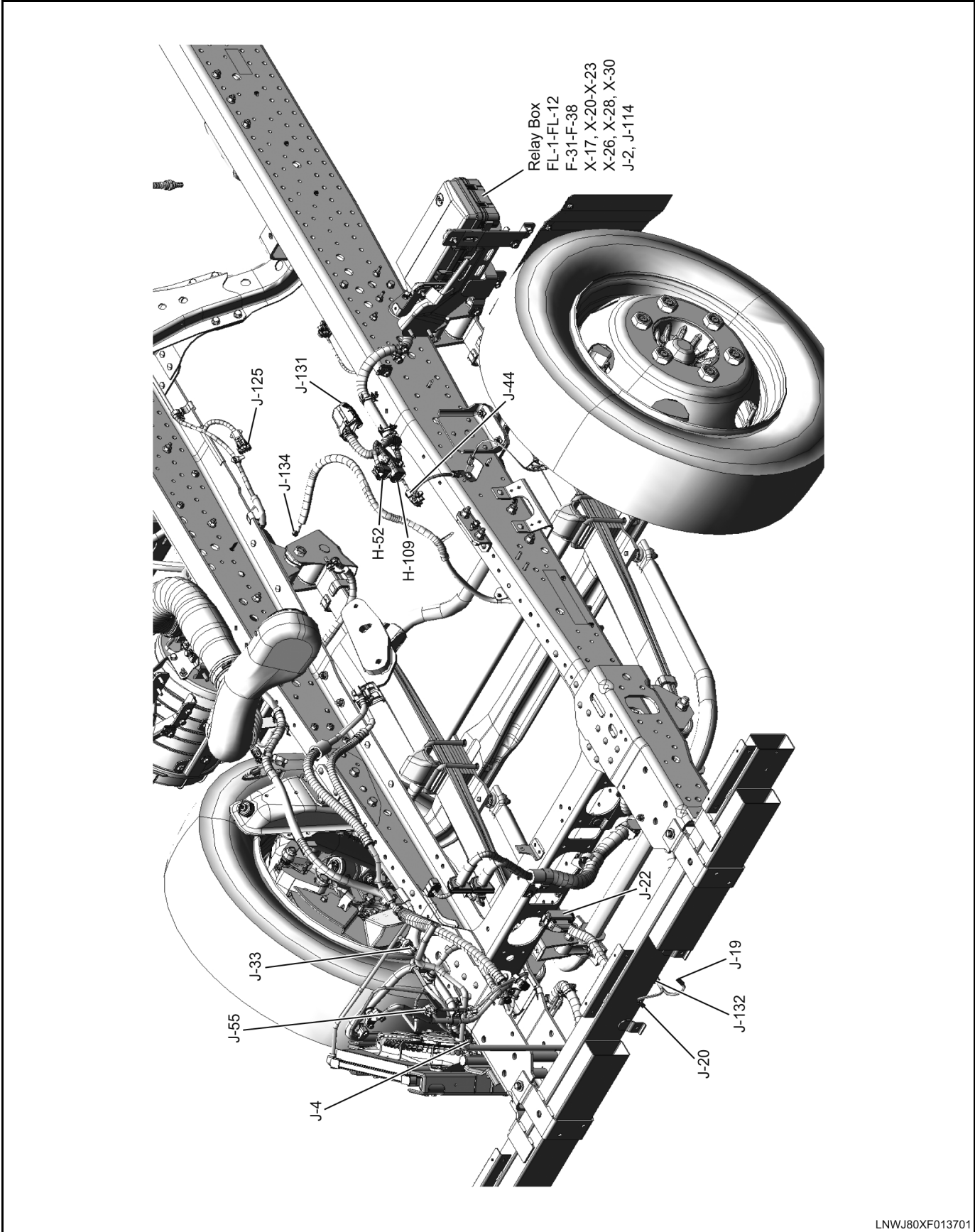


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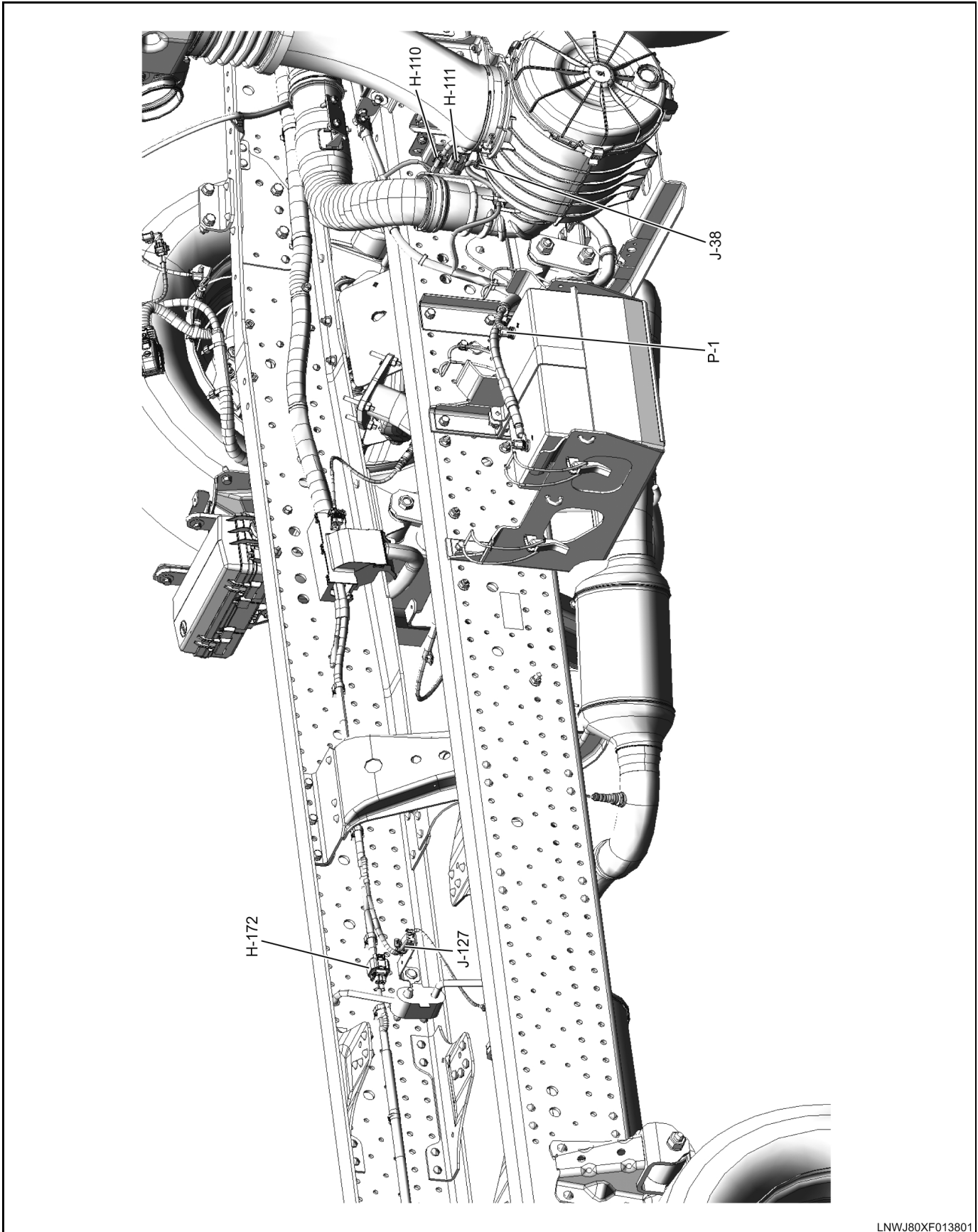


Harness Routing Views (Frame Harness Routing (2 of 6))



LNWJ80XF013701  
4956769

Harness Routing Views (Frame Harness Routing (3 of 6))

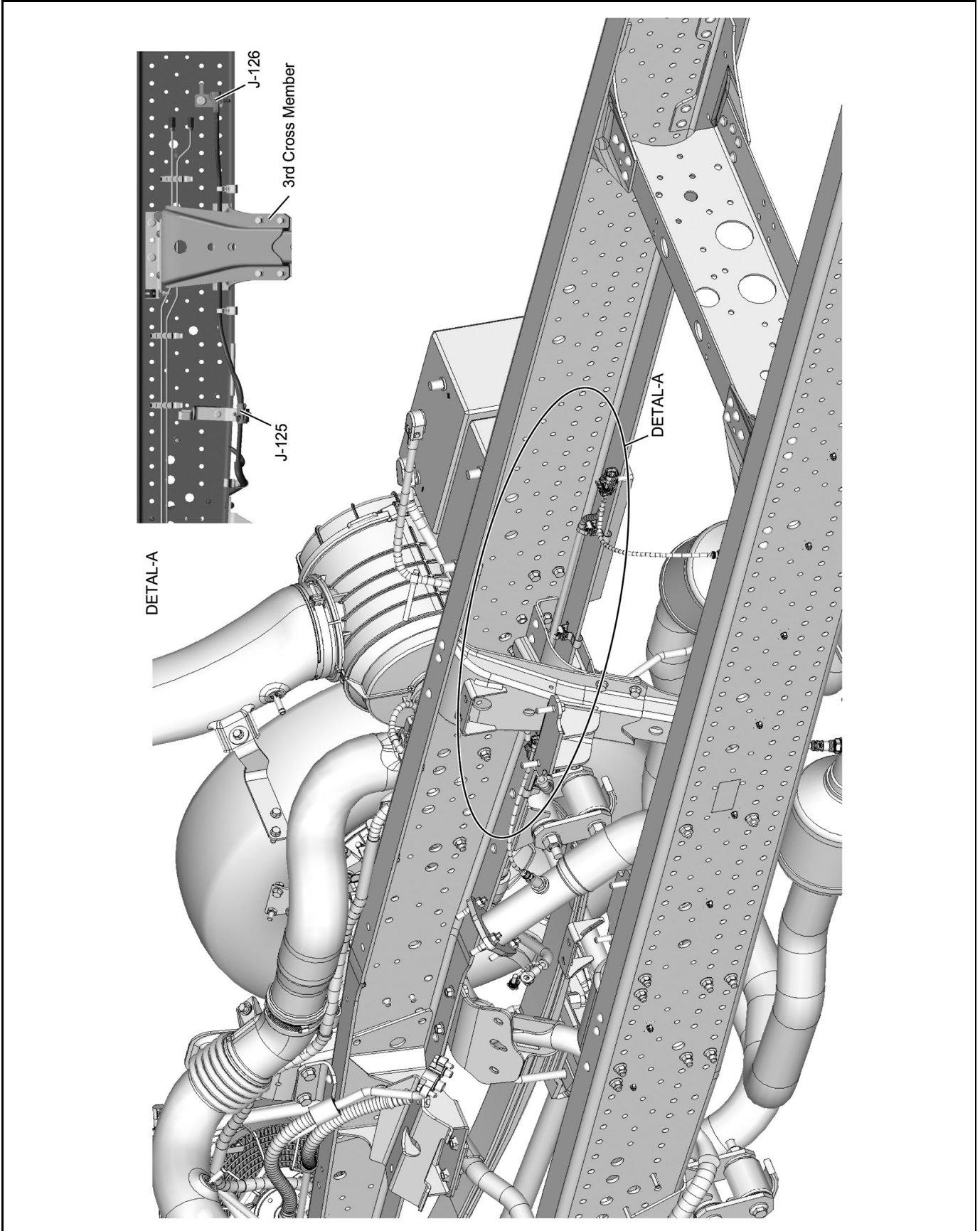


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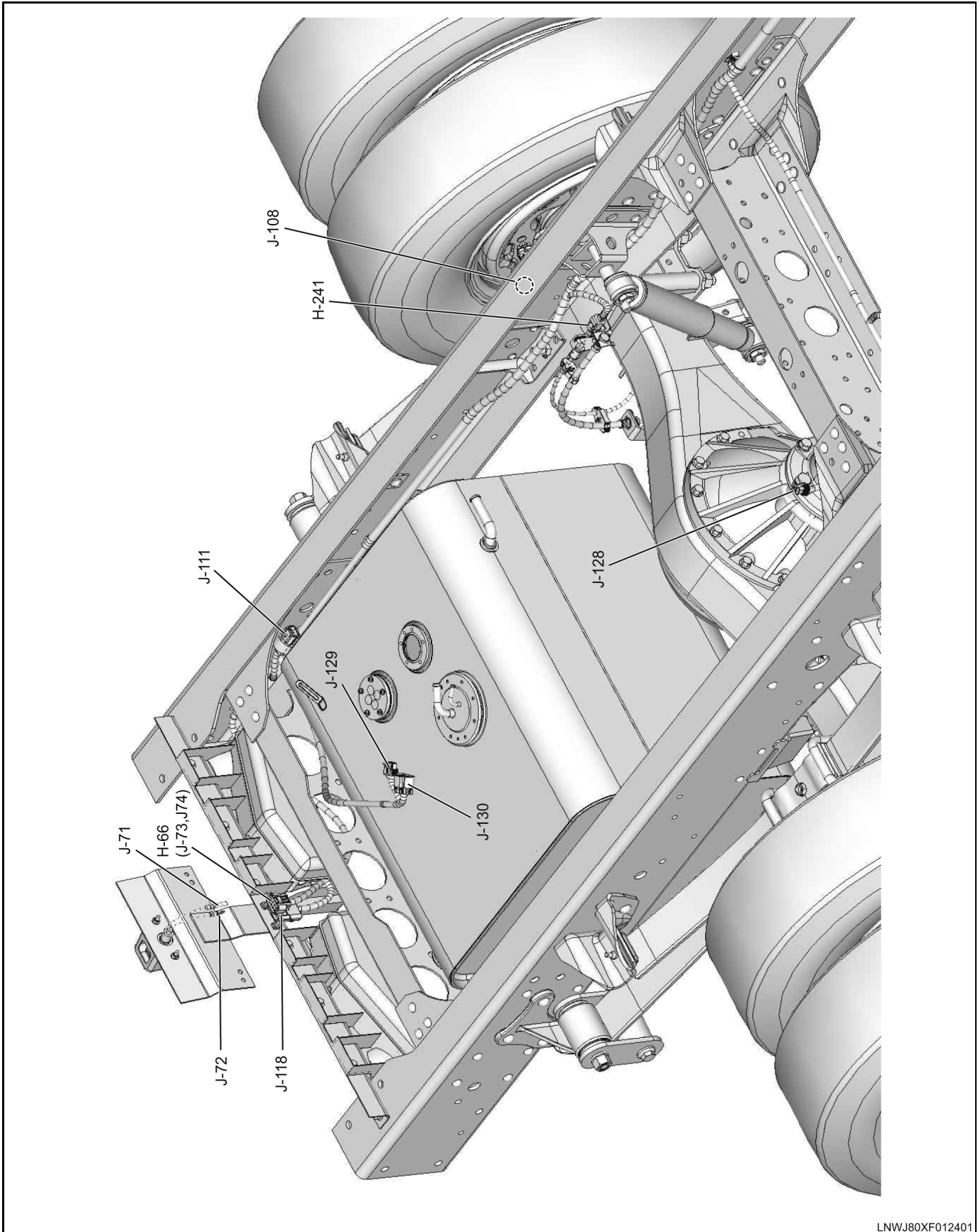


Harness Routing Views (Frame Harness Routing (4 of 6))



4556260

Harness Routing Views (Frame Harness Routing (5 of 6))

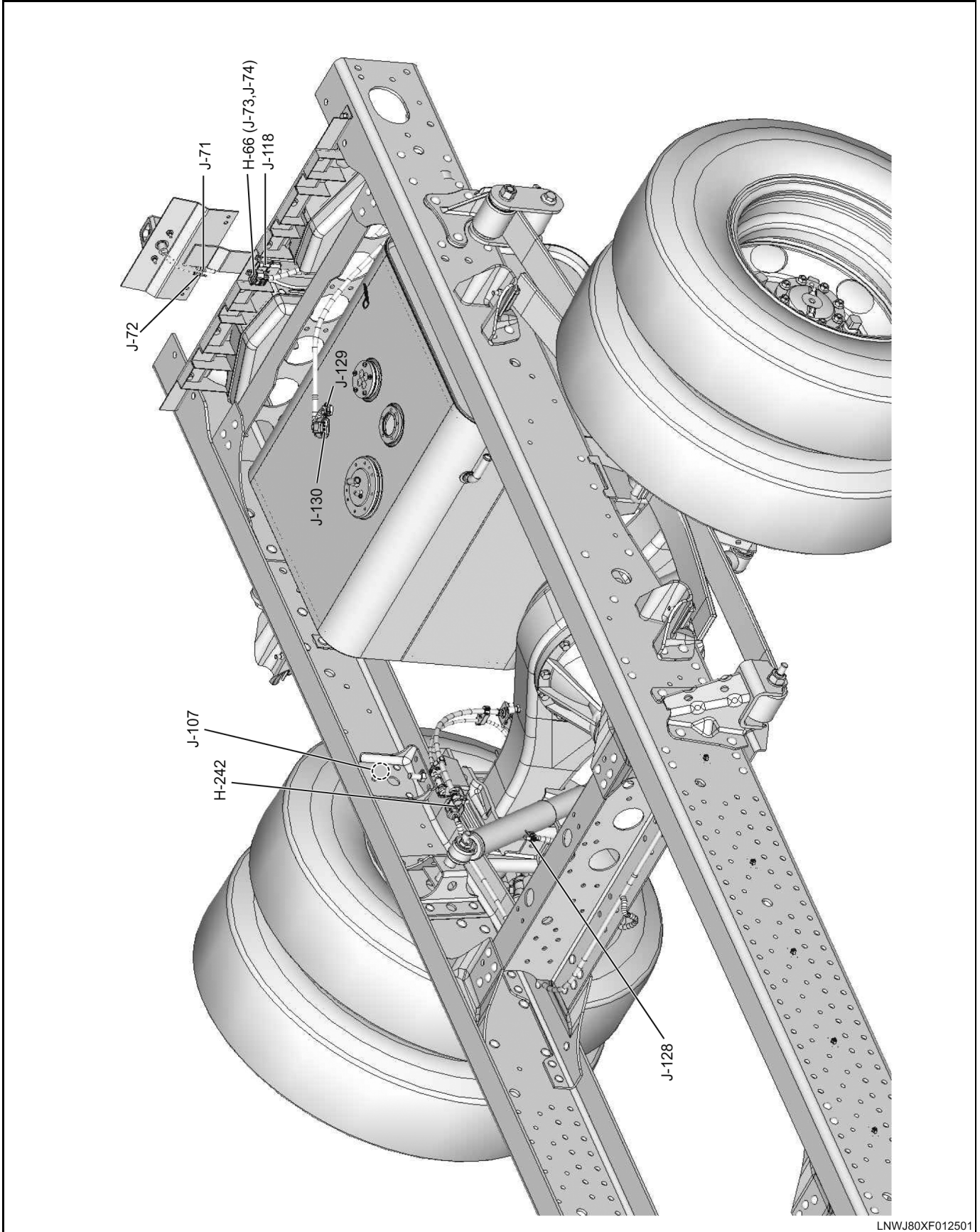


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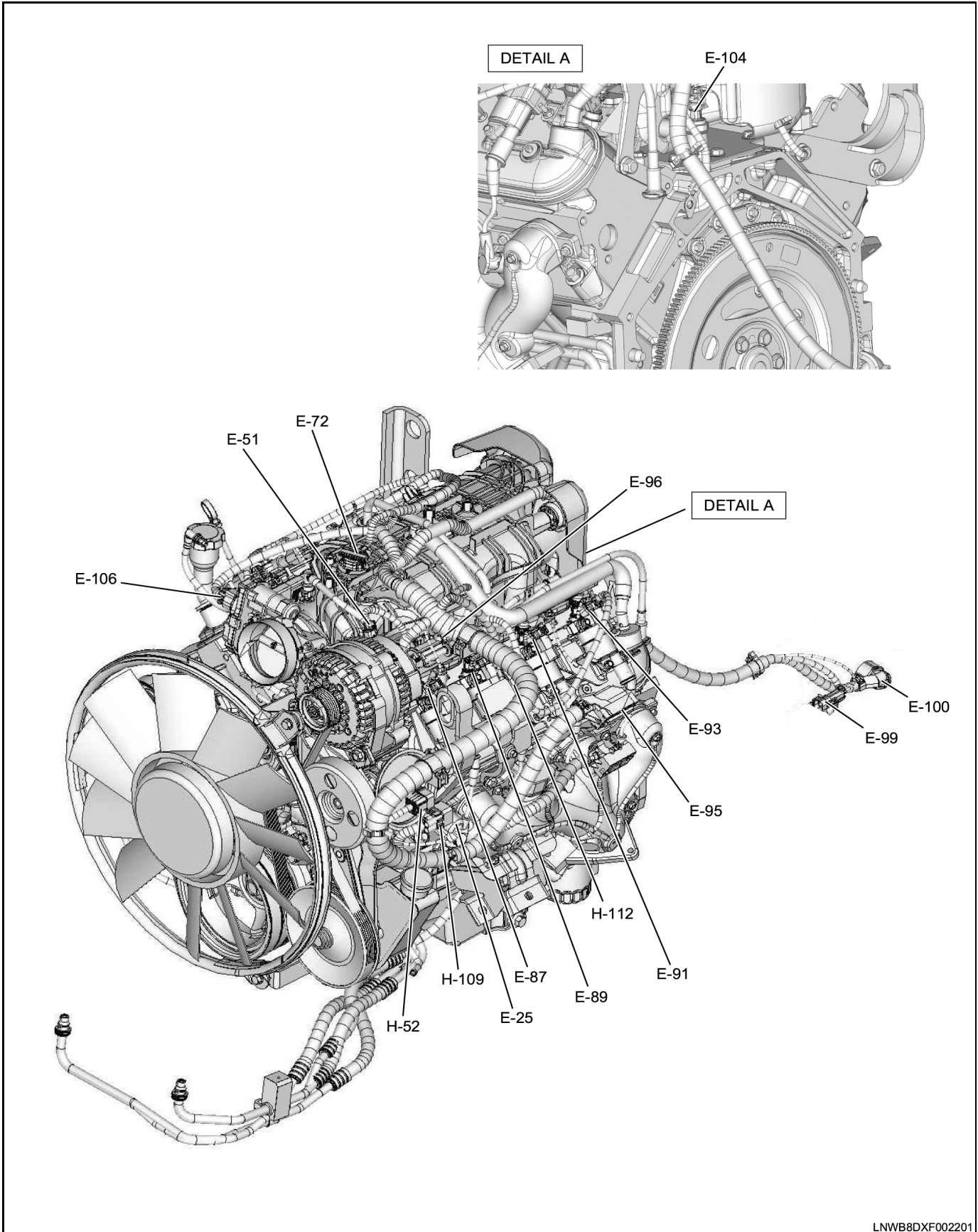
Harness Routing Views (Frame Harness Routing (6 of 6))



LNWJ80XF012501

4956790

Harness Routing Views (Engine Harness Routing (1 of 4))

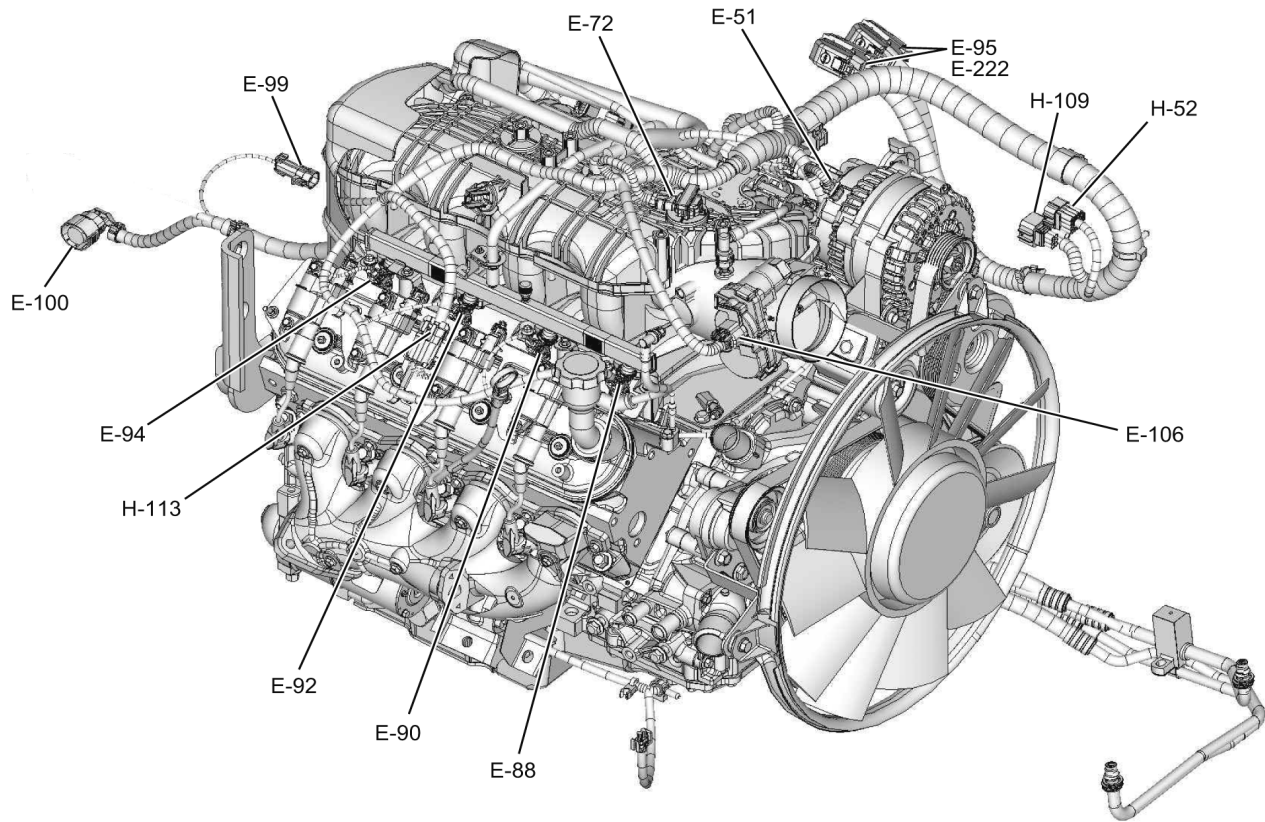


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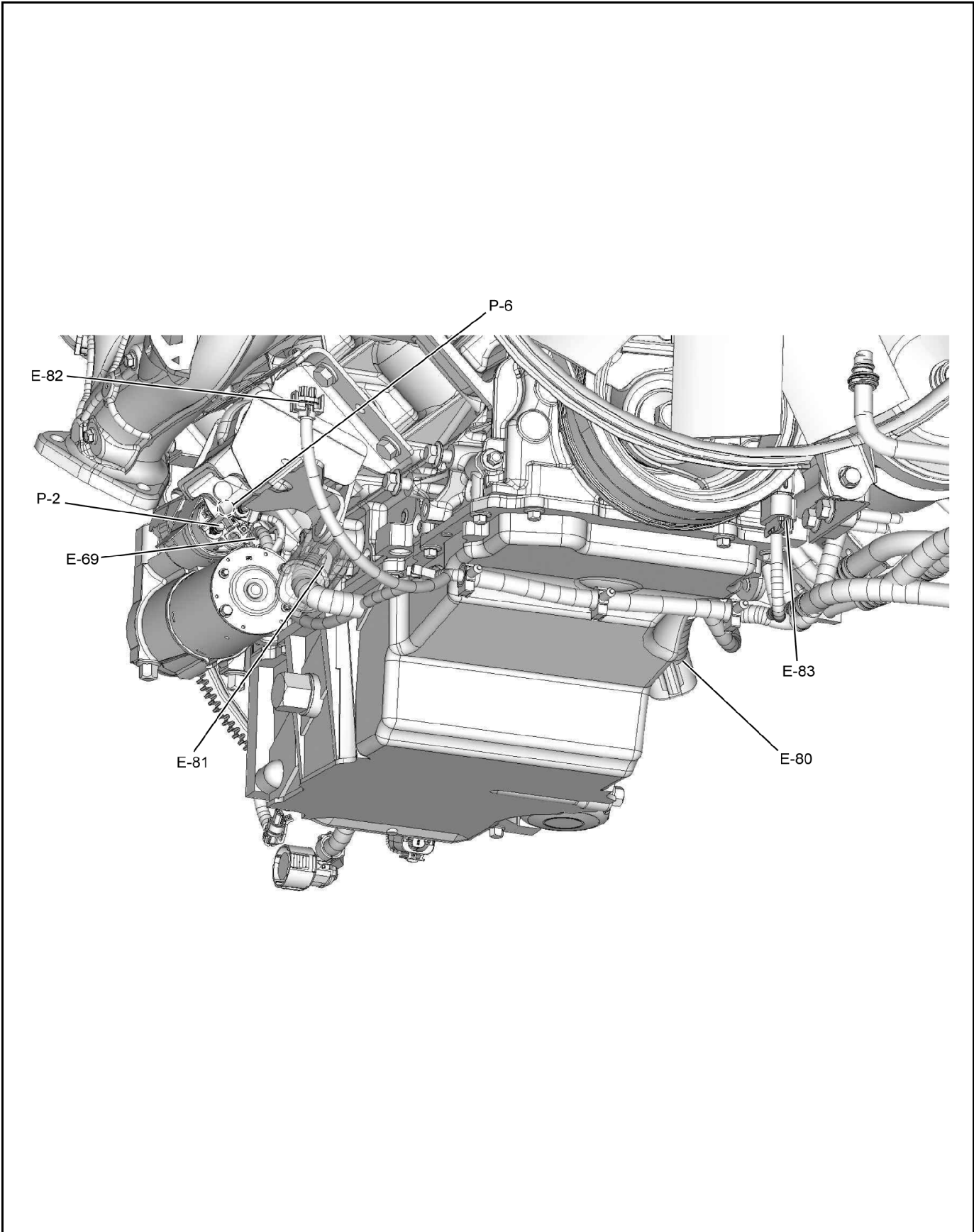
Harness Routing Views (Engine Harness Routing (2 of 4))



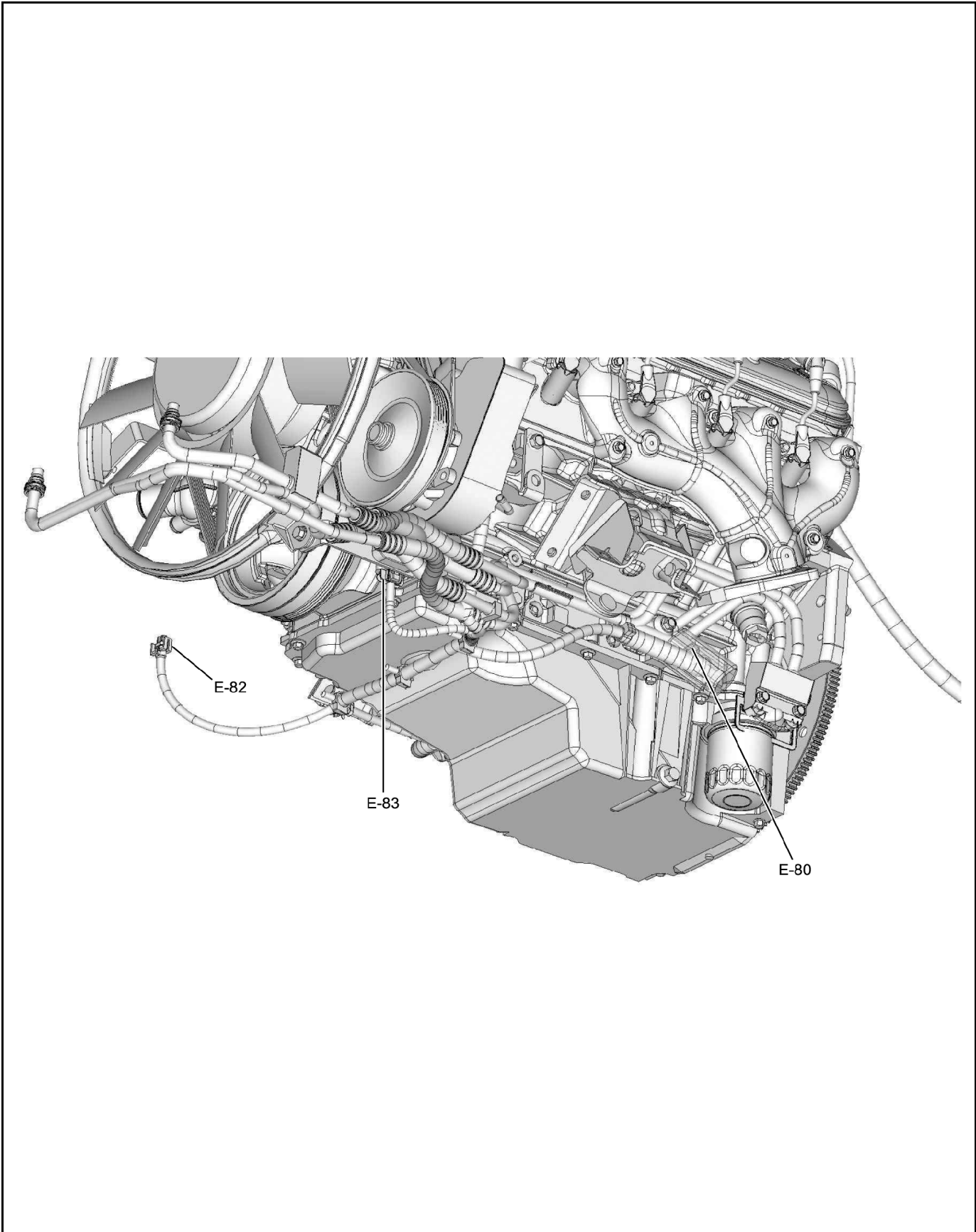
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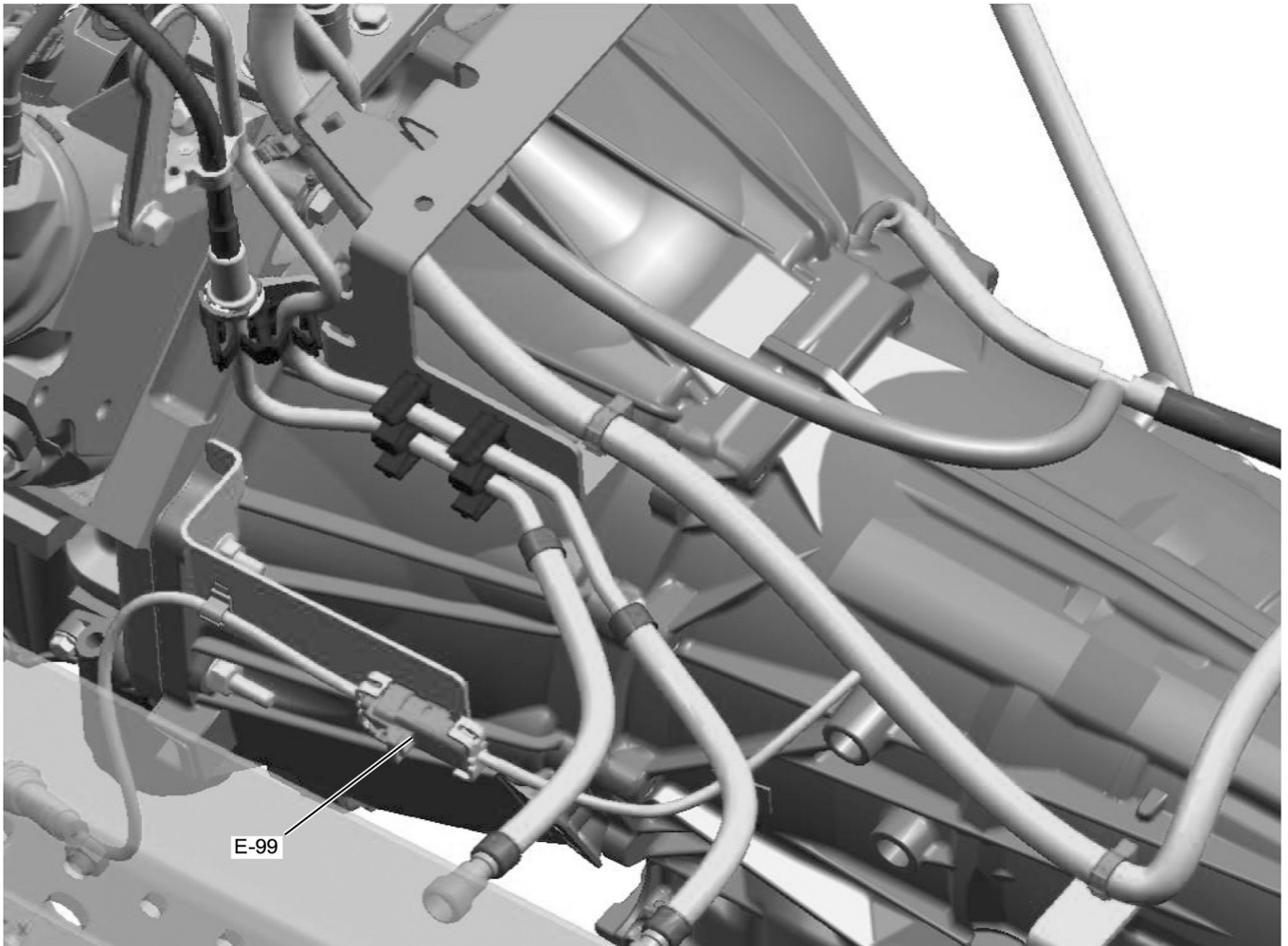
Harness Routing Views (Engine Harness Routing (3 of 4))



