

# WORKSHOP MANUAL

NKR · NPR · NQR

## CAB AND CHASSIS ELECTRICAL

### ANTI-LOCK BRAKE SYSTEM (ABS)

SUPPLEMENT

SECTION 8

# ISUZU

**ISUZU**



International Service & Parts  
*Tokyo, Japan*

## **FOREWORD**

This workshop manual supplement contains information of anti-lock brake system for Medium Duty Steel Tilt Cab Vehicle (NKR · NPR · NQR). When used with the Medium Duty Truck Workshop Manual (Pub. No. LGBKR-WE-0101), complete service coverage is provided.

Keep this manual in a handy place for ready reference. If properly used, it will enable the technician to serve the owners of ISUZU vehicles.

## **CAUTION:**

These vehicles contain parts dimensioned in the metric system as well as in the customary system. Some fasteners are metric and are very close in dimension to familiar customary fasteners in the inch system. It is important to note that, during any vehicle maintenance procedures, replacement fasteners must have the same measurements and strength as those removed, whether metric or customary. (Numbers on the heads of metric bolts and on surfaces of metric nuts indicate their strength. Customary bolts use radial lines for this purpose, while most customary nuts do not have strength markings.) Mismatched or incorrect fasteners can result in vehicle damage or malfunction, or possibly personal injury. Therefore, fasteners removed from the vehicle should be saved for re-use in the same location whenever possible. Where the fasteners are not satisfactory for re-use, care should be taken to select a replacement that matches the original. For information and assistance, see your Authorized Isuzu Medium Duty Vehicle dealer.

# CAB AND CHASSIS ELECTRICAL

## Service Precaution

**CAUTION:** When fasteners are removed, always reinstall them at the same location from which they were removed. If the 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.

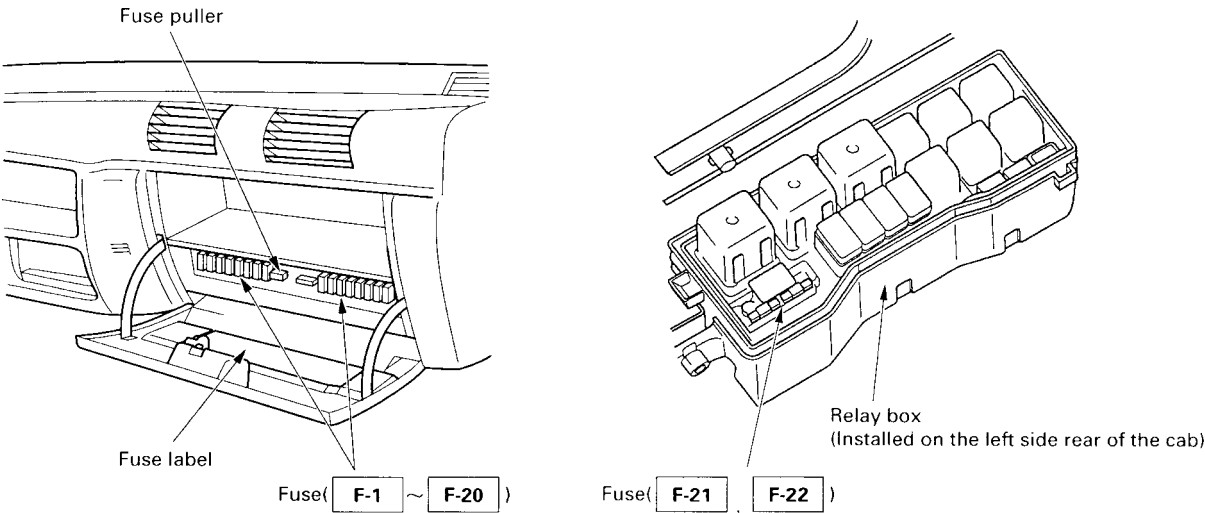
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# Fuse And Fusible Link Location

## Fuse And Circuit Breaker



### FUSE LABEL-FOR 12Volt

25A F-1	HEATER
10A F-2	AIR CON
10A F-3	STARTER
15A F-4	CIGAR LIGHTER
10A F-5	HEAD LIGHT (RH)
10A F-6	HEAD LIGHT (LH)
15A F-7	AUDIO, DOOR LOCK
15A F-8	HAZARD, HORN
15A F-9	TAIL LIGHT
10A F-10	FOG LIGHT

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15A F-11	WIPER, WASHER
10A F-12	GAUGE, BACK
15A F-13	RR. HEATER
15A F-14	FUEL HEATER EXH. BRAKE
10A F-15	HDLP LEVELING
25A F-16	POWER WINDOW
10A F-17	STOP LIGHT
15A F-18	GENERATOR
10A F-19	TURN S/LIGHT
10A F-20	ENG. STOP

