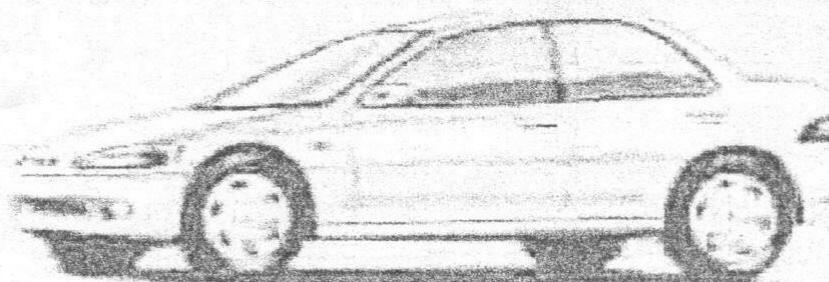


SERVICE MANUAL



SUBARU IMPREZA



SERVICE MANUAL

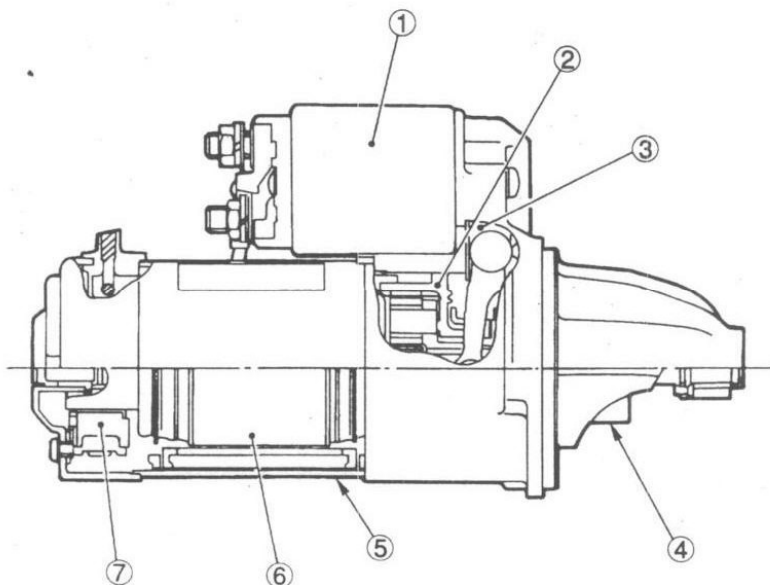
● Diagnostics section

BODY ELECTRICAL SYSTEM
(IMMOBILISER SYSTEM)

6-2

1. Starter

The starter is of reduction type. Its output is 1.0 kW on the MT model and 1.4 kW on the AT model.



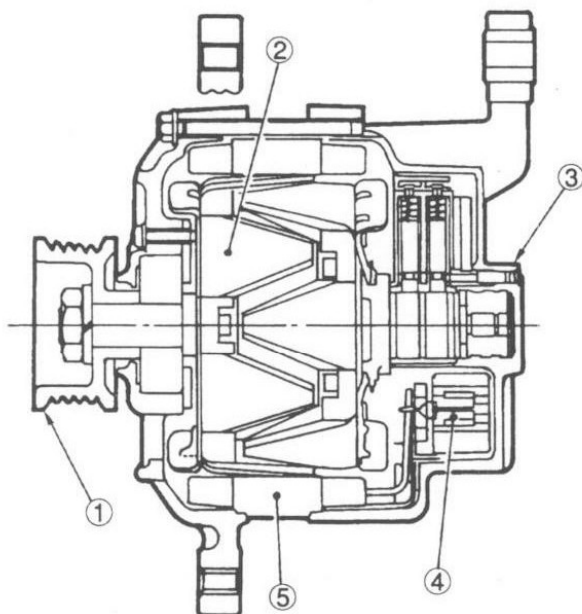
- ① Magnet switch
- ② Internal gear
- ③ Shift lever
- ④ Pinion

- ⑤ Yoke
- ⑥ Armature
- ⑦ Brush holder

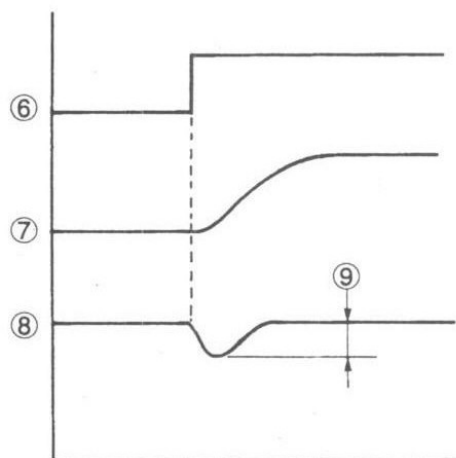
G6H0001

2. Generator

The generator for 2000 cc non-turbo model incorporates an IC regulator which features a "load response control". The load response control circuit function to gradually increase the generator output when an additional electric load such as headlights or blower fan is applied to the engine in the idling state. This prevents a sharp drop in engine idling speed and ensures an improved comfort while the engine is idling. The generator for except 2000 cc non-turbo model does not equip the function of the load response control.



- ① Pulley
- ② Rotor
- ③ Rear cover
- ④ IC regulator
- ⑤ Stator coil

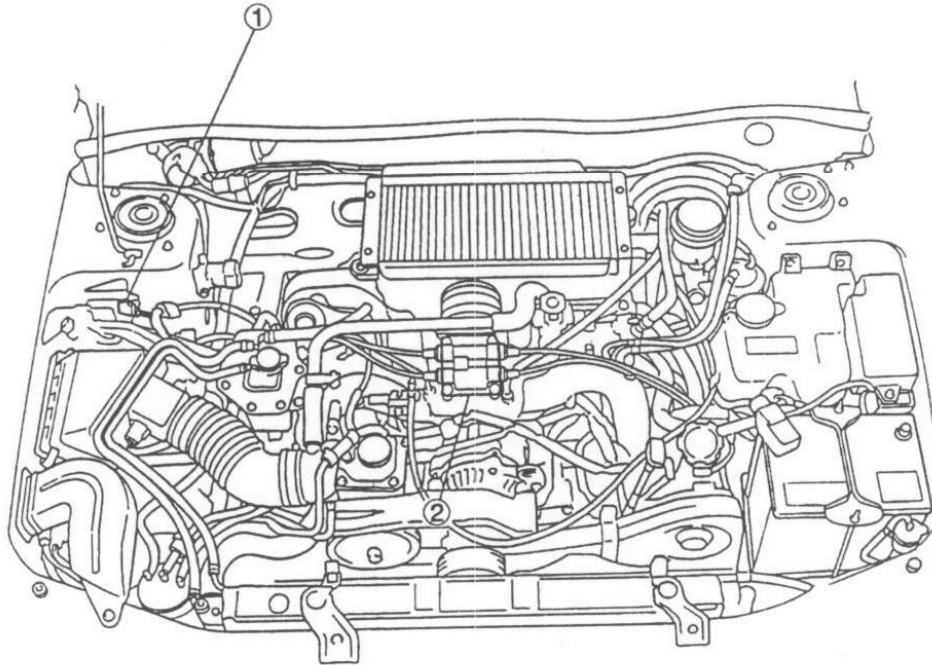


- ⑥ Electric load
- ⑦ Alternator output
- ⑧ Engine idle speed
- ⑨ Amplitude

G6H0002

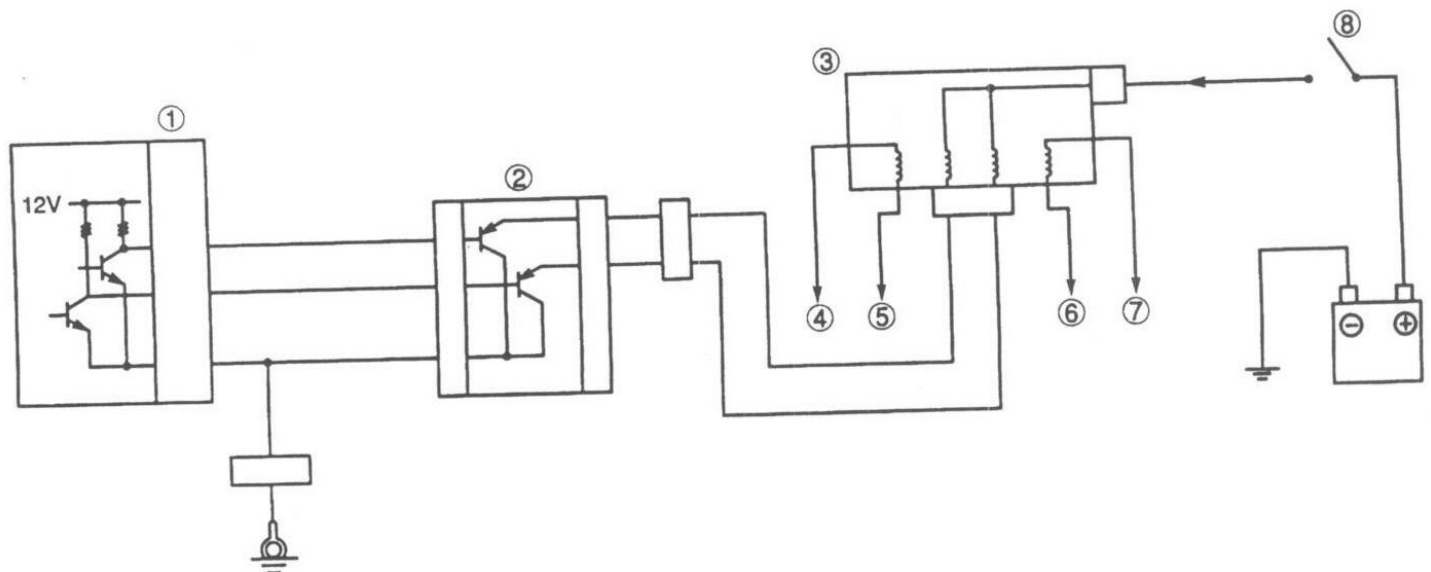
C: TURBO MODEL

The ignition system is of a 2-cylinder simultaneous ignition design. In response to the signal from the ECM, the ignitor supplies another signal to the ignition coil to ignite a pair of cylinders #1 and #2 or #3 and #4 simultaneously.