Harness Routing Views (Engine Harness Routing (4 of 4))

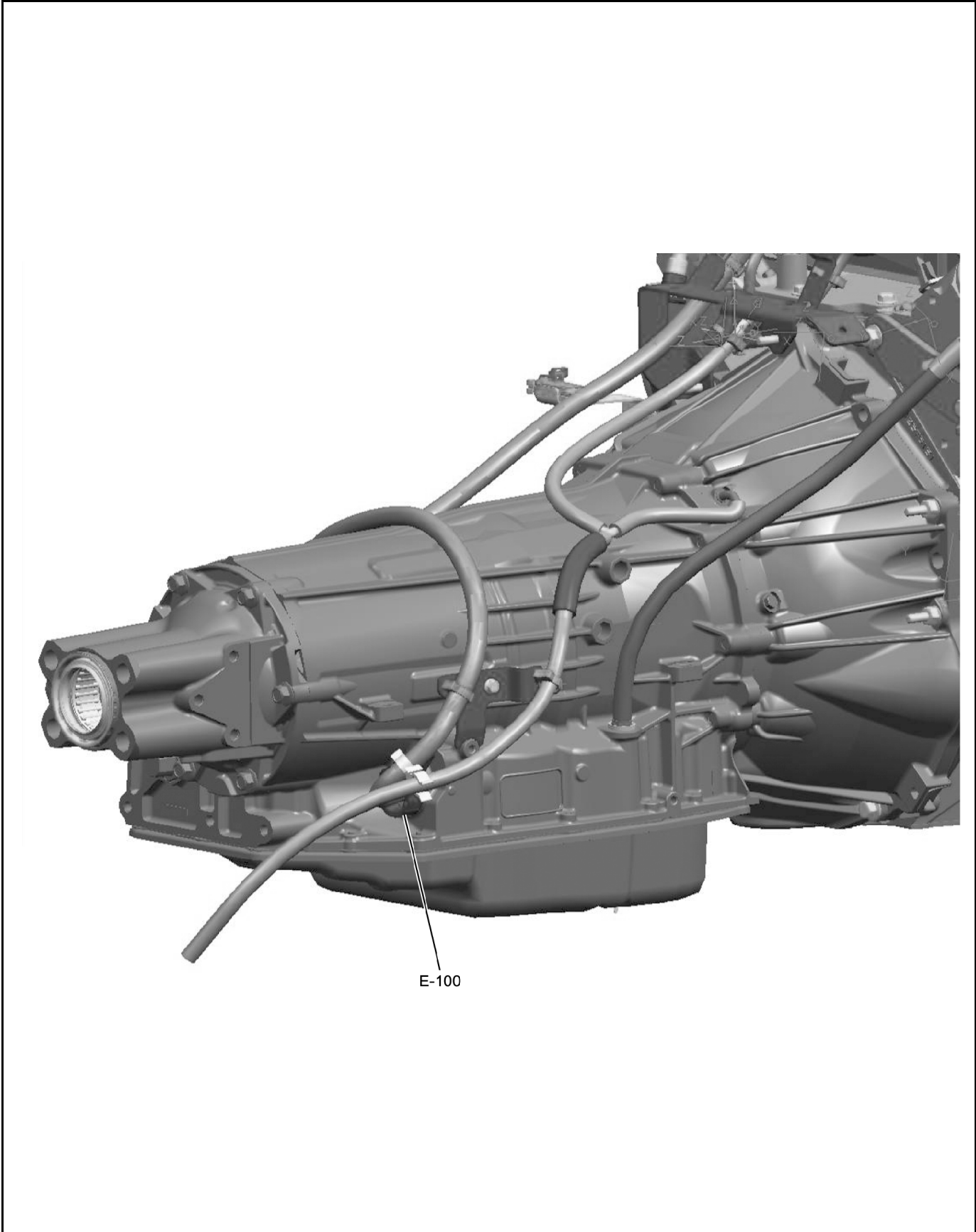


Harness Routing Views (Mission Harness Routing (1 of 2))





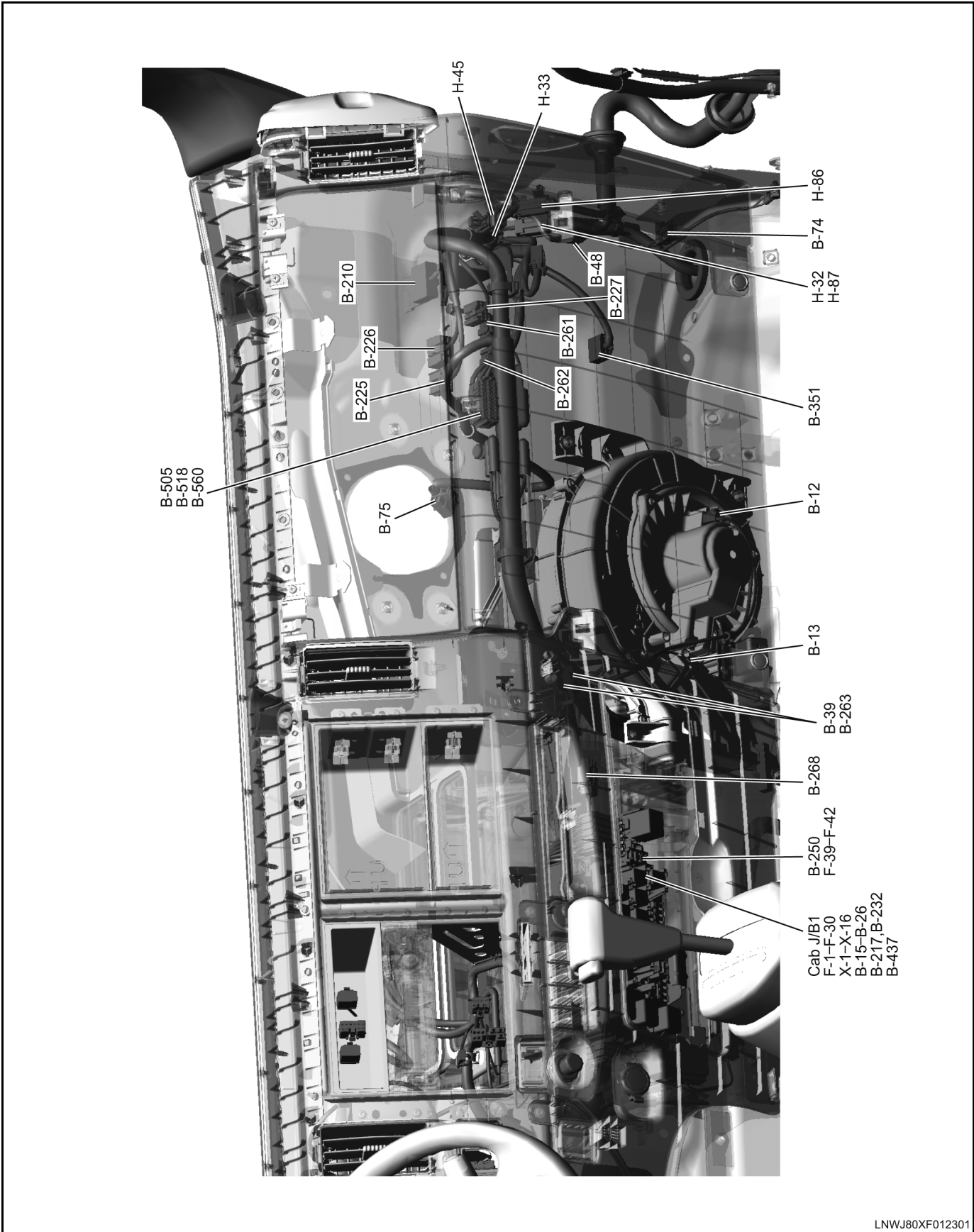
Harness Routing Views (Mission Harness Routing (2 of 2))



E-100



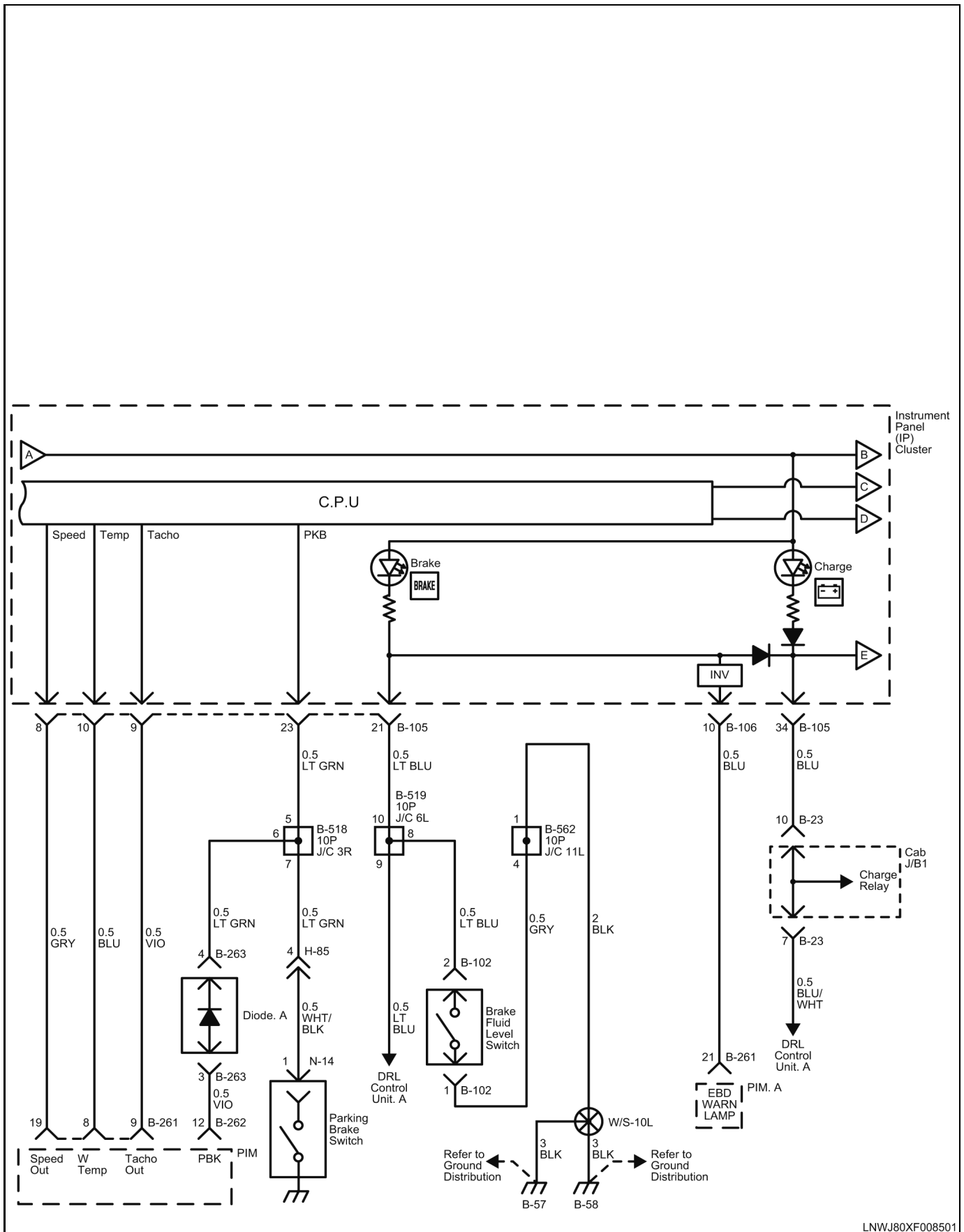
Harness Routing Views (Instrument Panel Harness Routing (2 of 2))



LNWJ80XF012301

4956857

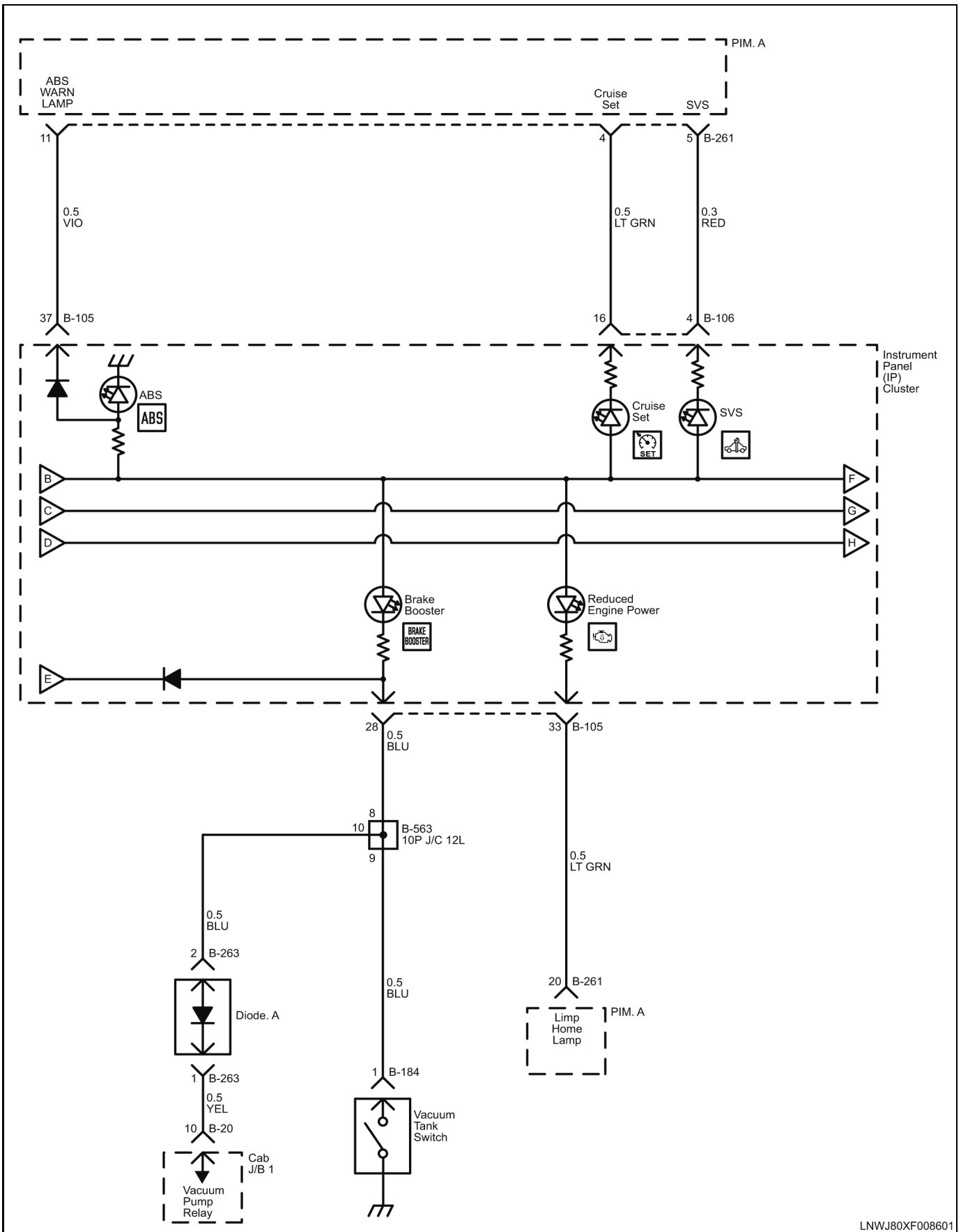




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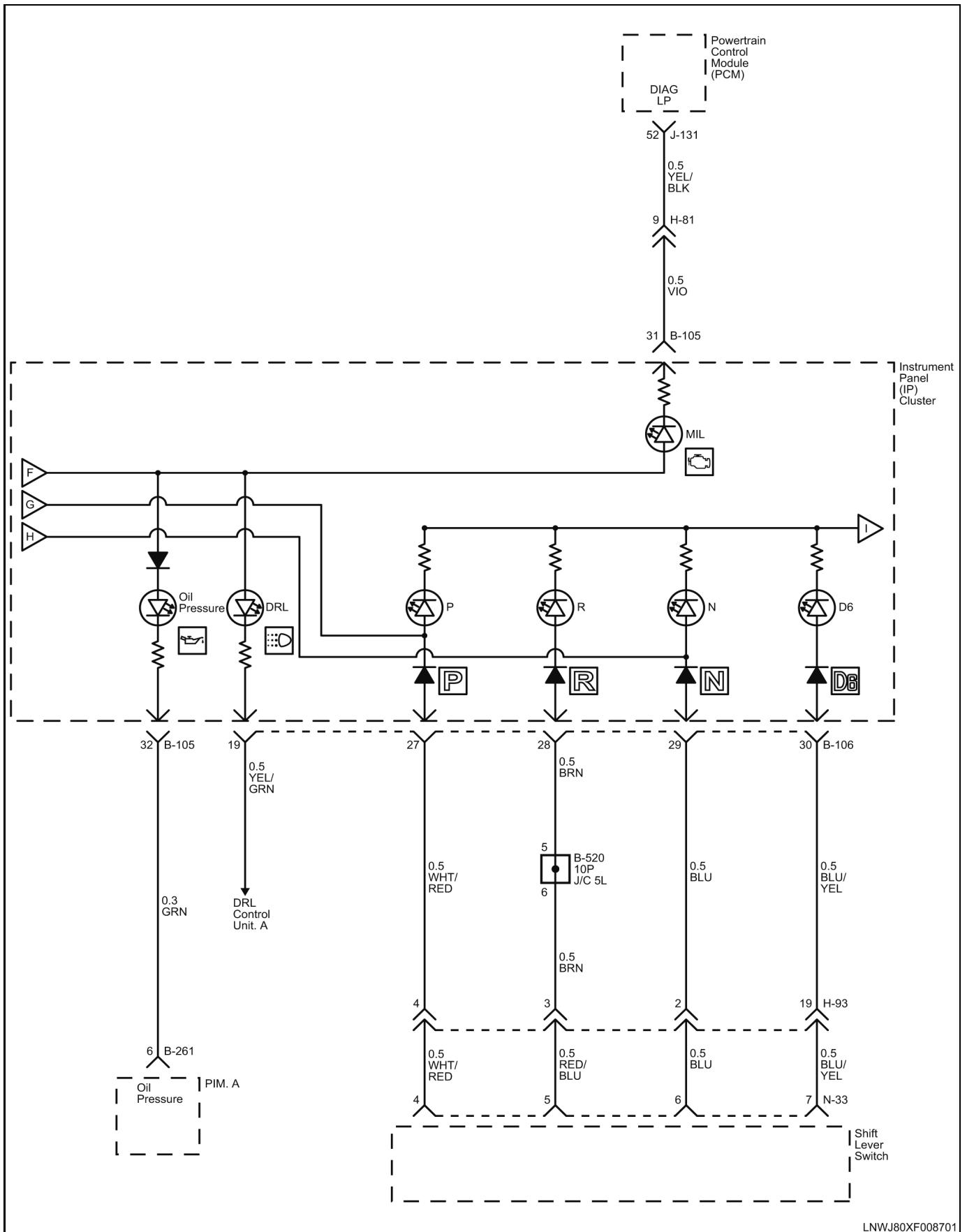
# 5-70 Cab and Chassis Electrical



LNWJ80XF008601

4957301

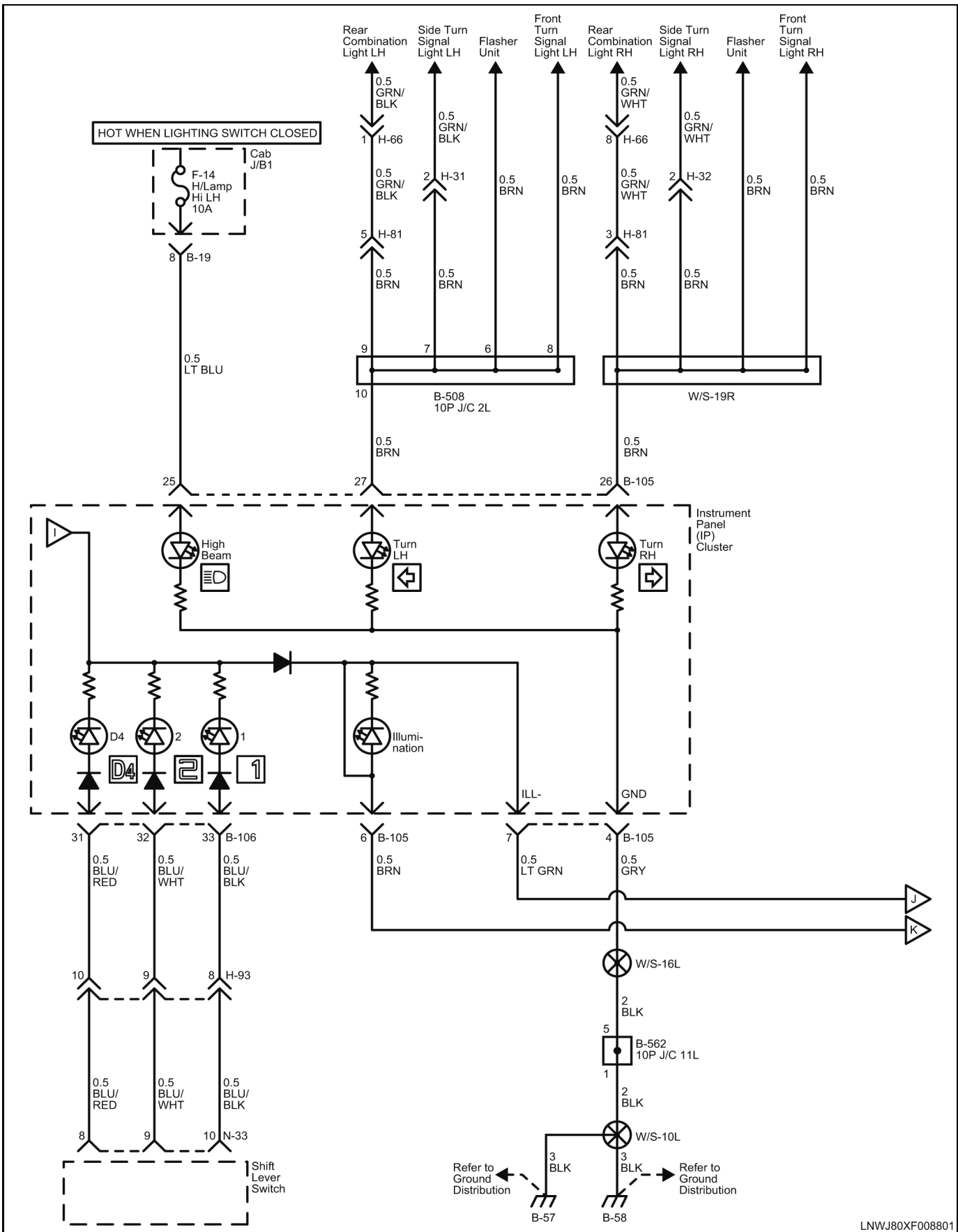




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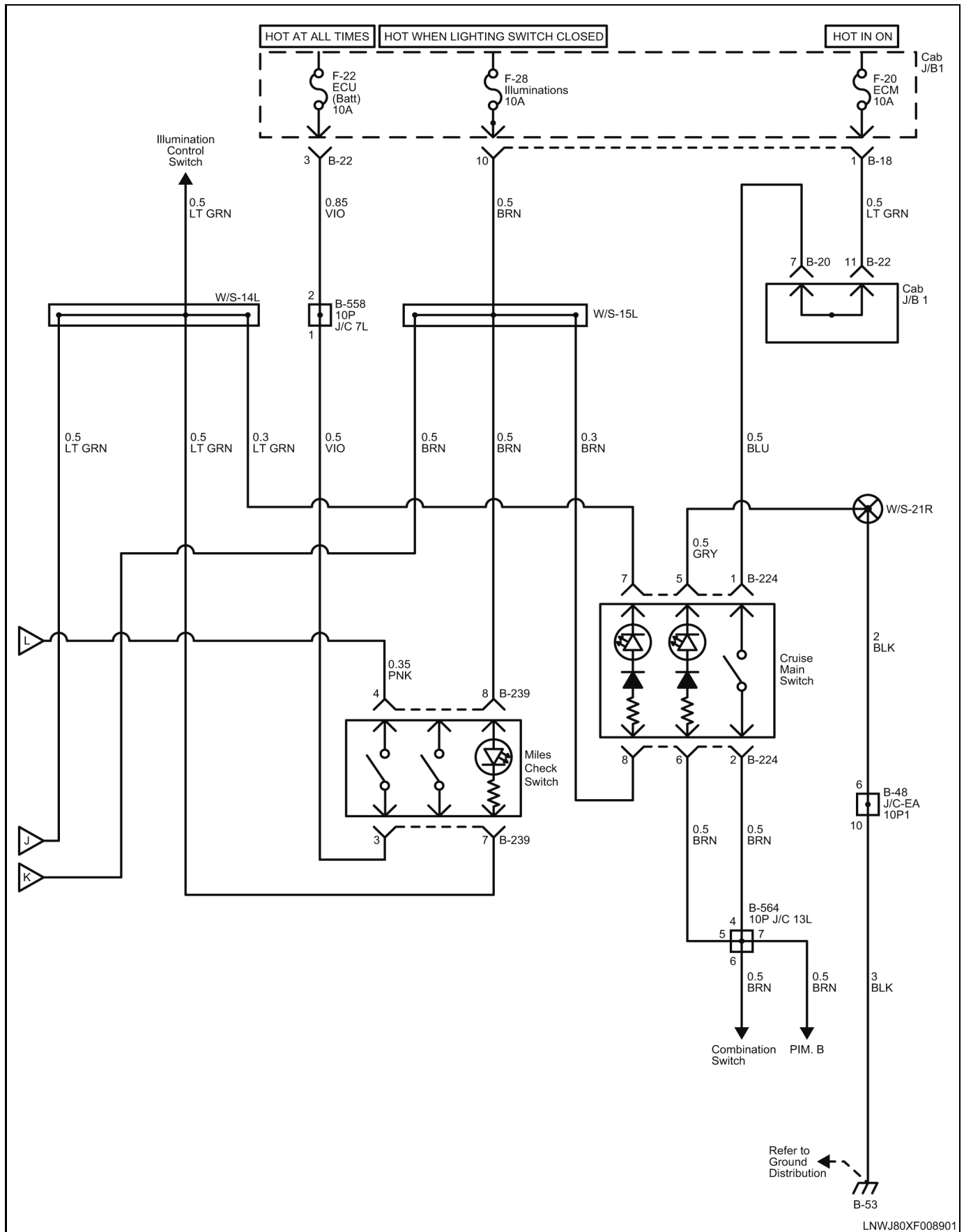
5-72 Cab and Chassis Electrical



LNWJ80XF008801

4957307

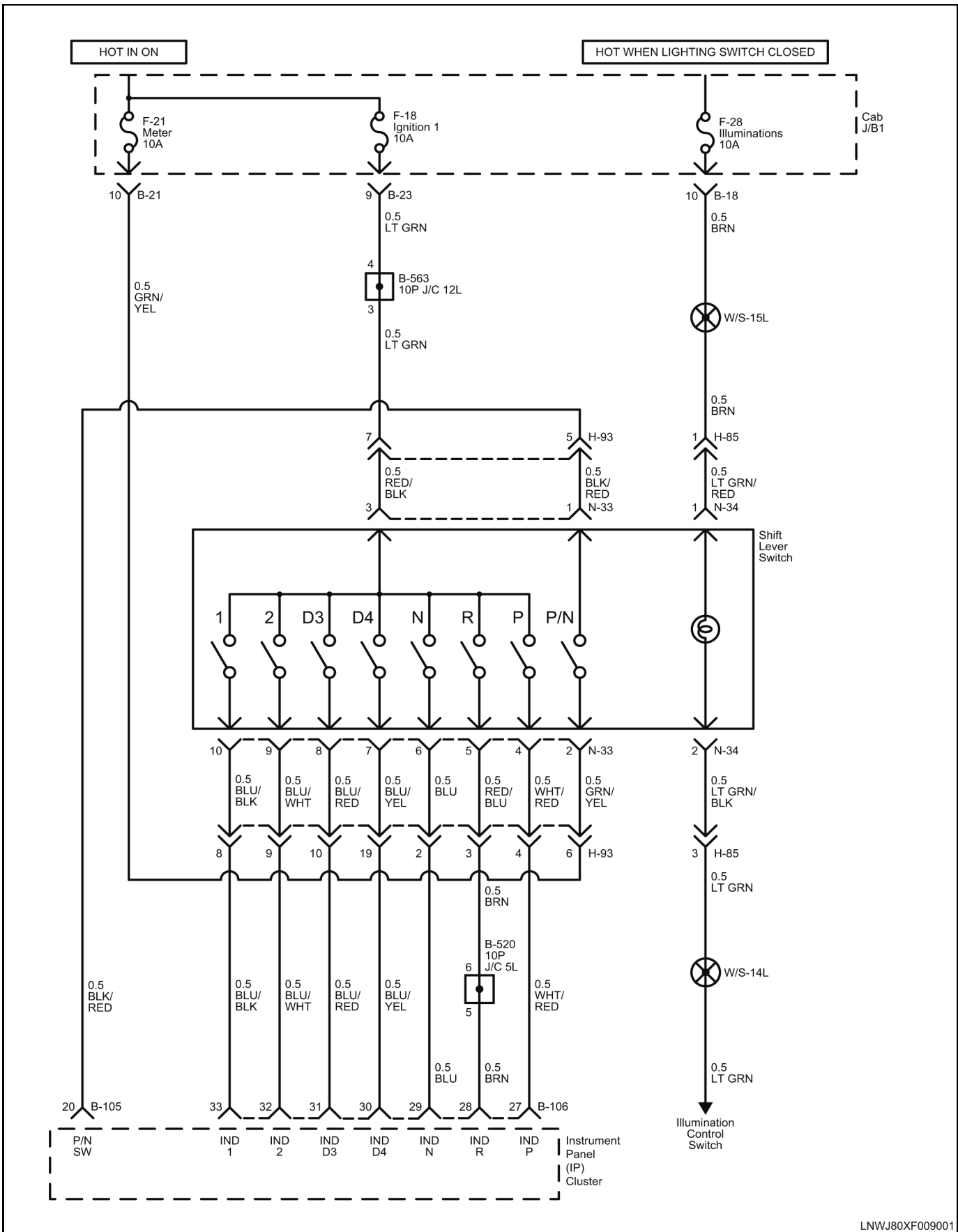




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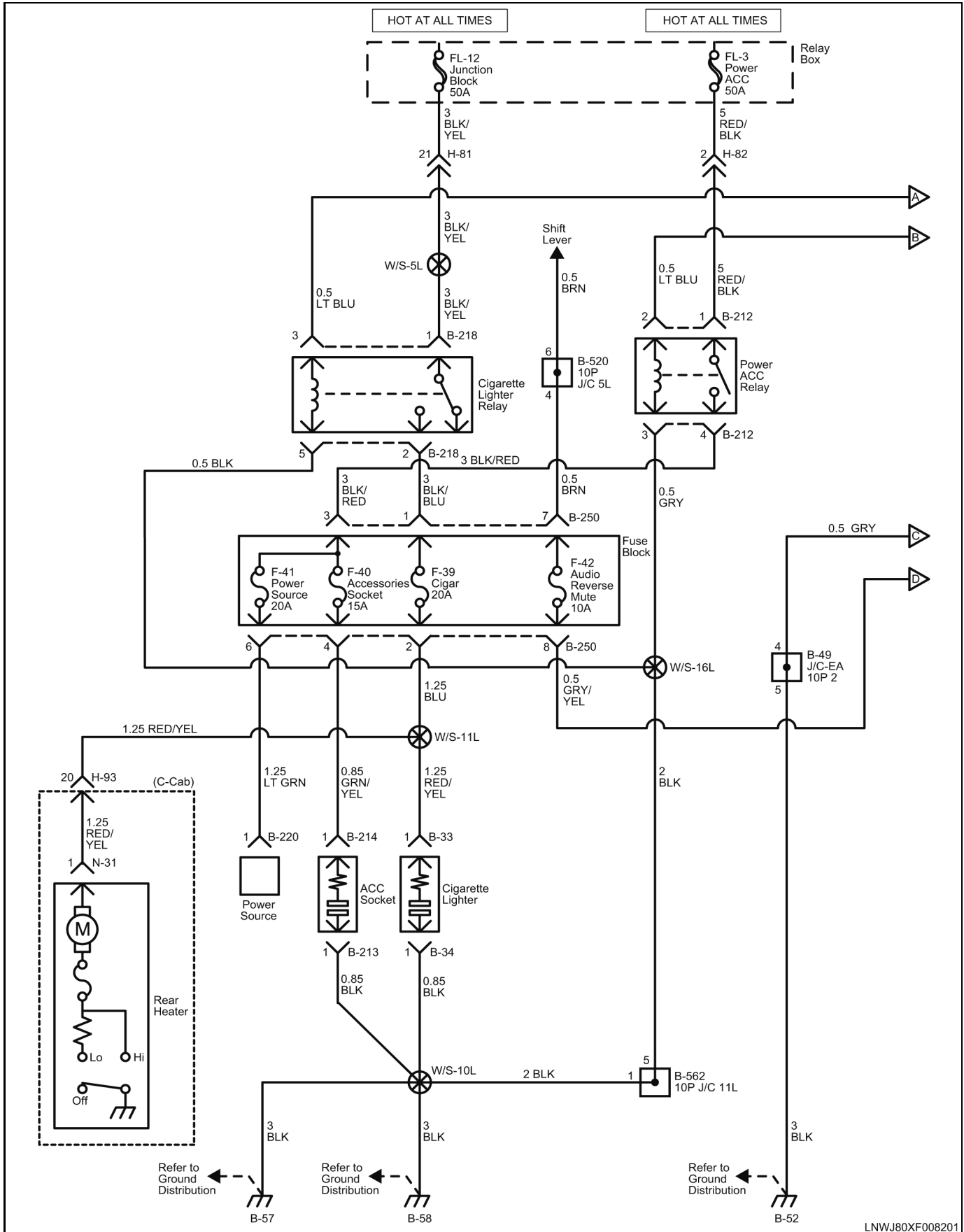
4957312