### FUSE LABEL-FOR 24Volt

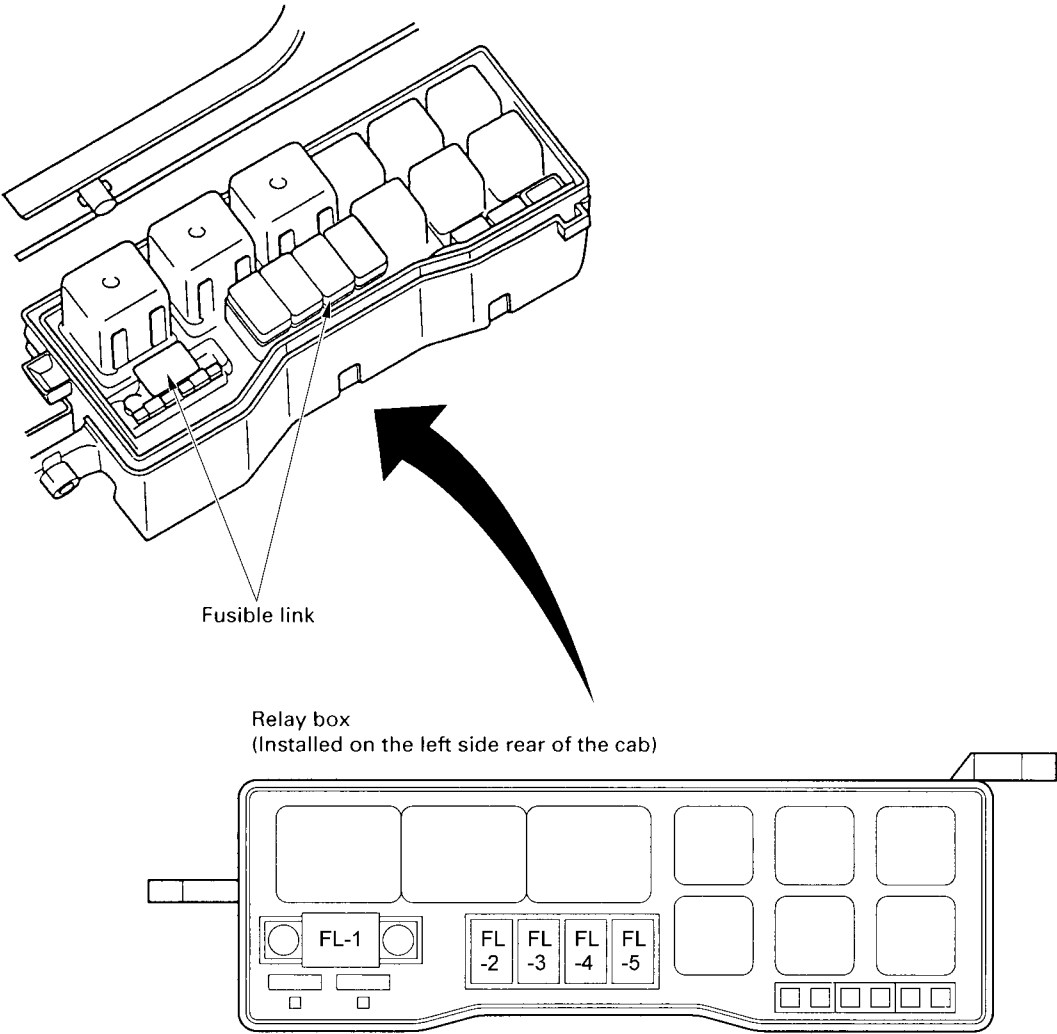
15A F-1	HEATER
- F-2	-
10A F-3	STARTER
15A F-4	CIGAR LIGHTER
10A F-5	HEAD LIGHT (RH)
10A F-6	HEAD LIGHT (LH)
15A F-7	AUDIO, DOOR LOCK
15A F-8	HAZARD, HORN
15A F-9	TAIL LIGHT
10A F-10	STOP LIGHT

--	--

15A F-11	WIPER, WASHER
10A F-12	GAUGE, BACK
10A F-13	ECU (IGN)
10A F-14	FUEL HEATER EXH. BRAKE
15A F-15	RR. HEATER
15A F-16	POWER WINDOW
10A F-17	ENG. STOP
10A F-18	HDLP LEVELING
10A F-19	TURN S/LIGHT
15A F-20	GENERATOR

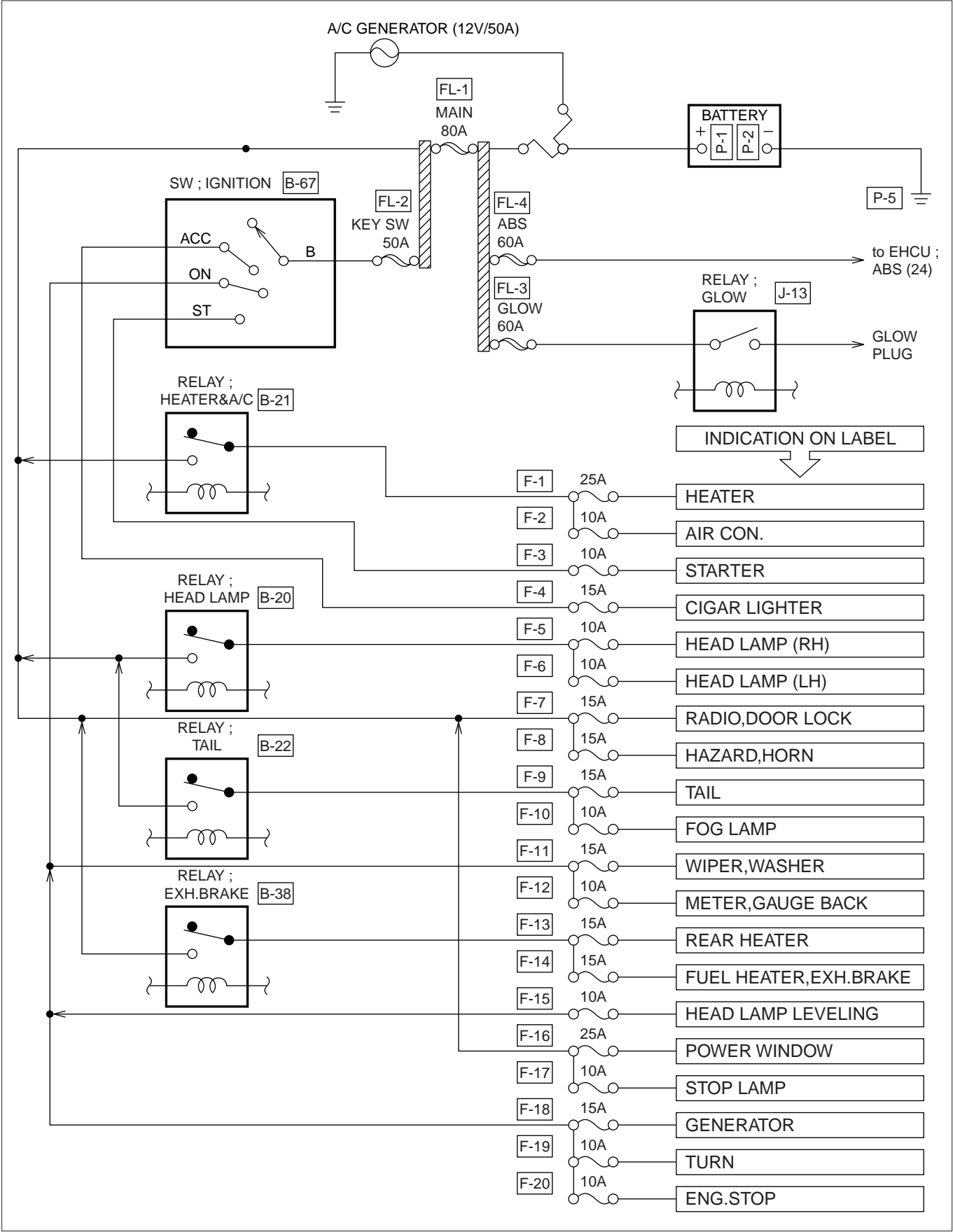
10A F-21	MARKER LIGHT
15A F-22	CONDENSER FAN