H6H0464A

- ① Ignitor
- ② Ignition coil



G6H0004

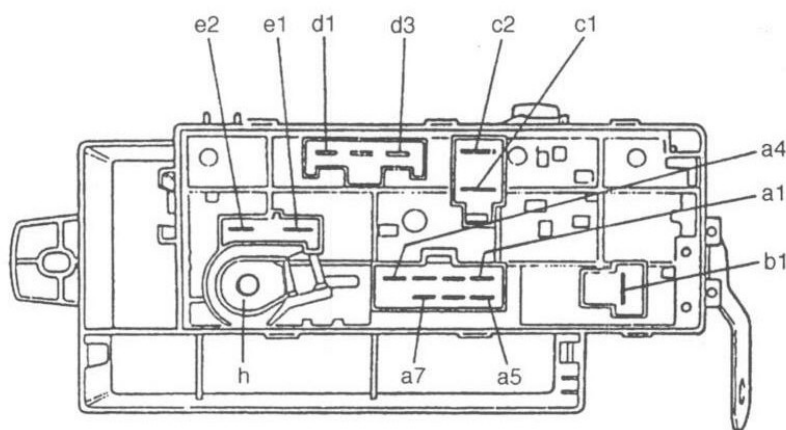
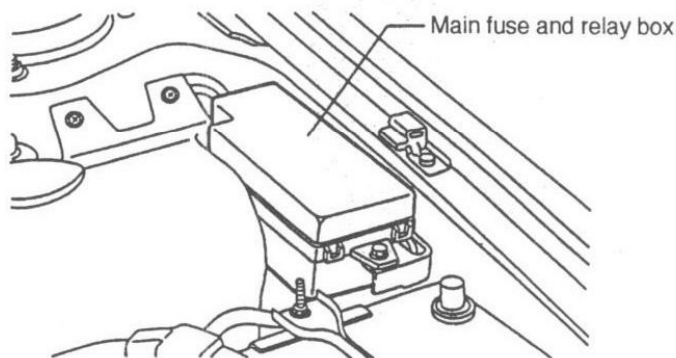
- ① ECM
- ② Ignitor
- ③ Ignition coil
- ④ Spark plug #1
- ⑤ Spark plug #2
- ⑥ Spark plug #3
- ⑦ Spark plug #4
- ⑧ Ignition switch

1. Fuse

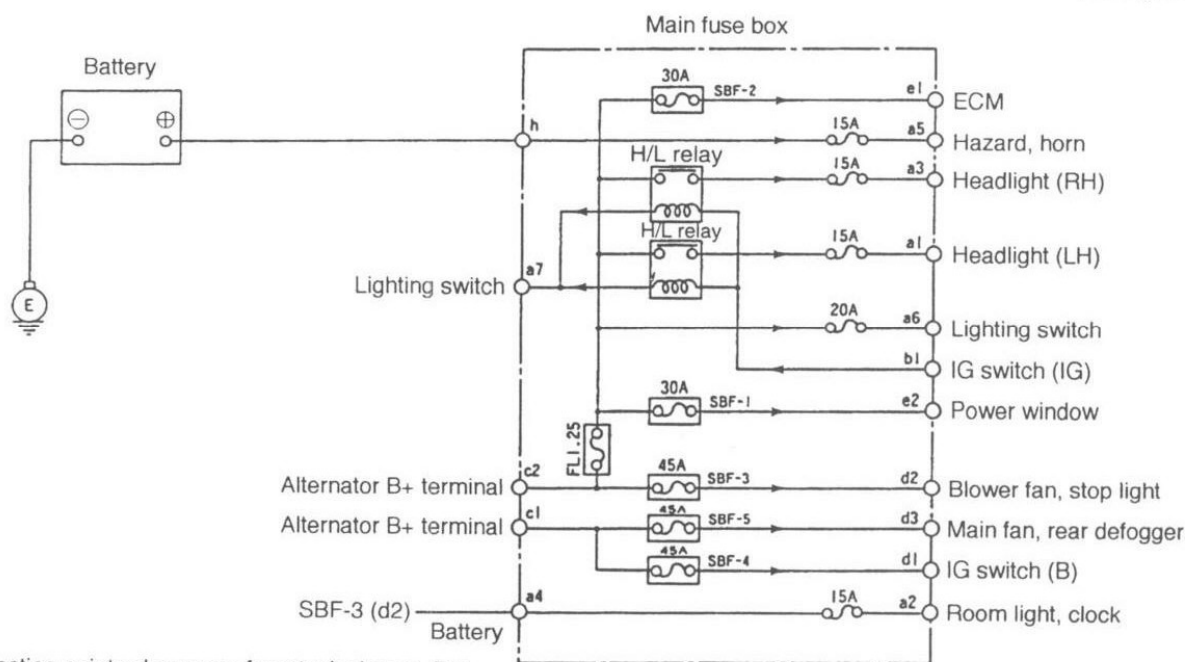
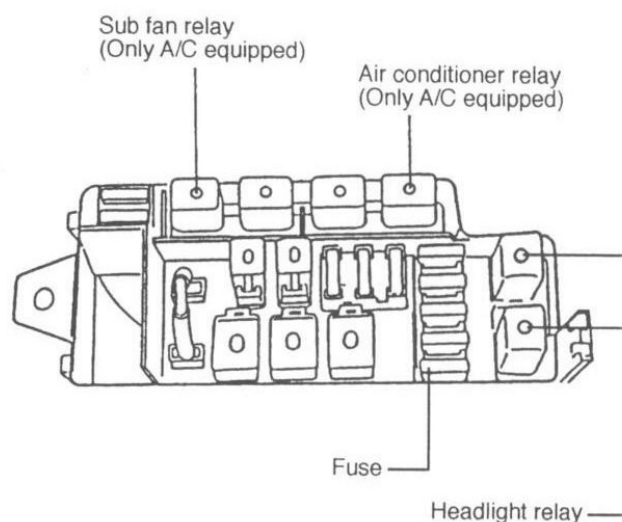
A: MAIN FUSE AND RELAY BOX

The main fuse and relay box is installed at the rear of the battery on left side of the engine compartment.

The fuses, relays and fusible links are installed in the box as described below.



Main fuse and relay box (back side)



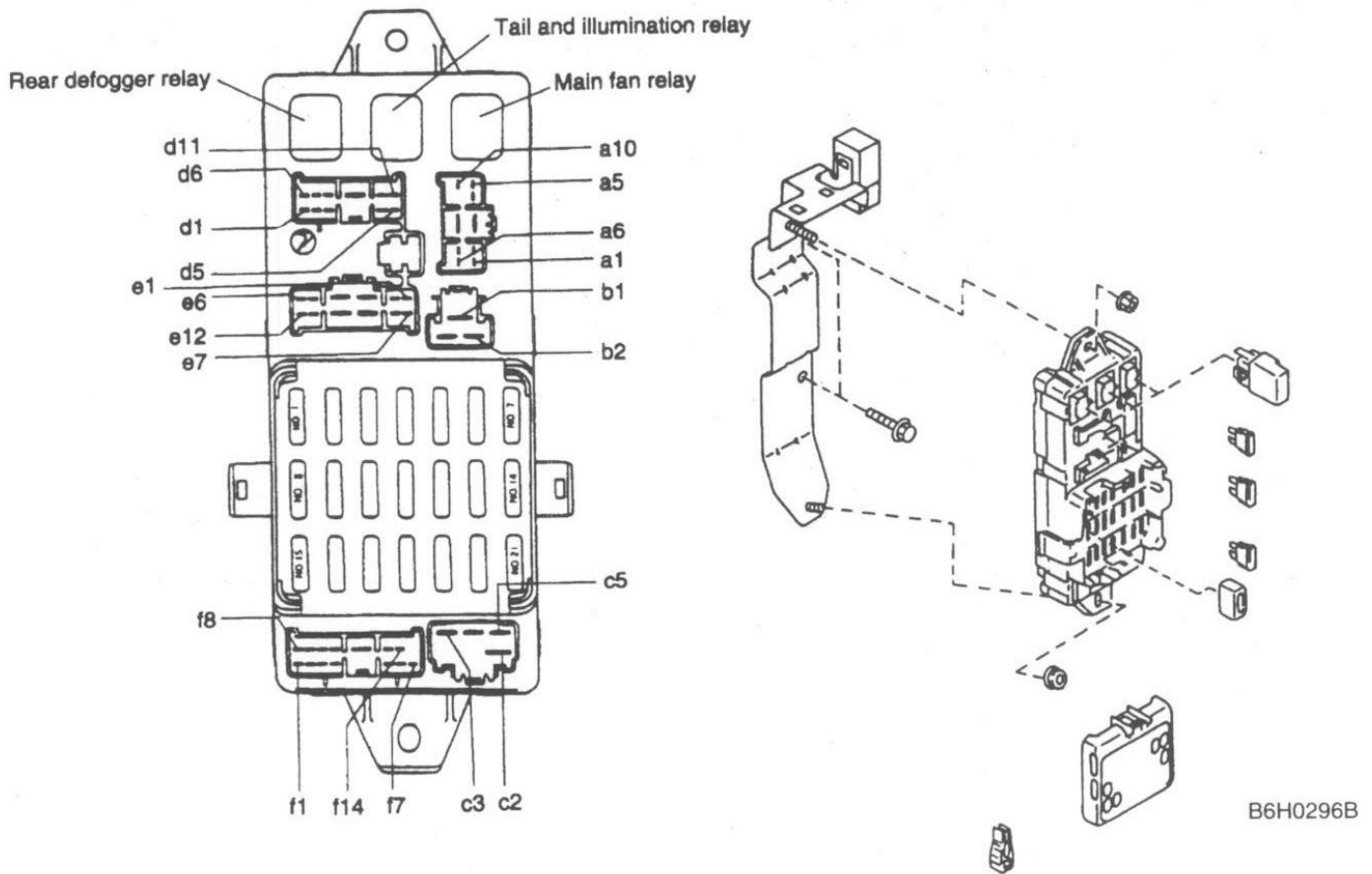
NOTE:

The destined connection points shown are for a typical case. For details, refer to the Wiring Diagram Manual.

H6H0415A

B: JOINT BOX

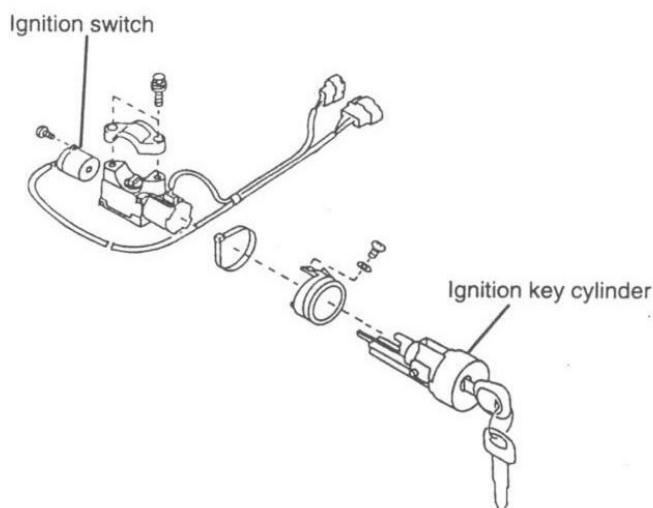
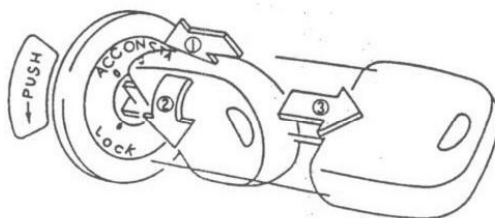
The joint box is installed under the instrument panel on driver's side.
The fuses are installed in the joint box as described below.



2. Ignition Switch

A: DESCRIPTION

- When turning the ignition key from "ACC" to "LOCK" position, it is necessary to push the key into the key cylinder (arrow 1 in the illustration) and then turn the key to "LOCK" position (arrow 2).
- Ignition key can be turned to "LOCK" position only when select lever is set to P position.



H6H0439A

3. Front Wiper and Washer

A: DESCRIPTION

1. FRONT WIPER

- 1) The front wiper is of a tandem type featuring wide wiping area. The blade is installed to the arm by means of U-hook joint to improve serviceability.
- 2) The front wiper operates in three modes of speed; HI, LOW and INTERMITTENT.
The operation speed can be changed by turning the wiper switch incorporated in the combination switch.
- 3) The intermittent unit which controls the front wiper operation interval is installed behind the combination switch.

2. FRONT WASHER SYSTEM

- 1) The washer system consists of a washer tank, motor and a pair of nozzles.
- 2) The washer tank is installed at the front of the strut mount on the left side of the engine compartment.
- 3) The washer motor is installed directly at the lower position of the washer tank.
- 4) The washer nozzles are installed on the engine hood, and each nozzle has two injection ports.