5-74 Cab and Chassis Electrical



LNWJ80XF009001  
4957380

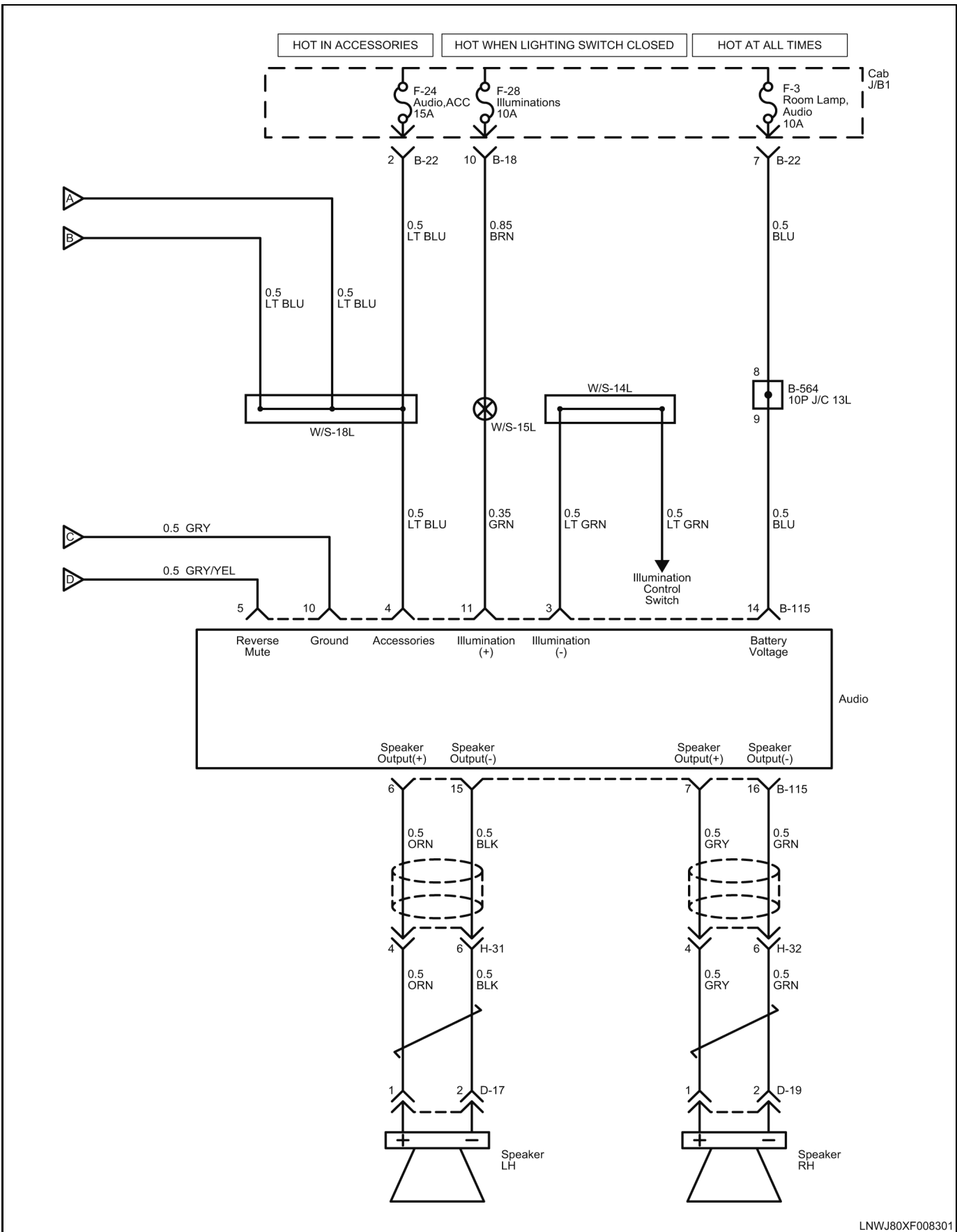
# Radio and Cigarette Lighter Schematics



LNWJ80XF008201

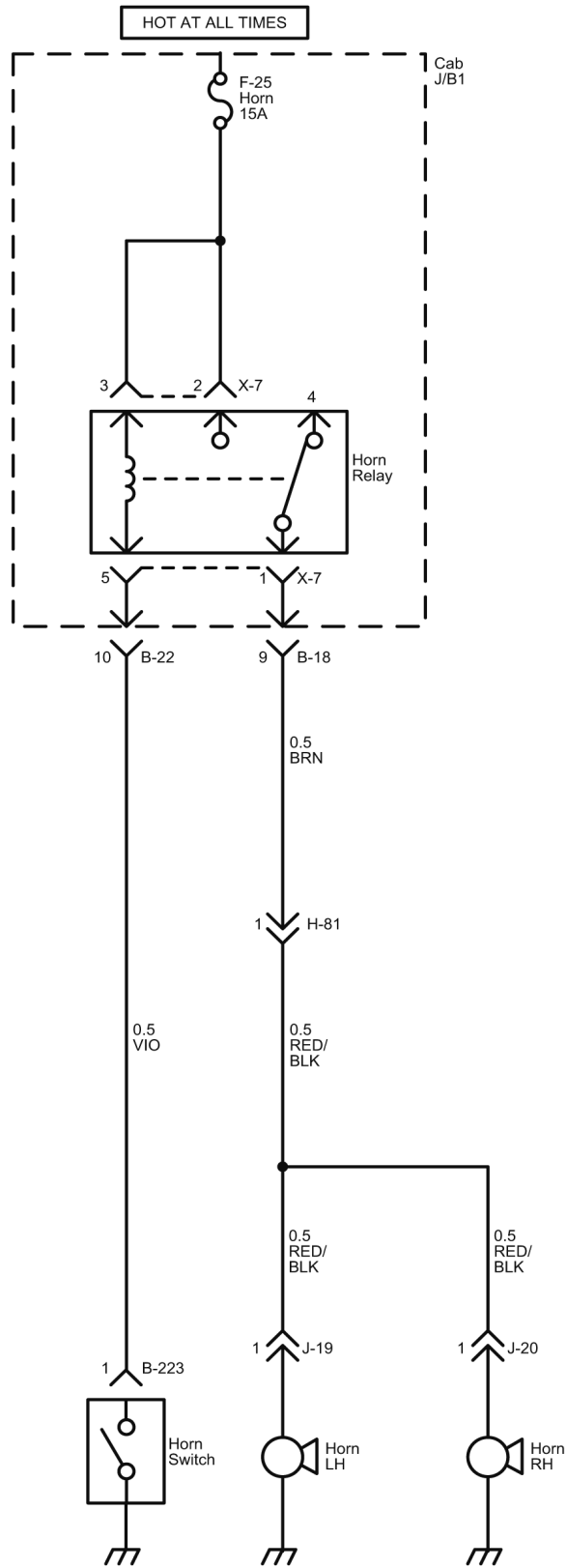
4957282

5-76 Cab and Chassis Electrical



LNWJ80XF008301  
4957283

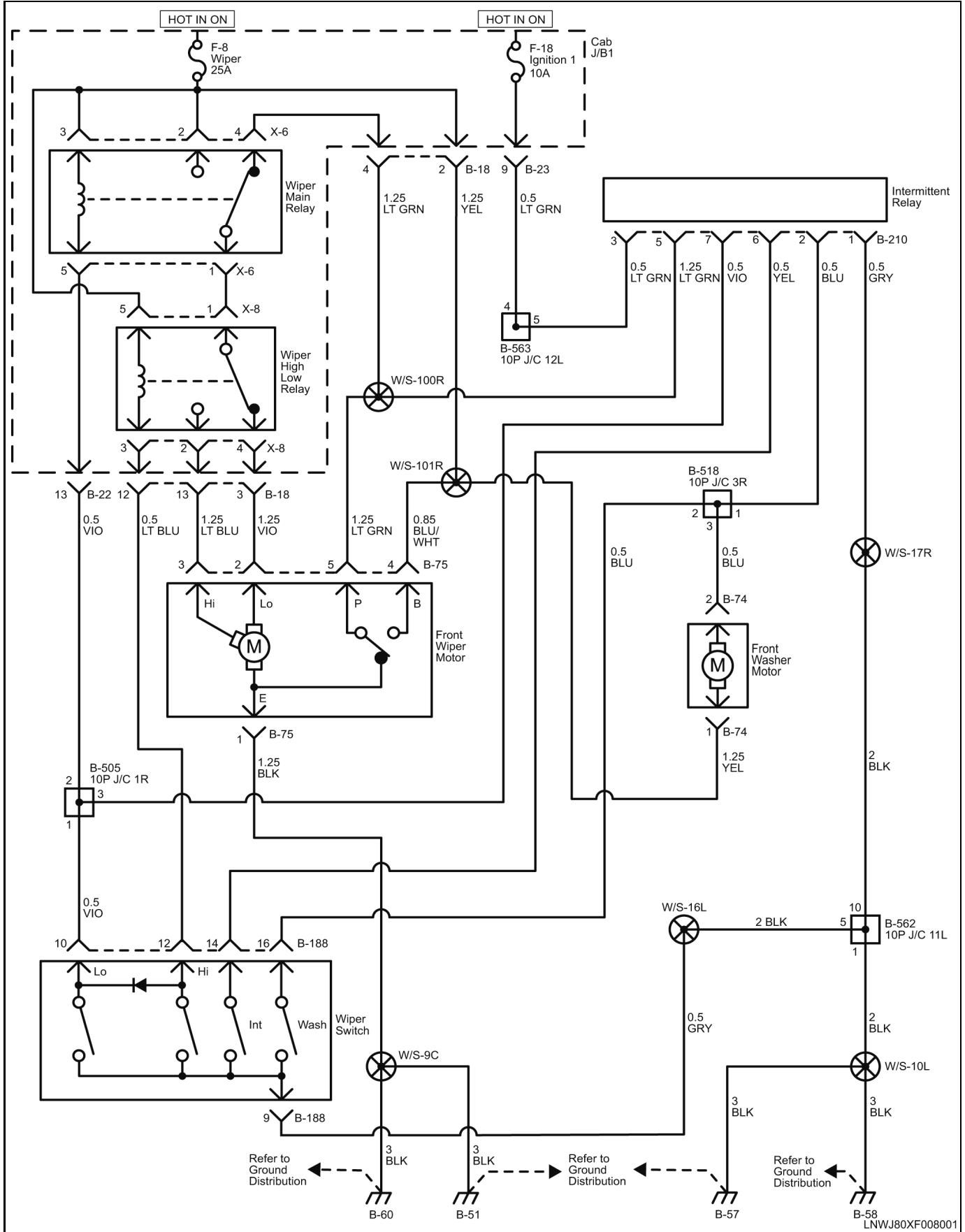
# Horn Schematics



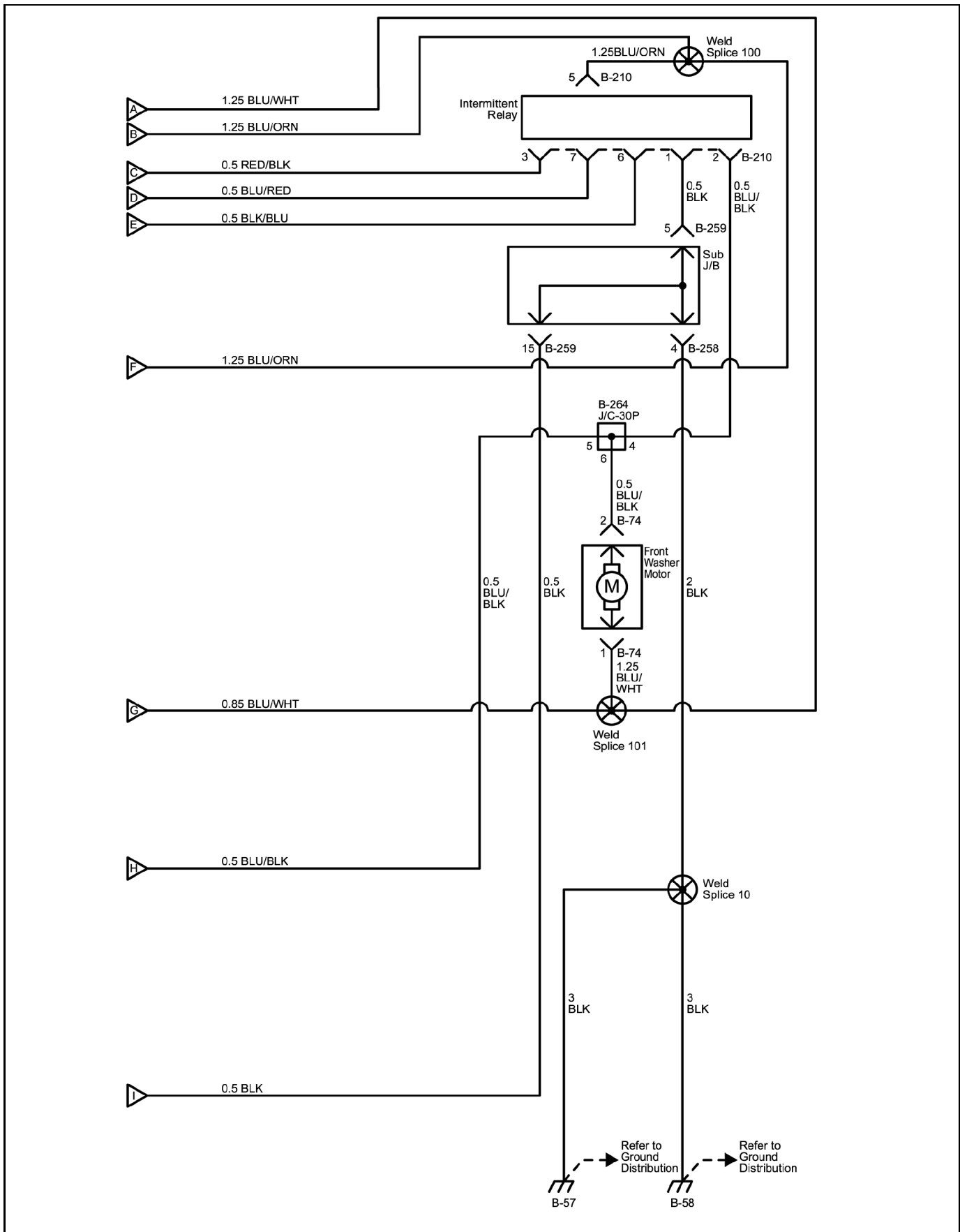
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4957274

Wiper/Washer Schematics

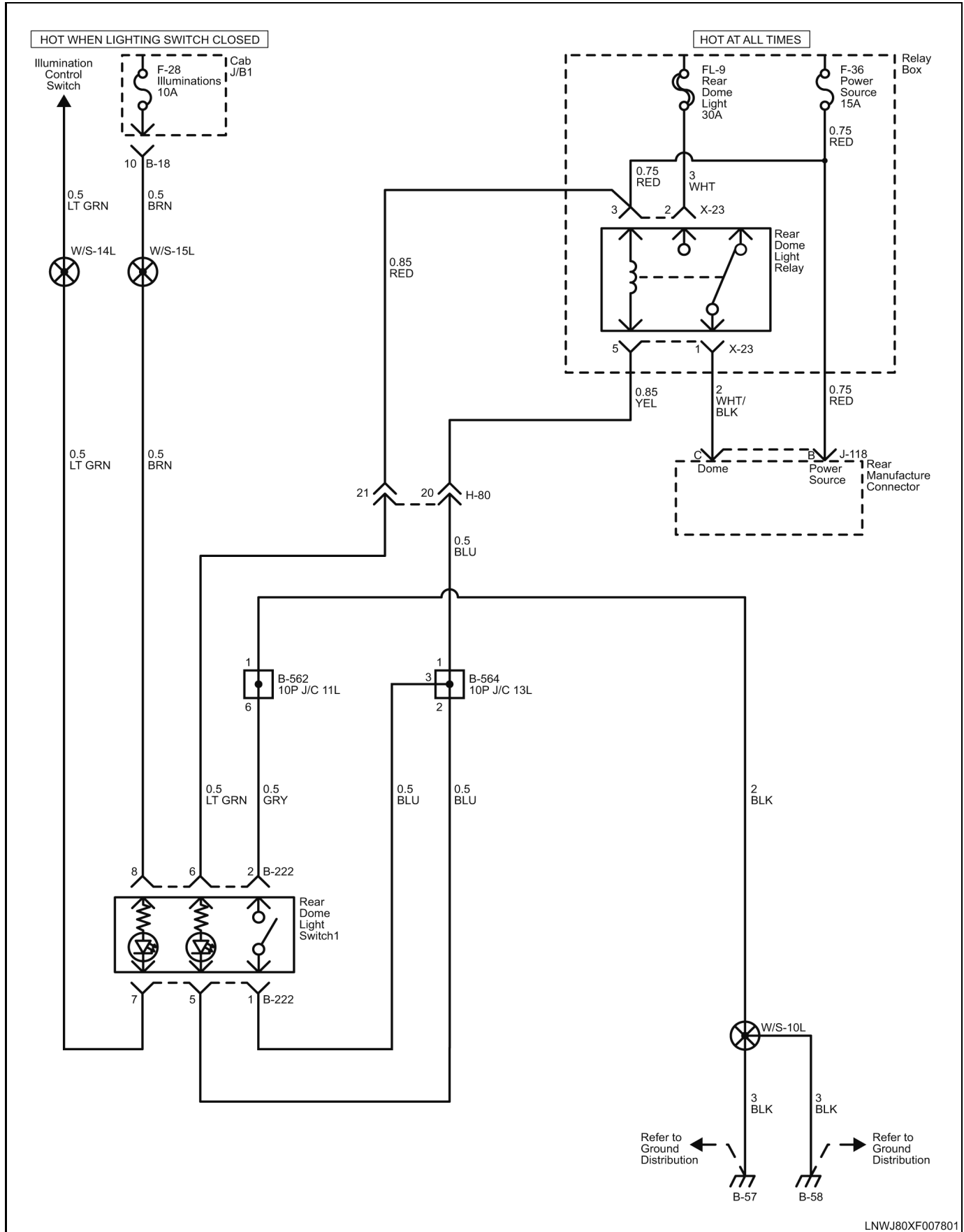


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4557025

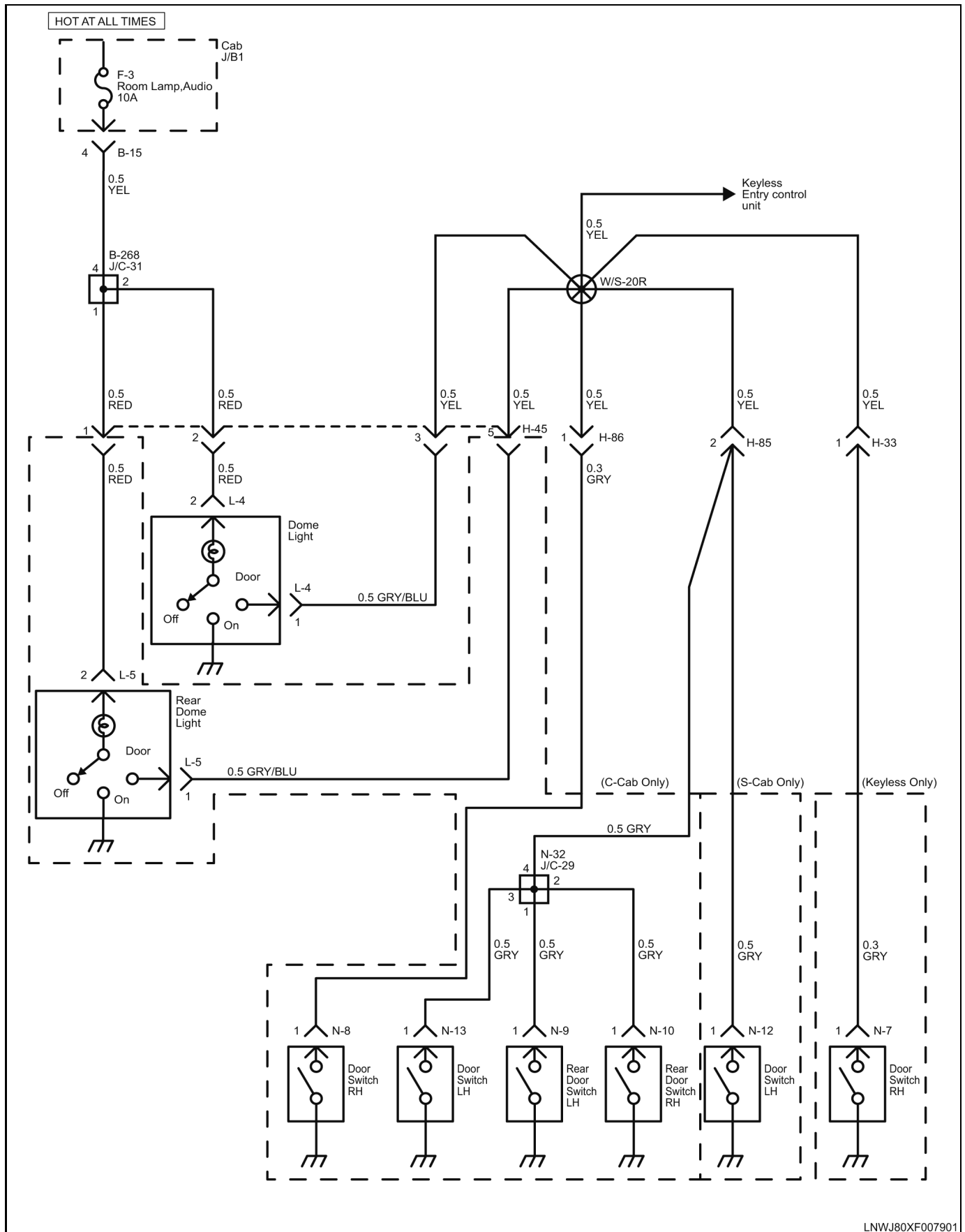
# Interior Lights Schematics



LNWJ80XF007801

4957212

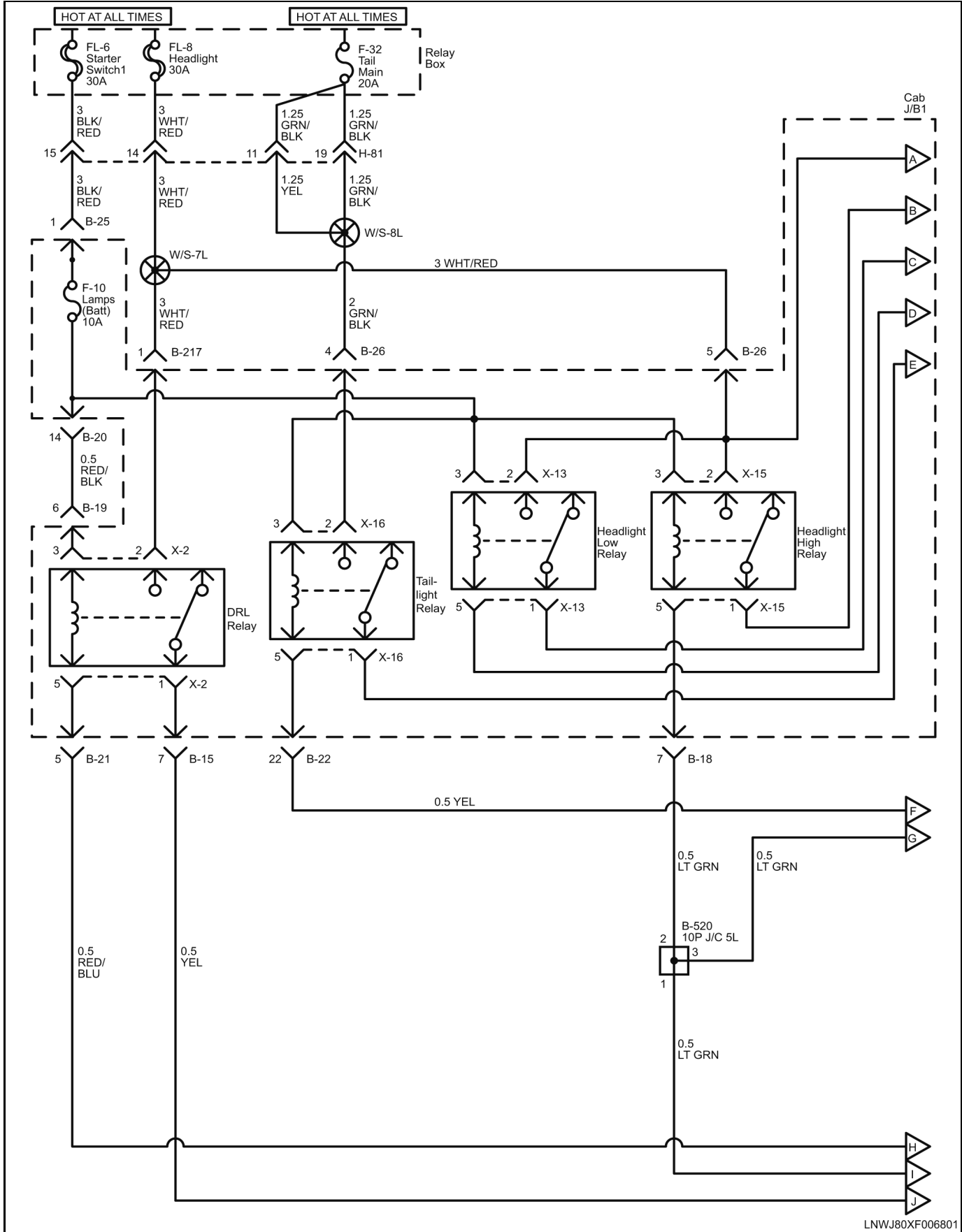




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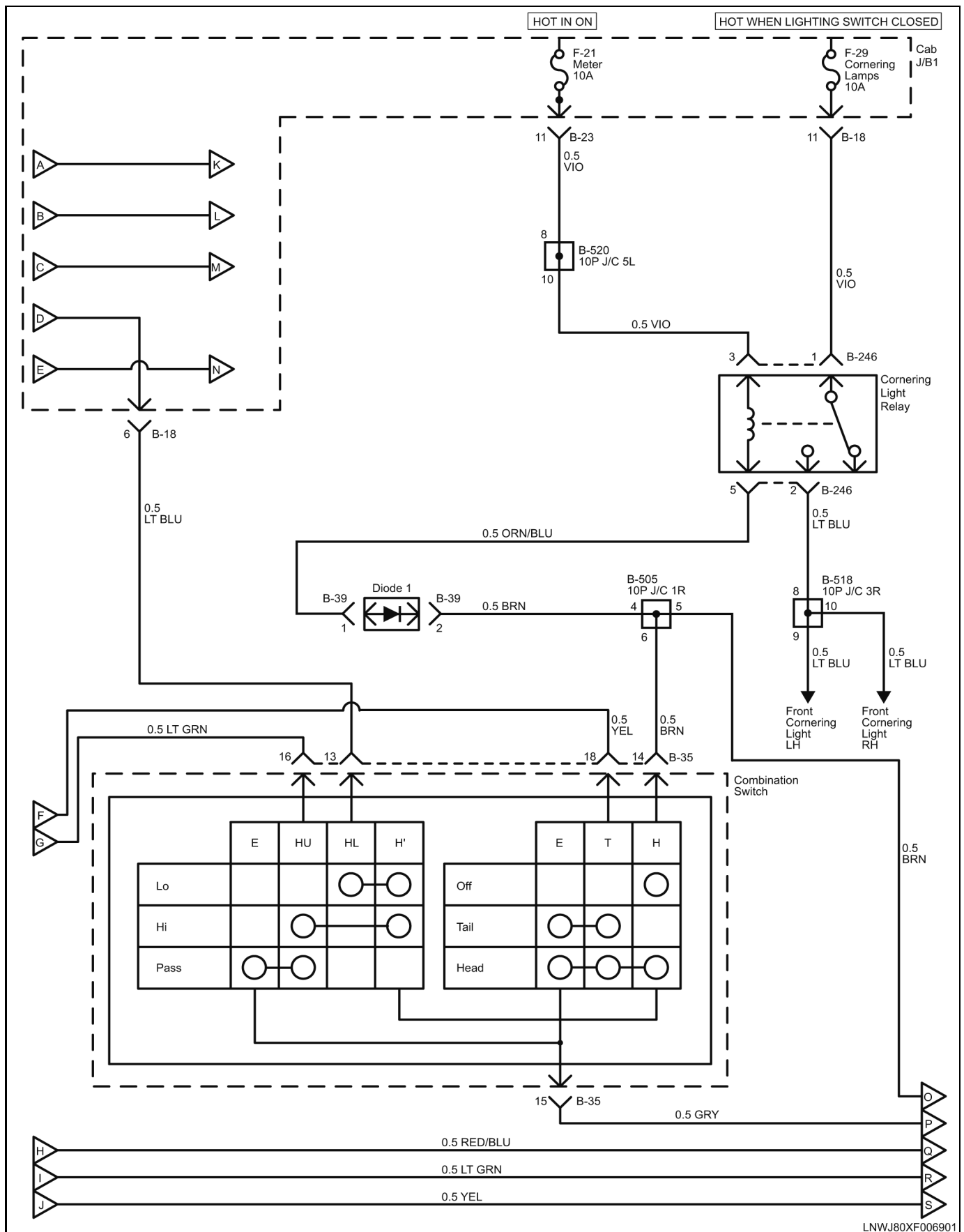
4957216