Fusible Link

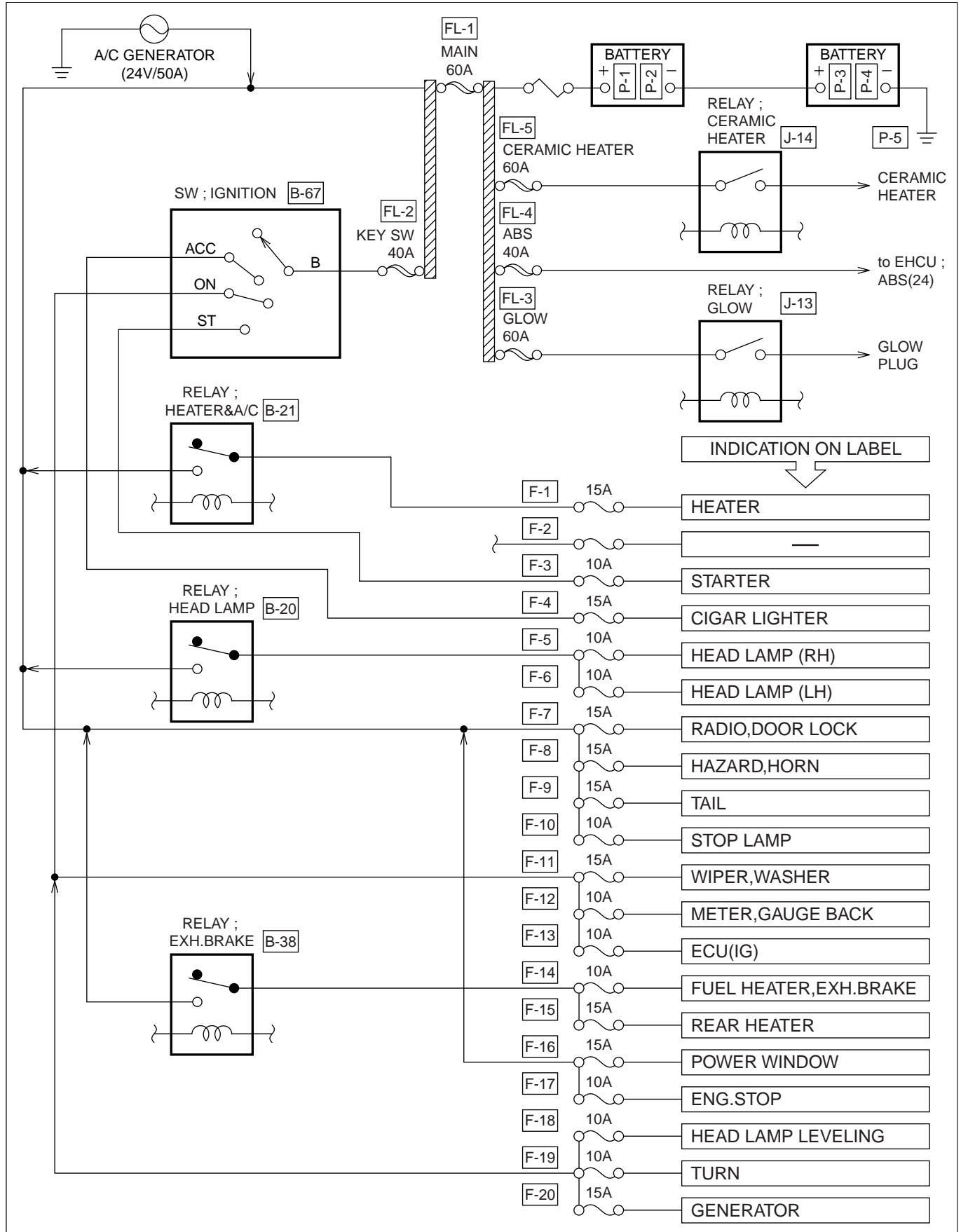


No.	Name	Capacity	Remarks
FL-1	MAIN	80A	12V
		60A	24V
FL-2	KEY SW	50A	12V
		60A	24V
FL-3	GLOW	60A	12V
		60A	24V
FL-4	ABS	60A	12V
		40A	24V
FL-5	-	-	12V
	CERAMIC HEATER	60A	24V