3. SPECIFICATION

Washer Tank	Capacity	4.0 liters (4.2 US qt, 3.5 Imp qt)	
Wiper Motor	Standard voltage	12 V	
	No-load current	3.5 A or less	
	Speed [at 2.0 N·m (20 kg-cm, 17 in-lb)]	HIGH	72–80 rpm
		LOW	47–50 rpm
	Locked rotor characteristics	Torque	HIGH 21.6 N·m (220 kg-cm, 1.6 ft-lb)
			LOW 27.5 N·m (280 kg-cm, 2.0 ft-lb)
		Current	29.5 A or less
Wiper Blade	Blade length	Driver's side	525 mm (20.67 in)
		Passenger's side	450 mm (17.72 in)

4. Rear Wiper and Washer

A: DESCRIPTION

1. REAR WIPER

- 1) The rear wiper has 180 degree wide wiping area.
- 2) The wiper link is installed to the wiper motor shaft through the rear window glass.
- 3) The wiper blade is attached to the arm by means of U-hook joint in the same way as the front wiper blade.

2. REAR WASHER SYSTEM

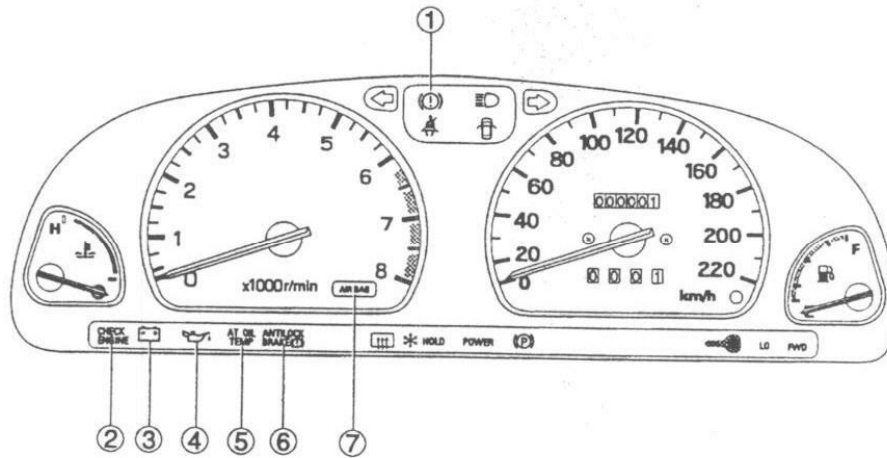
- 1) The washer tank of the rear washer system is shared with the front washer system.
- 2) The washer motor is installed at the bottom of the washer tank, adjacent to the front washer motor.
- 3) The washer nozzle is installed on the wiper shaft base.

3. SPECIFICATION

Wiper Motor	Standard voltage	12 V
	No-load current	1 A or less
	Speed [at 0.5 N·m (5 kg·cm, 4.3 in·lb)]	25 rpm or more
	Locked rotor current	12 A or less
Wiper Blade	Blade length	375 mm (14.76 in)

5. Combination Meter

A: WARNING AND INDICATOR LIGHT



H6H0440A

- ① Brake fluid level warning
This light illuminates when the fluid level in the brake reservoir tank lowers under specified level.
- ② CHECK ENGINE warning light
This light illuminates when trouble occurs in MFI (Multiple point Fuel Injection) system.
- ③ Charge indicator light
This light illuminates when trouble occurs in charging system during engine is running.
- ④ Oil pressure warning light
This light illuminates when the engine oil pressure decreases below 14.7 kPa (0.15 kg/cm², 2.1 psi).
- ⑤ AT oil temperature warning light
This light illuminates when the ATF temperature exceeds 150 °C (302 °F).
- ⑥ ABS warning light
This light illuminates when trouble occurs in electrical components of ABS (Anti-lock Brake System).
- ⑦ AIR BAG system warning light
This light illuminates when trouble occurs in Airbag system.

According to ignition switch position, the warning lights will come on and/or go off under normal conditions as follows:

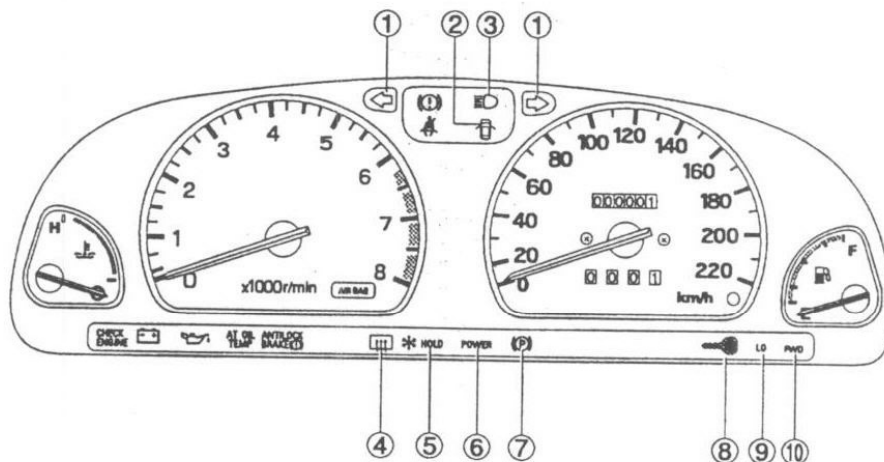
Warning/Indicator light	Ignition switch position			
	OFF/ACC	ON	ST	While engine is running
① Brake fluid level	OFF	ON	ON	OFF
② Malfunction indicator (CHECK ENGINE)	OFF	*1	ON	OFF
③ Charge	OFF	ON	ON	OFF
④ Oil pressure	OFF	ON	ON	OFF
⑤ AT oil temperature	OFF	ON	ON	*3
⑥ ABS	OFF	ON	ON	OFF
⑦ AIR BAG	OFF	*2	ON	OFF

*1: Light comes ON before engine starts, and stay OFF after engine has stopped.

*2: Light comes ON for about seven seconds, and go out.

*3: Light comes ON for about two seconds, and go out.

B: TELLTALE (GRAPHIC MONITOR)



H6H0440B

- ① Turn signal indicator light
This light blinks (and turn signal light flashes) when the turn signal switch is turned ON.
- ② Door open warning light
This light illuminates when one or more doors and/or rear gate are not fully closed.
- ③ Headlight beam indicator light
This light illuminates when the headlight is in high-beam position.
- ④ Rear defogger indicator light
This light illuminates when the rear defogger switch is turned ON.
- ⑤ HOLD indicator light
This light illuminates when the automatic transmission is in HOLD mode.
- ⑥ POWER indicator light
This light illuminates when the automatic transmission is in POWER mode.
- ⑦ Parking brake indicator light
This light illuminates when parking brake is applied.
- ⑧ Immobiliser indicator light
This light illuminates when the immobiliser system is operating (while when the ignition switch is turned to the "ACC" or "OFF" position).
- ⑨ 4WD LO indicator light
This light illuminates when dual-range select lever is in LO position.
- ⑩ FWD indicator light
This light illuminates when the center differential locks (with the fuse installed in the center differential locking circuit).

According to ignition switch position, the telltales will come on and/or go off under normal conditions as follows:

Telltale light		Ignition switch position			
		OFF/ACC	ON	ST	While engine is running
①	Turn signal	OFF	Blink	Blink	Blink
②	Door open	● Open ● Shut	ON	ON	ON
			OFF	OFF	OFF
③	Headlight beam	● High beam ● Low beam	ON	ON	ON
			OFF	OFF	OFF
④	Rear defogger	OFF	ON *1	ON *1	ON *1
⑤	HOLD	OFF	*2	*2	*2
⑥	POWER	OFF	OFF	OFF	*3
⑦	Parking brake	OFF	ON	ON	ON
⑧	Immobiliser	Blink	OFF	OFF	OFF
⑨	AWD-LO	● Low range ● High range	ON	ON	ON
			OFF	OFF	OFF
⑩	FWD	● FWD ● AWD	ON	ON	ON
			OFF	OFF	OFF

*1: When rear defogger switch turn to ON.

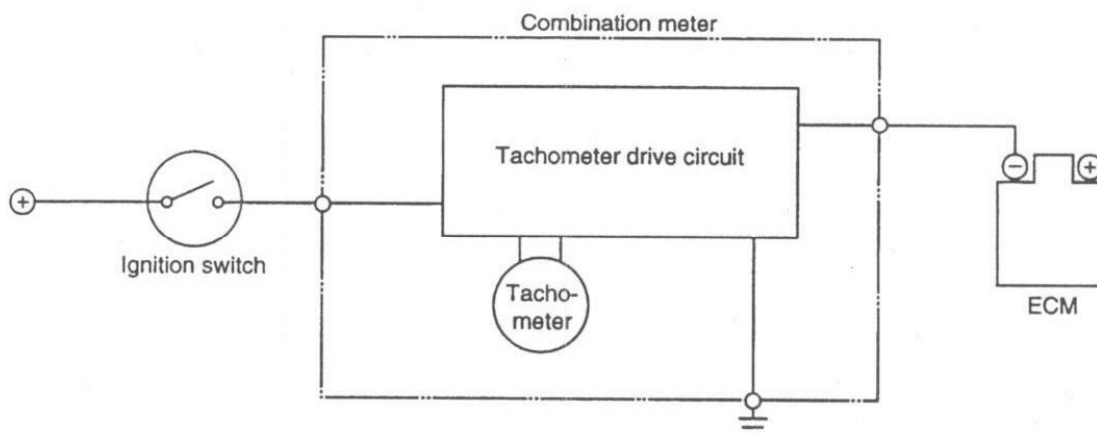
*2, *3: Light illuminates when the AT is in HOLD mode.

C: TACHOMETER

The tachometer drive circuit connects to engine revolution detecting circuit in engine control module.

When the engine revolution increases/decreases, the voltage of this circuit also increases/decreases, changing the magnetic force of tachometer drive coil.

Thus, the tachometer hand moves together with engine revolution change.



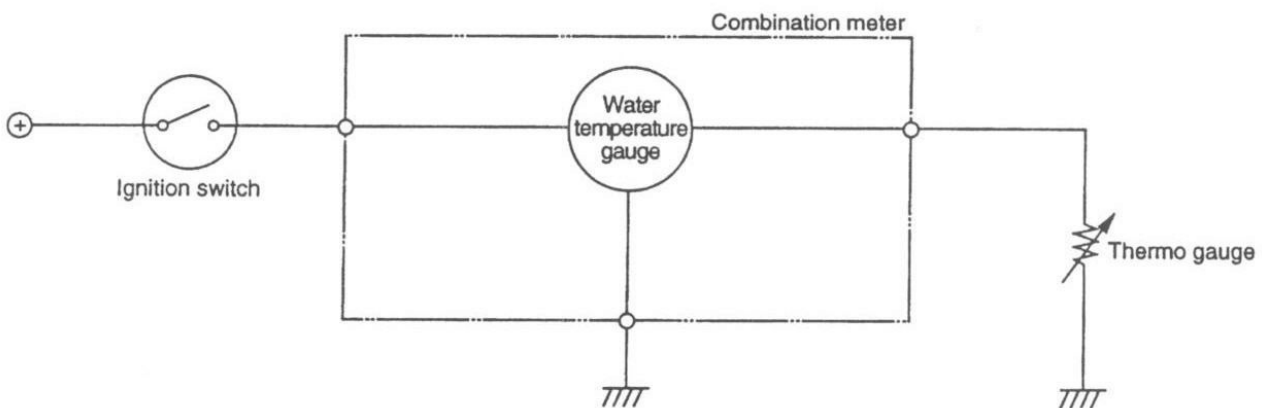
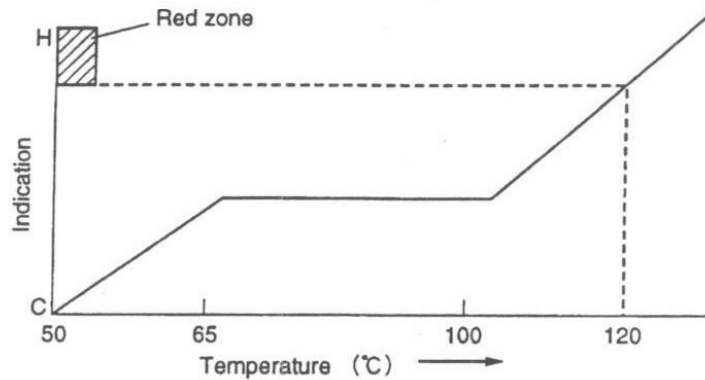
D: WATER TEMPERATURE GAUGE

The water temperature gauge is a cross-coil type.