Exterior Lights Schematics



LNWJ80XF006801

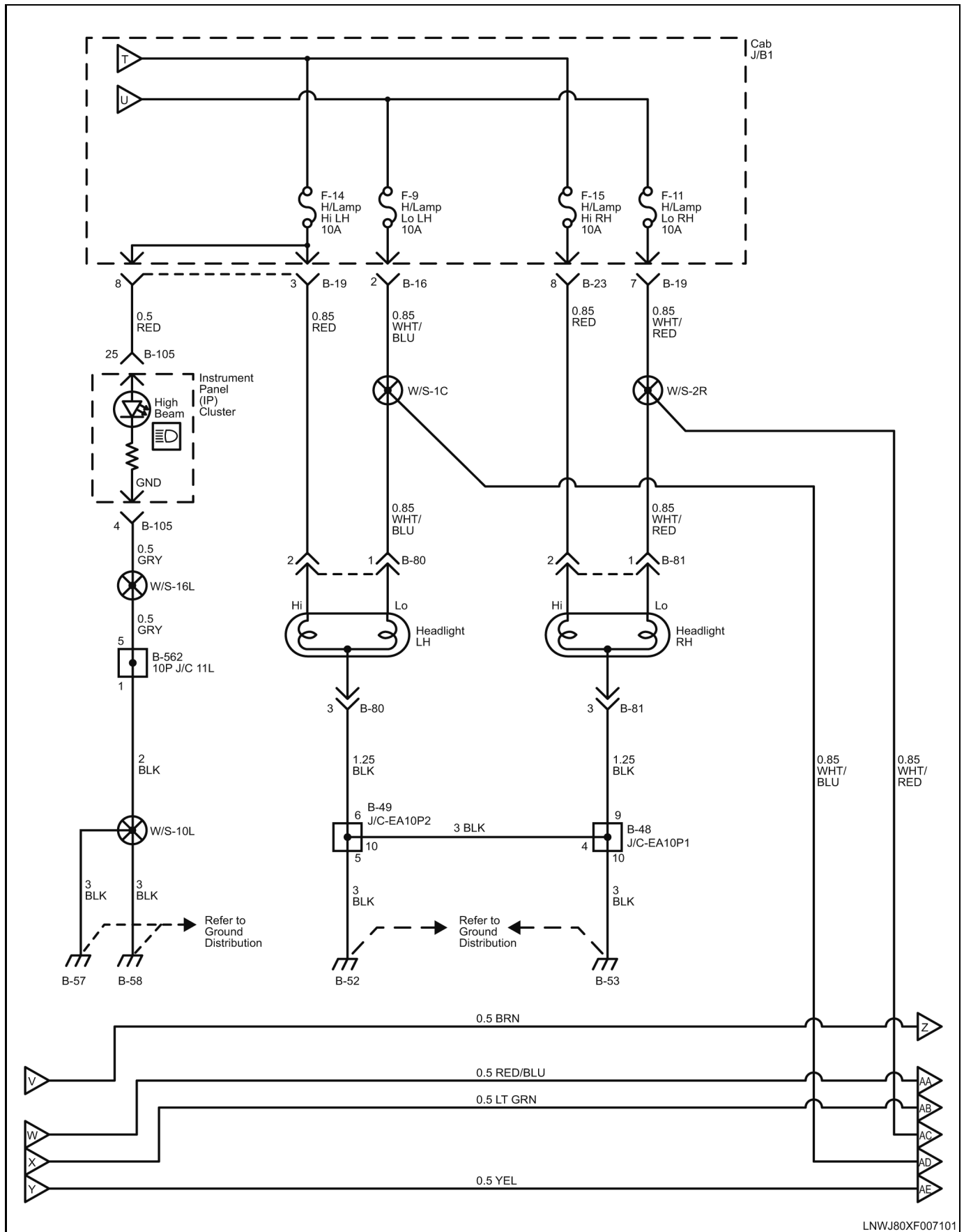
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LNWJ80XF006901

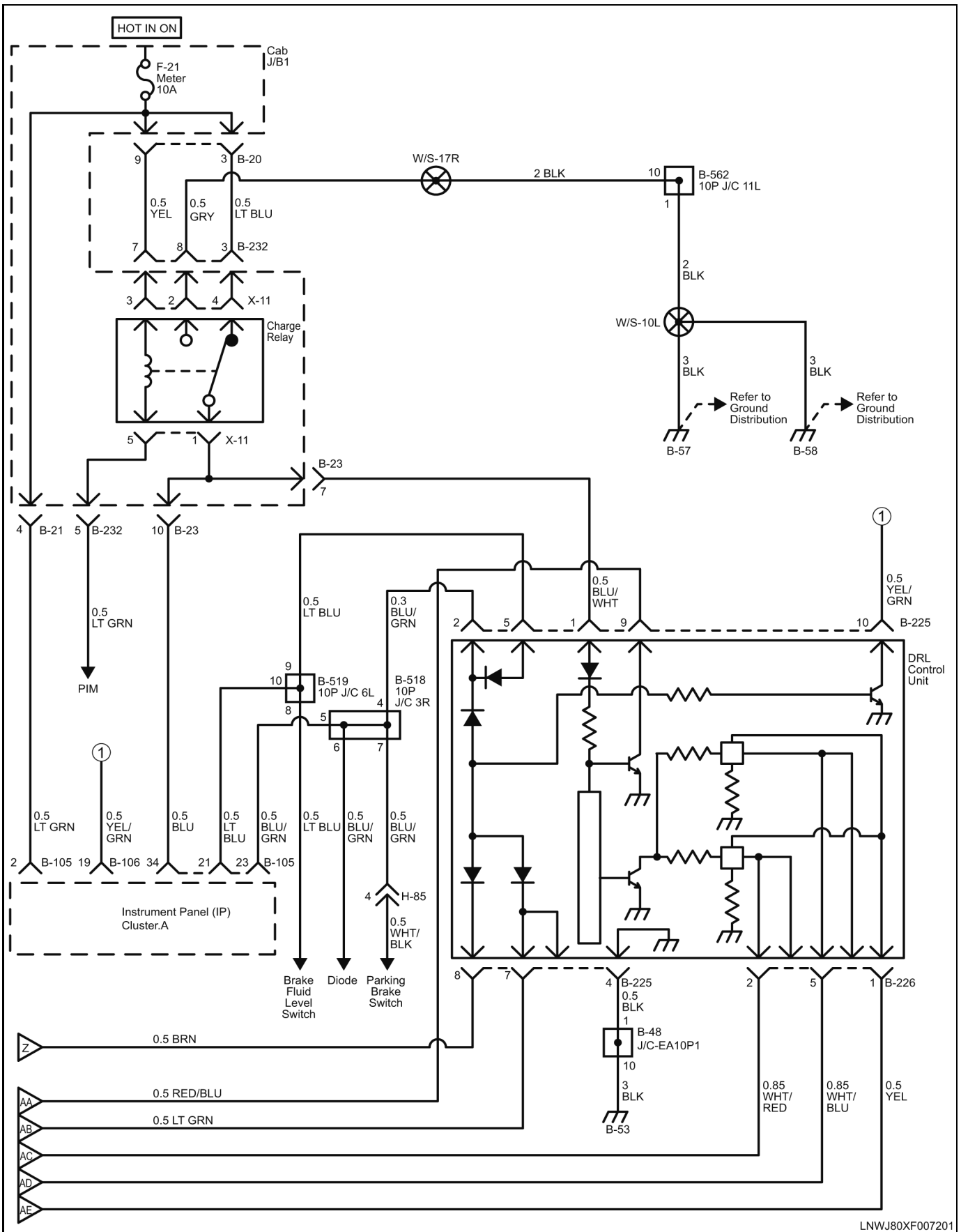
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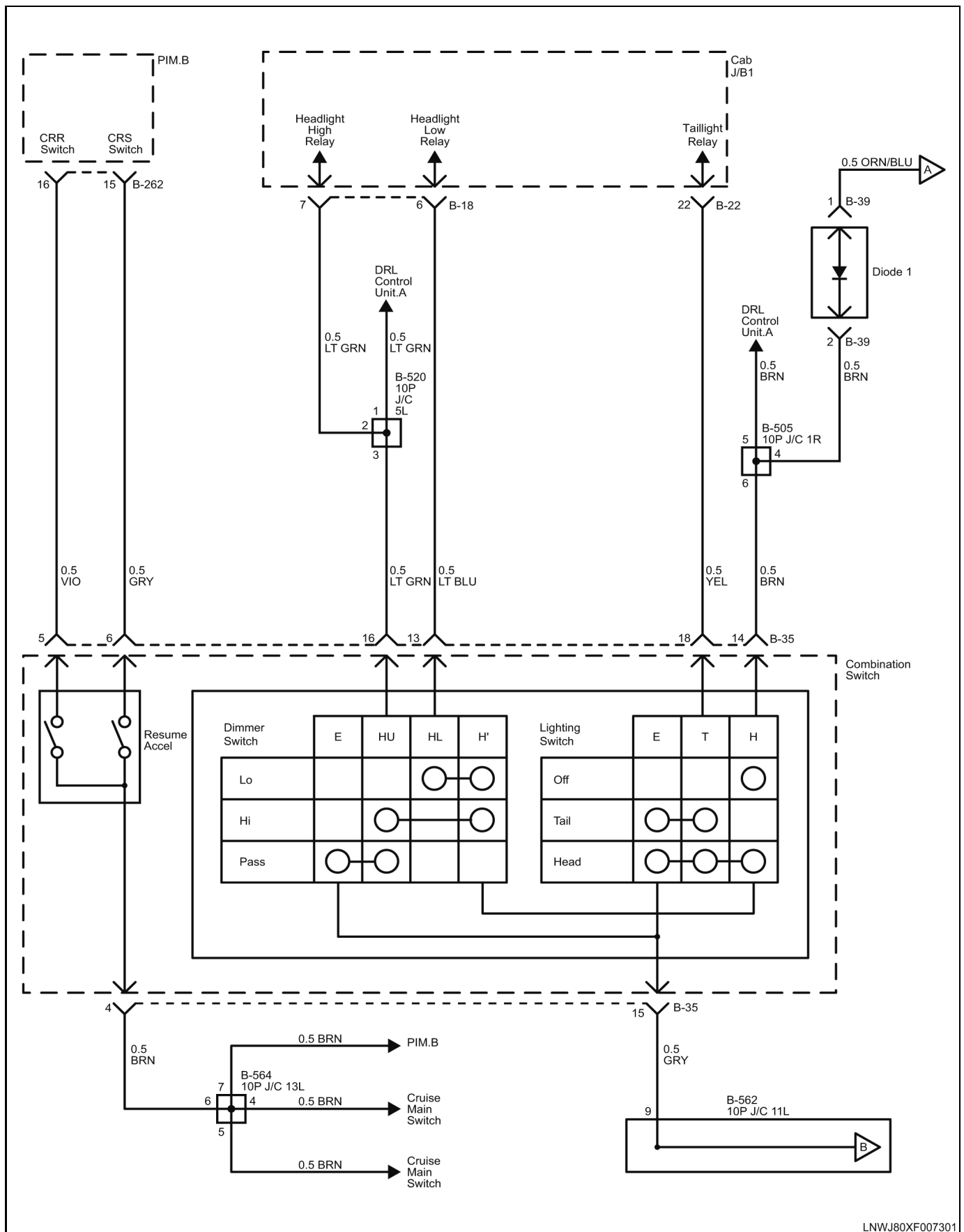


LNWJ80XF007101  
4957093

5-86 Cab and Chassis Electrical



LNWJ80XF007201  
4957098

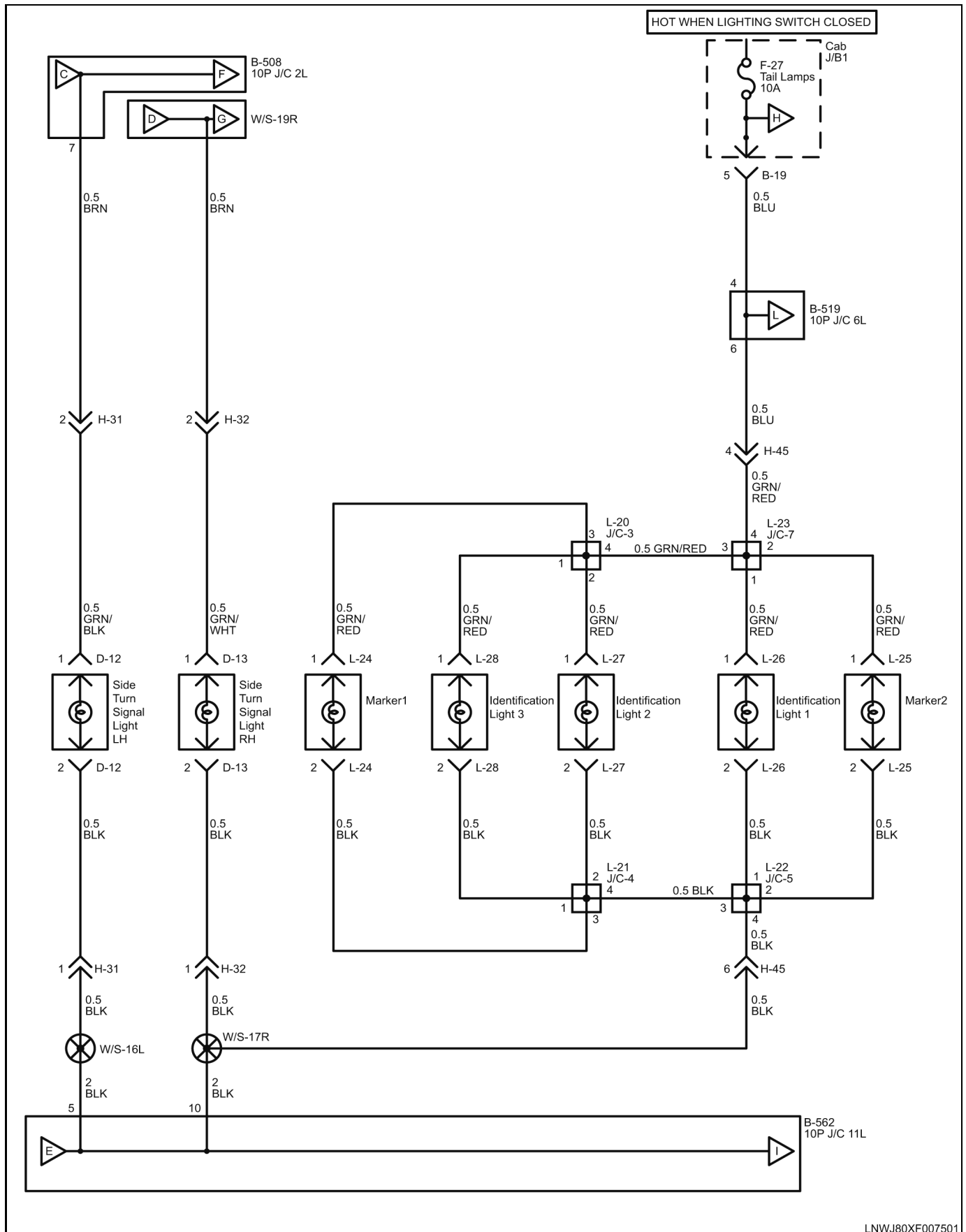


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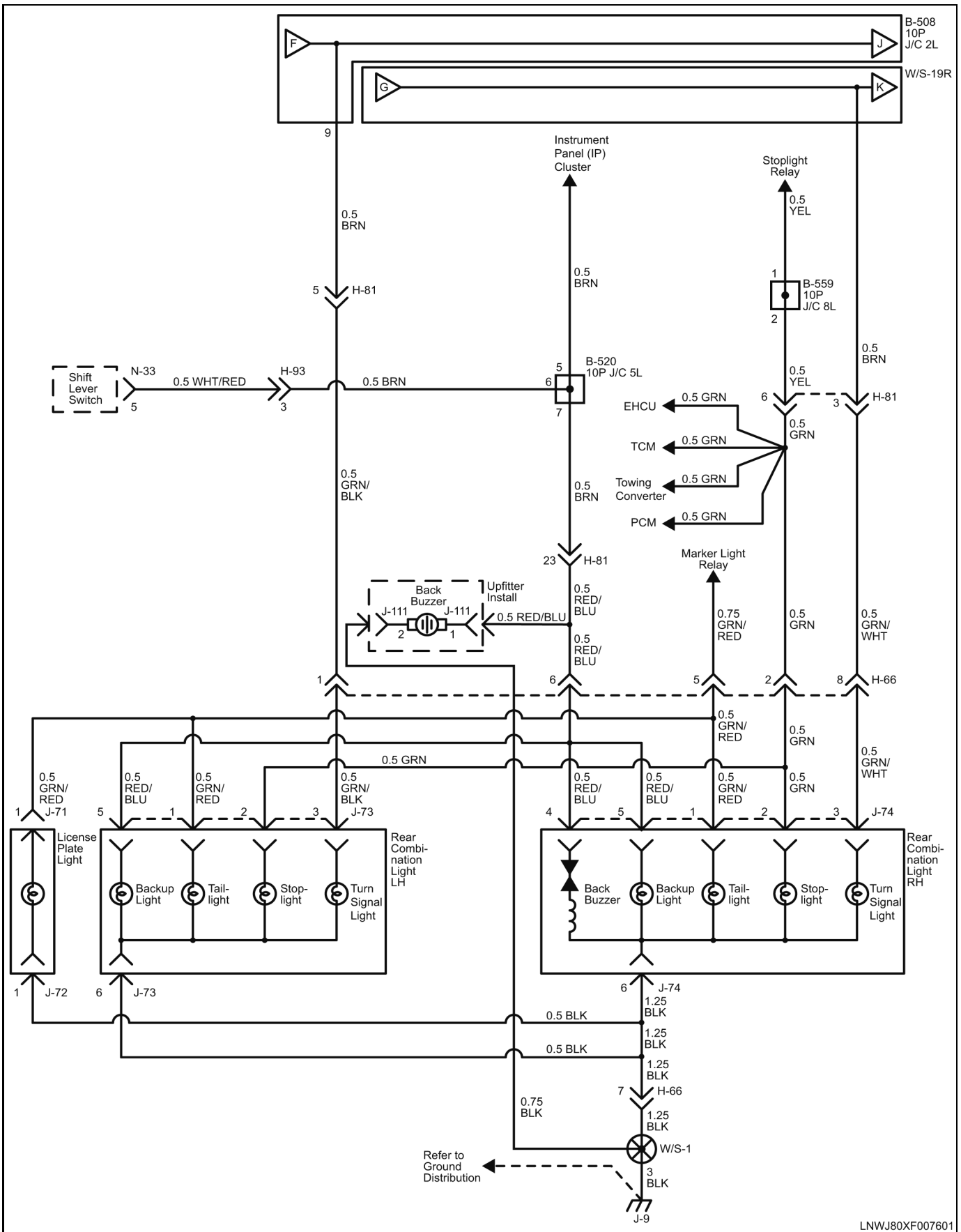






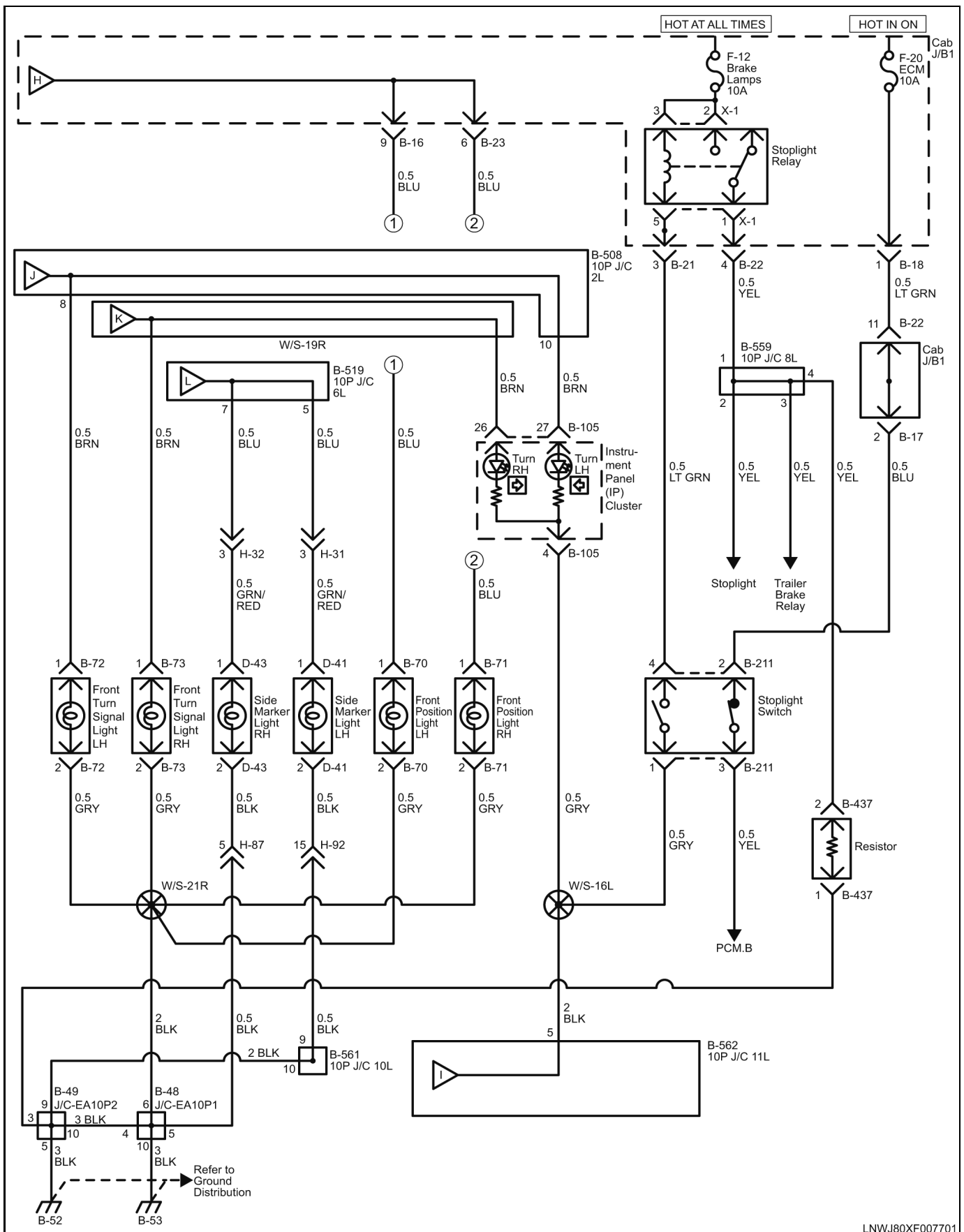
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4957126

5-90 Cab and Chassis Electrical



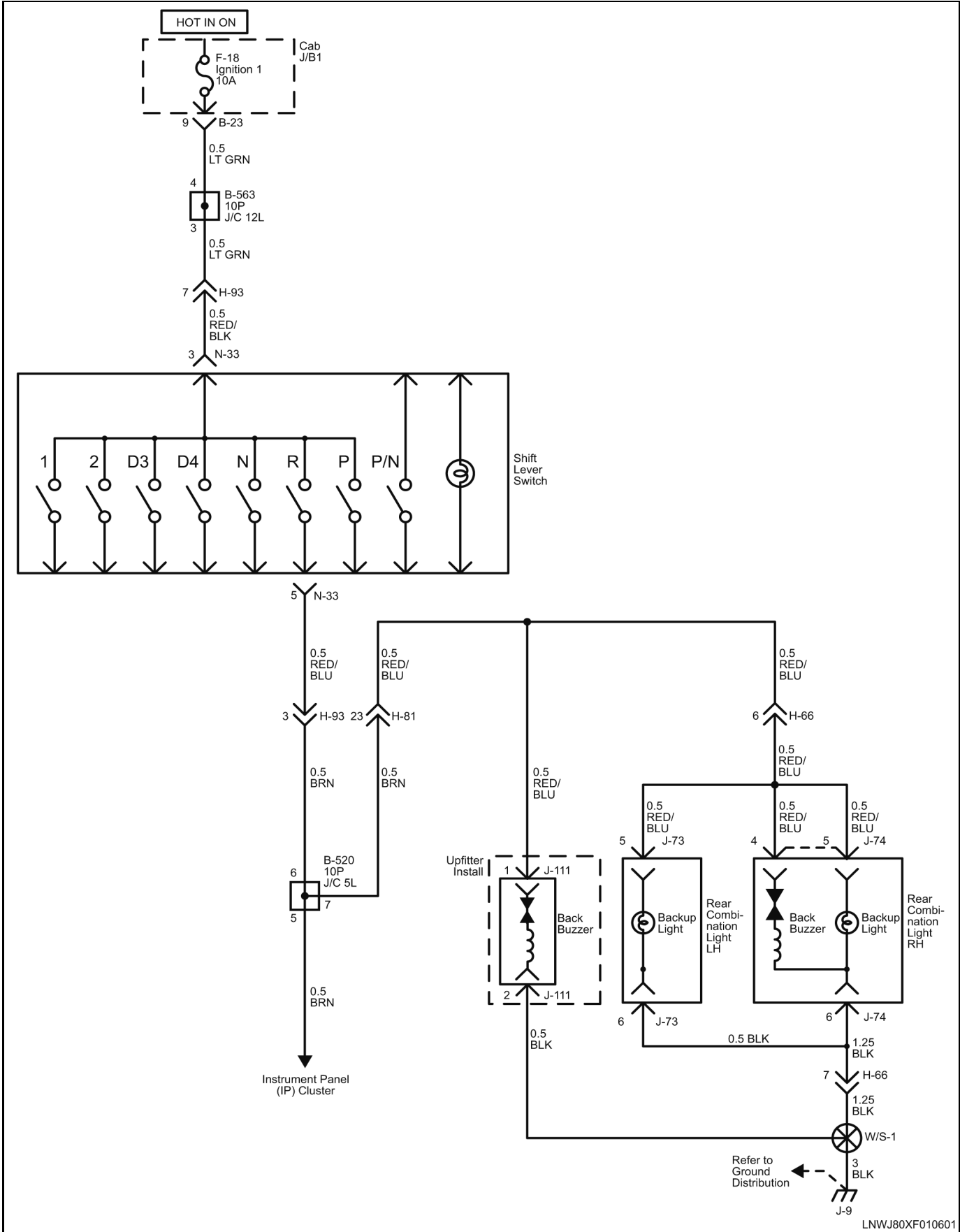
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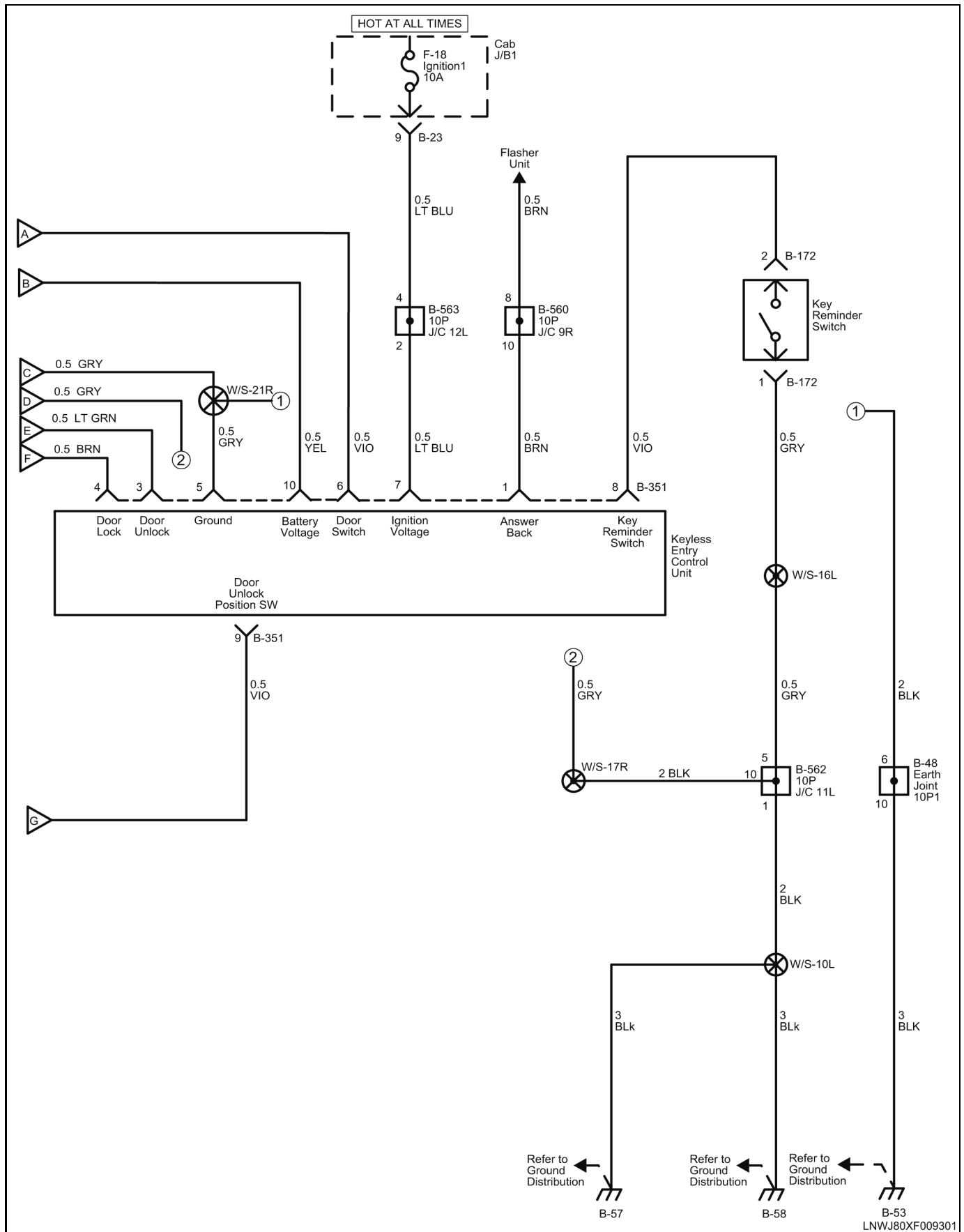
# Backup Alarm System Schematics