Fuse Block Circuit - FOR 12VOLT

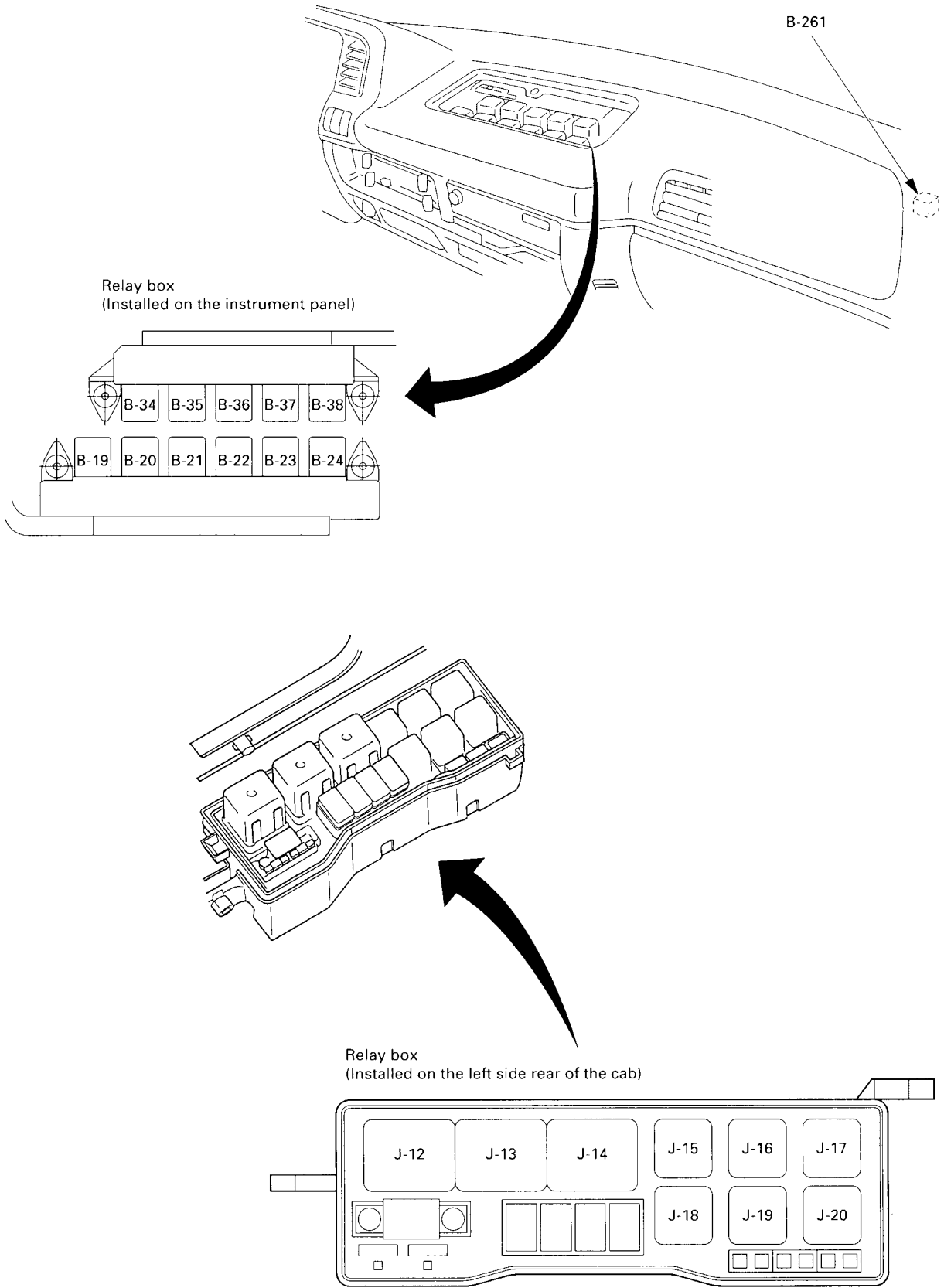


# Fuse Block Circuit - FOR 24VOLT





# Relay Location



## Relay List

Connector No.	B-19	B-20	B-21	B-22	B-23
Relay name	Charge	Headlight	Heater & A/C	Tail	Dimmer

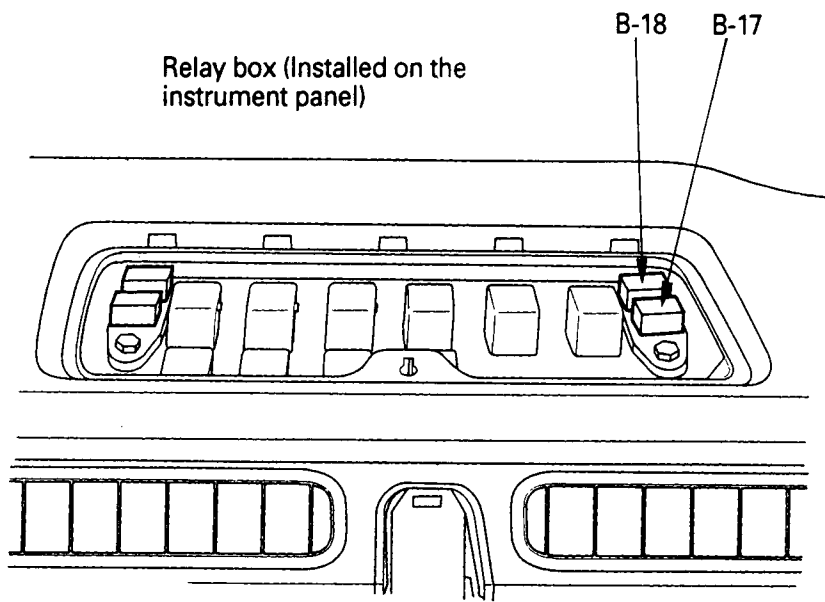
Connector No.	B-24	B-34	B-35	B-36	B-37
Relay name	Horn	Buzzer cancel	ABS. IND	Power window	A/C thermo

Connector No.	B-38	B-261
Relay name	Exh. Brake	Timing

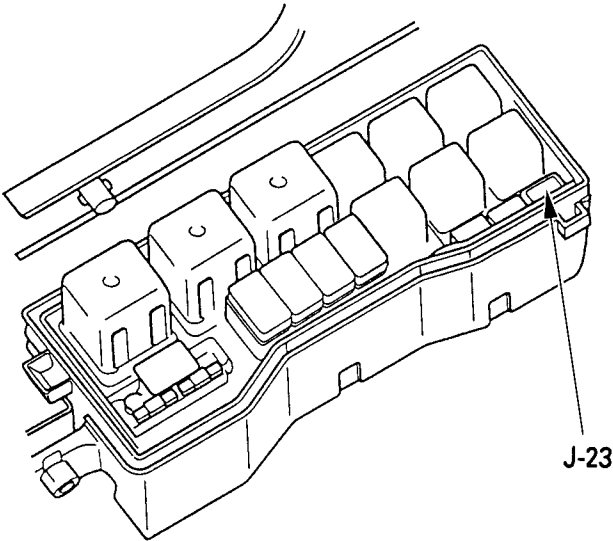
Connector No.	J-12	J-13	J-14	J-15	J-16
Relay name	Starter	Glow	C/HEATER	Eng. warm cut	Exh. brake cut

Connector No.	J-17	J-18	J-19	J-20
Relay name	Condenser fan	Exh. brake control	Rear fog	Marker lamp

## Diode Location



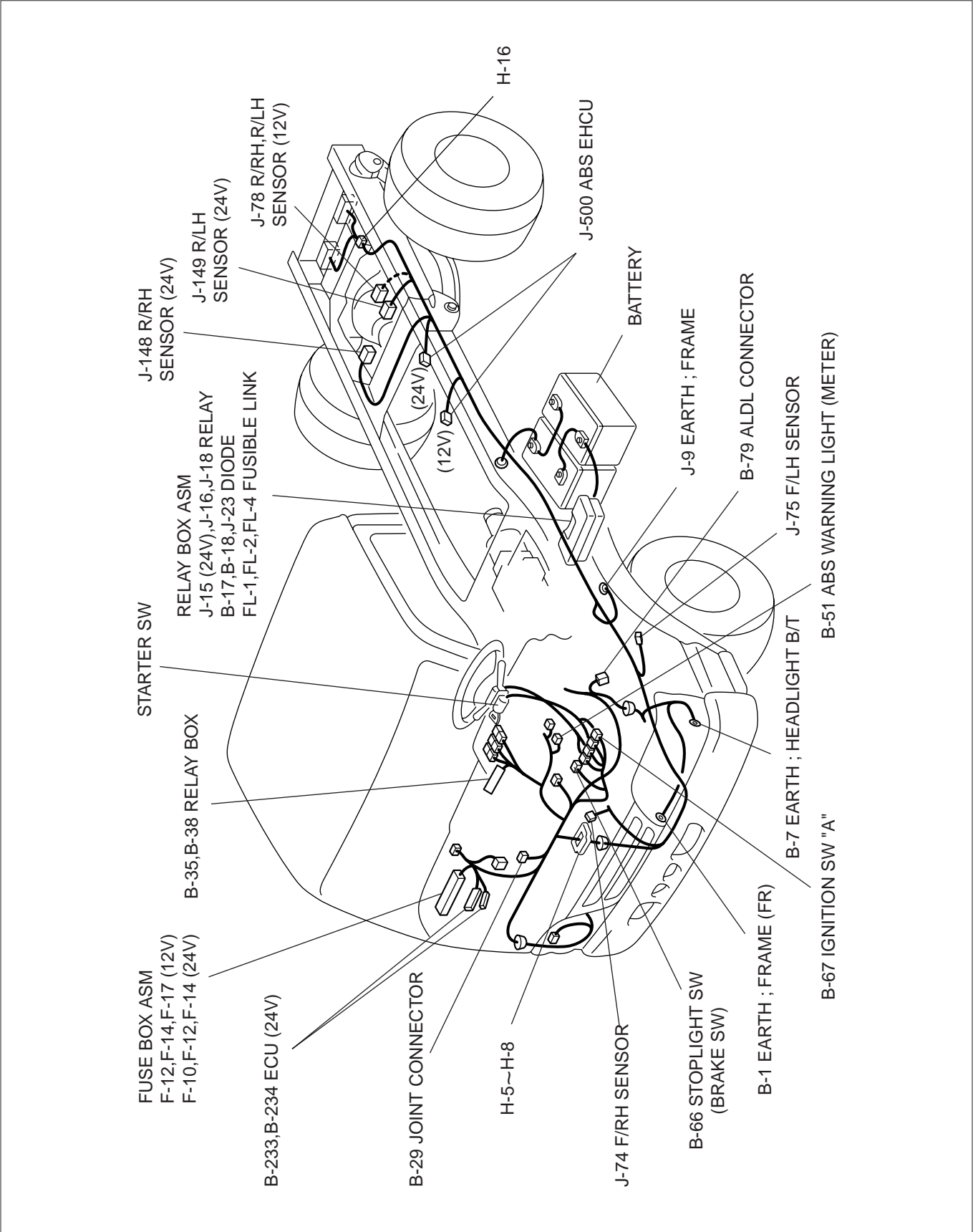
Relay box (Installed on the cab left side rear)