The water temperature signal is input from thermo gauge installed on the engine.

The resistance of thermo gauge changes according to engine coolant temperature. Therefore, the current input to water temperature gauge also changes according to engine coolant temperature. Accordingly, gauge hand moves in proportion to the change in magnetic force of coil.

When the water temperature is at approx. 70 to 100 °C (158 to 212 °F)[normal operating temperature], the meter hand is stable in the middle of indication range as shown in the graph below.



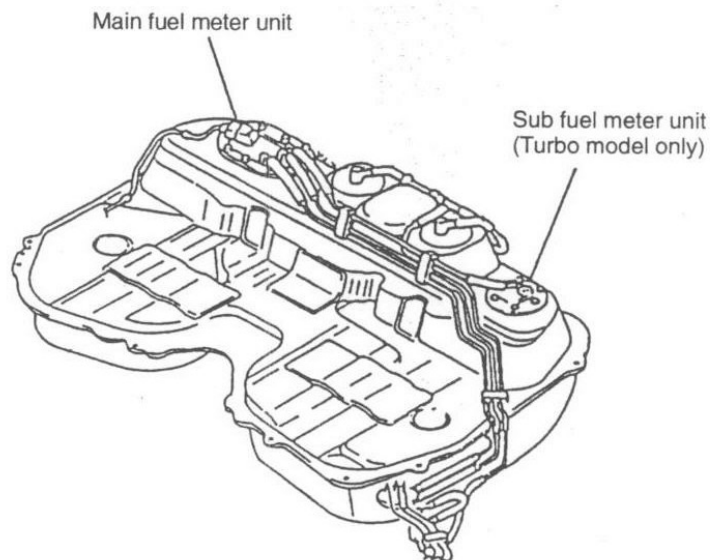
H6H0420

E: FUEL GAUGE

1. GENERAL

The fuel gauge is a resistance type and indicates the fuel level in the tank even when the ignition switch is in OFF position.

Turbo model is equipped with two fuel meter units. Two fuel meter units are installed in the fuel tank, one each at the right and left side, because the fuel tank is divided into main and sub tank area.

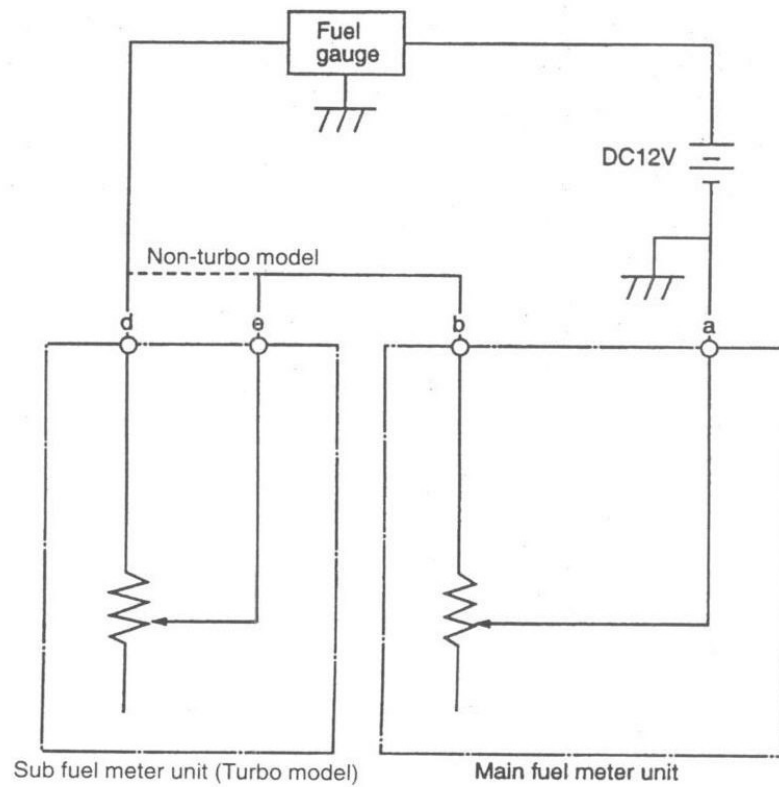


H6H0421B

2. SPECIFICATION

	Fuel amount	Resistance	
		Non-turbo model	Turbo model
Main unit	FULL	2–5 Ω	0.5–2.5 Ω
	1/2	45.5–51.5 Ω	25–29 Ω
	EMPTY	92–95 Ω	50–52 Ω
Sub unit (Turbo model)	FULL	—	0.5–2.5 Ω
	1/2	—	19.5–23.5 Ω
	EMPTY	—	42–44 Ω

3. CIRCUIT DIAGRAM



H6H0422A

6. Power Window

A: CONSTRUCTION

The power window system consists of regulator motor and switch (installed in each door), relay and circuit breaker unit.

Each door window opens/closes by pushing down/pulling up the switch.

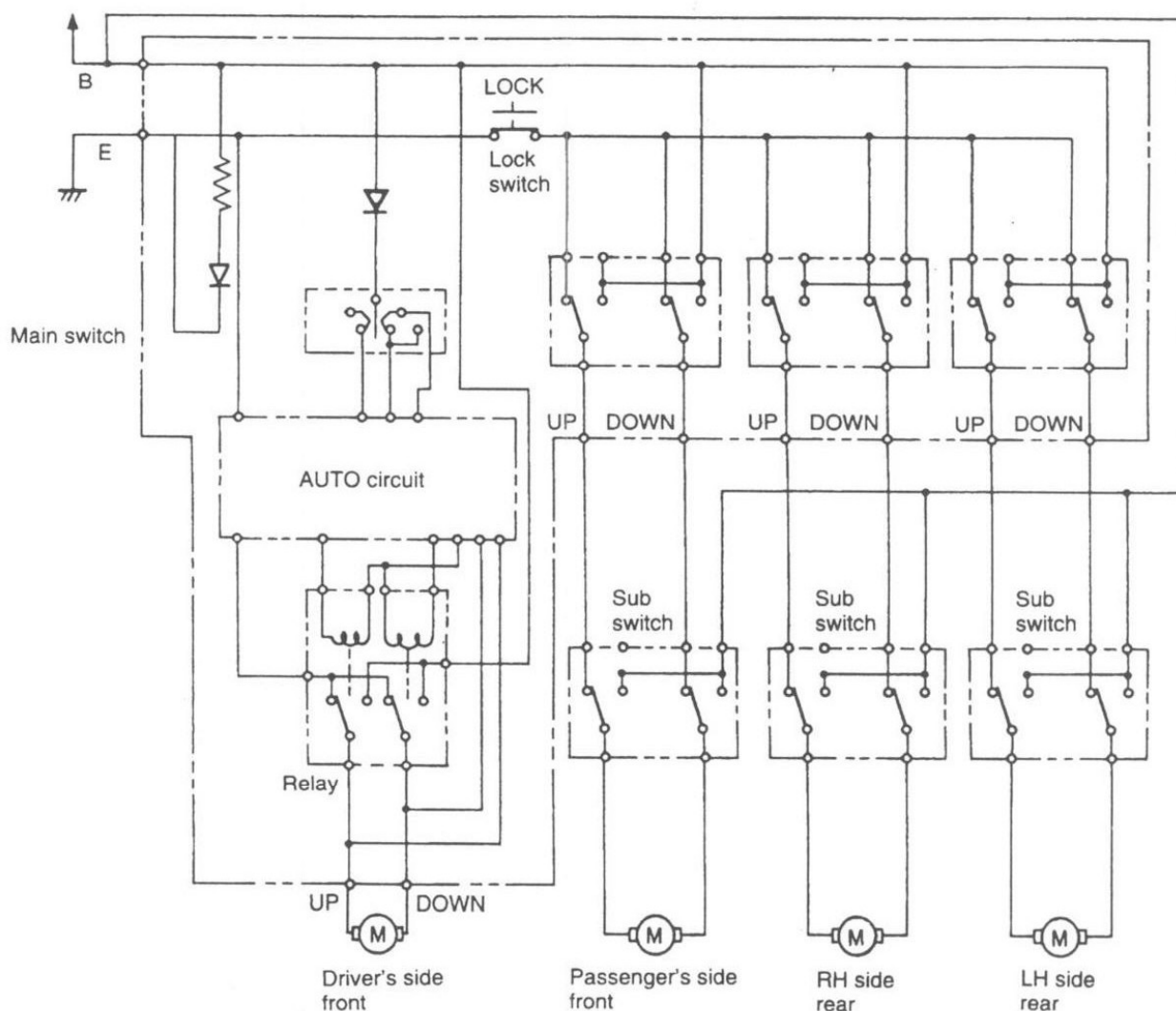
Only driver's door window switch has a 2-stage mechanism;

- When the switch is pushed down to "one click" position and held there, the window continue to lower until the switch is released.
- When the switch is pushed down fully, the window lowers to the end position automatically.

NOTE:

For the sake of safety, the power window system is designed to operate only when the ignition switch is in ON position.

B: CIRCUIT DIAGRAM



B6H0308

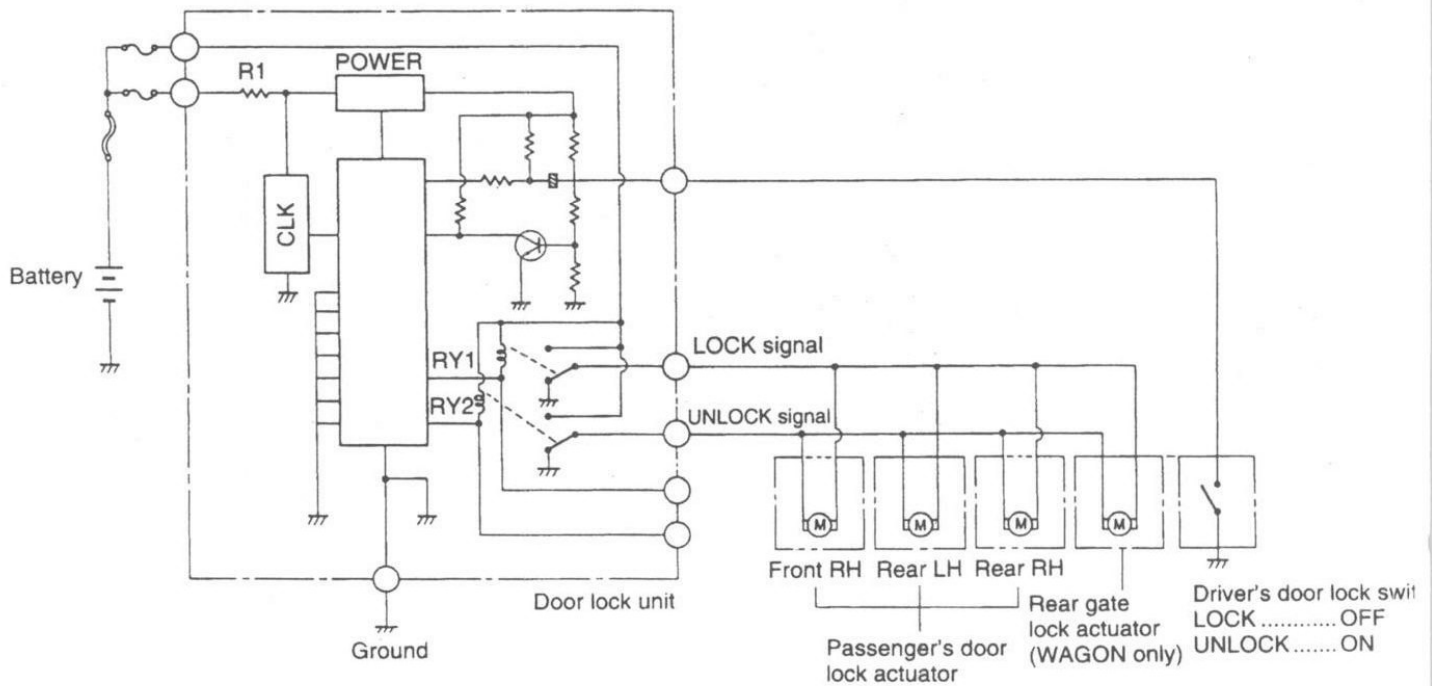
7. Power Door Lock

A: CONSTRUCTION

The power door lock system consists of driver's door lock switch, passenger's door lock actuator, rear door lock actuators, and rear gate lock actuator (WAGON).