4957882

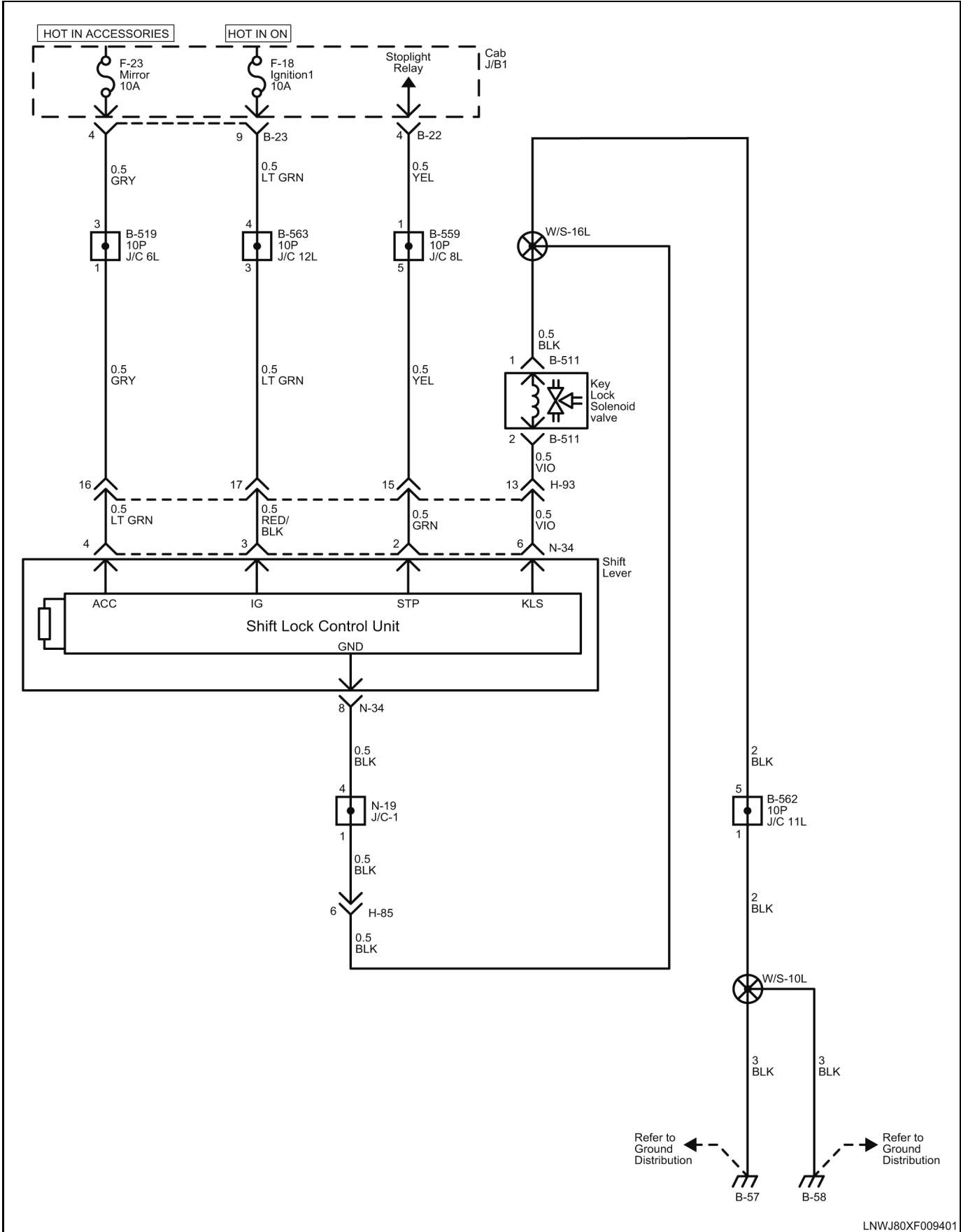






4957451

Transmission Control Module Schematics

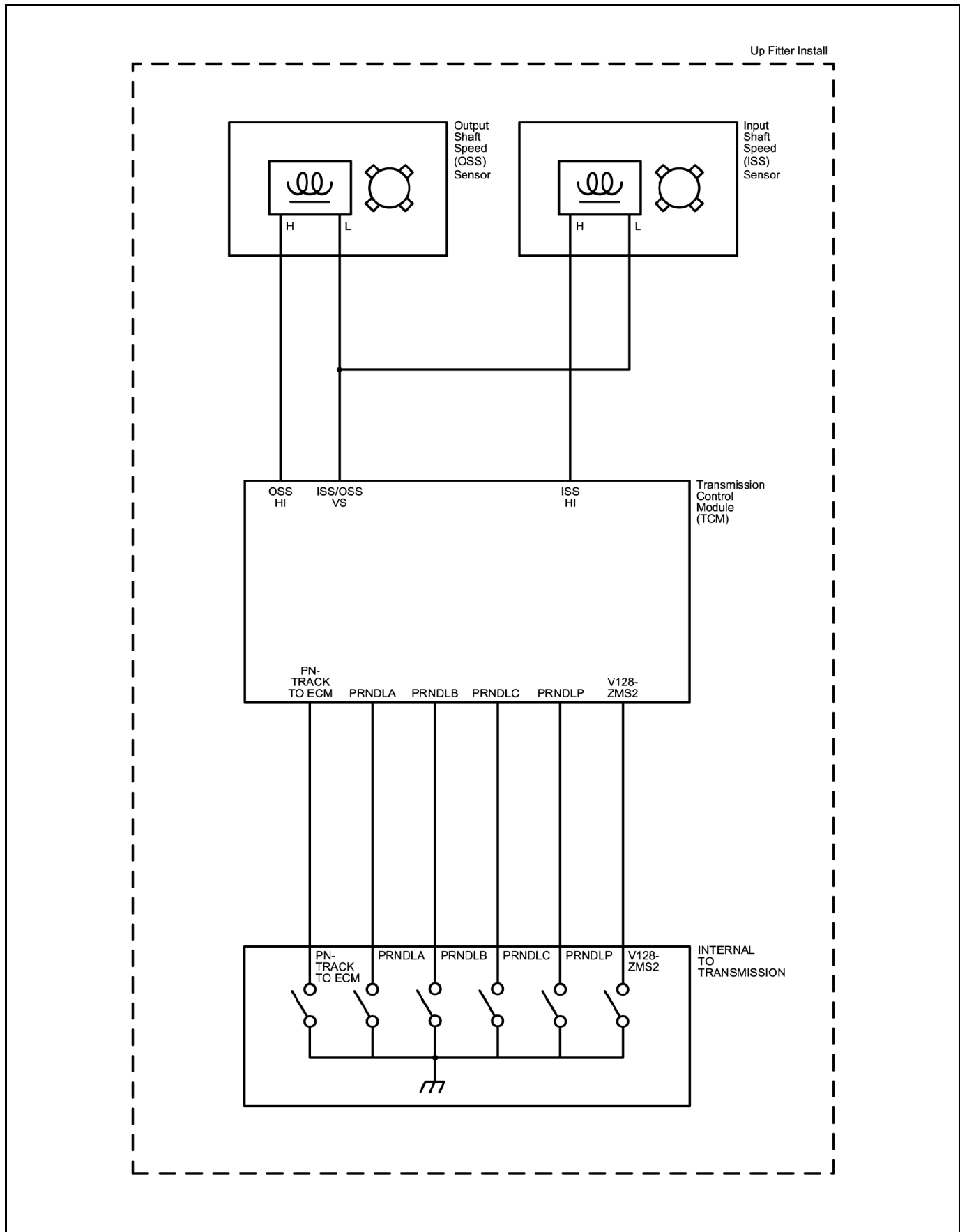


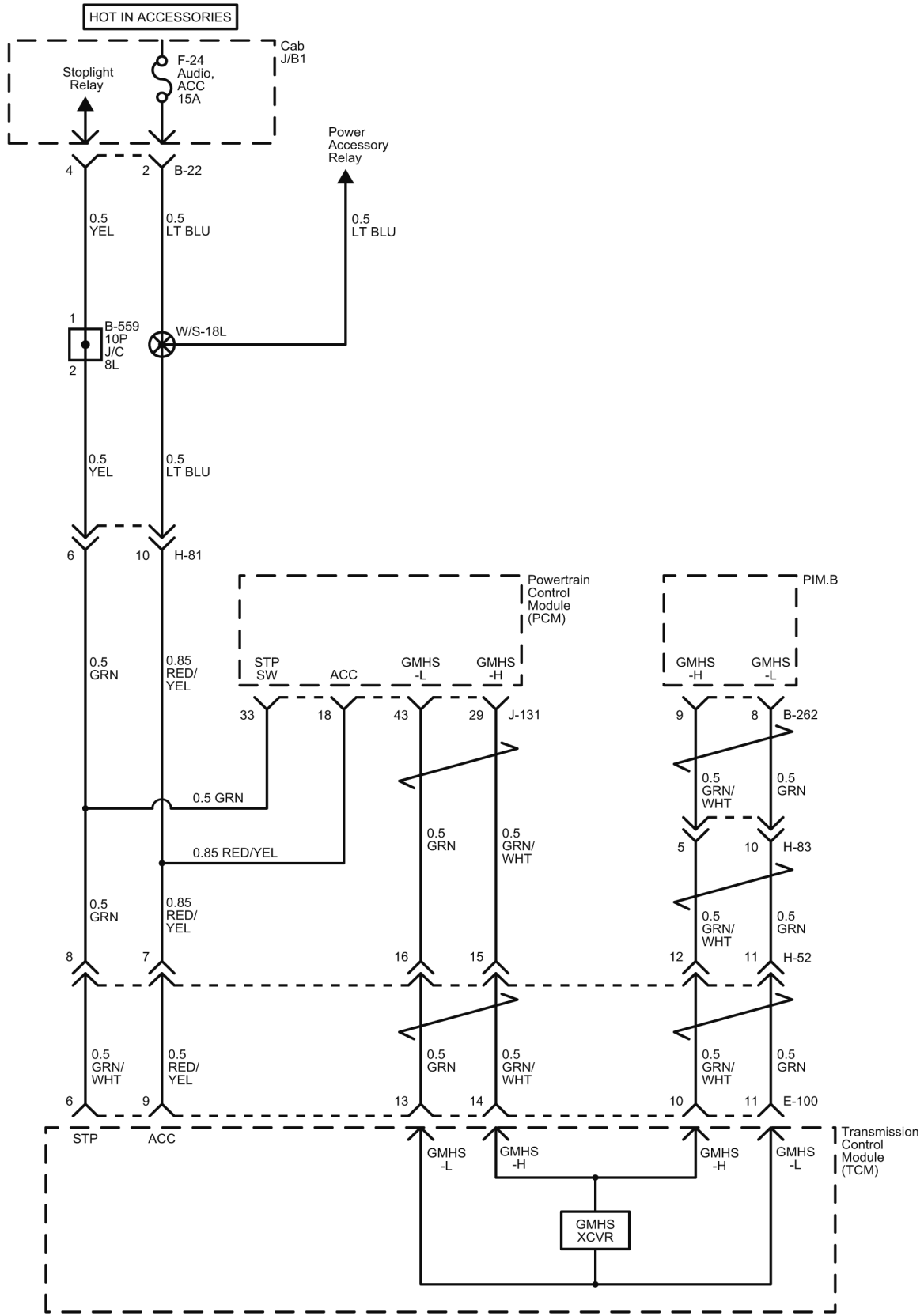
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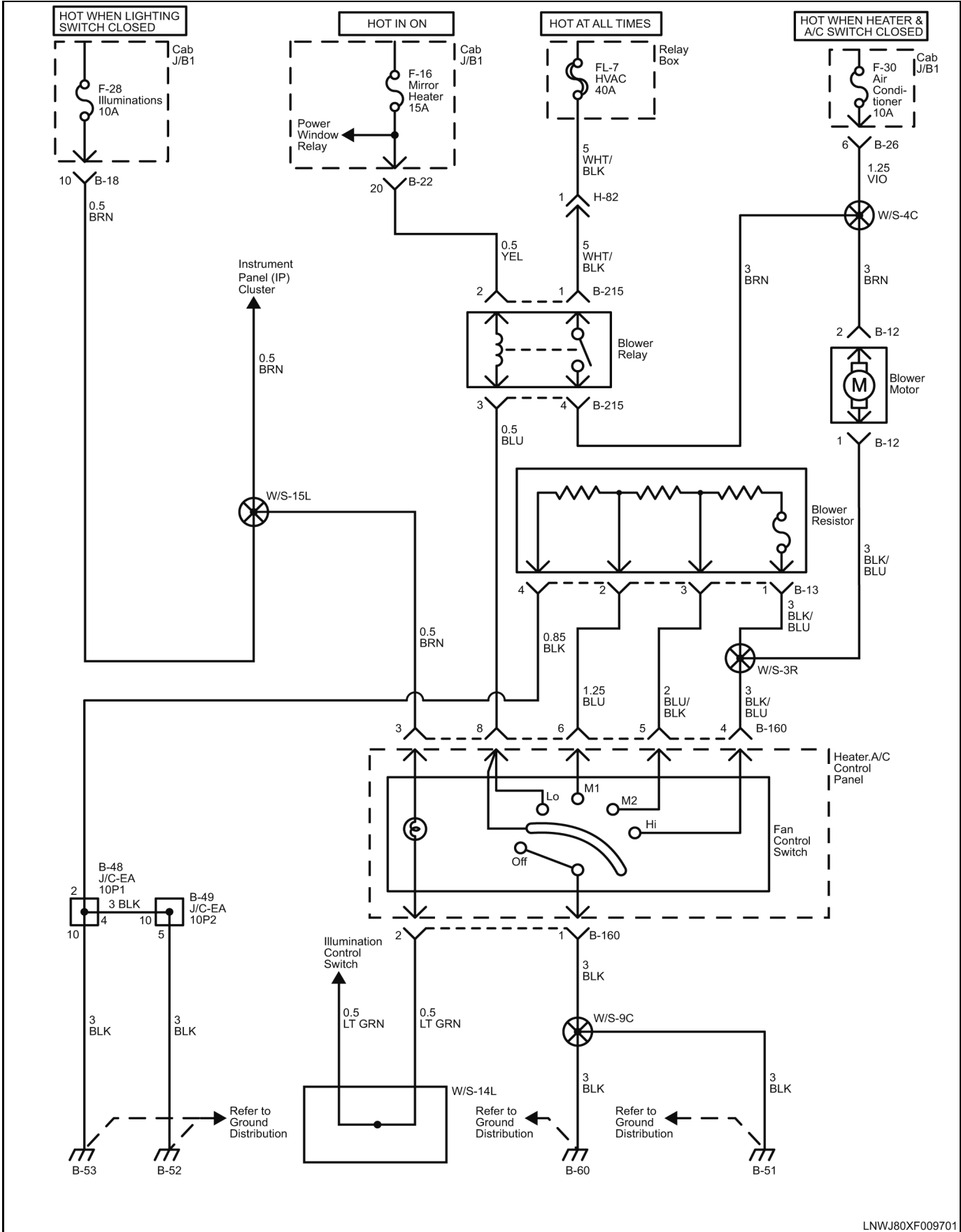






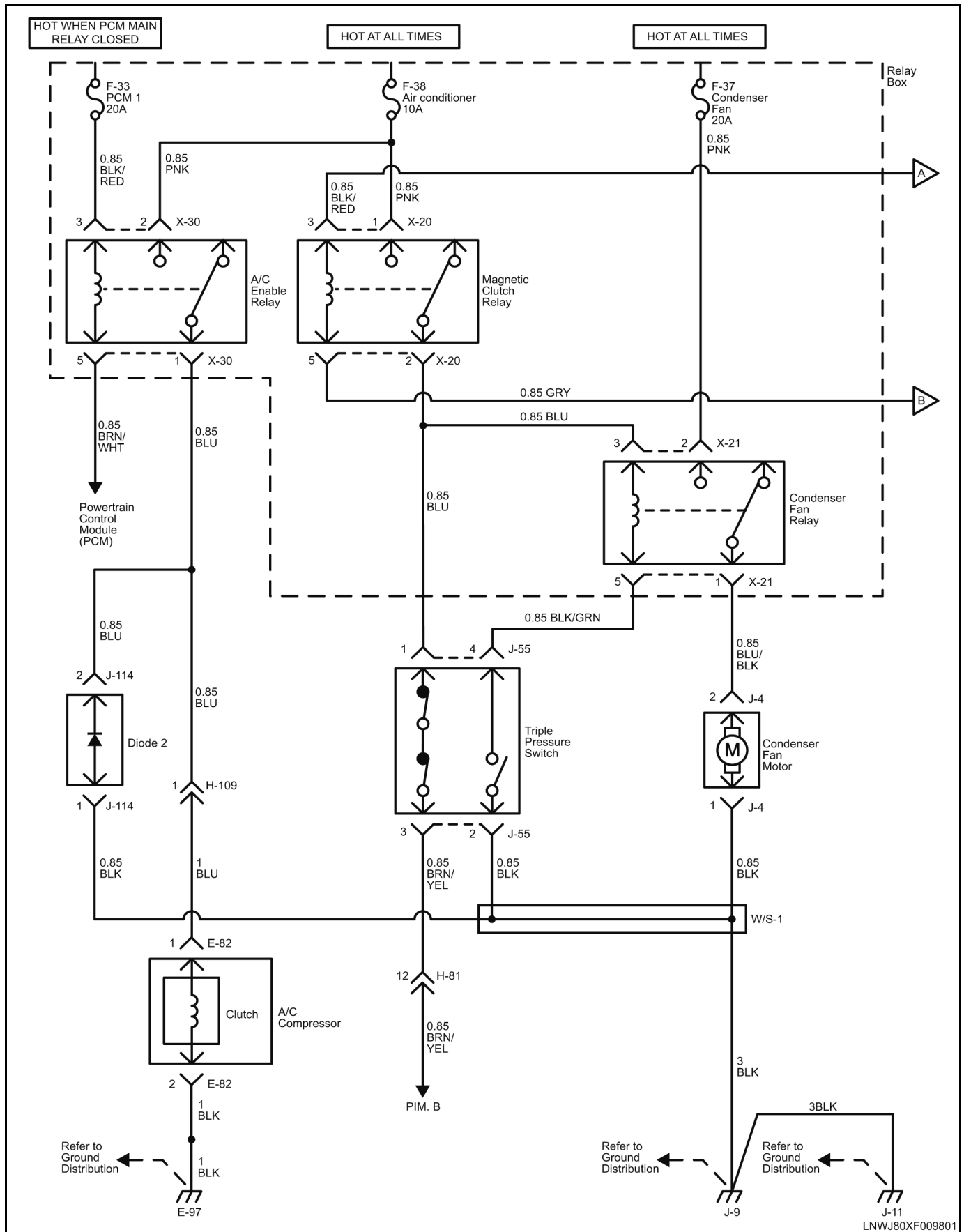
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4957512

HVAC Schematics



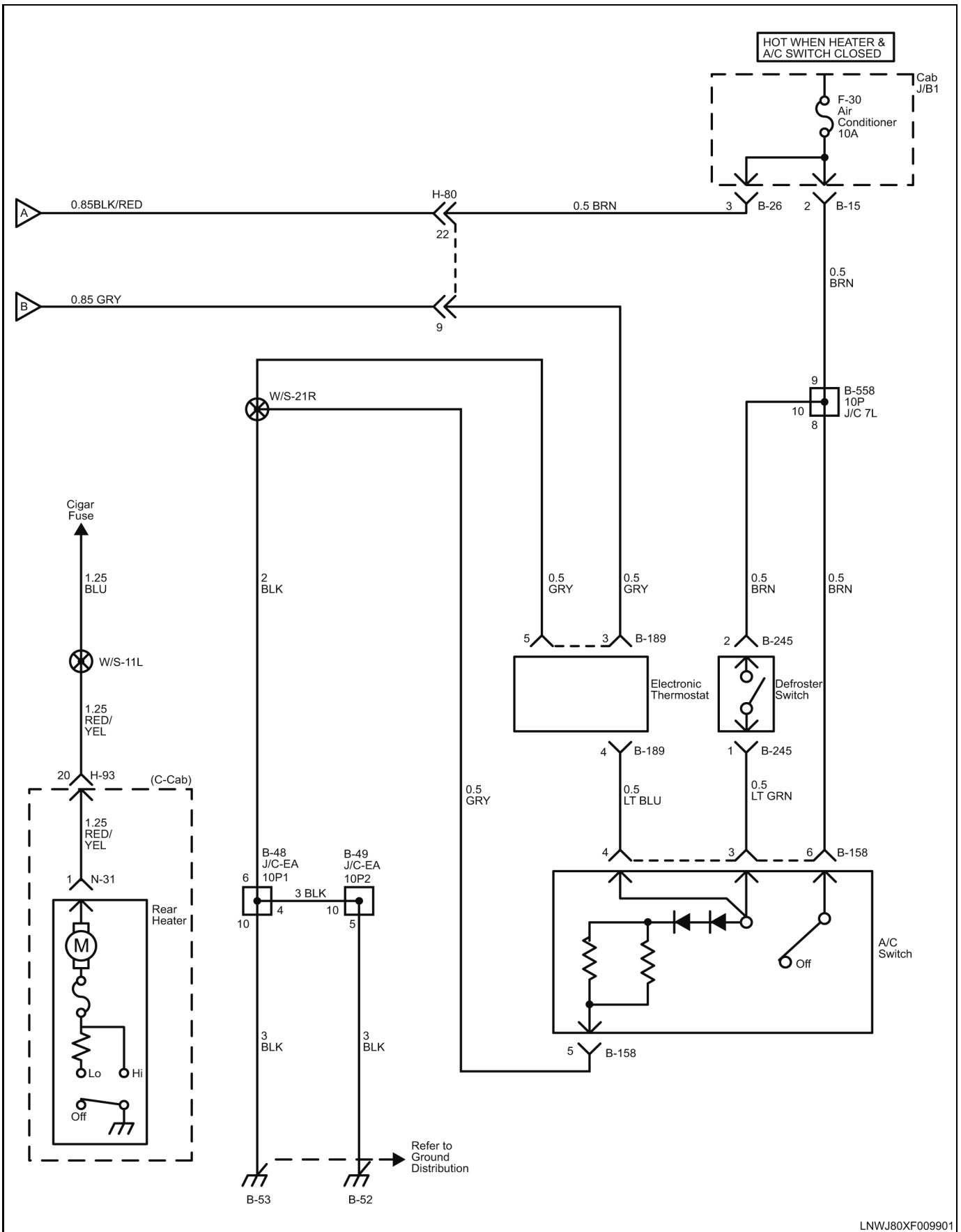
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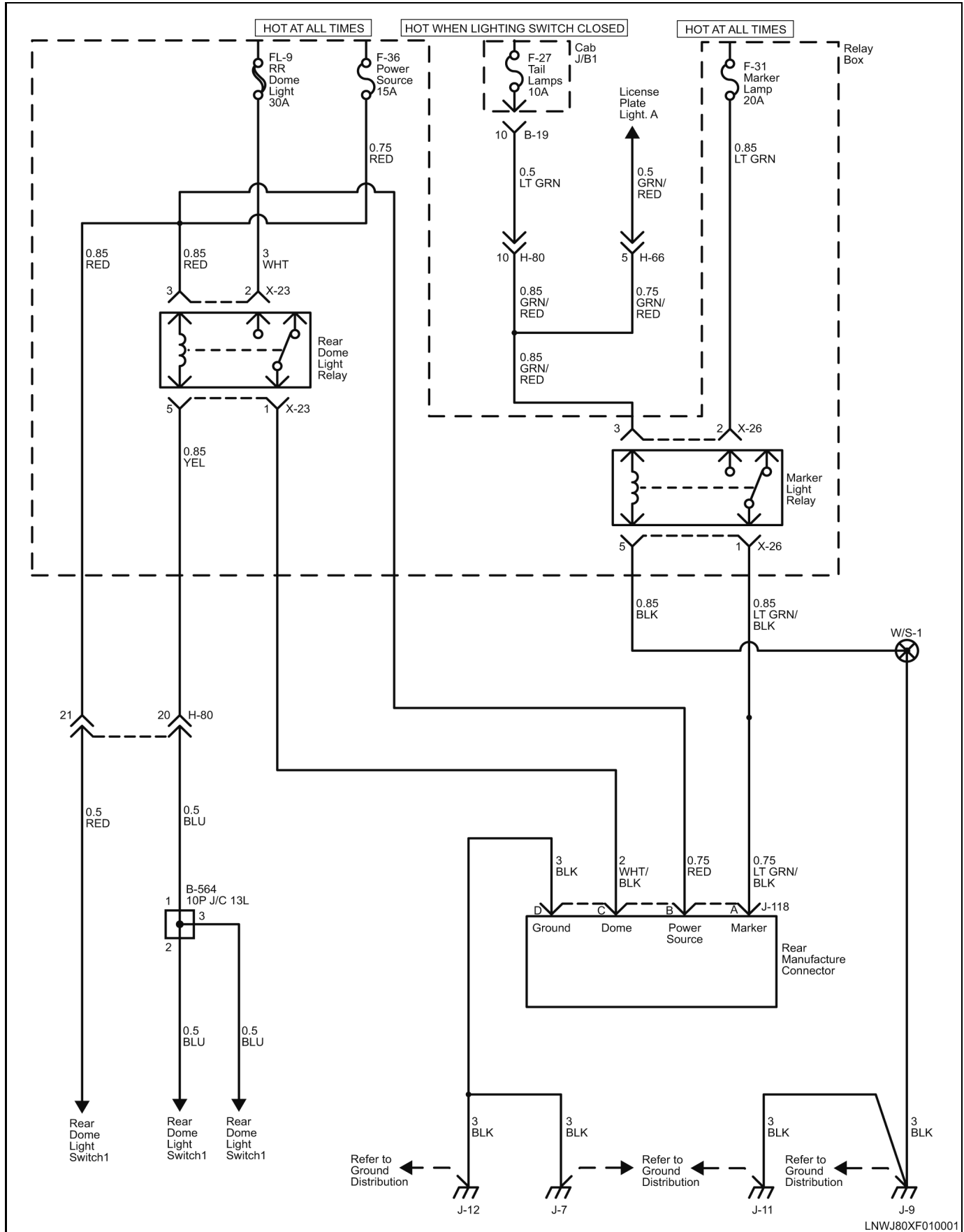
5-102 Cab and Chassis Electrical



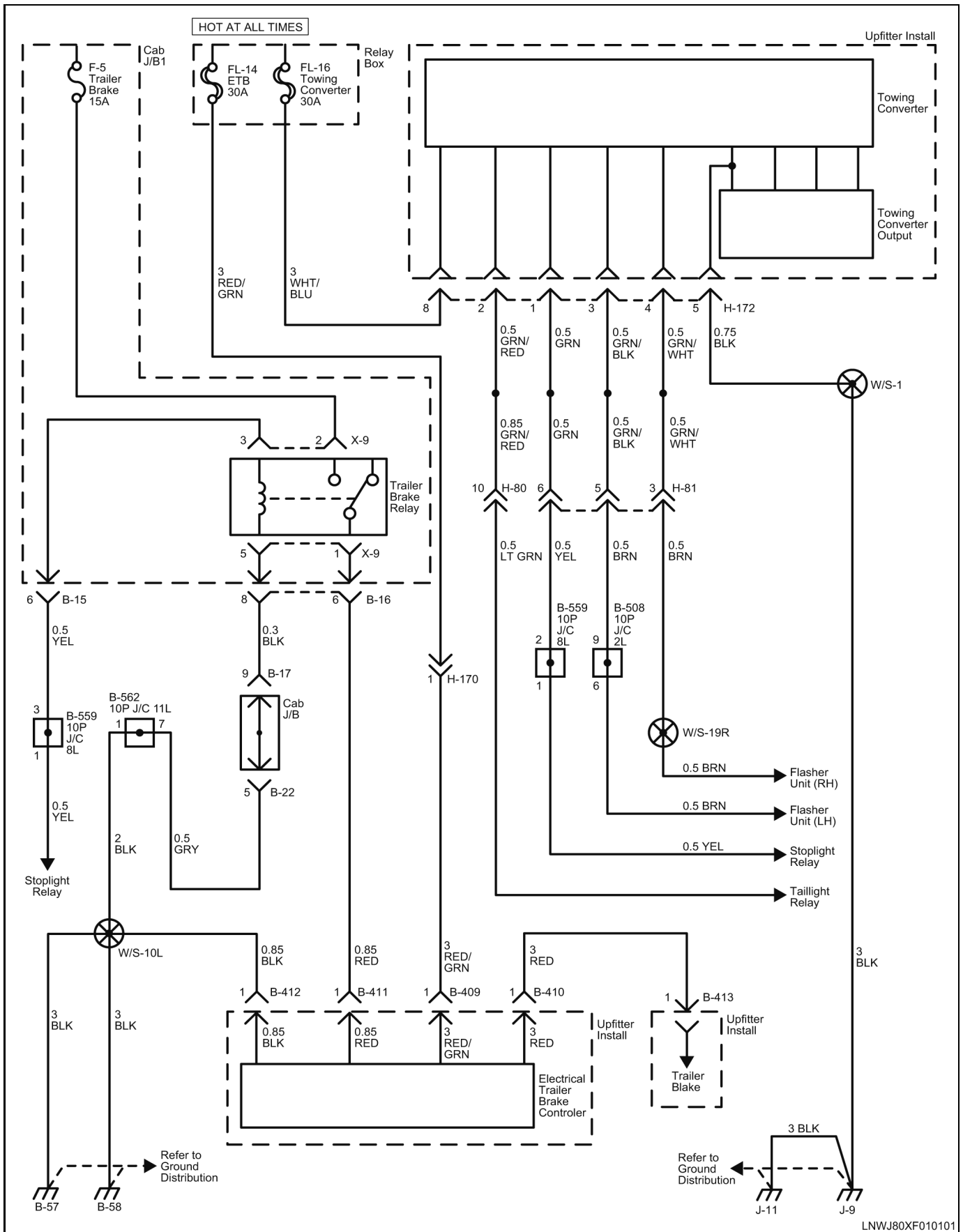
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4957660

Service Terminal Schematics



5-104 Cab and Chassis Electrical

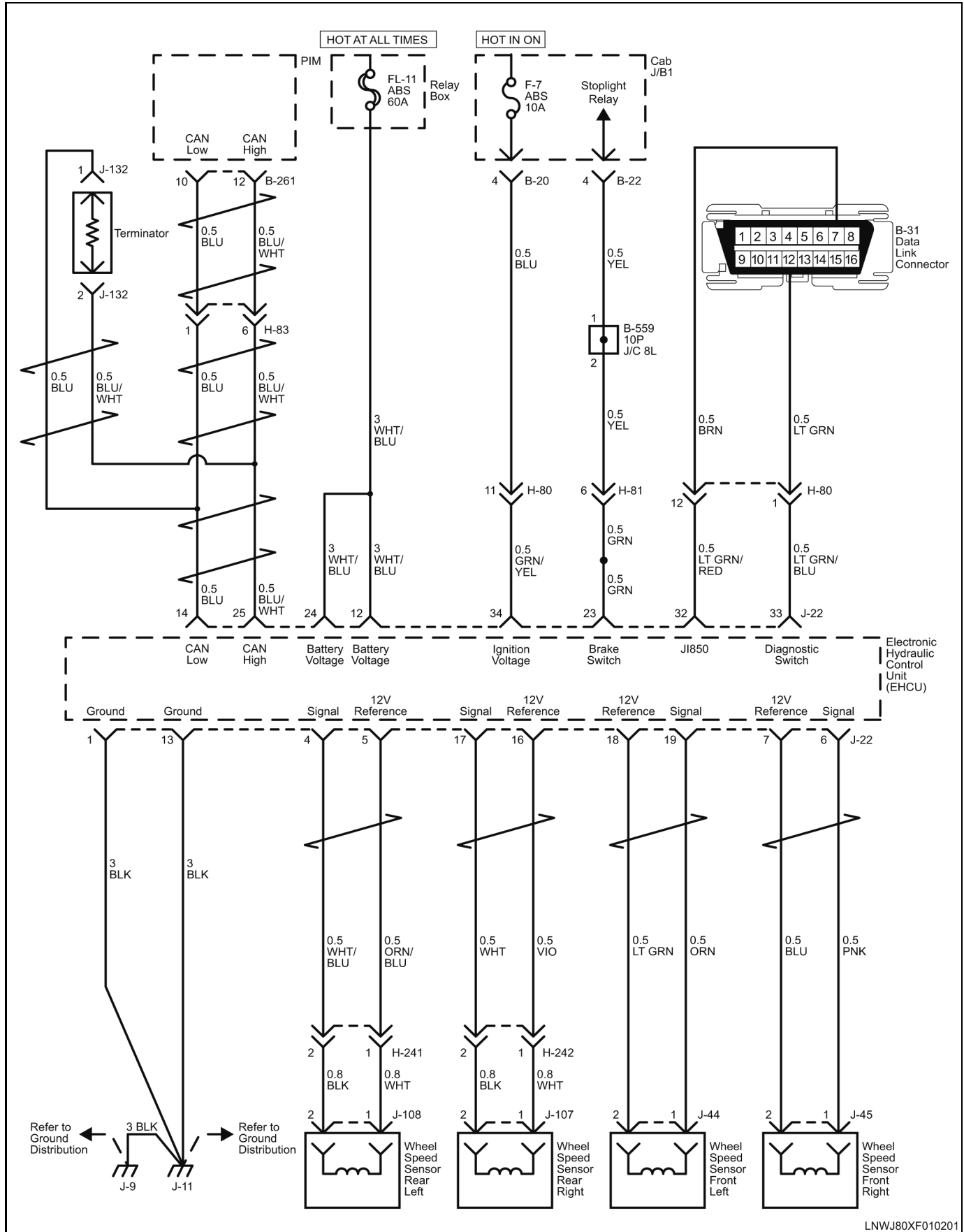


LNWJ80XF010101

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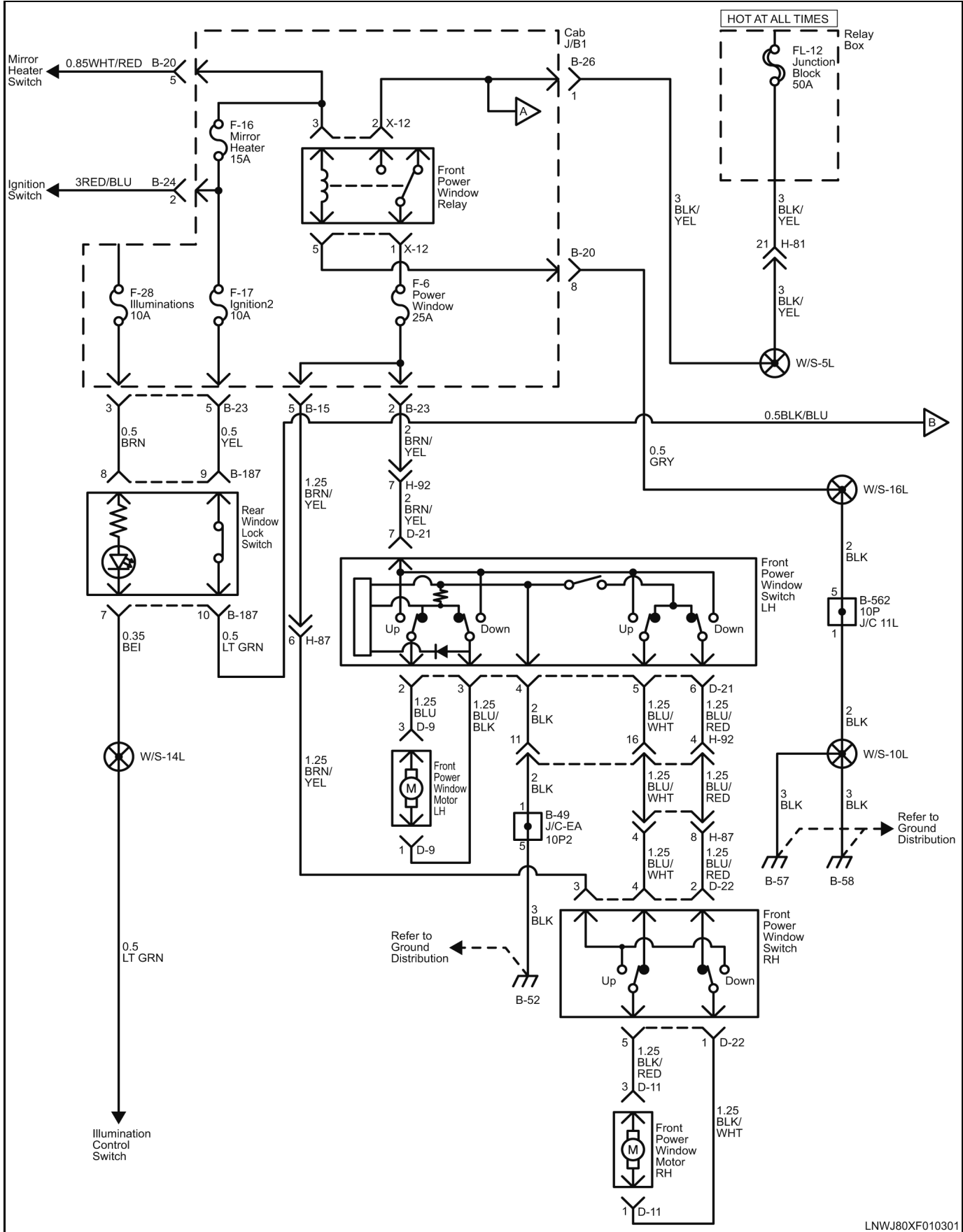
# Antilock Brake System Schematics