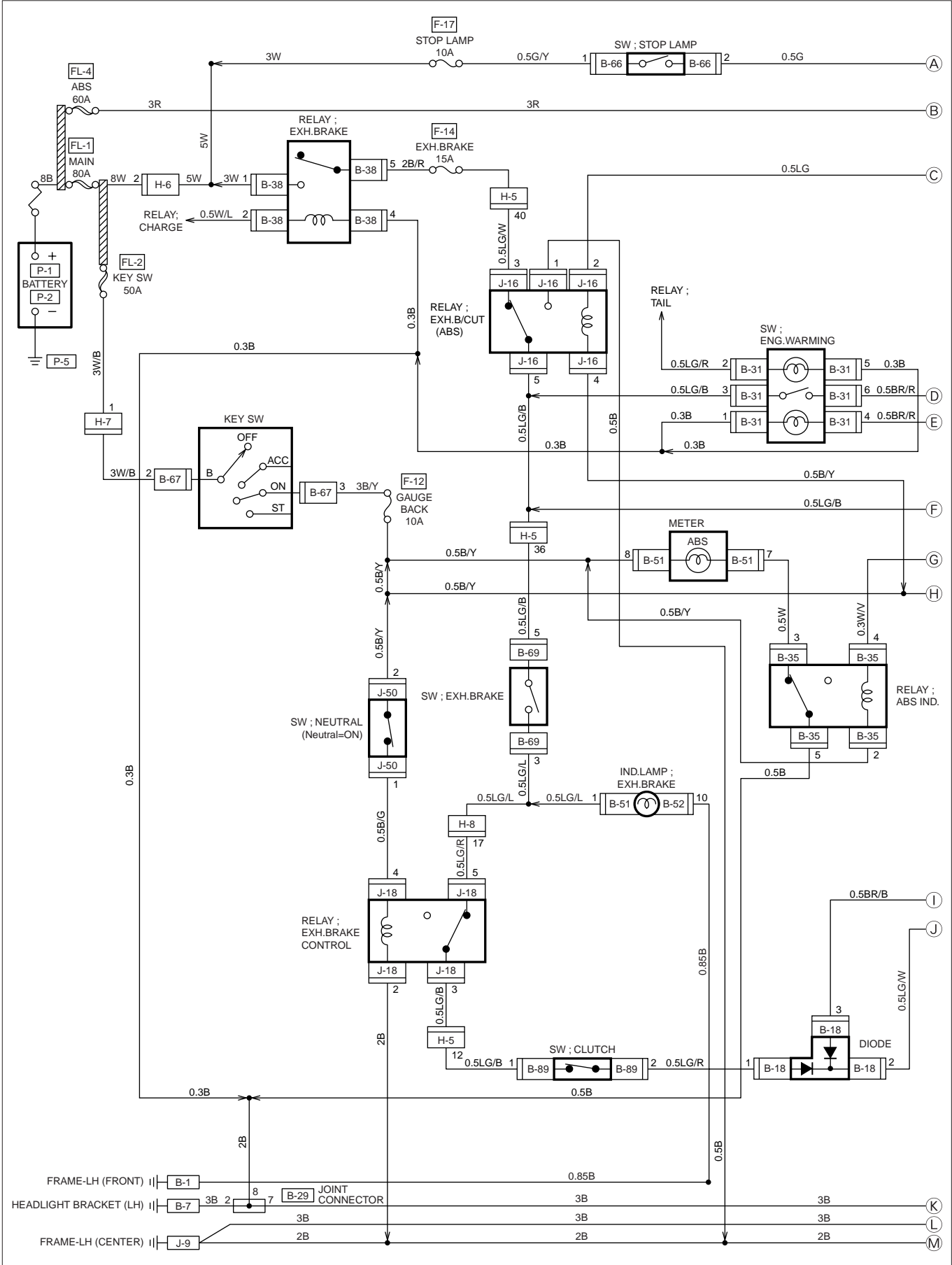
Connector No.	B-17	B-18	J-23
Usage	RELAY : THERMO A/C	SW : ACCEL	VSD : FICD

ABS (Anti-lock Brake System)