When driver locks or releases the driver's door using the lock knob, the other doors and the gate (WAGON) are also locked or released automatically.

1. CIRCUIT DIAGRAM

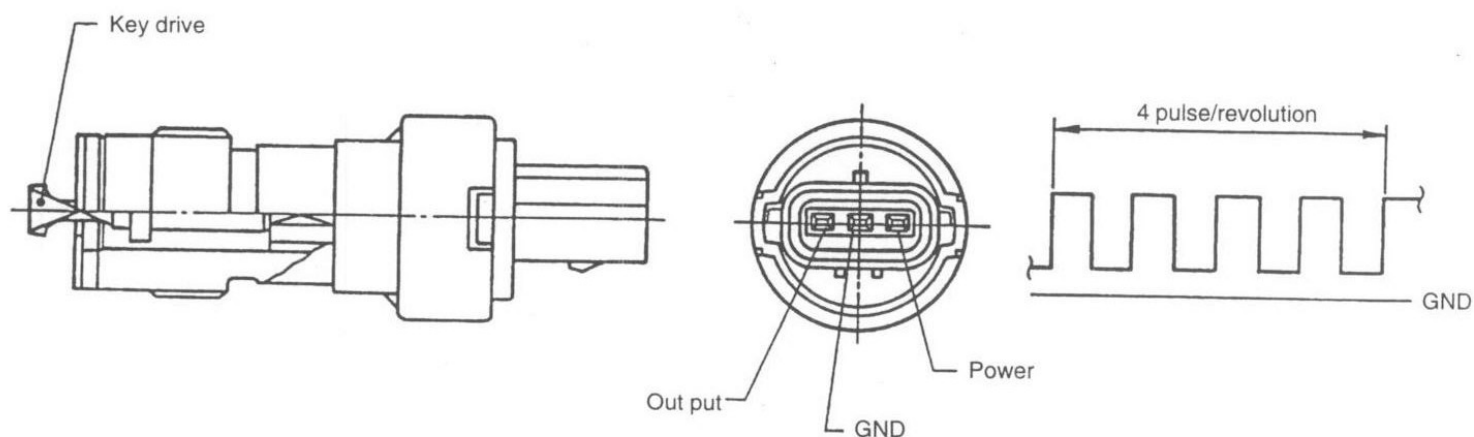


B6H03

8. Vehicle Speed Sensor 2 (Turbo model)

A: DESCRIPTION

The vehicle speed sensor 2 is a rotating type that utilizes a magnetic resistance element MRE. The MRE is a two-dimensional magnetic sensor whose resistance value varies with changes in the direction of the magnetic field. When the multi-pole ring magnet built into the sensor rotates along with the revolution of the transmission's driven gear, the direction of the magnetic field applied to the MRE cyclically changes by the same number of magnet poles, causing a cyclical change in the resistance value of the MRE. This change in the resistance value is shaped to a rectangular waveform through a built-in IC which produces it as a pulse output.



H6H0441A

9. Immobiliser System

A: CONSTRUCTION

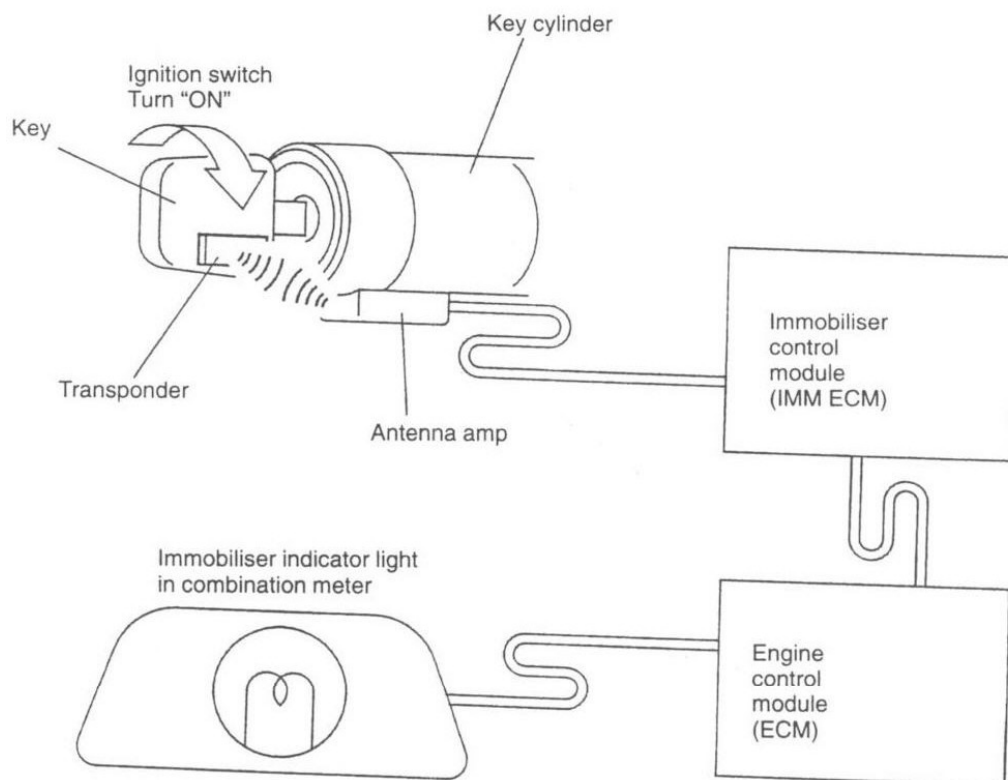
The immobiliser system consists of the following components: an indicator light in the combination meter, an immobiliser control module (IMM ECM), an engine control module (ECM), a transponder inside the ignition key, and an antenna amp. The antenna amp receives transmissions from the key transponder.

When the key is inserted into the key cylinder and turned to the "ON" position, the key transponder transmits a preset vehicle ID code to the antenna amp. This ID code is then verified by the immobiliser control module. If it matches the ID code registered in the immobiliser system, the system allows the engine to be started. Even if a key fits into the key cylinder and can be used to start the engine, the engine will automatically stop after a few seconds if the key's ID code is not successfully verified.

The immobiliser system is automatically armed when the ignition switch is turned to the "ACC" or "OFF" position. When the system is operating, the indicator light flashes at intervals of 0.2-second ON and 2.4-second OFF. The indicator light may sometimes flash irregularly, but this does not indicate a fault.

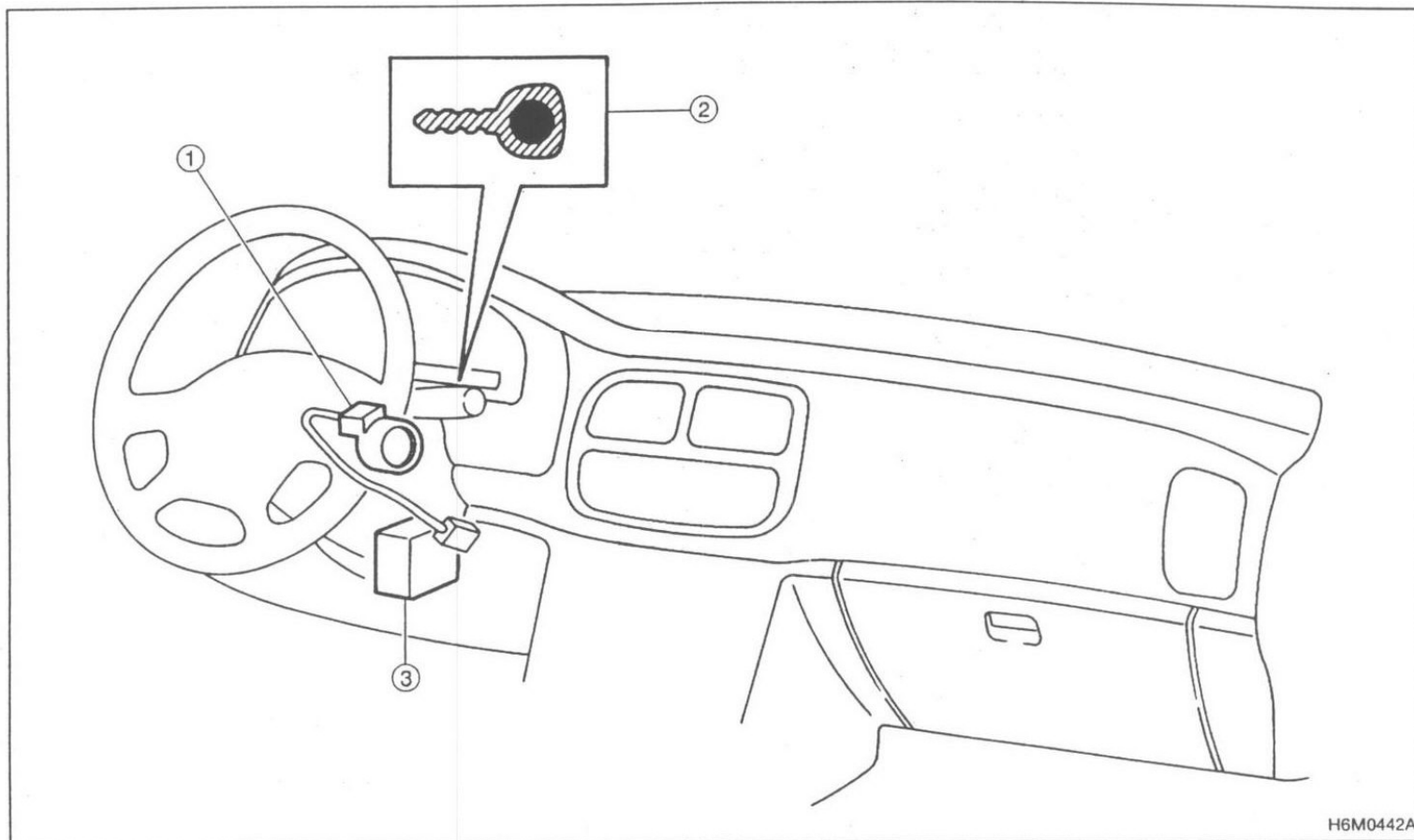
This indicator light flashing warns the potential thieves that this vehicle is protected by the immobiliser system.