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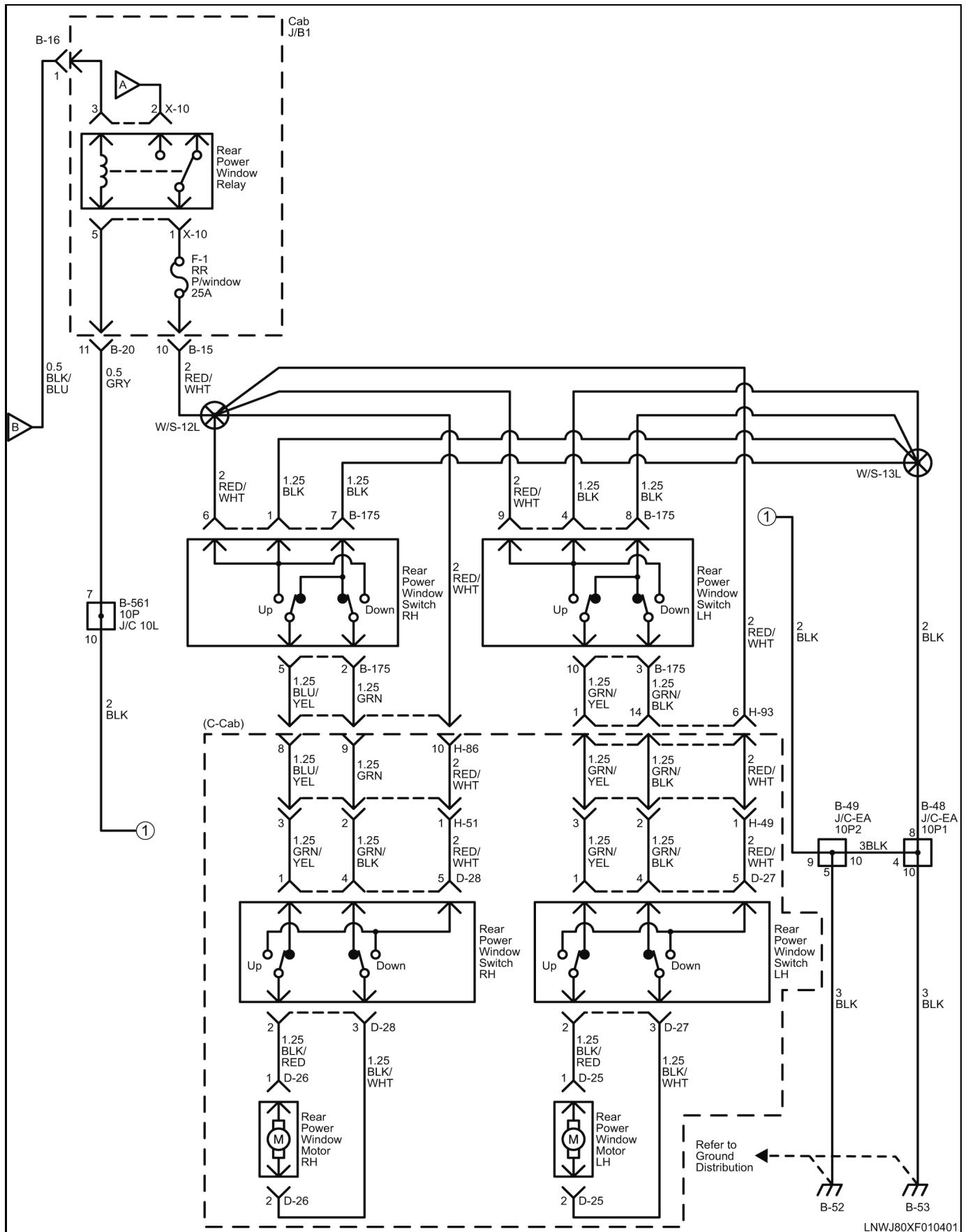
4957725

Power Window Schematics



LNWJ80XF010301

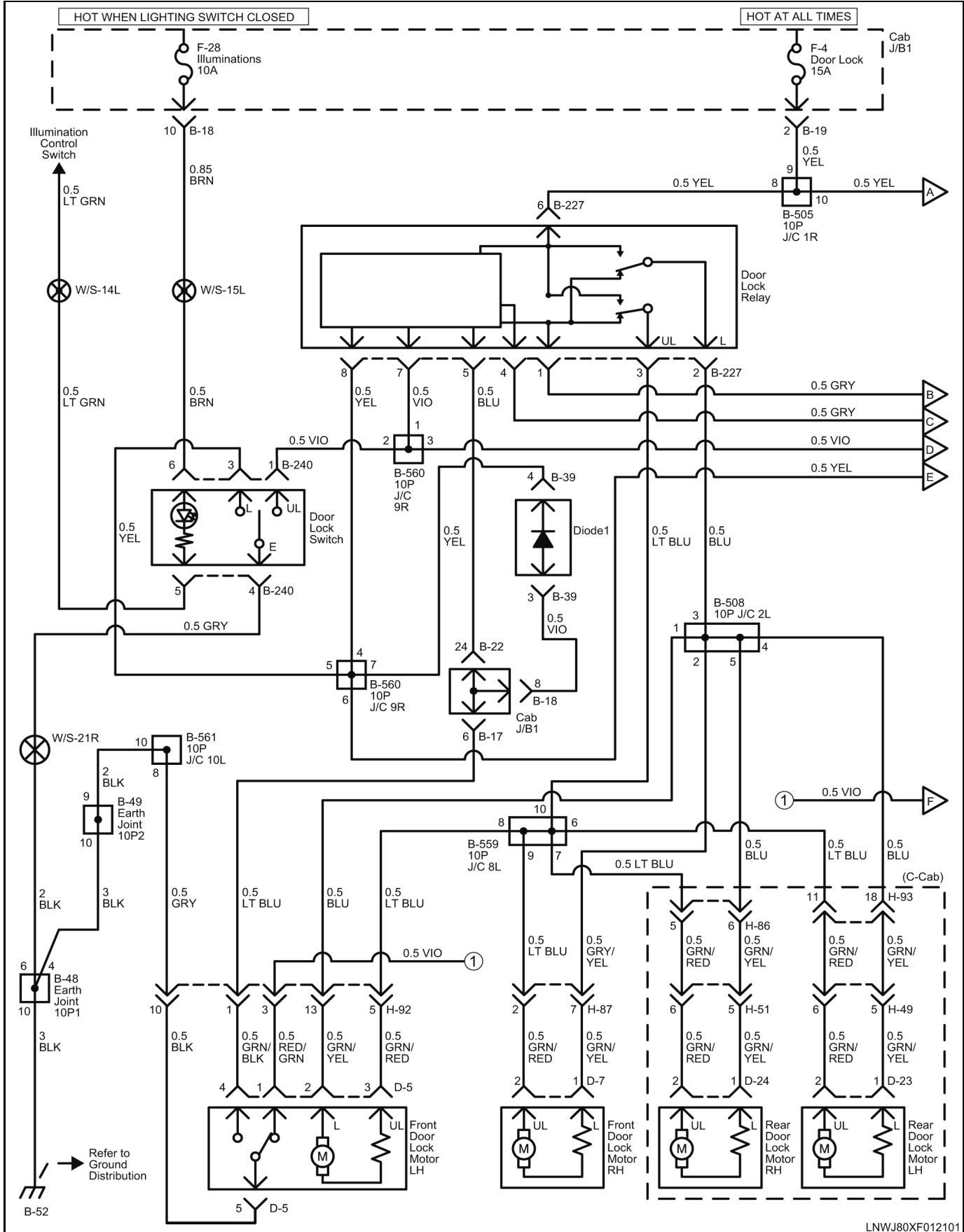
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LNWJ80XF010401

4957745

Power Door Lock Schematics



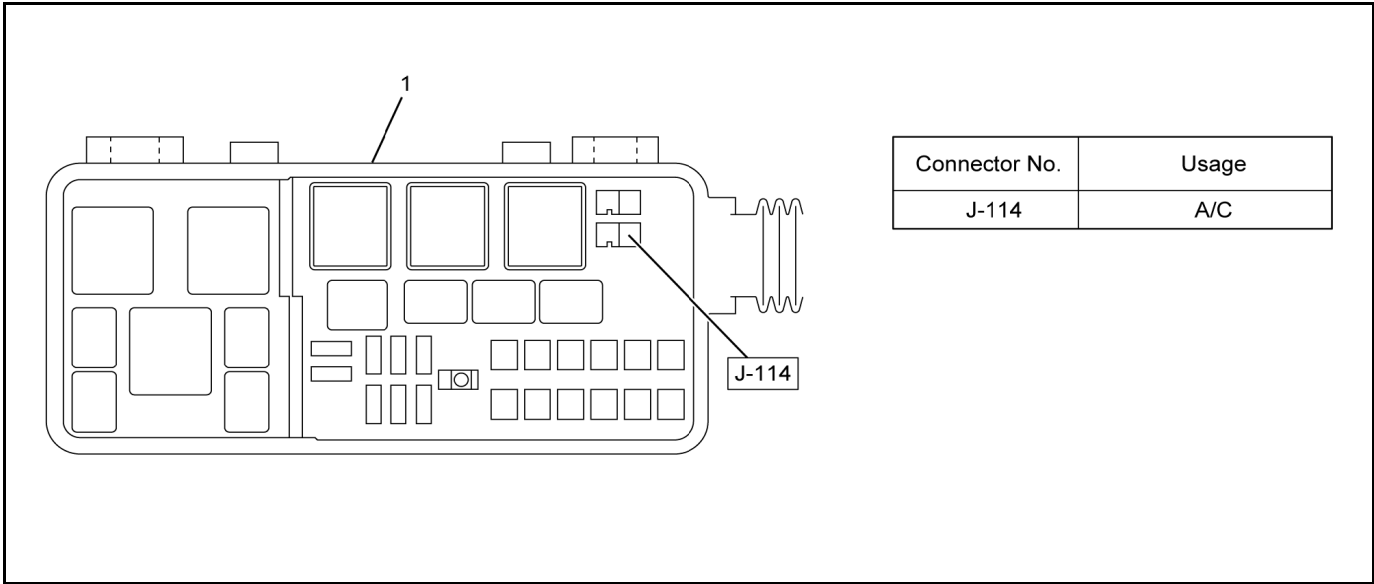
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# Component Locator

## Diode Location

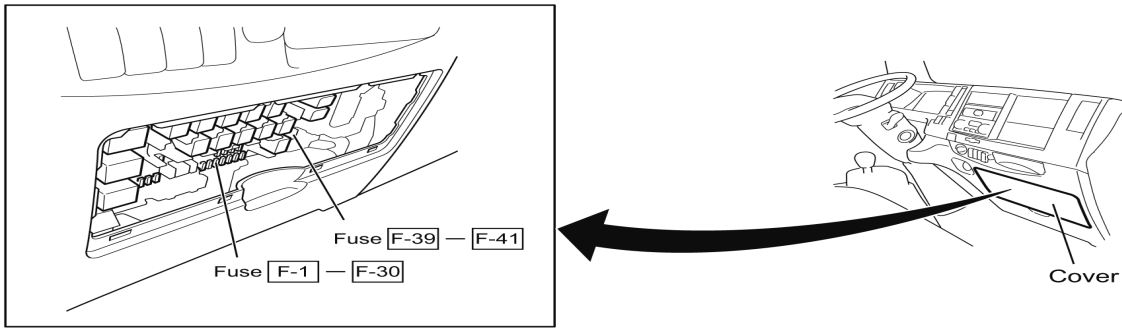


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### Legend

(1) Relay Box

# Fuse, Fusible Link, and Slow-Blow Fuse Location



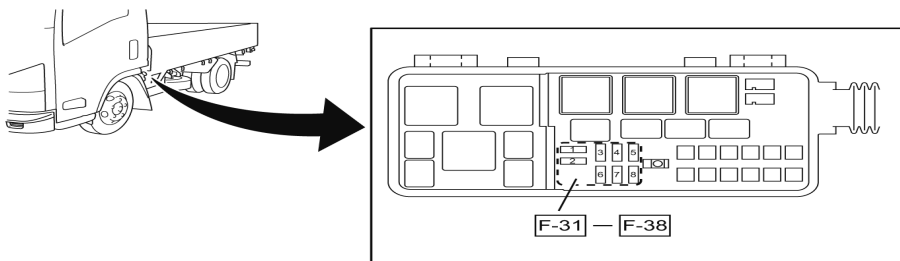
FUSE LABEL

RR PWINDOW	—	ROOM LAMP-AUDIO	DOOR LOCK	TRAILER BRAKE	PWINDOW	ABS	WIPER	HLAMP LO (LH)	LAMPS (BATT)	HLAMP LO (RH)	BRAKE LAMPS	STARTER	HLAMP HI (LH)	HLAMP HI (RH)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
25A	10A	15A	15A	15A	25A	10A	25A	10A	10A	10A	10A	10A	10A	10A

SPARE      SPARE      SPARE      SPARE

MIRROR HEATER	IGNITION2	IGNITION1	—	ECM	METER	ECU (BATT)	MIRROR	AUDIO, ACC	HORN	TURN, HAZARD	TAIL LAMPS	ILLUMINATIONS	CORNERING LAMPS	AIR CONDITIONER
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
15A	10A	10A	—	10A	10A	10A	10A	15A	15A	15A	10A	10A	10A	10A

F-39 (D-1)	20A	CIGAR
F-40 (D-2)	15A	ACCESSORIES SOCKET
F-41 (D-3)	20A	POWER SOURCE
F-42 (D-4)	10A	AUDIO REVERSE MUTE

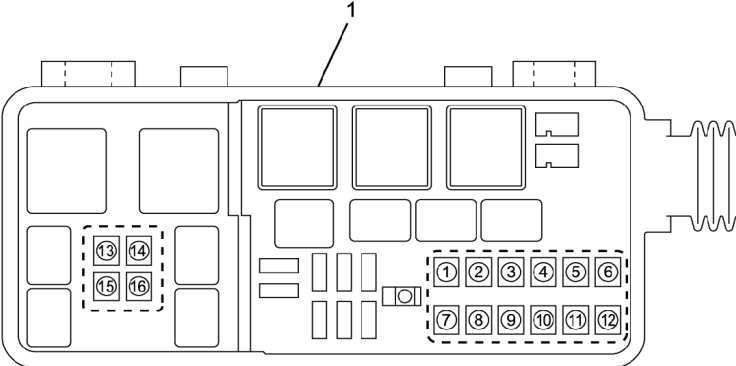


1	20A F-31	MARKER LAMP
2	20A F-32	TAIL MAIN
3	20A F-33	PCM1
4	20A F-34	PCM2
5	20A F-35	PCM3
6	15A F-36	POWER SOURCE
7	20A F-37	CONDENSER FAN
8	10A F-38	AIR CONDITIONER

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**Note:** The fuse numbers (1)-(30) indicated on the fuse labels are expressed as [F-1] – [F-30] in the circuit diagrams of this manual.

Slow Blow Fuse



No.	SBF No.	Name	Capacity
①	FL-1	PCM	40A
②	FL-2	STARTER	60A
③	FL-3	POWER ACC	50A
④	FL-4	FUEL PUMP	30A
⑤	FL-5	STARTER SWITCH 2	40A
⑥	FL-6	STARTER SWITCH 1	30A
⑦	FL-7	HVAC	40A
⑧	FL-8	HEADLIGHT	30A
⑨	FL-9	RR DOME LIGHT	30A
⑩	FL-10	WIPER	50A
⑪	FL-11	ABS	60A
⑫	FL-12	JUNCTION BLOCK	50A
⑬	FL-13	—	—
⑭	FL-14	ETB	30A
⑮	FL-15	—	—
⑯	FL-16	TOWING CONVERTER	30A

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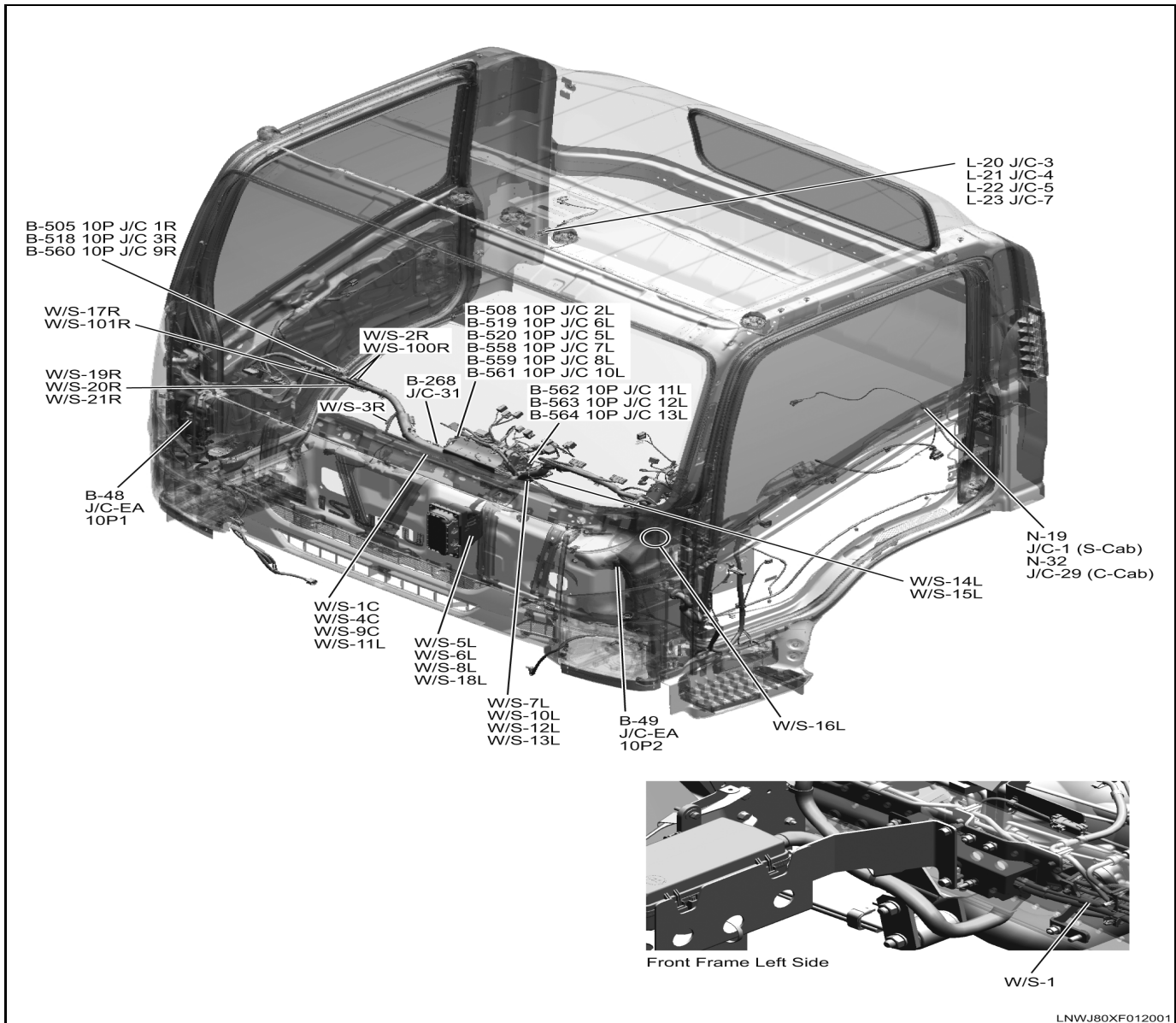
Legend

(1) Relay Box

**Note:** The slow blow fuse numbers (1)-(12) indicated on the fuse labels are expressed as [FL-1] – [FL-12] in the circuit diagrams of this manual.



# Joint Connection and Weld Splice Location Body Cable Harness

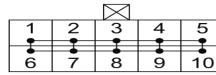


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Joint Connection Circuit

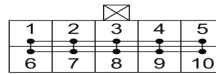
B-48 J/C-EA 10P1



Joint Point	Terminal No.	Connection
•	1	DRL Control Unit.A
•	2	Blower Resistor
•	3	Illumination Control Switch
•	4	J/C-EA 10P2
•	5	Side Marker Light RH Ground
•	6	W/S-21R
•	7	Mirror Heater RH Ground
•	8	W/S-13L
•	9	Headlight RH Ground
•	10	Cab Front (RH)

※ TERMINAL ARRANGEMENT IN THE SAME BUSBAR CAN BE DECIDED

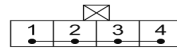
B-49 J/C-EA 10P2



Joint Point	Terminal No.	Connection
•	1	Front Power Window Switch LH Ground
•	2	Combination Switch Ground
•	3	Resistor
•	4	Audio
•	5	Cab Front (LH)
•	6	Headlight LH Ground
•	7	Vacuum Pump Ground
•	8	Mirror Heater LH Ground
•	9	10P J/C 10L
•	10	J/C-EA 10P1

※ TERMINAL ARRANGEMENT IN THE SAME BUSBAR CAN BE DECIDED

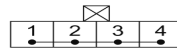
B-268 J/C-31



Joint Point	Terminal No.	Connection
•	1	Rear Dome Light
•	2	Dome Light
•	3	_____
•	4	Cab Junction Block1,A

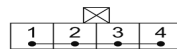
※ TERMINAL ARRANGEMENT IN THE SAME BUSBAR CAN BE DECIDED

N-19 J/C-1



Joint Point	Terminal No.	Connection
•	1	Inst H. - Floor LH H.
•	2	_____
•	3	Seat Belt Switch
•	4	Shift Lever

N-32 J/C-29 (C-Cab)



Joint Point	Terminal No.	Connection
•	1	Rear Door Switch (LH)
•	2	Rear Door Switch (RH)
•	3	Door Switch (LH) (C-Cab)
•	4	W/S-20R

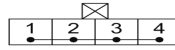
※ TERMINAL ARRANGEMENT IN THE SAME BUSBAR CAN BE DECIDED

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# 5-116 Cab and Chassis Electrical

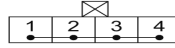
L-20 J/C-3



Joint Point	Terminal No.	Connection
•	1	Identification Light 3
•	2	Identification Light 2
•	3	Marker 1
•	4	J/C-7

※ TERMINAL ARRANGEMENT IN THE SAME BUSBAR CAN BE DECIDED

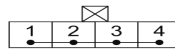
L-21 J/C-4



Joint Point	Terminal No.	Connection
•	1	Identification Light 3
•	2	Identification Light 2
•	3	Marker 1
•	4	J/C-5

※ TERMINAL ARRANGEMENT IN THE SAME BUSBAR CAN BE DECIDED

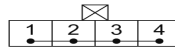
L-22 J/C-5



Joint Point	Terminal No.	Connection
•	1	Identification Light 1
•	2	Marker 2
•	3	J/C-4
•	4	W/S-17R

※ TERMINAL ARRANGEMENT IN THE SAME BUSBAR CAN BE DECIDED

L-23 J/C-7



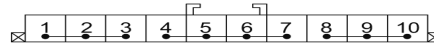
Joint Point	Terminal No.	Connection
•	1	Identification Light 1
•	2	Marker 2
•	3	J/C-3
•	4	10P J/C 6L

※ TERMINAL ARRANGEMENT IN THE SAME BUSBAR CAN BE DECIDED

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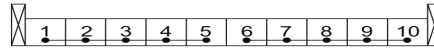
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B-505 10P J/C 1R



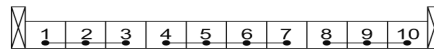
Joint Point	Terminal No.	Connection
•	1	Wiper Switch
•	2	Cab J/B1.J
•	3	Intermittent Relay
•	4	Diode 1
•	5	DRL Control Unit.A
•	6	Combination Switch
•	7	-
•	8	Door Lock Controller
•	9	Cab J/B1.F
•	10	Keyless Entry Control Unit

B-508 10P J/C 2L



Joint Point	Terminal No.	Connection
•	1	Inst H. -Door(LH) H.
•	2	Inst H. -Door(RH) H.
•	3	Door Lock Controller
•	4	Inst H. -Floor(LH) H. MT AT
•	5	Inst H. -Floor(RH) H.
•	6	Flasher Unit
•	7	Inst H. -Door(LH) H.
•	8	FRT Turn Signal Light
•	9	Inst H. -Frame FRT H.
•	10	Instrument Panel(IP) Cluster.A

B-518 10P J/C 3R

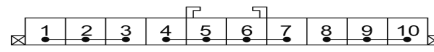


Joint Point	Terminal No.	Connection
•	1	Intermittent Relay
•	2	Wiper Switch
•	3	FRT Washer Motor
•	4	DRL Control Unit.A
•	5	Instrument Panel(IP) Cluster.A
•	6	Diode.A
•	7	Inst H. -Floor(LH) H.
•	8	Cornering Light Relay
•	9	Inst H. -Door(RH) H.
•	10	Inst H. -Door(LH) H.

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4956460

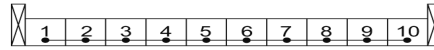
# 5-118 Cab and Chassis Electrical

**B-520** 10P J/C 5L



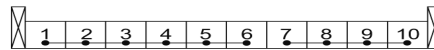
Joint Point	Terminal No.	Connection
•	1	DRL Control Unit.A
•	2	Cab J/B1.E
•	3	Combination Switch
•	4	Fuse Block
•	5	Instrument Panel(IP) Cluster.B
•	6	Inst H.-Floor(LH) H. MT AT
•	7	Inst H.-Frame FRT H.
•	8	Cab J/B1.K
•	9	Flasher Unit
•	10	Cornering Light Relay

**B-519** 10P J/C 6L



Joint Point	Terminal No.	Connection
•	1	Inst H.-Floor(LH) H. MT AT
•	2	RR Body Switch
•	3	Cab J/B1.K
•	4	Cab J/B1.F
•	5	Inst H.-Door(LH) H.
•	6	Inst H.-Roof H.
•	7	Inst H.-Door(RH) H.
•	8	Brake Fluid Level Switch
•	9	DRL Control Unit.A
•	10	Instrument Panel(IP) Cluster.A

**B-558** 10P J/C 7L

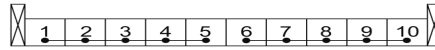


Joint Point	Terminal No.	Connection
•	1	Miles Check Switch
•	2	Cab J/B1.J
•	3	Cab J/B1.C
•	4	Instrument Panel(IP) Cluster.A
•	5	Inst H.-Frame FRT H.
•	6	PIM.B
•	7	-
•	8	A/C Switch
•	9	Cab J/B1.A
•	10	Defroster Switch

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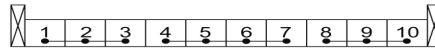
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B-559 10P J/C 8L



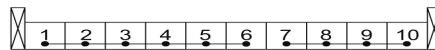
Joint Point	Terminal No.	Connection
•	1	Cab J/B1.J
•	2	Inst H.-Frame FRT H.
•	3	Cab J/B1.A
•	4	Resistor
•	5	Inst H.-Floor(LH) H. MT AT
•	6	Inst H.-Floor(LH) H. MT AT
•	7	Inst H.-Floor(RH) H.
•	8	Inst H.-Door(LH) H.
•	9	Inst H.-Door(RH) H.
•	10	Door Lock Controller

B-560 10P J/C 9R



Joint Point	Terminal No.	Connection
•	1	Door Lock Controller
•	2	Door Lock Switch
•	3	Keyless Entry Control Unit
•	4	Door Lock Relay
•	5	Door Lock Switch
•	6	Keyless Entry Control Unit
•	7	Diode 1
•	8	Flasher Unit
•	9	Hazard Warning Flasher Switch
•	10	Keyless Entry Control Unit

B-561 10P J/C 10L

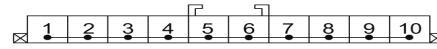


Joint Point	Terminal No.	Connection
•	1	Instrument Panel(IP) Cluster.A
•	2	Cab Front(LH)
•	3	Data Link Connector
•	4	Inst H.-BAS H.
•	5	Inst H.-BAS H.
•	6	Inst H.-BAS H.
•	7	Cab J/B1.G
•	8	Inst H.-Door(LH) H.
•	9	Inst H.-Door(LH) H.
•	10	J/C-EA10P2

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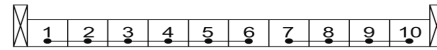
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B-562 10P J/C 11L



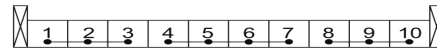
Joint Point	Terminal No.	Connection
•	1	W/S-10L
•	2	Hazard Warning Flasher Switch
•	3	Data Link Connector
•	4	Brake Fluid Level Switch
•	5	W/S-16L
•	6	RR Dome Light Switch
•	7	Cab J/B1.J
•	8	Flasher Unit
•	9	Combination Switch
•	10	W/S-17R

B-563 10P J/C 12L



Joint Point	Terminal No.	Connection
•	1	Inst H.-Floor(LH) H. MT AT
•	2	Keyless Entry Control Unit
•	3	Inst H.-Floor(LH) H. MT AT
•	4	Cab J/B1.K
•	5	Intermittent Relay
•	6	Cab J/B1.G
•	7	-
•	8	Instrument Panel(IP) Cluster.A
•	9	Vacuum Tank Switch
•	10	Diode.A

B-564 10P J/C 13L



Joint Point	Terminal No.	Connection
•	1	Inst H.-Frame FRT H.
•	2	RR Dome Light Switch
•	3	RR Dome Light Switch
•	4	Cruise main Switch
•	5	Cruise main Switch
•	6	Combination Switch
•	7	PIM.B
•	8	Cab J/B1.J
•	9	Audio
•	10	Data Link Connector

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4956484

### Reference Table of Weld Splice

Connector No.	Usage
W/S-1	Frame H. - Towing H.
	Marker Light Relay
	Fuel Pump Relay
	Triple Pressure Switch
	Condenser Fan Motor
	Starter Relay
	Diode 2
	Back Buzzer (Upfitter Install)
	Frame RR H.-RR Combi H.
	Frame Center (RH)
W/S-1C	CAB J/B1.B
	DRL Control Unit.B
	Headlight (LH)



## Reference Table of Weld Splice (cont'd)

Connector No.	Usage
W/S-2R	CAB J/B1.B
	DRL Control Unit.B
	Headlight (RH)
W/S-3R	Fan Control Switch
	Blower Resistor
	Blower Motor
W/S-4C	Blower Motor
	CAB J/B1.P
	Blower Relay
W/S-5L	Inst H.-Frame FRT H.
	Cigarette Lighter Relay
	CAB J/B1.P
W/S-6L	Inst H.-Frame FRT H.
	Inst H.-Frame FRT H.
	Ignition Switch
W/S-7L	CAB J/B1.M
	Inst H.-Frame FRT H.
	CAB J/B1.P
W/S-8L	Inst H.-Frame FRT H.
	Inst H.-Frame FRT H.
	Front Wiper Motor
	CAB J/B1.P
W/S-9C	FRT Wiper Motor
	Fan Control Switch
	Cab Front (LH)
	Cab Front (RH)
W/S-10L	EXT_ETB-4
	Cigarette Lighter.B
	Accessory Socket.B
	10P J/C 11L
	Cab Front (LH)
	Cab Front (RH)
W/S-11L	Inst H.-Floor (LH) H. MTAT
	Cigarette Lighter.A
	Fuse Block
W/S-12L	CAB J/B1.A
	RR Power Window Switch
	RR Power Window Switch
	Inst H.-Floor (RH) H.
	Inst H.-Floor (LH) H. MTAT
W/S-13L	RR Power Window Switch
	RR Power Window Switch
	RR Power Window Switch
	RR Power Window Switch
	J/C-EA 10P1

Reference Table of Weld Splice (cont'd)

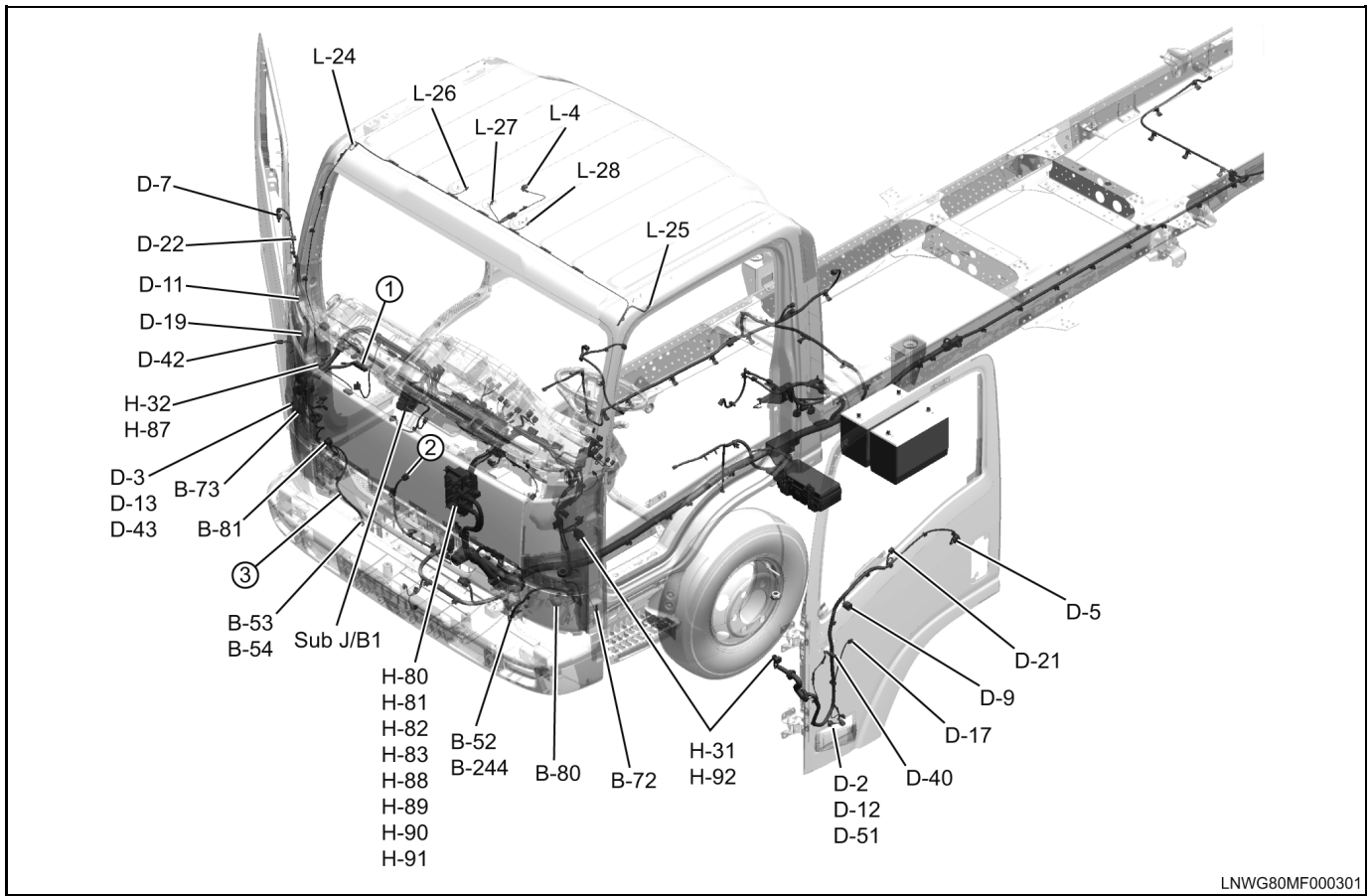
Connector No.	Usage
W/S-14L	Mirror Heater Switch
	Cruise Main Switch
	Miles Check Switch
	Audio
	Hazard Warning Flasher Switch
	RR Dome Light Switch
	Illumination Control Switch
	Inst H.- Floor (LH) H.
	RR Window Lock Switch
	Door Lock Switch
	Fan Control Switch
	Instrument Panel (IP) Cluster.A
	W/S-15L
Cruise Main Switch	
Audio	
Instrument Panel (IP) Cluster.A	
Hazard Warning Flasher Switch	
Miles Check Switch	
CAB J/B1.E	
RR Dome Light Switch	
Door Lock Switch	
Illumination Control Switch	
Inst H.- Floor (LH) H.	
Fan Control Switch	
W/S-16L	
	Wiper Switch
	Key Reminder Switch
	Combination Switch
	Inst H.- Door (LH) H.
	Instrument Panel (IP) Cluster.A
	CAB J/B1.C
	Key Lock Solenoid
	Inst H.- Floor (LH) H.
	Cigarette Lighter Relay
	Power Accessory Relay
	CAB J/B1.G
	Mirror Heater Switch
	10P J/C 11L