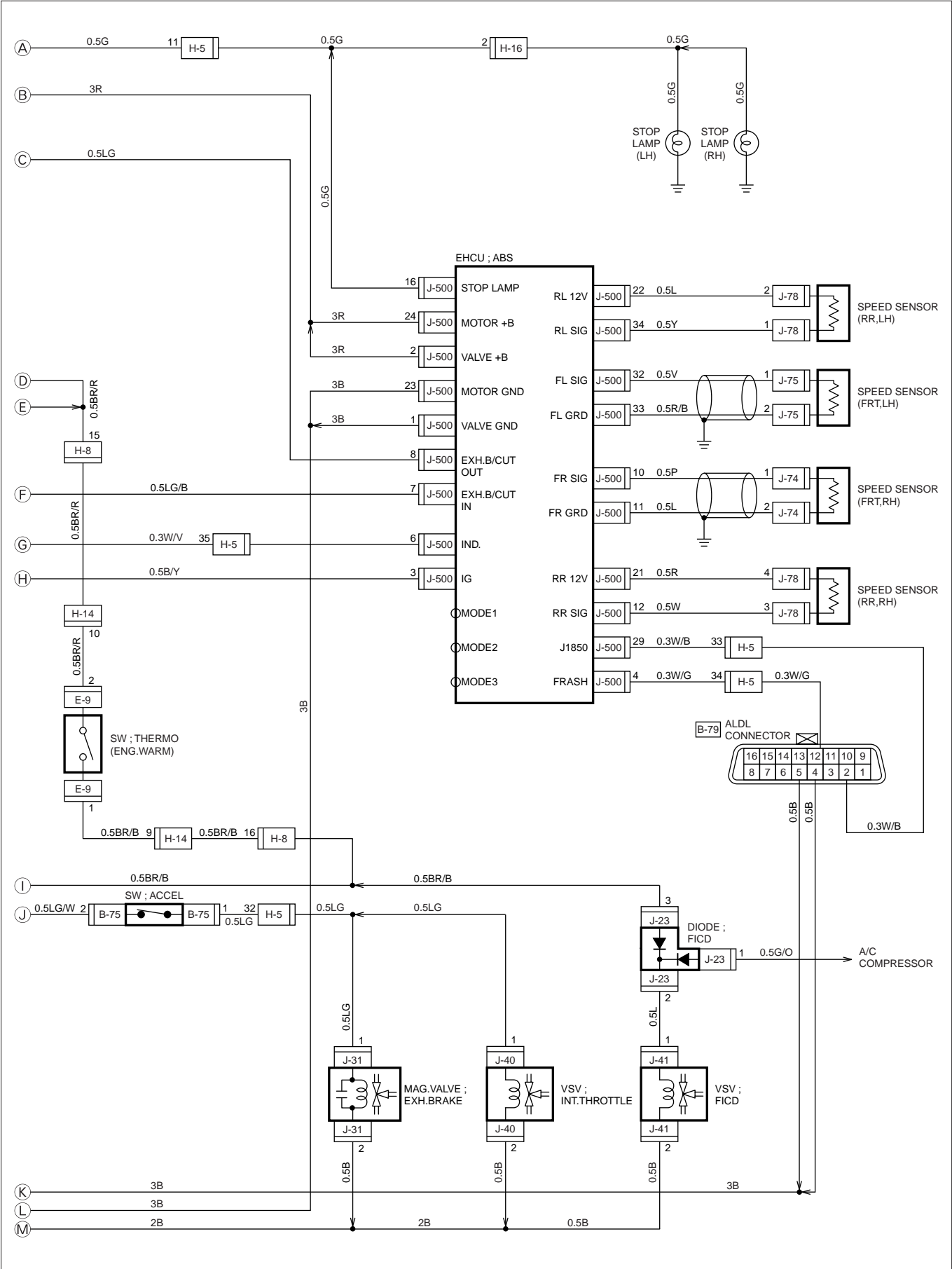
Parts Location



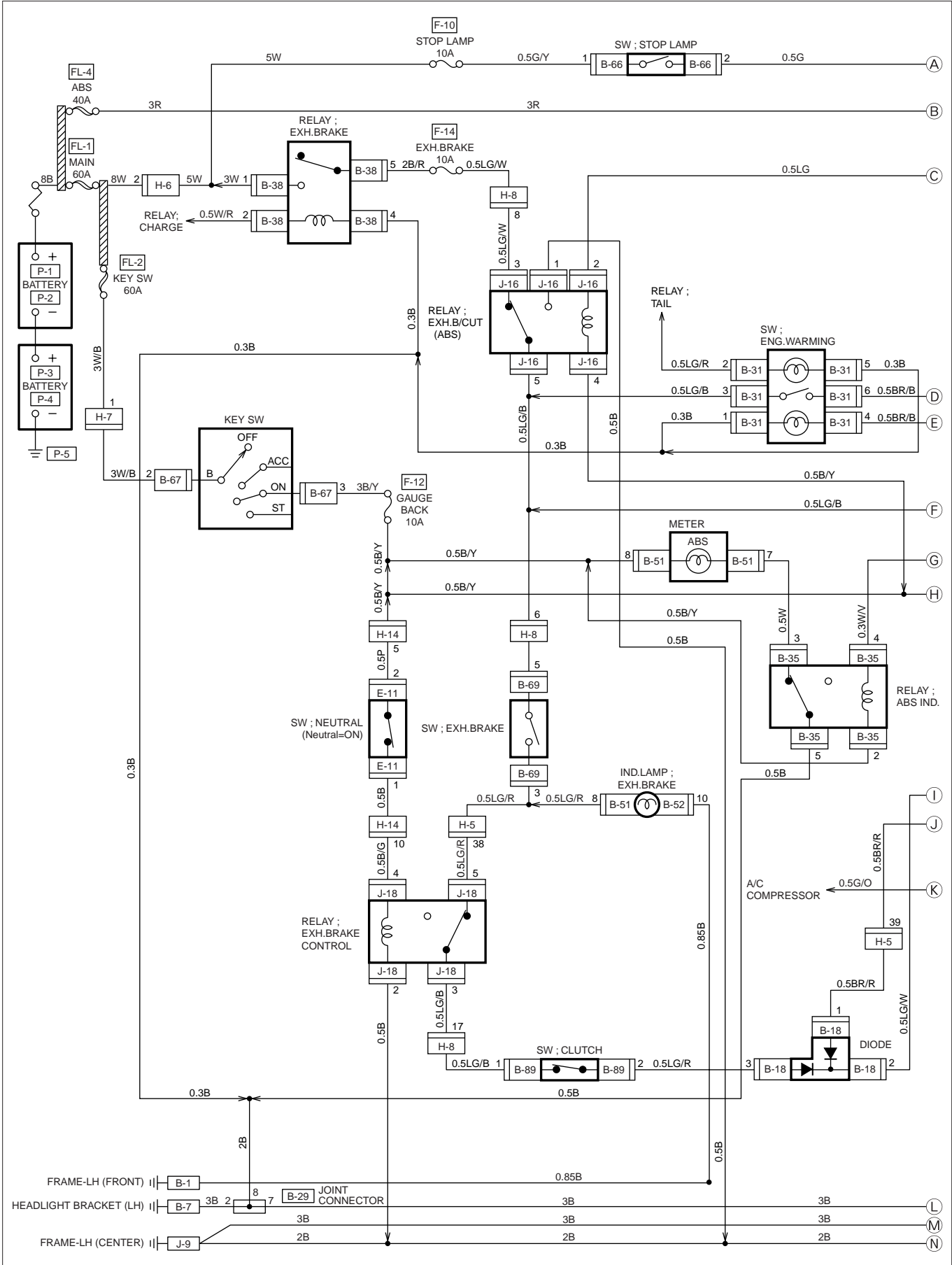
## Circuit Diagram-FOR 12VOLT



8-12 CAB AND CHASSIS ELECTRICAL



## Circuit Diagram-FOR 24VOLT



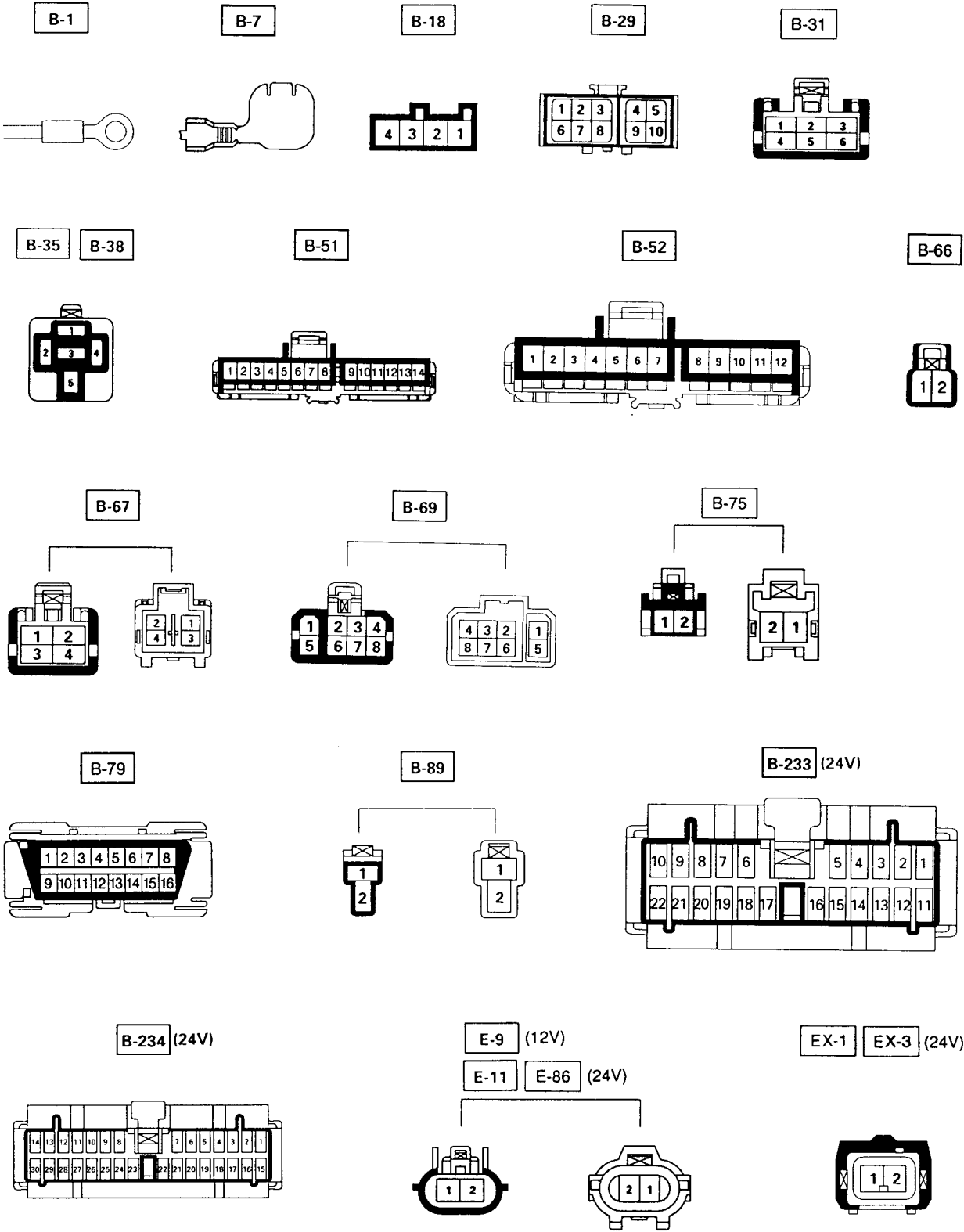
This is a detailed wiring diagram for the 1997 Nissan Altima 2.5 SE. It illustrates the electrical connections for the engine, transmission, and ABS systems. The diagram is organized into several main sections:

- Top Section:** Shows the main power distribution from the battery (A) through fuses (H-5, H-16) to various components. It includes STOP LAMP (LH) and STOP LAMP (RH) circuits.
- Left Section:** Details the engine control system, including the THERMO SW (E-86), RELAY; CERAMIC HEATER, and RELAY; ENG. WARMING CUT. It also shows the SW; ACCEL (B-75) and DIODE; FICD (J-23) components.
- Center Section:** Focuses on the ECU (EHCU; ABS) and the C/U; ENGINE (QWS). It shows connections for the STOP LAMP, MOTOR +B, VALVE +B, MOTOR GND, VALVE GND, EXH.B/CUT OUT, EXH.B/CUT IN, IND., IG, MODE1, MODE2, and MODE3. It also includes the EXH.BRAKE CHECKER and FICD components.
- Right Section:** Details the ABS system, including the SPEED SENSOR (RR,LH), SPEED SENSOR (FRT,LH), SPEED SENSOR (FRT,RH), and SPEED SENSOR (RR,RH). It shows connections for the RL 12V, RL SIG, FL SIG, FL GRD, FR SIG, FR GRD, RR 12V, and RR SIG.
- Bottom Section:** Shows the VSV (VACUUM SWITCHING VALVE) components, including VSV; FICD, MAG. VALVE; EXH. BRAKE, and VSV; INT. THROTTLE. It also includes the ALDL CONNECTOR and various ground points (L, M, N).