In the event that the immobiliser system develops a fault, the "CHECK ENGINE" warning light flashes when the ignition switch is in the "ON" position.



B6H0586A

2. Electrical Components Location



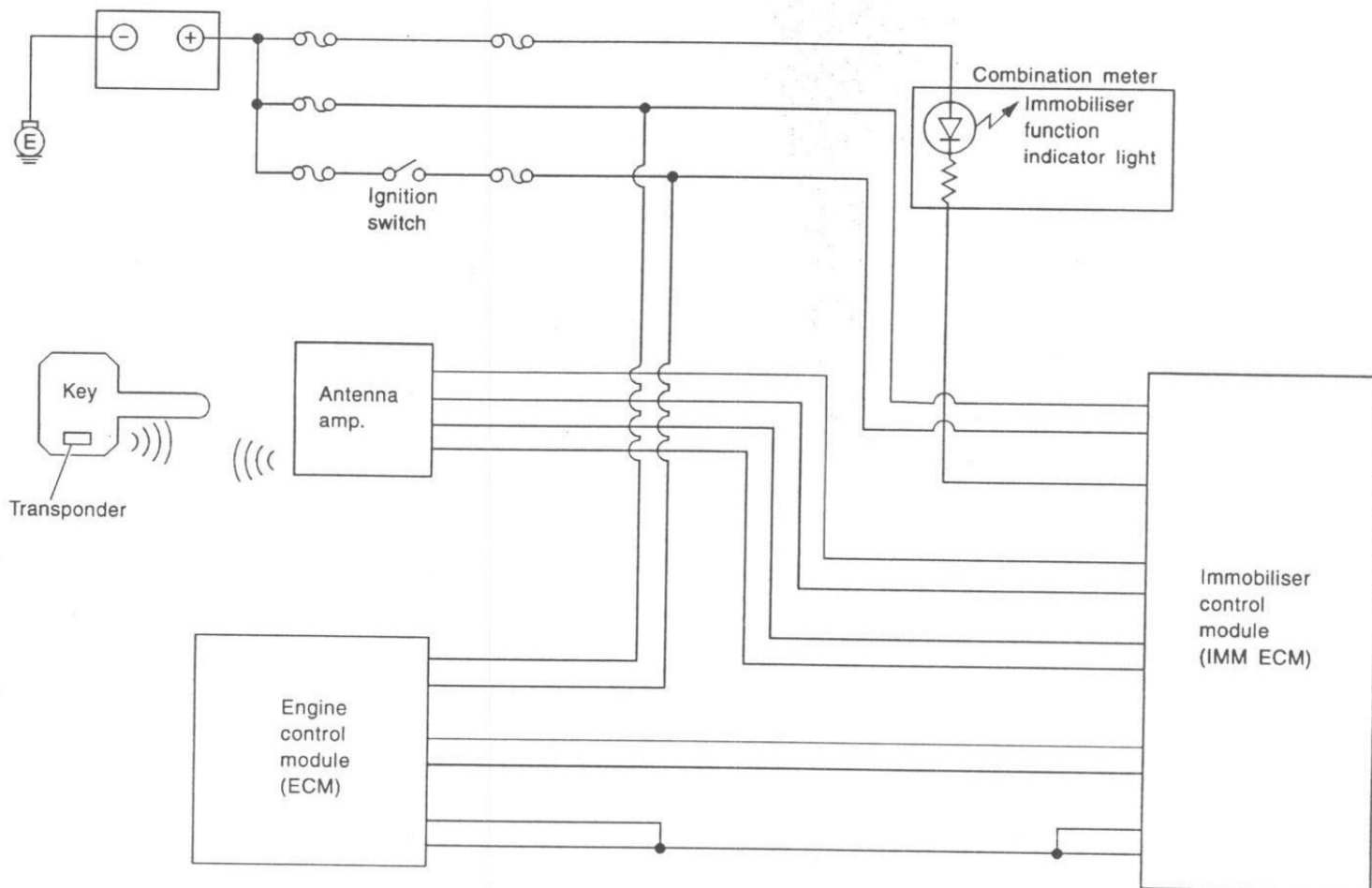
H6M0442A

- ① Antenna amp.
- ② Immobiliser indicator light (LED bulb)
- ③ Immobiliser control module (IMM ECM): LHD model

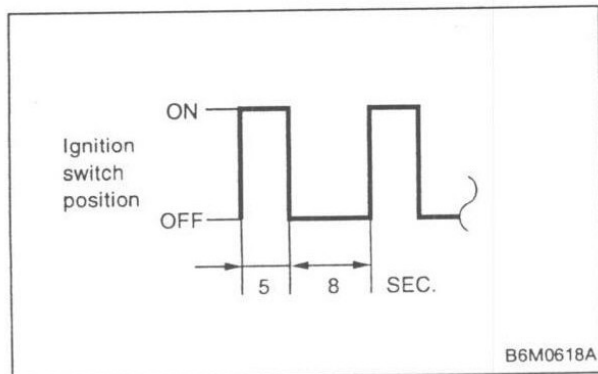
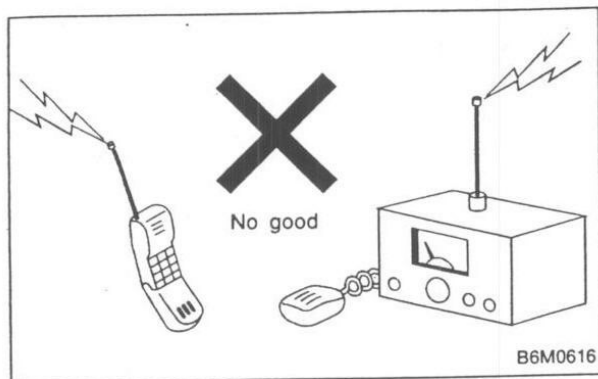
NOTE:

IMM ECM location for RHD model is symmetrically opposite.

3. Schematic



B6M0614



4. Diagnostics Chart for On-board Diagnosis System

A: PRECAUTIONS

- While diagnostic items are being checked, do not operate radios, portable telephones, etc. which emit electromagnetic waves near or inside the vehicle.

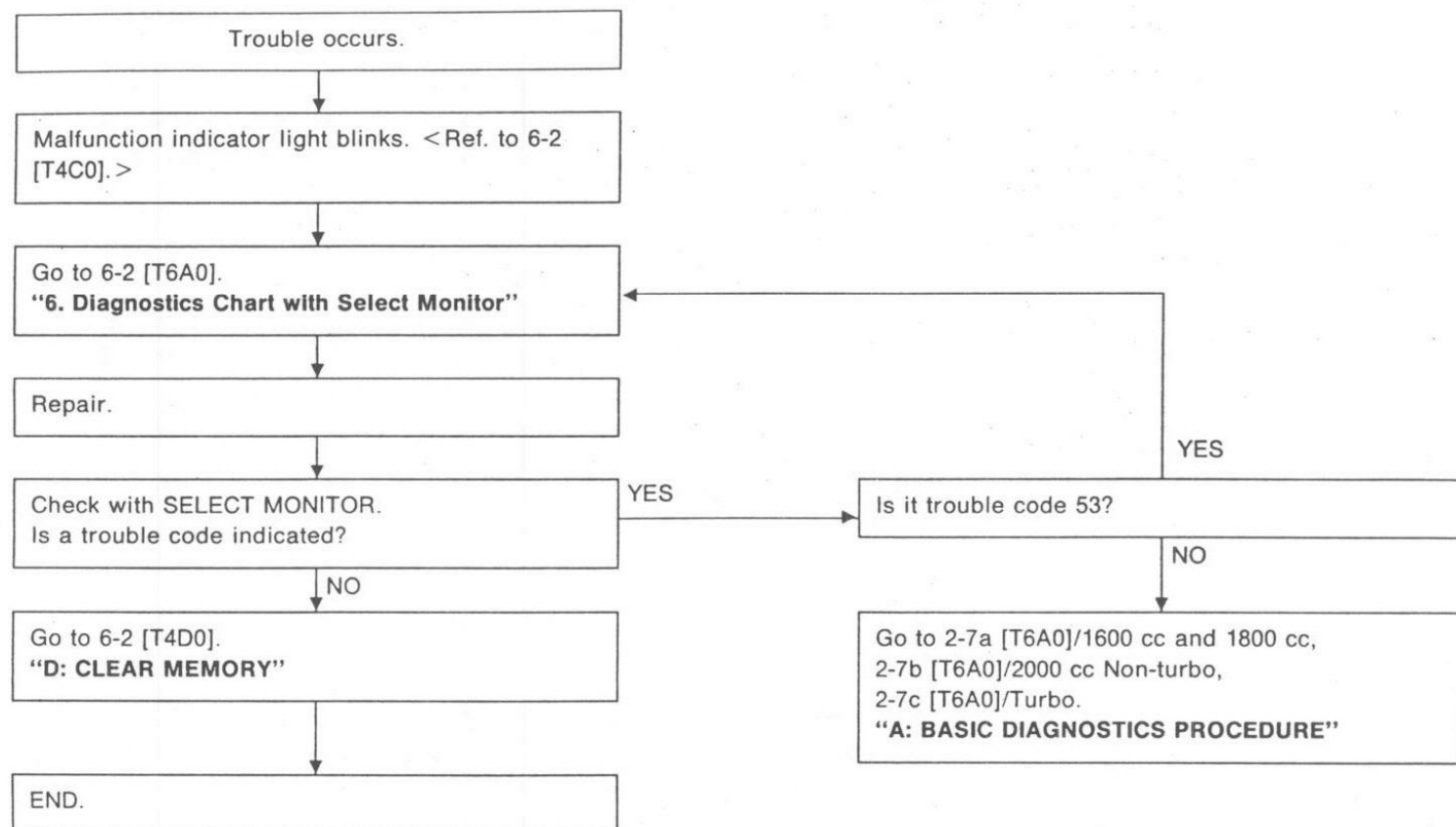
- When ignition switch is being turned ON or OFF while diagnostic items are being checked, do not allow keys with different ID codes close to the ignition switch. If ignition key is in a key holder, remove it from holder before carrying out diagnoses.

- When repeatedly turning ignition ON or OFF while diagnostic items are being checked, it should be switched in cycles of "ON" for at least 5 seconds → "OFF" for at least 8 seconds.