## Reference Table of Weld Splice (cont'd)

Connector No.	Usage
W/S-17R	Inst H.- Roof H.
	Intermittent Relay
	Keyless Entry Control Unit
	Inst H.- Door (RH) H.
	CAB J/B1.C
	PIM.B
	Door Lock Relay
10P J/C 11L	
W/S-18L	Inst H.- Frame FRT H.
	CAB J/B1.J
	Audio
	Cigarette Lighter Relay
	Power Accessory Relay
PIM.B	
W/S-19R	Instrument Panel (IP) Cluster.A
	Flasher Unit
	Inst H.- Door (RH) H.
	FRT Turn Signal Light (RH)
W/S-20R	Inst H.- Frame FRT H.
	Keyless Entry Control Unit
	Inst H.- Floor (RH) H.
	Inst H.-Floor (LH) H.
	Inst H.- Roof H.
	Inst H.- Roof H.
W/S-21R	Inst H.- Floor (RH) H.
	FRT Position Light (LH)
	FRT Position Light (RH)
	A/C Switch
	Electronic Thermostat
	FRT Turn Signal Light (LH)
	FRT Turn Signal Light (RH)
	Cruise Main Switch
	Door Lock Relay
	Door Lock Switch
	J/C-EA 10P1
Keyless Entry Control Unit	
W/S-100R	FRT Wiper Motor
	CAB J/B1.E
	Intermittent Relay
W/S-101R	FRT Wiper Motor
	FRT Washer Motor
	CAB J/B1.E

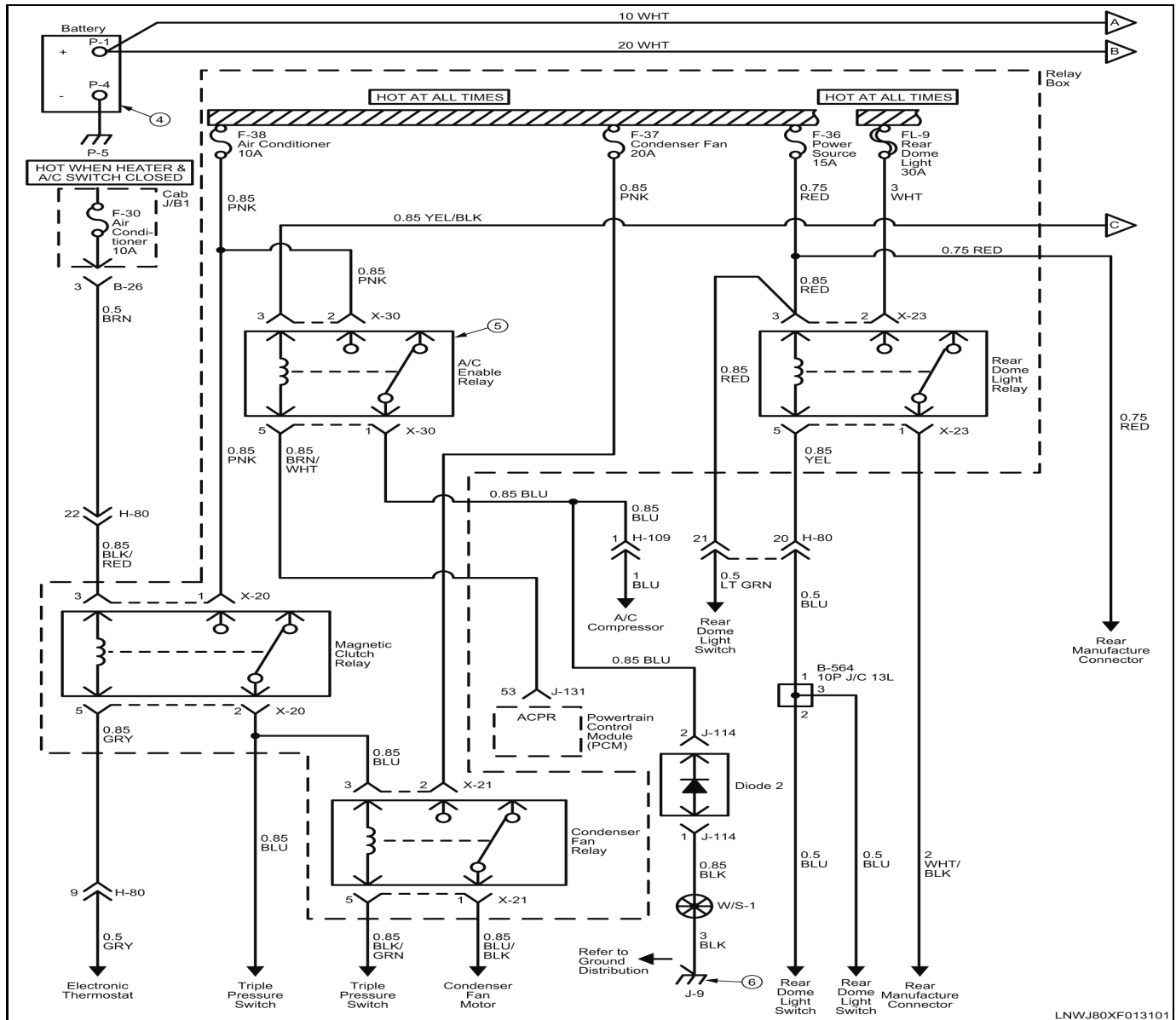
## Parts Location

The parts location shows the location of the parts (1) and the connector (2) used in each harness routing (3).



### Circuit Diagram

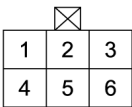
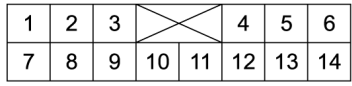
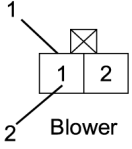
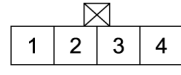
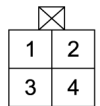
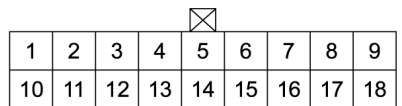
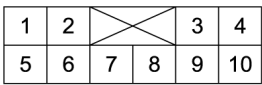

The circuit diagram shows the power supply (4) the load or loads (5) and the grounding point(s) (6).



LNWJ80XF013101  
4958963

### Connector List

The connector list shows each connector's configuration (1) and the pin number (2).

No.	Connector Face	No.	Connector Face
B-5 (Gray)	 <p>Accel Sensor 006-115</p>	B-20 (White)	 <p>Cab J/B 1 G 014-026</p>
B-12 (White)	 <p>Blower 002-267</p>	B-28 (White)	 <p>Cani Joint 4 004-128</p>
B-13 (White)	 <p>Blower Resistor 004-129</p>	B-35 (White)	 <p>Combination SW 018-024</p>
B-15 (Blue)	 <p>Cab J/B 1 A 010-062</p>	B-55	 <p>Body Earth 000-049</p>

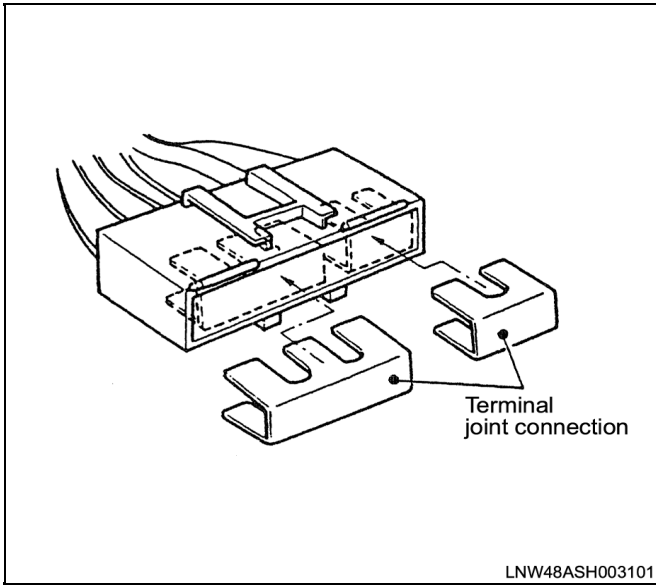
LNWA8DLF000301  
4495892

### Connector Symbol

Connector Symbol	Harness name
B	Body (Inst.) Harness
D	Door Harness
E	Engine Harness
H	For Joint between Harnesses
J	Frame Front and Frame Rear Harness
L	Dome Light Harness
N	Floor Harness (LH and RH)
P	Battery Harness
X	Body and Frame Front Harness

### Joint Connection

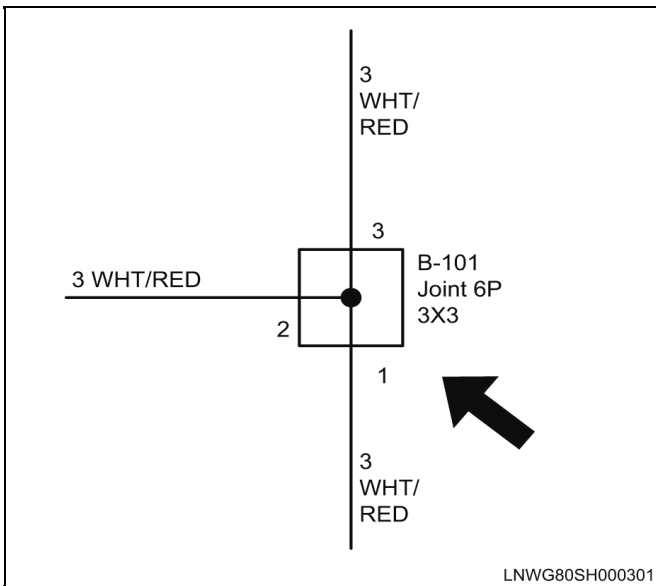
This connector has the structure of plural number of terminals collectively connected inside the connector.



4495894

#### How to show joint connection in the circuit diagram

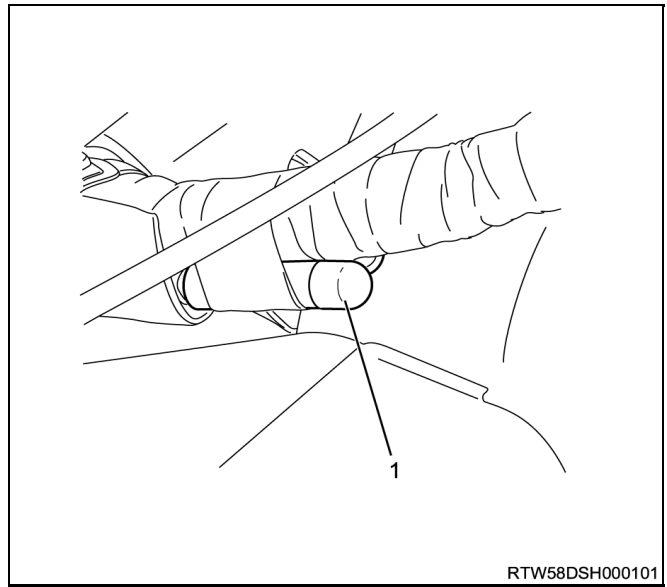
1. When joint connection can be shown as actual circuit diagram.



4495898

### Weld Splice

Weld splice is a harness that welds the point of the harness and does joint.



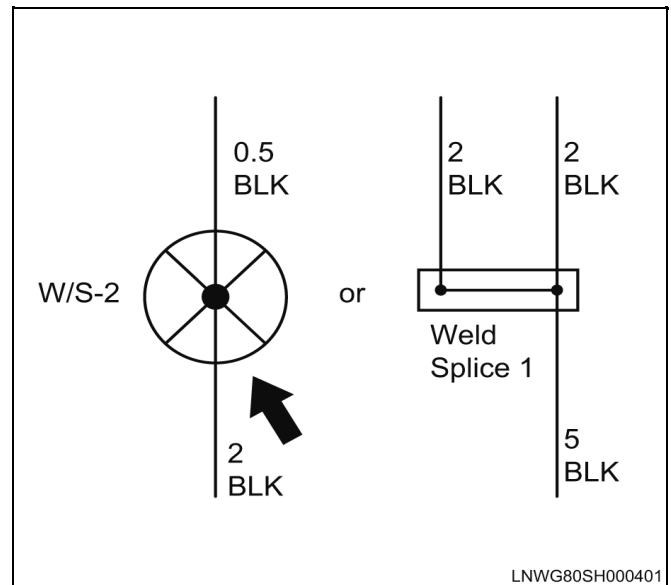
4495896

#### Legend

- (1) Weld Splice

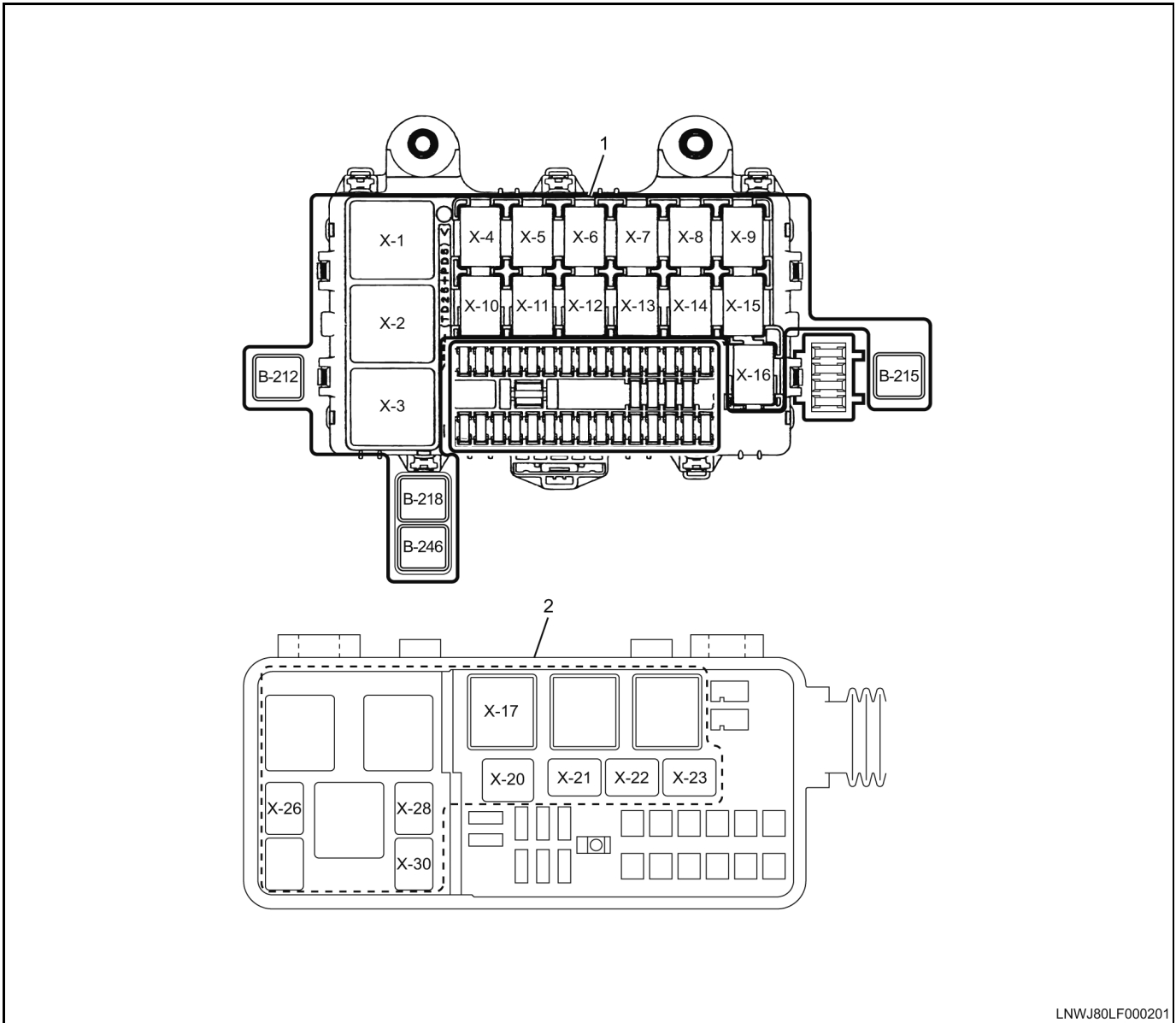
#### How to show weld splice in the circuit diagram

1. When weld splice can be shown as actual circuit diagram.



4495899

Relay Location



LNWJ80LF000201

4956373

**Legend**

(1) Cab Junction Block

(2) Relay Box



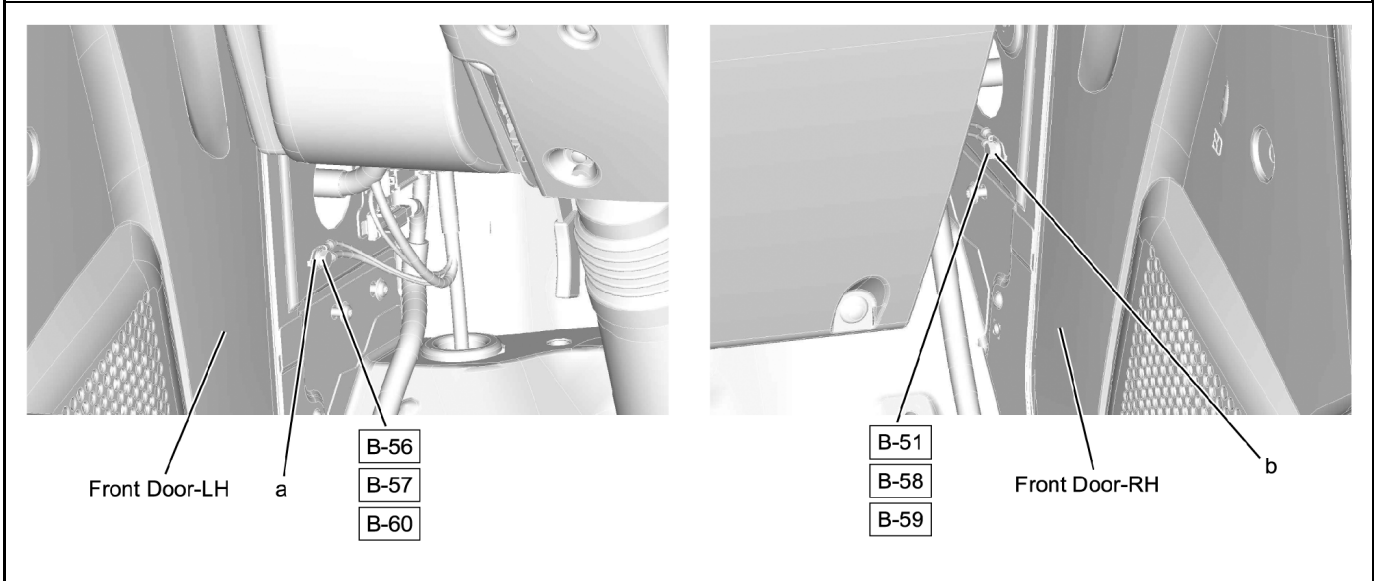
## Relay List

Connector No.	Relay Name
X-1	Stoplight
X-2	Daytime Running Light
X-3	Key On
X-4	TCM
X-5	P/N Start
X-6	Wiper Main
X-7	Horn
X-8	Wiper High/Low
X-9	Trailer Brake
X-10	Rear Power Window
X-11	Charge
X-12	Front Power Window
X-13	Headlight (Low)
X-14	Vacuum Pump

## Relay List (cont'd)

Connector No.	Relay Name
X-15	Headlight (High)
X-16	Taillight
B-212	Power Accessory
B-215	Blower
B-218	Cigarette Lighter
B-246	Cornering Light
X-17	Starter
X-20	Magnetic Clutch
X-21	Condenser Fan
X-22	Fuel Pump
X-23	Rear Dome Light
X-26	Marker Light
X-28	PCM Main
X-30	A/C Enable

Ground Views

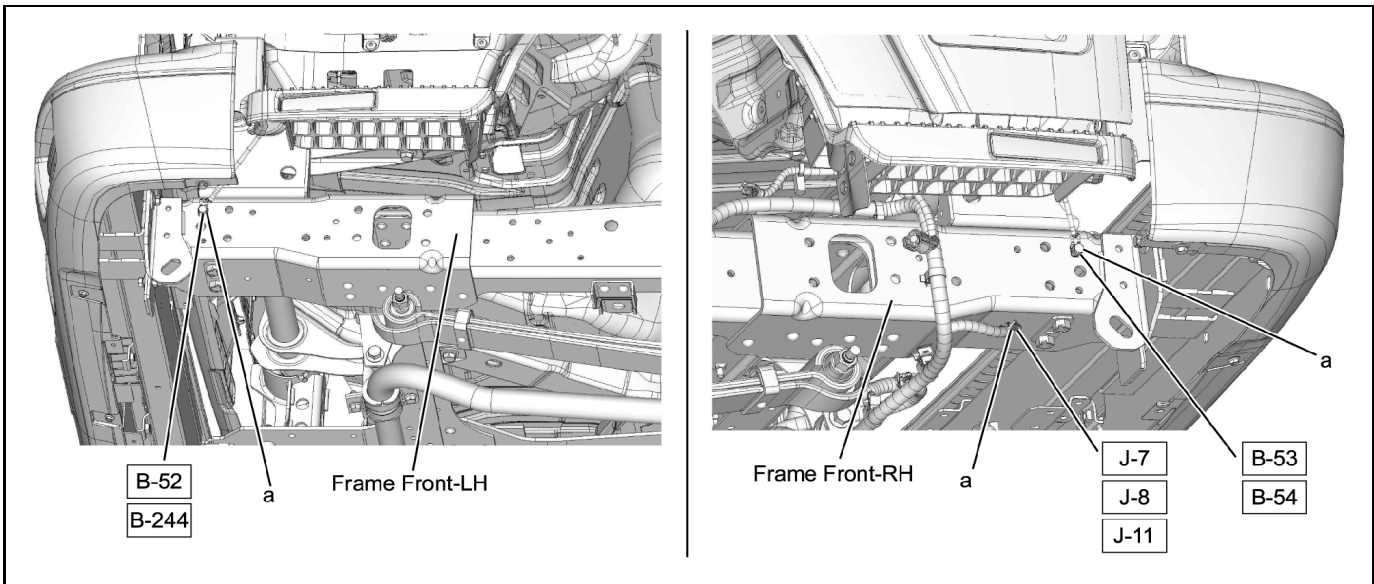


4556206

Legend

(a) 20 N•m (15 lb ft)

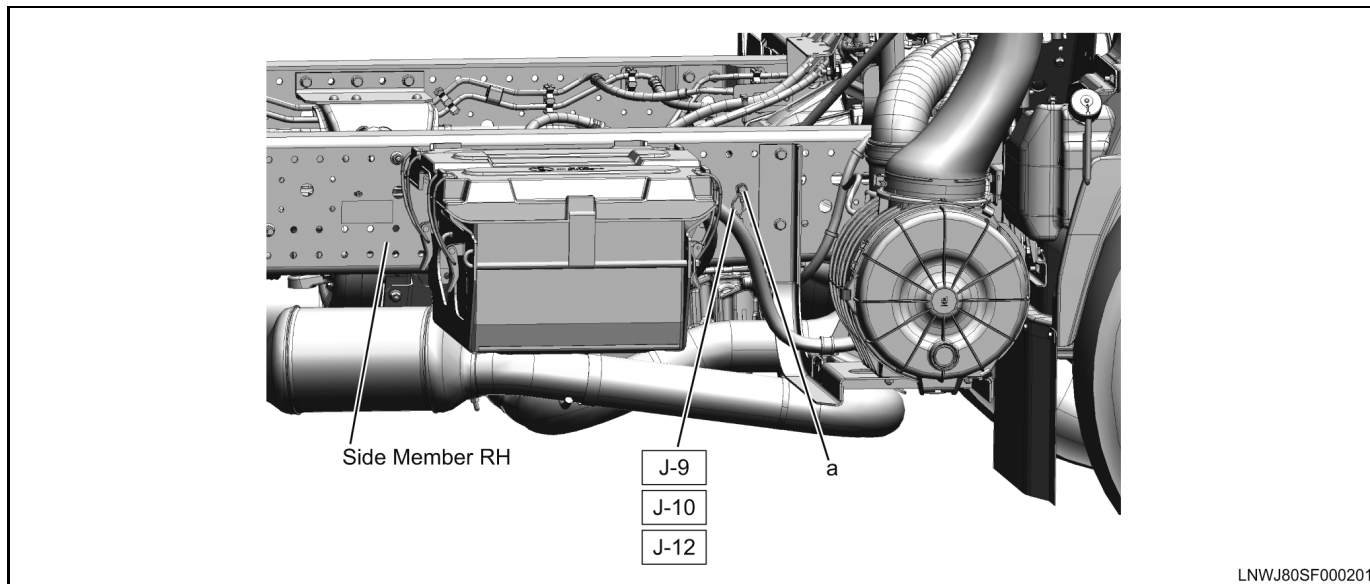
(b) 8 N•m (71 lb in)



4556209

Legend

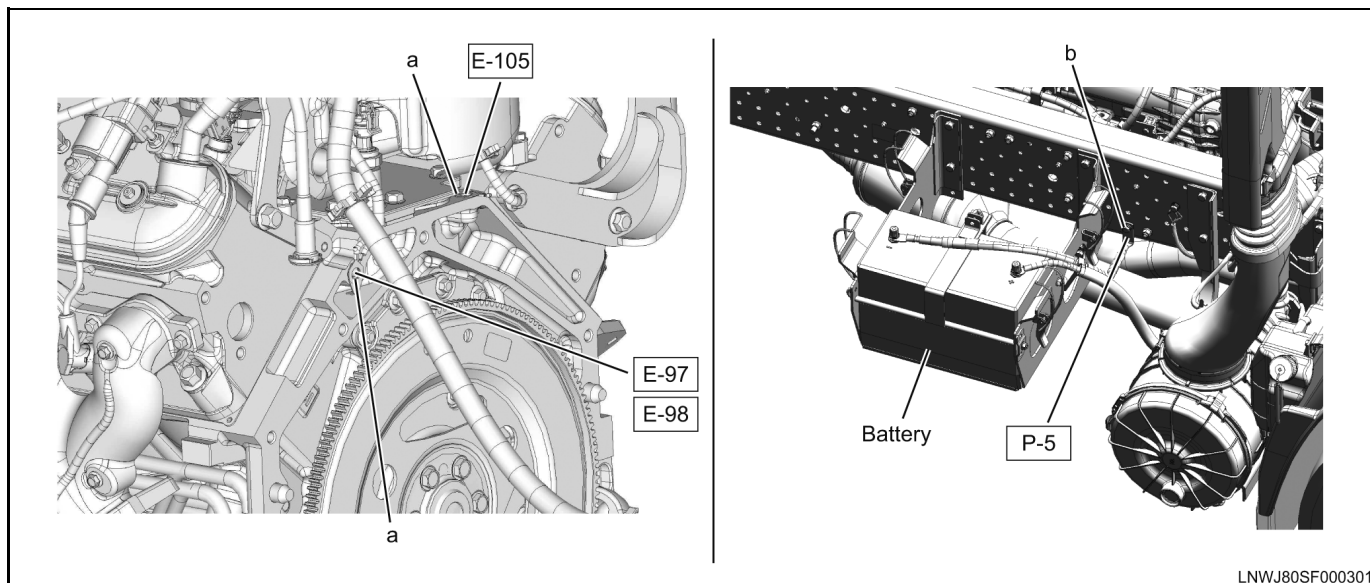
(a) 26 N•m (19 lb ft)



LNWJ80SF000201  
4956644

**Legend**

(a) 26 N·m (19 lb ft)

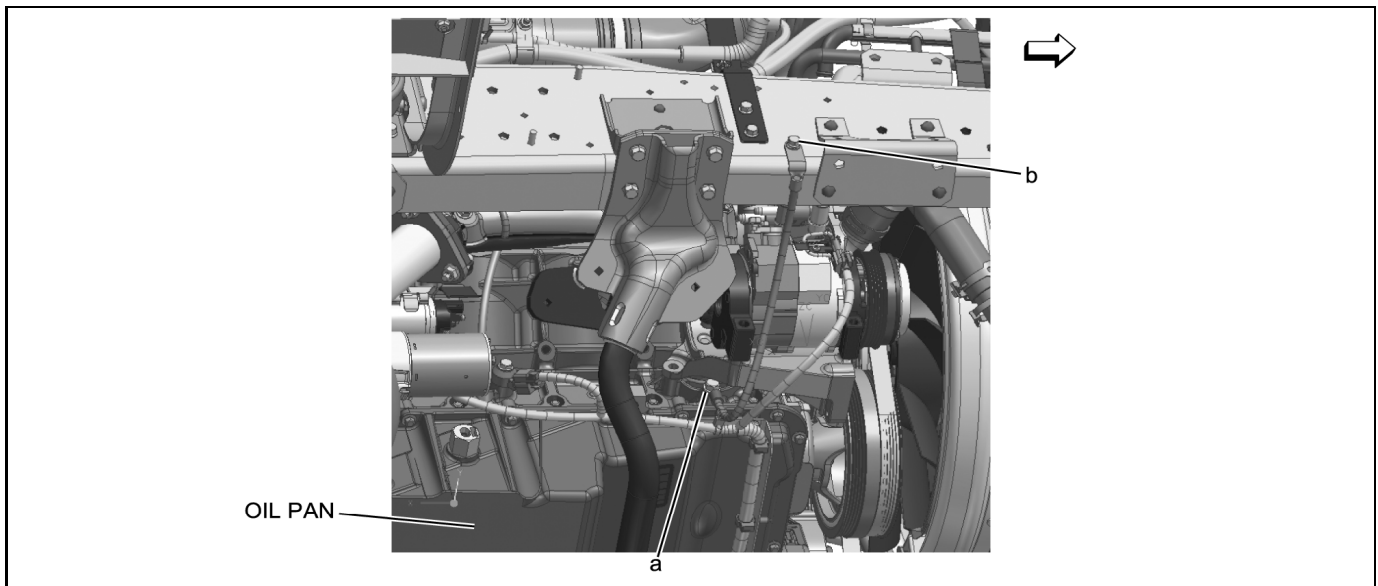


LNWJ80SF000301  
4956645

**Legend**

(a) 16 N·m (12 lb ft)

(b) 26 N·m (19 lb ft)



4556223

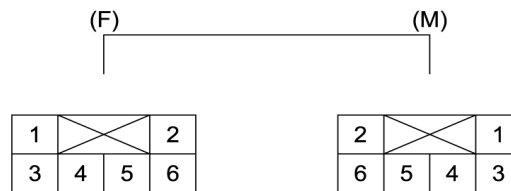
**Legend**

(a) 50 N•m (37 lb ft)

(b) 17 N•m (13 lb ft)

**Visual Identification  
Inline Harness Connector End Views**

**H-31**



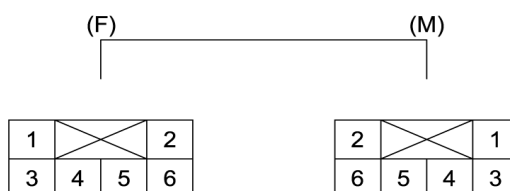
LNW78DSH000201

4497201

<b>Connector No.</b>	<b>H-31</b>			
<b>Connector Color</b>	<b>White</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-4A</b>		<b>(F) J-35616-5</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	BLK	W/S-16L	BLK	Side Turn Signal Light (LH)
2	BRN	10P J/C 2L B-508 (7)	GRN/BLK	Side Turn Signal Light (LH)
3	BLU	10P J/C 6L B-519 (5)	GRN/RED	Side Marker Light (LH)

<b>Connector No.</b>	<b>H-31</b>			
<b>Connector Color</b>	<b>White</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-4A</b>		<b>(F) J-35616-5</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
4	ORN	Audio	ORN	Speaker (LH)
5	GRN/BLK	Combination Switch	GRN/BLK	Front Cornering Light (LH)
6	BLK	Audio	BLK	Speaker (LH)

**H-32**



LNW78DSH000201

4497201

<b>Connector No.</b>	<b>H-32</b>			
<b>Connector Color</b>	<b>White</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-4A</b>		<b>(F) J-35616-5</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	BLK	W/S-17R	BLK	Side Turn Signal Light (RH)
2	BRN	W/S-19L	GRN/WHT	Side Turn Signal Light (RH)
3	BLU	10P J/C 6L B-519 (7)	GRN/RED	Side Marker Light (RH)
4	GRY	Audio	GRY	Speaker (RH)
5	GRN/WHT	Combination Switch	GRN/WHT	Front Cornering Light (RH)
6	GRN	Audio	GRN	Speaker (RH)

H-33

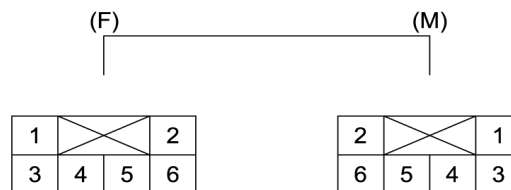


LNWF80SH000401

4497106

<b>Connector No.</b>	<b>H-33</b>			
<b>Connector Color</b>	<b>Black</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-44</b>		<b>(F) J-35616-45</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	YEL	W/S-20R	GRY	Door Switch RH
2	—	Not Used	—	Not Used
3	—	Not Used	—	Not Used