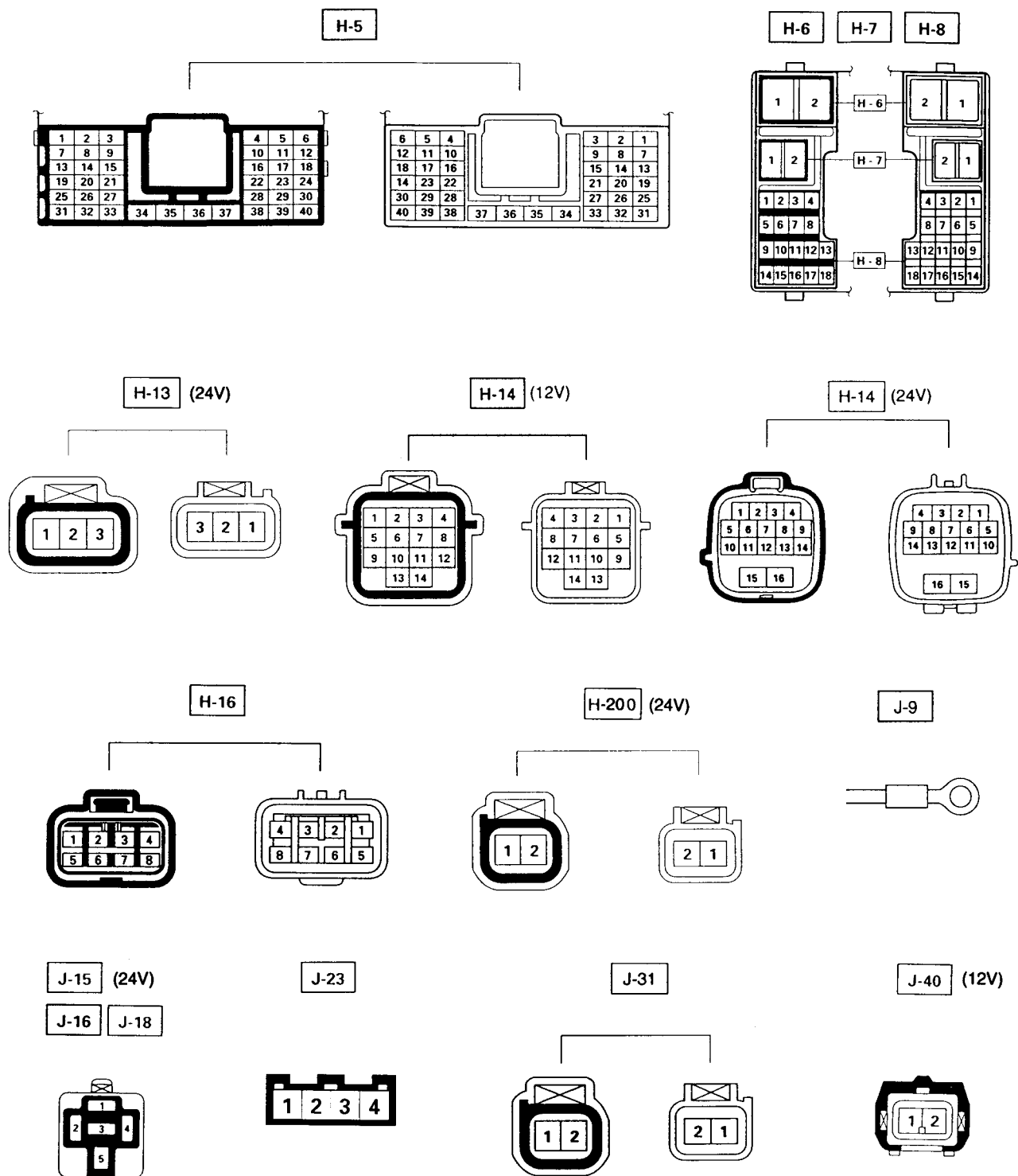
The diagram uses standard automotive symbols for components like relays, switches, diodes, and sensors. Wire colors and gauges are indicated throughout the diagram to ensure correct installation.



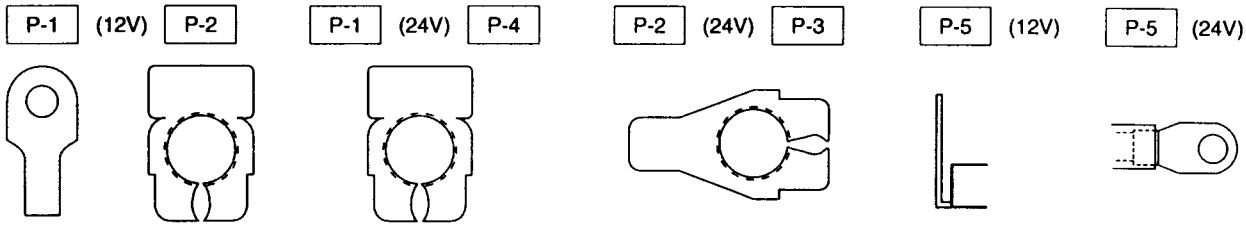
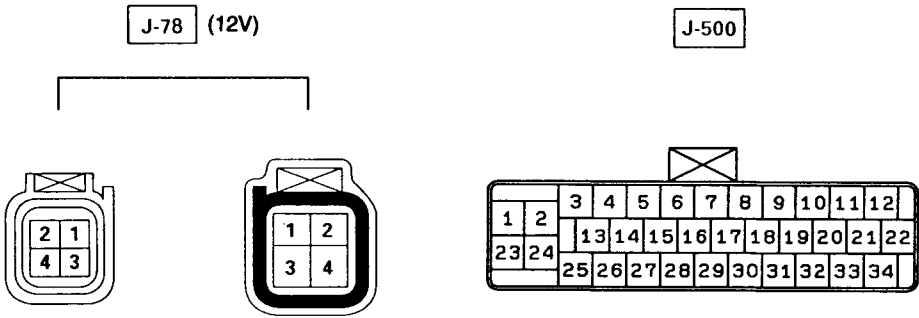
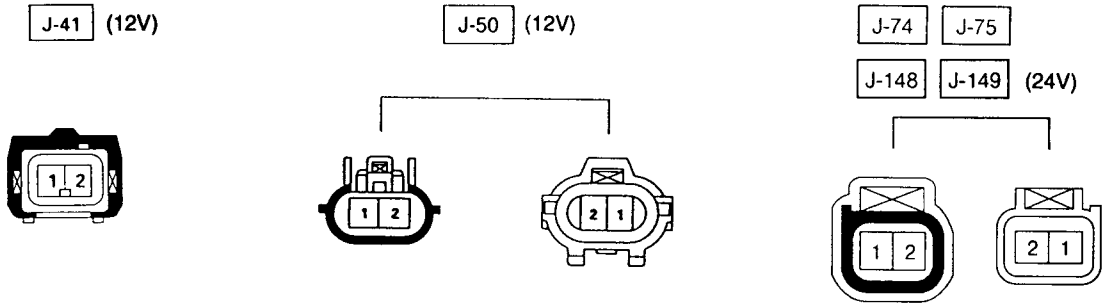
Connector List



## Connector List



Connector List



## **LGBRK-AE-0108**

You are requested to order this manual using the manual number that is shown above.

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**Issued by**  
**ISUZU MOTORS LIMITED**

INTERNATIONAL SERVICE DEPARTMENT

Tokyo, Japan

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First edition Jan., 2001