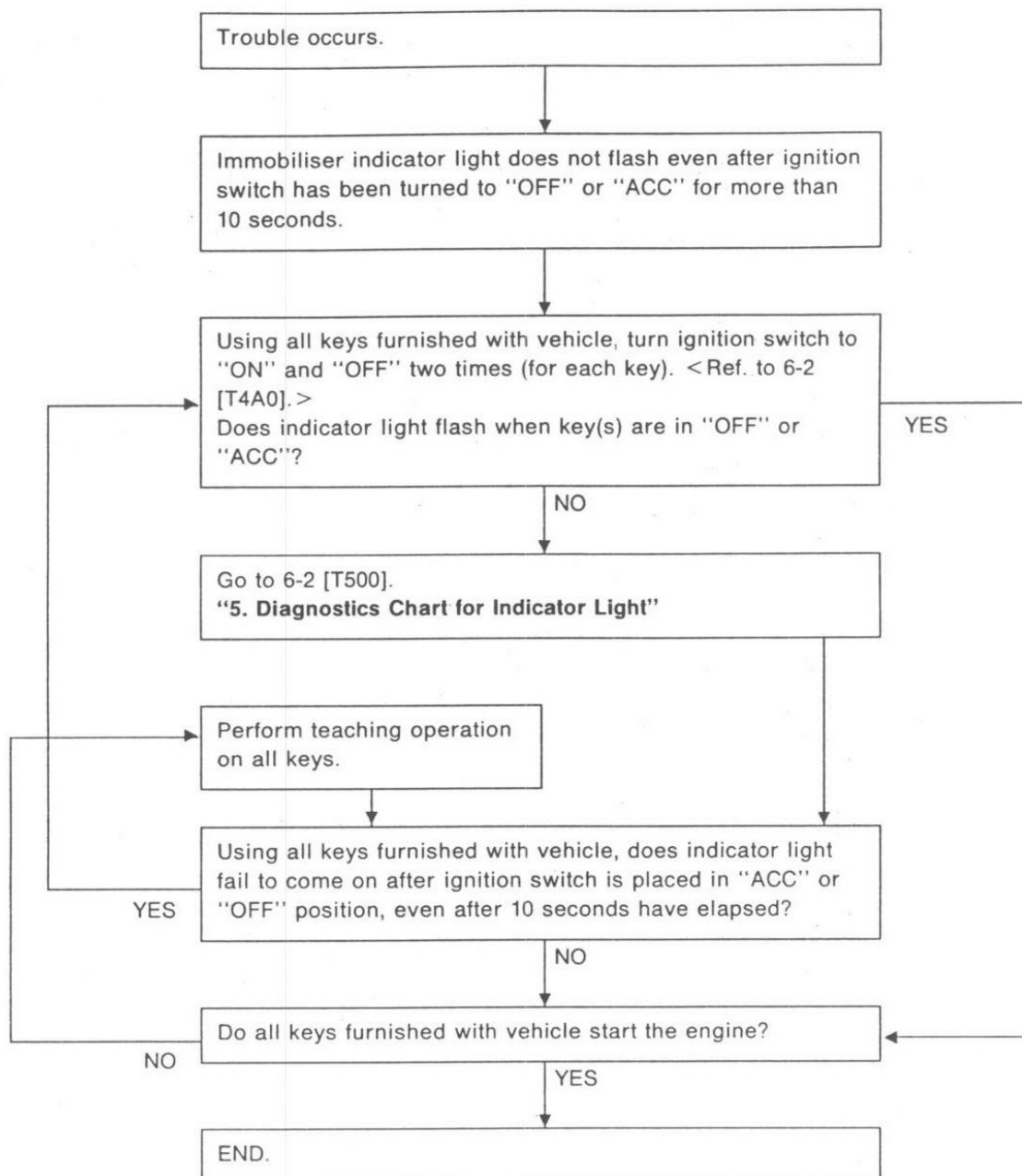
- If engine fails to start with a registered ignition key, turn the key to "ACC" or "OFF" and wait for approximately 5 seconds until immobiliser indicator light begins to flash. Start engine again.

- Before checking diagnostic items, obtain all keys for vehicle to be checked possessed by owner.

B: BASIC DIAGNOSTICS PROCEDURE 1. MALFUNCTION INDICATOR LIGHT BLINKS

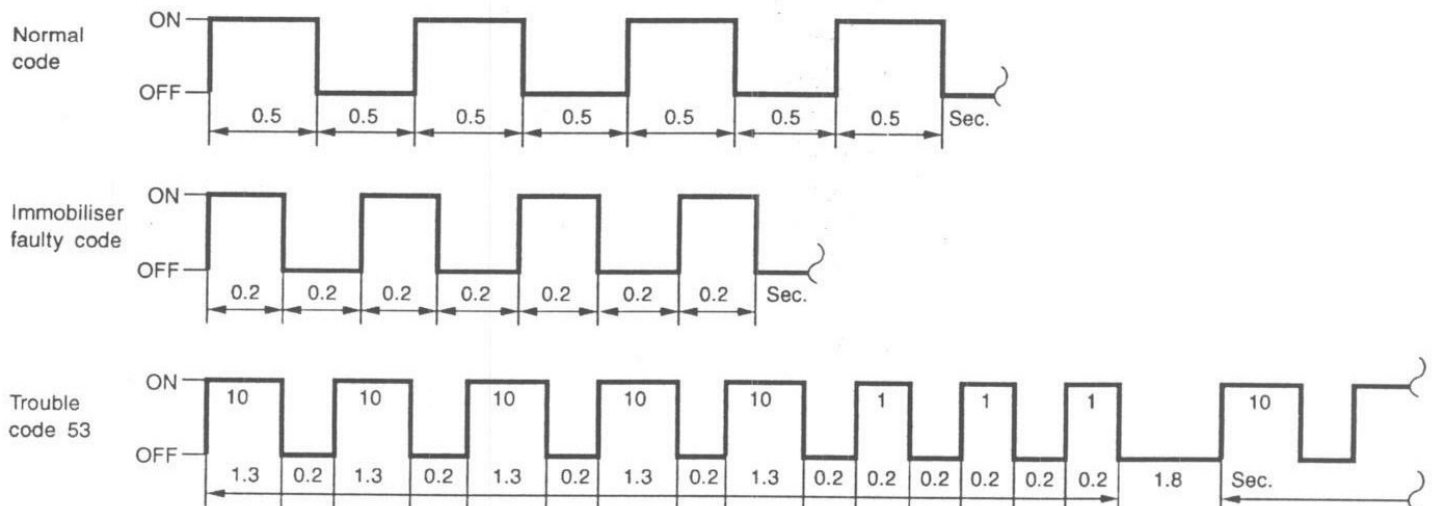


2. IMMOBILISER INDICATOR LIGHT REMAINS OFF



C: HOW TO READ TROUBLE CODE

The malfunction indicator light blinks the code corresponding to the faulty parts. The long segment (1.3 seconds ON) indicates a "ten", and the short segment (0.2 seconds ON) signifies "one". Blinks at 0.5 second intervals means "normal code" and blinks at 0.2 second intervals means "Immobiliser faulty code".



B6M0619A

D: CLEAR MEMORY**NOTE:**

Repair according to trouble code and diagnostic item.
After repairs, make sure trouble code no longer appears on screen.

Using select monitor, clear memory to erase trouble code stored in ECM.

1) Connect select monitor.

2) Use function keys to key in "F" "C" "0" "ENT".

3) Screen indicates as shown.

D . CLR (FC0)
0 : YES 1 : NO

B6M0620

D . CLR (FC0)
※0 : YES 1 : NO

B6M0621

4) Key in "0" to clear memories. The indication of ※ is added to screen.

5) Key in "ENT". Screen indicates as shown.

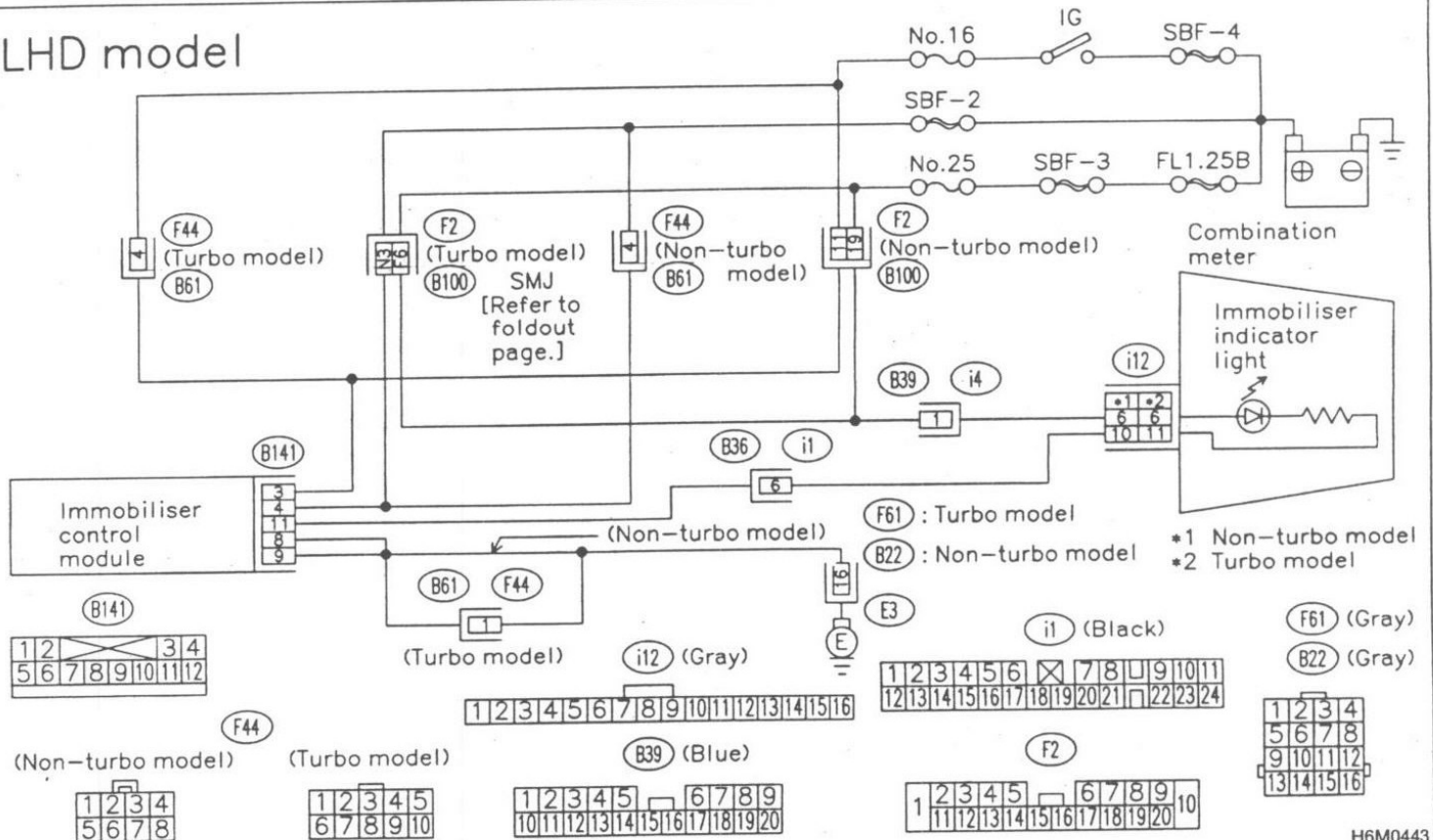
6) Turn the key OFF.