H-45



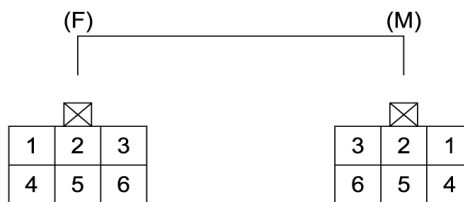
LNW78DSH000201

4497201

<b>Connector No.</b>	<b>H-45</b>			
<b>Connector Color</b>	<b>White</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-4A</b>		<b>(F) J-35616-5</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	RED	J/C-31	—	Not Used
2	RED	J/C-31	RED	Dome Light
3	YEL	W/S-20R	GRY/BLU	Dome Light
4	BLU	10P J/C 6L B-519 (6)	GRN/RED	J/C-7
5	YEL	W/S-20R	—	Not Used
6	BLK	W/S-17R	BLK	J/C-5

	<b>Male</b>		<b>Female (C-Cab)</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	—	—	RED	Rear Dome Light
2	—	—	RED	Dome Light
3	—	—	GRY/BLU	Dome Light
4	—	—	GRN/RED	J/C-7
5	—	—	GRY/BLU	Rear Dome Light
6	—	—	BLK	J/C-5

**H-49**



LNW78DSH000301

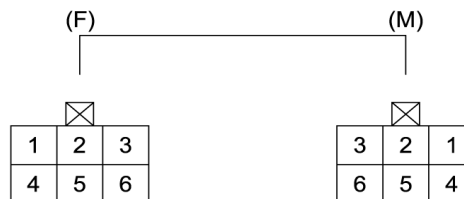
4506948

<b>Connector No.</b>	<b>H-49</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-18</b>		<b>(F) J-35616-19</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	RED/WHT	H-93 (6)	RED/WHT	Rear Power Window Switch (LH)
2	GRN/BLK	H-93 (14)	GRN/BLK	Rear Power Window Switch (LH)

## 5-136 Cab and Chassis Electrical

<b>Connector No.</b>	<b>H-49</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-18</b>		<b>(F) J-35616-19</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
3	GRN/YEL	H-93 (1)	GRN/YEL	Rear Power Window Switch (LH)
4	—	Not Used	—	Not Used
5	GRN/YEL	H-93 (18)	GRN/YEL	Rear Door Lock Motor (LH)
6	GRN/RED	H-93 (11)	GRN/RED	Rear Door Lock Motor (LH)

## H-51



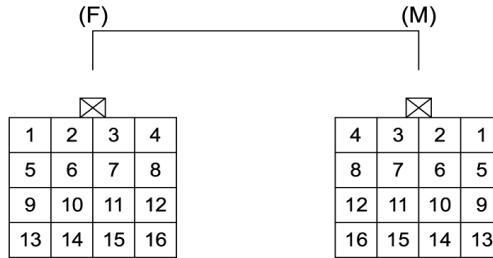
LNW78DSH000301

4506948

<b>Connector No.</b>	<b>H-51</b>			
<b>Connector Color</b>	<b>White</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-18</b>		<b>(F) J-35616-19</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	RED/WHT	H-86 (10)	RED/WHT	Rear Power Window Switch (RH)
2	GRN	H-86 (9)	GRN/BLK	Rear Power Window Switch (RH)
3	BLU/YEL	H-86 (8)	GRN/YEL	Rear Power Window Switch (RH)
4	—	Not Used	—	Not Used
5	GRN/YEL	H-86 (6)	GRN/YEL	Rear Door Lock Motor (RH)
6	GRN/RED	H-86 (5)	GRN/RED	Rear Door Lock Motor (RH)



H-52

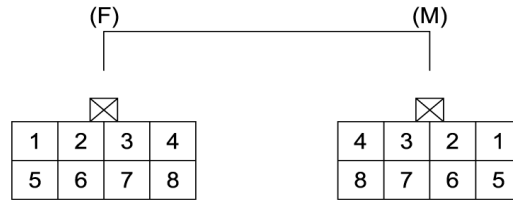


LNW78DSH000401

4497222

Connector No.	H-52			
Connector Color	Black			
Test Adapter No.	(M) J-35616-12		(F) J-35616-13	
	Male		Female	
Pin No.	Wire Color	Pin Function	Wire Color	Pin Function
1	BLU	H-113 (4)	BLU	Fuse PCM2 (20A)
2	VIO/WHT	Transmission Control Module (TCM)	VIO/WHT	Powertrain Control Module (PCM) A
3	RED/BLK	Transmission Control Module (TCM)	RED/BLK	H-81 (7)
4	BRN	Canister Purge Solenoid Valve	BRN	Fuse PCM3 (20A)
5	YEL/BLK	Powertrain Control Module (PCM).B	YEL/BLK	Fuse PCM1 (20A)
6	BLK/BLU	Transmission Control Module (TCM)	BLK/BLU	Powertrain Control Module (PCM) A
7	RED/YEL	Transmission Control Module (TCM)	RED/YEL	Powertrain Control Module (PCM) A
8	GRN/WHT	Transmission Control Module (TCM)	GRN	H-66 (2)
9	WHT/RED	Powertrain Control Module (PCM).C	WHT/RED	H-81 (2)
10	WHT/GRN	Powertrain Control Module (PCM).C	WHT/GRN	H-81 (13)
11	GRN	Transmission Control Module (TCM)	GRN	H-83 (10)
12	GRN/WHT	Transmission Control Module (TCM)	GRN/WHT	H-83 (5)
13	YEL/BLK	H-112 (4)	YEL/BLK	Fuse PCM1 (20A)
14	BLK/YEL	Powertrain Control Module (PCM).C	BLK/YEL	H-81 (4)
15	GRN/WHT	Transmission Control Module (TCM)	GRN/WHT	Powertrain Control Module (PCM) A
16	GRN	Transmission Control Module (TCM)	GRN	Powertrain Control Module (PCM) A

H-66

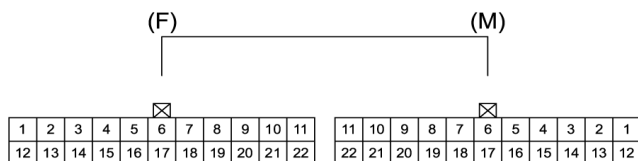


LNW78DSH000601

4497217

<b>Connector No.</b>	<b>H-66</b>			
<b>Connector Color</b>	<b>Black</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-18</b>		<b>(F) J-35616-19</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	GRN/BLK	Rear Combination Light (LH)	GRN/BLK	H-81 (5)
2	GRN	Rear Combination Light (RH)	GRN	H-81 (6)
3	—	Not Used	—	Not Used
4	—	Not Used	—	Not Used
5	GRN/RED	License Plate Light.A	GRN/RED	Marker Light Relay
6	RED/BLU	Rear Combination Light (LH)	RED/BLU	H-81 (23)
7	BLK	Rear Combination Light (RH)	BLK	W/S-1-Frame center (RH) J-9
8	GRN/WHT	Rear Combination Light (RH)	GRN/WHT	H-81 (3)

H-80



LNW78DSH004101

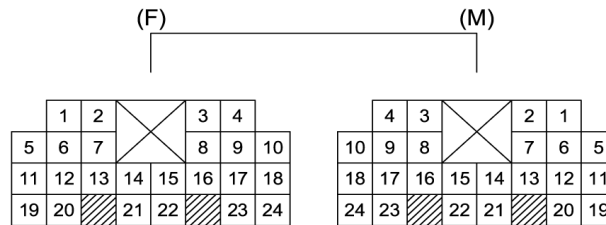
4497206

Connector No.	H-80			
Connector Color	Black			
Test Adapter No.	(M) J-35616-18		(F) J-35616-19	
	Male		Female	
Pin No.	Wire Color	Pin Function	Wire Color	Pin Function
1	LT GRN	Data Link Connector	LT GRN/BLU	Electronic Hydraulic Control Unit (EHCU)
2	—	Not Used	—	Not Used
3	—	Not Used	—	Not Used
4	—	Not Used	—	Not Used
5	BLU	Accelerator Pedal Position Sensor	VIO	Powertrain Control Module (PCM).A
6	—	Not Used	—	Not Used
7	LT GRN	Accelerator Pedal Position Sensor	WHT	Powertrain Control Module (PCM).A
8	BRN	Accelerator Pedal Position Sensor	RED/WHT	Powertrain Control Module (PCM).A
9	GRY	Electronic Thermostat	GRY	Magnetic Clutch Relay
10	LT GRN	Cab Junction Block1 B-19 (10)	GRN/RED	Marker Light Relay
11	BLU	Cab Junction Block1 B-20 (4)	BRK/YEL	Electronic Hydraulic Control Unit (EHCU)
12	BRN	Data Link Connector	LT GRN/RED	Electronic Hydraulic Control Unit (EHCU)
13	—	Not Used	—	Not Used
14	—	Not Used	—	Not Used
15	YEL	RR Body Switch	—	Not Used
16	—	Not Used	—	Not Used
17	VIO	Accelerator Pedal Position Sensor	BLU/WHT	Powertrain Control Module (PCM).A
18	LT BLU	Accelerator Pedal Position Sensor	VIO/RED	Powertrain Control Module (PCM).A

## 5-140 Cab and Chassis Electrical

<b>Connector No.</b>	<b>H-80</b>			
<b>Connector Color</b>	<b>Black</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-18</b>		<b>(F) J-35616-19</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
19	YEL	Accelerator Pedal Position Sensor	RED/WHT	Powertrain Control Module (PCM).A
20	BLU	10P J/C 13L B-564 (1)	YEL	Rear Dome Light Relay
21	LT GRN	Rear Dome Light Switch	RED	Rear Dome Light Relay
22	BRN	Cab Junction Block B-26 (3)	BLK/RED	Magnetic Clutch Relay

## H-81



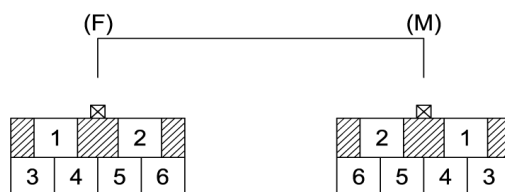
LNW78DSH004201

4497126

<b>Connector No.</b>	<b>H-81</b>			
<b>Connector Color</b>	<b>Green</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-12/J-35616-40</b>		<b>(F) J-35616-13/J-35616-41</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	RED/BLK	Cab Junction Block1 B-18 (9)	RED/BLK	Horn (LH)
2	WHT/RED	H-243 (2)	WHT/RED	H-52 (9)
3	BRN	W/S-19R	GRN/WHT	H-66 (8)
4	BLK/YEL	H-243 (5)	BLK/YEL	H-52 (14)
5	BRN	10P J/C 2L B-508 (9)	GRN/BLK	H-66 (1)
6	YEL	10P J/C 8L B-559 (2)	GRN	H-66 (2)
7	RED/BLK	Cab Junction Block B-15 (3)	RED/BLK	H-52 (3)
8	—	Not Used	—	Not Used
9	VIO	Instrument Panel (IP) Cluster.A	YEL/BLK	Powertrain Control Module (PCM).A
10	LT BLU	W/S-18L	RED/YEL	Powertrain Control Module (PCM).A
11	YEL	W/S-8L	GRN/BLK	Fuse Tail Main (20A)
12	BRN/YEL	PIM.B	BRN/YEL	Triple Pressure Switch

<b>Connector No.</b>	<b>H-81</b>			
<b>Connector Color</b>	<b>Green</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-12/J-35616-40</b>		<b>(F) J-35616-13/J-35616-41</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
13	WHT/GRN	H-243 (6)	WHT/GRN	H-52 (10)
14	WHT/RED	W/S-7L	WHT/RED	SBF Headlight (30A)
15	BLK/RED	Cab Junction Block1 B-25 (1)	BLK/RED	SBF Starter Switch 1 (30A)
16	—	Not Used	—	Not Used
17	BRN	Cab Junction Block1 B-16 (4)	BRN/ORN	Powertrain Control Module (PCM).A
18	VIO	10P J/C 7L B-558 (5)	BLK/BLU	Powertrain Control Module (PCM).A
19	YEL	W/S-8L	GRN/BLK	Fuse Tail Main (20A)
20	—	Not Used	—	Not Used
21	BLK/YEL	W/S-5L	BLK/YEL	SBF Junction Block (50A)
22	WHT/BLK	Cab Junction Block1 B-26 (2)	WHT/BLK	SBF Wiper (50A)
23	BRN	10P J/C 5L B-520 (7)	RED/BLU	H-66 (6)
24	—	Not Used	—	Not Used

**H-82**



LNW78DSH004301

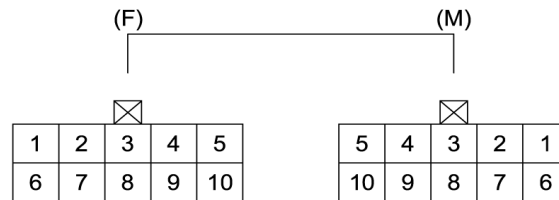
4497161

<b>Connector No.</b>	<b>H-82</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-12/J-35616-44</b>		<b>(F) J-35616-13/J-35616-45</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	WHT/BLK	Blower Relay	WHT/BLK	SBF HVAC (40A)
2	RED/BLK	Power Accessory Relay	RED/BLK	SBF POWER ACC (50A)
3	—	Not Used	—	Not Used
4	—	Not Used	—	Not Used
5	BLK/YEL	W/S-6L	BLK/YEL	SBF Starter Switch 2 (40A)

## 5-142 Cab and Chassis Electrical

<b>Connector No.</b>	<b>H-82</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-12/J-35616-44</b>		<b>(F) J-35616-13/J-35616-45</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
6	BLK/YEL	W/S-6L	BLK/YEL	SBF Starter Switch 2 (40A)

## H-83

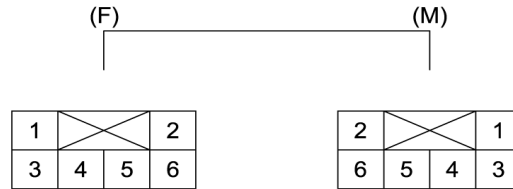


LNW78DSH000701

4497182

<b>Connector No.</b>	<b>H-83</b>			
<b>Connector Color</b>	<b>White</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-18</b>		<b>(F) J-35616-19</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	BLU	PIM.A	BLU	Electronic Hydraulic Control Unit (EHCU)
2	—	Not Used	—	Not Used
3	—	Not Used	—	Not Used
4	—	Not Used	—	Not Used
5	GRN/WHT	PIM.B	GRN/WHT	H-52 (12)
6	BLU/WHT	PIM.A	BLU/WHT	Electronic Hydraulic Control Unit (EHCU)
7	—	Not Used	—	Not Used
8	—	Not Used	—	Not Used
9	—	Not Used	—	Not Used
10	GRN	PIM.B	GRN	H-52 (11)

H-85



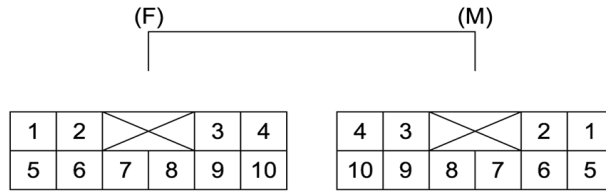
LNW78DSH000201

4497201

<b>Connector No.</b>	<b>H-85</b>			
<b>Connector Color</b>	<b>Black</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-4A</b>		<b>(F) J-35616-5</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	LT GRN/RED	Shift Lever Switch.B	BRN	W/S-15L
2	GRY	Door Switch (LH)	YEL	W/S-20R
3	LT GRN/BLK	Shift Lever Switch.B	LT GRN	W/S-14L
4	WHT/BLK	Parking Brake Switch	LT GRN	10P J/C 3R B-518 (7)
5	WHT/GRN	Seat Belt	WHT/GRN	Instrument Panel (IP) Cluster
6	BLK	J/C-1 (1)	BLK	W/S-16L

	<b>Male (C-Cab)</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	LT GRN/RED	Shift Lever Switch.B	—	—
2	GRY	J/C-29	—	—
3	LT GRN/BLK	Shift Lever Switch.B	—	—
4	WHT/BLK	Parking Brake Switch.B	—	—
5	WHT/GRN	Seat Belt	—	—
6	BLK	J/C-1 (1)	—	—

H-86

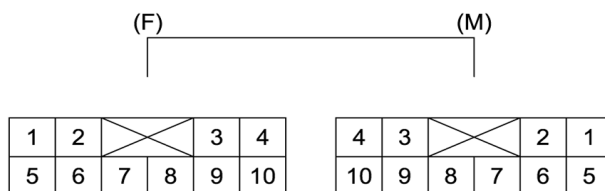


4497209

<b>Connector No.</b>	<b>H-86</b>			
<b>Connector Color</b>	<b>White</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-4A</b>		<b>(F) J-35616-5</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	YEL	W/S-20R	GRY	Door Switch (RH)
2	—	Not Used	—	Not Used
3	—	Not Used	—	Not Used
4	—	Not Used	—	Not Used
5	LT BLU	10P J/C 8L B-559 (7)	GRN/RED	H-51 (6)
6	BLU	10P J/C 2L B-508 (5)	GRN/YEL	H-51 (5)
7	—	Not Used	—	Not Used
8	LT BLU	Rear Power Window Switch (RH)	BLU/YEL	H-51 (3)
9	LT GRN	Rear Power Window Switch (RH)	GRN	H-51 (2)
10	RED/WHT	W/S-12L	RED/WHT	H-51 (1)



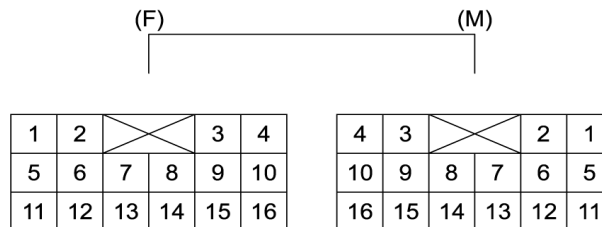
H-87



4497209

<b>Connector No.</b>	<b>H-87</b>			
<b>Connector Color</b>	<b>Green</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-4A</b>		<b>(F) J-35616-5</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	GRY	J/C-EA 10P1	BLK	Mirror Heater (RH)
2	LT BLU	10P J/C 8L B-559 (9)	GRN/RED	Front Door Lock Motor (RH)
3	LT BLU	10P J/C 3R B-518 (9)	BLK/RED	Front Cornering Light (RH)
4	BLU/WHT	H-92 (16)	BLU/WHT	Front Power Window Switch (RH)
5	BLK	J/C-EA 10P1	BLK	Side Marker Light (RH)
6	BRN/YEL	Cab Junction Block1 B-15 (5)	BRN/YEL	Front Power Window Switch (RH)
7	GRN/YEL	10P J/C 2L B-508 (2)	GRN/YEL	Front Door Lock Motor (RH)
8	BLU/RED	H-92 (4)	BLU/RED	Front Power Window Switch (RH)
9	RED/YEL	Mirror Heater Switch	RED/YEL	Mirror Heater (RH)
10	—	Not Used	—	Not Used

H-92

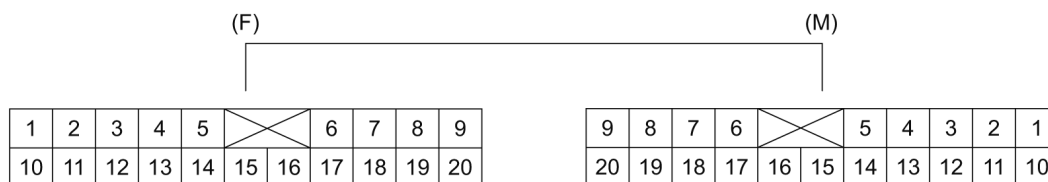


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4497208

Connector No.	H-92			
Connector Color	Black			
Test Adapter No.	(M) J-35616-4A		(F) J-35616-5	
	Male		Female	
Pin No.	Wire Color	Pin Function	Wire Color	Pin Function
1	LT BLU	Cab Junction Block1 B-17 (6)	GRN/BLK	Front Door Lock Motor (LH)
2	LT BLU	10P J/C 3R B-518 (10)	BLK/RED	Front Cornering Light (LH)
3	LT BLU	Keyless Entry Control Unit	RED/GRN	Front Door Lock Motor (LH)
4	BLU/RED	H-87 (8)	BLU/RED	Front Power Window Switch (LH)
5	LT BLU	10P J/C 8L B-559 (8)	GRN/RED	Front Door Lock Motor (LH)
6	—	Not Used	—	Not Used
7	BRN/YEL	Cab Junction Block1 B-23 (2)	BRN/YEL	Front Power Window Switch (LH)
8	RED/YEL	Cab Junction Block1 B-17 (8)	RED/YEL	Mirror Heater (LH)
9	GRY	J/C-EA 10P2	BLK	Mirror Heater (LH)
10	GRY	10P J/C 10L B-561 (8)	BLK	Front Door Lock Motor (LH)
11	BLK	J/C-EA 10P2	BLK	H-92 (11)
12	—	Not Used	—	Not Used
13	BLU	10P J/C 2L N-508 (1)	GRN/YEL	Front Door Lock Motor (LH)
14	—	Not Used	—	Not Used
15	BLK	10P J/C 10L N-561 (9)	BLK	Side Marker Light (LH)
16	BLU/WHT	H-87 (4)	BLU/WHT	Front Power Window Switch (LH)

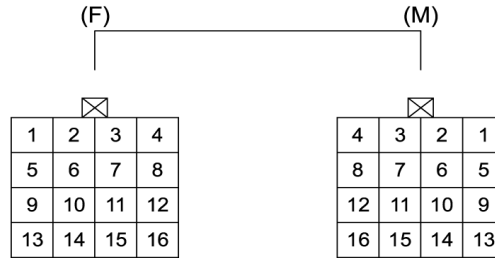
H-93



LNWJ80SF000101  
4958468

Connector No.	H-93			
Connector Color	White			
Test Adapter No.	(M) J-35616-4A		(F) J-35616-5	
	Male		Female	
Pin No.	Wire Color	Pin Function	Wire Color	Pin Function
1	BLU	H-49 (3)	BLU	RR Power Window Switch
2	BLU	Shift Lever Switch.A	BLU	Instrument Panel (IP) Cluster.B
3	RED/BLU	Shift Lever Switch.A	BRN	10P J/C 5L B-520 (6)
4	WHT/RED	Shift Lever Switch.A	WHT/RED	Instrument Panel (IP) Cluster.B
5	BLK/RED	Shift Lever Switch.A	BLK/RED	Instrument Panel (IP) Cluster.A
6	GRN/YEL	Shift Lever Switch.A	GRN/YEL	W/S-12L
7	RED/WHT	H-49 (1)	LT GRN	10P J/C 12L B-563 (3)
8	BLU/BLK	Shift Lever Switch.A	BLU/BLK	Instrument Panel (IP) Cluster.B
9	BLU/WHT	Shift Lever Switch.A	BLU/WHT	Instrument Panel (IP) Cluster.B
10	BLU/RED	Shift Lever Switch.A	BLU/RED	Instrument Panel (IP) Cluster.B
11	GRN/RED	H-49 (6)	LT BLU	10P J/C 8L B-558 (6)
12	GRN/YEL	Shift Lever Switch.A	GRN/YEL	Cab Junction Block B-21 (10)
13	VIO	Shift Lever Switch.B	VIO	Key Lock Solenoid
14	VIO	H-49 (2)	VIO	RR Power Window Switch
15	GRN	Shift Lever Switch.B	YEL	10P J/C 8L B-559 (5)
16	BLU/GRN	Shift Lever Switch.B	GRY	10P J/C 6L B-519 (1)
17	RED/BLK	Shift Lever Switch.B	LT GRN	10P J/C 12L B-563 (1)
18	GRN/YEL	H-49 (5)	BLU	10P J/C 2L B-508 (4)
19	BLU/YEL	Shift Lever Switch.A	BLU/YEL	Instrument Panel (IP) Cluster.B
20	RED/YEL	RR Heater	RED/YEL	W/S-11L

H-109



LNW78DSH000401

4497222

Connector No.	H-109			
Connector Color	Gray			
Test Adapter No.	(M) J-35616-18/J-35616-42		(F) J-35616-19/J-35616-43	
	Male		Female	
Pin No.	Wire Color	Pin Function	Wire Color	Pin Function
1	BLU	A/C Compressor	BLU	A/C Enable Relay
2	GRN/BLK	Powertrain Control Module (PCM).C	GRN/BLK	Fuel Pump
3	BLU/RED	Powertrain Control Module (PCM).C	BLU/RED	FRT Heater Sensor (RH)
4	GRN	Powertrain Control Module (PCM).C	GRN	Fuel Pump
5	GRN/RED	Powertrain Control Module (PCM).C	GRN/RED	Fuel Vaper Sensor
6	WHT/BLU	AC Generator	WHT/BLU	Powertrain Control Module (PCM).A
7	GRN/WHT	Powertrain Control Module (PCM).C	GRN/WHT	Fuel Vaper Sensor
8	BLK	Powertrain Control Module (PCM).B	BLK	MAF & IAT Sensor
9	BLU	Powertrain Control Module (PCM).B	BLU	FRT Heater Sensor (RH)
10	BLU/BLK	Powertrain Control Module (PCM).B	BLU/BLK	FRT Heater Sensor (RH)
11	YEL/RED	Powertrain Control Module (PCM).C	YEL/RED	RR Heater Sensor (LH)
12	YEL/GRN	Powertrain Control Module (PCM).C	YEL/GRN	RR Heater Sensor (LH)
13	YEL	Powertrain Control Module (PCM).C	YEL	RR Heater Sensor (LH)
14	BLK/RED	Powertrain Control Module (PCM).C	BLK/RED	RR Heater Sensor (RH)
15	BLK/YEL	Powertrain Control Module (PCM).C	BLK/YEL	RR Heater Sensor (RH)

<b>Connector No.</b>	<b>H-109</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-18/J-35616-42</b>		<b>(F) J-35616-19/J-35616-43</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
16	WHT	Powertrain Control Module (PCM).C	WHT	RR Heater Sensor (RH)

**H-110**



LNWA8DSH000601

4497220

<b>Connector No.</b>	<b>H-110</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-42</b>		<b>(F) J-35616-43</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	BLK/WHT	Starter Relay	BLK/WHT	Starter

H-111

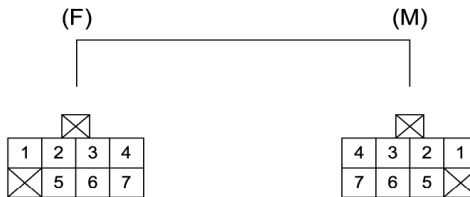


LNW78DSH000501

4497116

<b>Connector No.</b>	<b>H-111</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-42</b>		<b>(F) J-35616-43</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	WHT	Relay Box	BLU	Battery
2	WHT	AC Generator	BLU	Battery

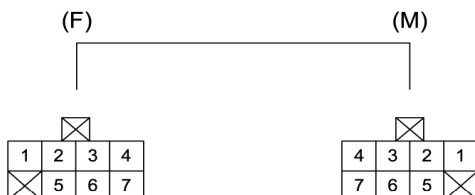
H-112



4557707

<b>Connector No.</b>	<b>H-112</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-33</b>		<b>(F) J-35616-34</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	—	—	BRN	Powertrain Control Module (PCM).B
2	—	—	LT BLU	Powertrain Control Module (PCM).B
3	—	—	VIO	Powertrain Control Module (PCM).B
4	—	—	YEL/BLK	H-52 (13)
5	—	—	DAK GRN	Powertrain Control Module (PCM).B
6	—	—	ORN	Powertrain Control Module (PCM).B
7	—	—	BLK	Earth Body 25

**H-113**



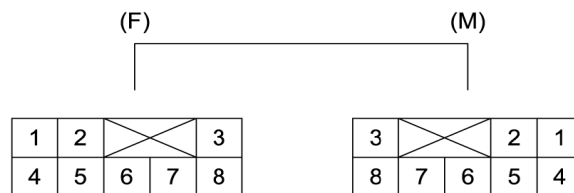
4557707

<b>Connector No.</b>	<b>H-113</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-33</b>		<b>(F) J-35616-34</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	—	—	BRN	Powertrain Control Module (PCM).B
2	—	—	LT BLU/WHT	Powertrain Control Module (PCM).B
3	—	—	VIO/WHT	Powertrain Control Module (PCM).B
4	—	—	BLU	H-52 (1)
5	—	—	DAK GRN/WHT	Powertrain Control Module (PCM).B

## 5-152 Cab and Chassis Electrical

<b>Connector No.</b>	<b>H-113</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-33</b>		<b>(F) J-35616-34</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
6	—	—	ORN/WHT	Powertrain Control Module (PCM).B
7	—	—	BLK	Earth Body 25

## H-114



4557708

<b>Connector No.</b>	<b>H-114</b>			
<b>Connector Color</b>	<b>White</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-2A</b>		<b>(F) J-35616-3</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	GRN/YEL	H-49 (3)	GRN/YEL	Rear Power Window Switch (LH)
2	GRN/BLK	H-49 (2)	GRN/BLK	Rear Power Window Switch (LH)
3	RED/WHT	H-49 (1)	RED/WHT	Weld Splice 12
4	—	Not Used	—	Not Used
5	—	Not Used	—	Not Used
6	—	Not Used	—	Not Used
7	GRN/RED	H-49 (6)	GRN/RED	Sub Junction Block B-253 (14)
8	GEN/YEL	H-49 (5)	GEN/YEL	Cab Junction Block 1 B-20 (7)



H-170



4557709

<b>Connector No.</b>	<b>H-170</b>			
<b>Connector Color</b>	<b>Light Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-44</b>		<b>(F) J-35616-45</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	RED/GRN	Relay Box FL-14 ETB	RED/GRN	EXT_ETB No.1

H-172



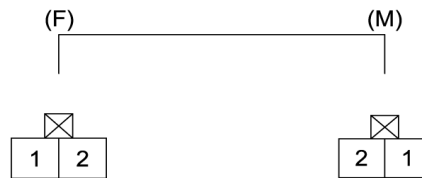
LNWA8DSH000501

4497846

## 5-154 Cab and Chassis Electrical

<b>Connector No.</b>	<b>H-172</b>			
<b>Connector Color</b>	<b>Black</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-42</b>		<b>(F) J-35616-43</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	GRN	H-66 (2)	—	—
2	GRN/RED	Maker Lamp Relay	—	—
3	GRN/BLK	H-66 (1)	—	—
4	GRN/WHT	H-66 (8)	—	—
5	BLK	W/S-1	—	—
6	—	Not Used	—	—
7	—	Not Used	—	—
8	WHT/BLU	Relay Box Fuse FL-16 Towing Converter (30A)	—	—

## H-241



LNW78DSH000501

4712006

<b>Connector No.</b>	<b>H-241</b>			
<b>Connector Color</b>	<b>White</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-18</b>		<b>(F) J-35616-19</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	ORN/BLU	H-101 (14)	WHT	Wheel Speed Sensor Rear Left
2	WHT/BLU	H-101 (13)	GRN/BLK	Wheel Speed Sensor Rear Left

H-242

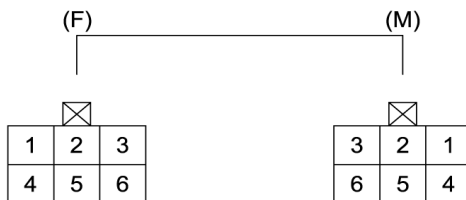


LNW78DSH000501

4712006

<b>Connector No.</b>	<b>H-242</b>			
<b>Connector Color</b>	<b>(M) Black</b>		<b>(F) White</b>	
<b>Test Adapter No.</b>	<b>(M) J-35616-18</b>		<b>(F) J-35616-19</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	VIO	H-101 (16)	WHT	Wheel Speed Sensor Rear Right
2	WHT	H-101 (15)	BLK	Wheel Speed Sensor Rear Right

H-243



LNW78DSH000301







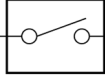

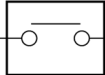
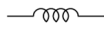
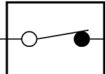
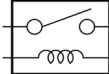

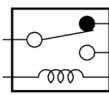

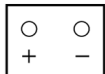

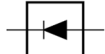
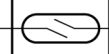





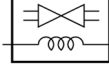
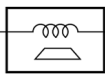
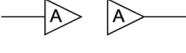
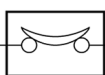



4506948

## 5-156 Cab and Chassis Electrical

<b>Connector No.</b>	<b>H-243</b>			
<b>Connector Color</b>	<b>Gray</b>			
<b>Test Adapter No.</b>	<b>(M) J-35616-4A</b>		<b>(F) J-35616-5</b>	
	<b>Male</b>		<b>Female</b>	
<b>Pin No.</b>	<b>Wire Color</b>	<b>Pin Function</b>	<b>Wire Color</b>	<b>Pin Function</b>
1	BLK	10P J/C 10L B-561 (4)	BLK	Brake Apply Sensor
2	WHT/RED	H-81 (2)	WHT/RED	Brake Apply Sensor
3	BLK	10P J/C 10L B-561 (5)	BLK	Brake Apply Sensor
4	BLK	10P J/C 10L B-561 (6)	BLK	Brake Apply Sensor
5	BLK/YEL	H-81 (4)	BLK/YEL	Brake Apply Sensor
6	WHT/GRN	H-81 (13)	WHT/GRN	Brake Apply Sensor

## Diagnostic Information and Procedures

# Electrical Schematic Symbols

Symbol	Meaning of Symbol	Symbol	Meaning of Symbol
	Fuse		Bulb
	Slow blow fuse		Double filament bulb
	Fusible link wire		Motor
	Switch (Normal open type)		Variable register Rheostat
	Switch		Coil (inductor), solenoid, magnetic valve
	Switch (Normal close type)		Relay (Normal open type)
	Contact wiring		Relay (Normal close type)
	Selection of harness. It displays selecting shared.		
	Battery		Light emitting diode
	Diode		Reed switch
	Electronic Parts		Condenser
	Resistor		Horn
	Speaker		Vacuum switching valve
	Buzzer		Arrow shows circuit continues to the deferent page
	Circuit breaker		Arrow shows circuit continues in the same page
	Twist Pair		Shield

**BLANK**



**BLANK**