PLEASE
KEY OFF

B6M0622

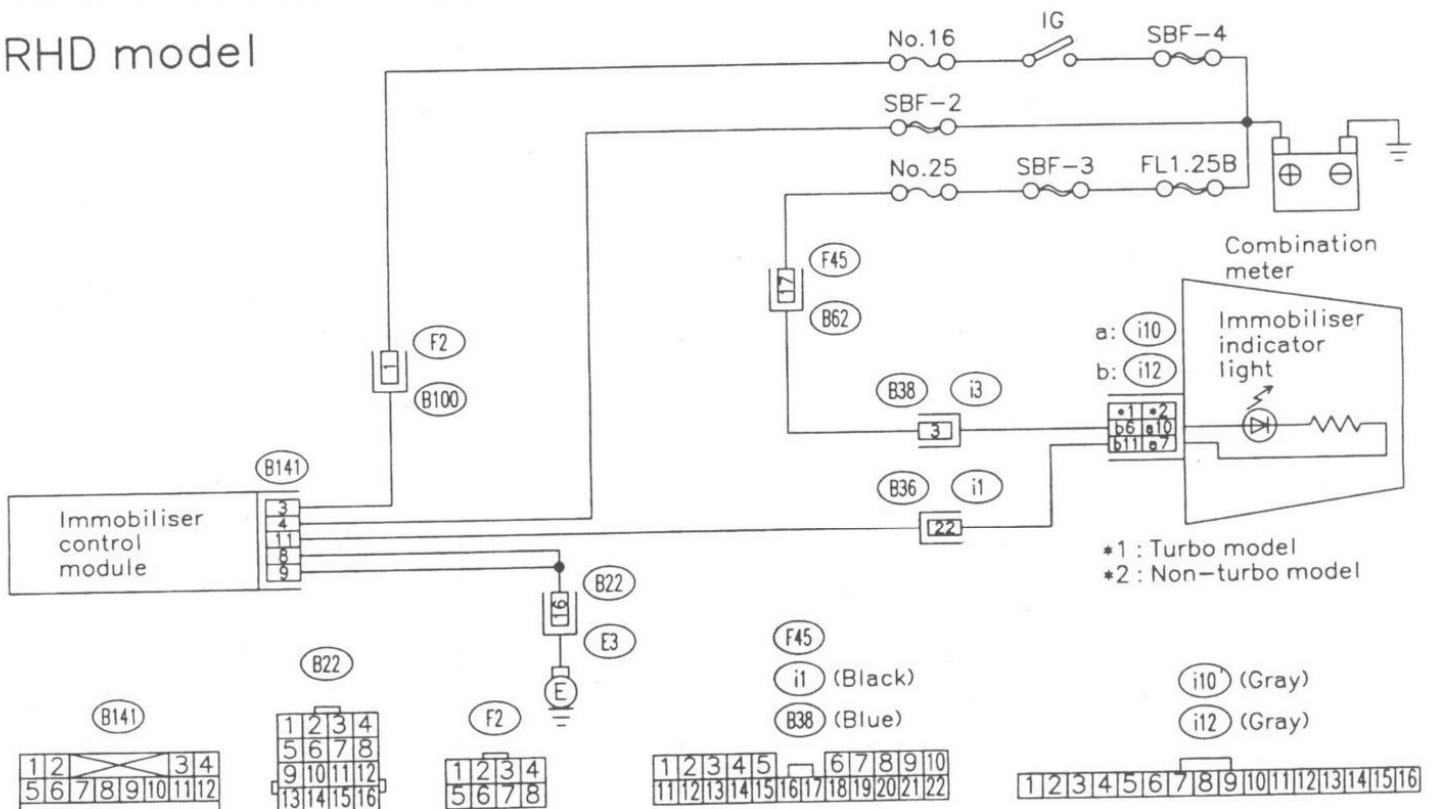
5. Diagnostics Chart for Indicator Light

LHD model

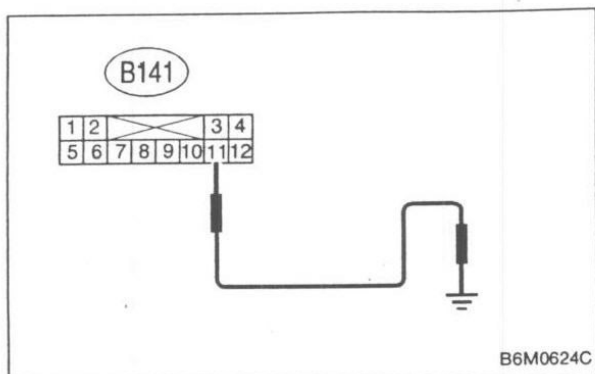


H6M0443

RHD model



H6M0444



1

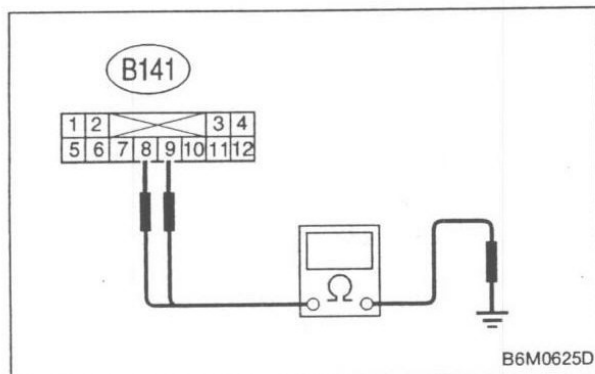
CHECK IMMOBILISER INDICATOR LIGHT COMES ON.

- 1) Turn ignition switch to OFF.
- 2) Disconnect connector from IMM ECM.
- 3) Connect between IMM ECM connector (B141) No. 11 and chassis ground.

CHECK : Does indicator light comes on?

YES : Go to step 2.

NO : Go to step 3.



2

CHECK IMM ECM CIRCUIT.

- 1) Measure resistance between IMM ECM connector and chassis ground.

CHECK : Connector & terminal
(B141) No. 8 (+) — Chassis ground (-):
Is the resistance less than 10 Ω?

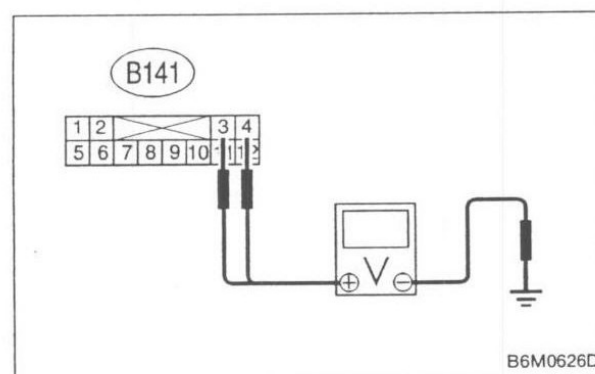
YES : Replace IMM ECM. <Ref. to 6-2 [W10A1].> Then perform teaching operation. Refer to teaching operation manual (Pub. No. S0590GZ).

NO : Repair open circuit of IMM ECM ground circuit. Then go to next **CHECK**.

CHECK : Connector & terminal
(B141) No. 9 (+) — Chassis ground (-):
Is the resistance less than 10 Ω?

YES : Replace IMM ECM. <Ref. to 6-2 [W10A1].> Then perform teaching operation. Refer to teaching operation manual (Pub. No. S0590GZ).

NO : Repair open circuit of IMM ECM ground circuit. Then go to step 2).



- 2) Turn ignition switch to ON. (Engine OFF.)

- 3) Measure voltage between IMM ECM connector and chassis ground.

CHECK : Connector & terminal
(B141) No. 3 (+) — Chassis ground (-):
Is the voltage more than 10 V?

YES : Replace IMM ECM. <Ref. to 6-2 [W10A1].> Then perform teaching operation. Refer to teaching operation manual (Pub. No. S0590GZ).

NO : Repair harness between IMM ECM connector and battery voltage line. Then go to step 4).

4) Turn ignition switch to OFF.

CHECK : **Connector & terminal**
(B141) No. 4 (+) — Chassis ground (—):
Is the voltage more than 10 V?

YES : Replace IMM ECM. <Ref. to 6-2 [W10A1].> Then perform teaching operation. Refer to teaching operation manual (Pub. No. S0590GZ).

NO : Repair harness between IMM ECM connector and battery voltage line. Then go to next **CHECK**.

CHECK : **Connector & terminal**
(B141) No. 3 (+) — Chassis ground (—):
Is the voltage 0 V?

YES : Replace IMM ECM. <Ref. to 6-2 [W10A1].> Then perform teaching operation. Refer to teaching operation manual (Pub. No. S0590GZ).

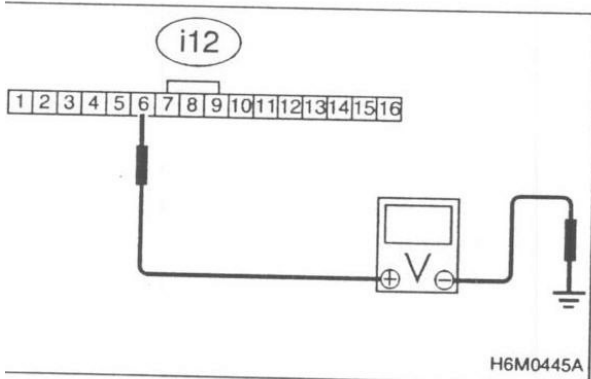
NO : Repair harness between IMM ECM connector and ignition switch "ON" line. Then go to step 5).

5) Turn ignition switch to ON. (Engine OFF.)

CHECK : **Connector & terminal**
(B141) No. 3 (+) — Chassis ground (—):
Is the voltage more than 10 V?

YES : Replace IMM ECM. <Ref. to 6-2 [W10A1].> Then perform teaching operation. Refer to teaching operation manual (Pub. No. S0590GZ).

NO : Repair harness between IMM ECM connector and ignition switch "ON" line.



3

CHECK COMBINATION METER CIRCUIT.

1) Remove combination meter. <Ref. to 6-2 [W8A0].> Then disconnect connector from combination meter.

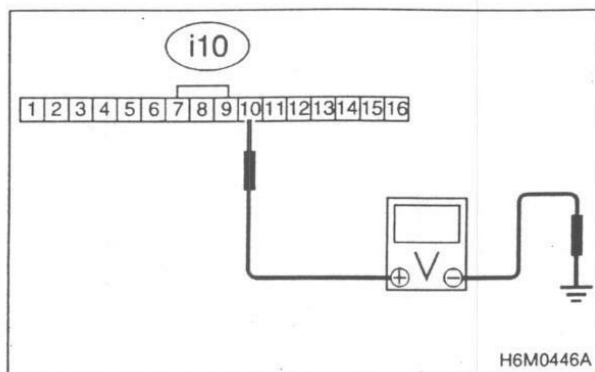
2) Measure voltage between combination meter connector and chassis ground.

ALL LHD MODELS AND RHD TURBO MODEL

CHECK : **Connector & terminal**
(i12) No. 6 (+) — Chassis ground (—):
Is the voltage more than 10 V?

YES : Go to step 3).

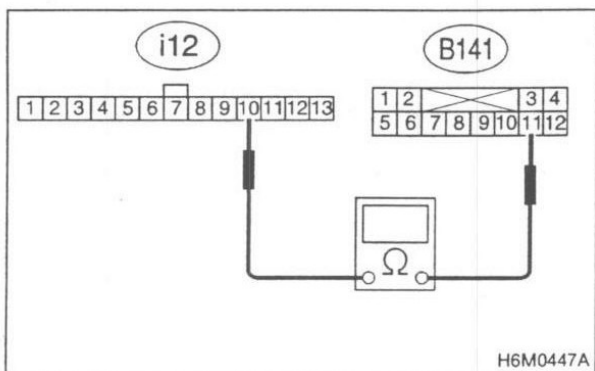
NO : Repair harness or connector.



RHD NON-TURBO MODEL

CHECK : Connector & terminal
(i10) No. 10 (+) — Chassis ground (-):
Is the voltage more than 10 V?

YES : Go to step 3).
NO : Repair harness or connector.

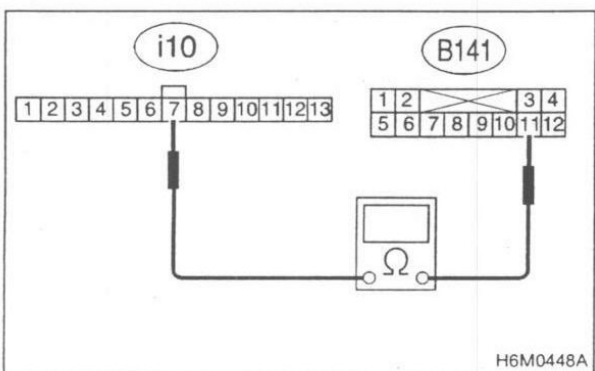


3) Measure resistance between IMM ECM connector and combination meter connector.

LHD NON-TURBO MODEL

CHECK : Connector & terminal
(B141) No. 11 — (i12) No. 10:
Is the resistance less than 10 Ω?

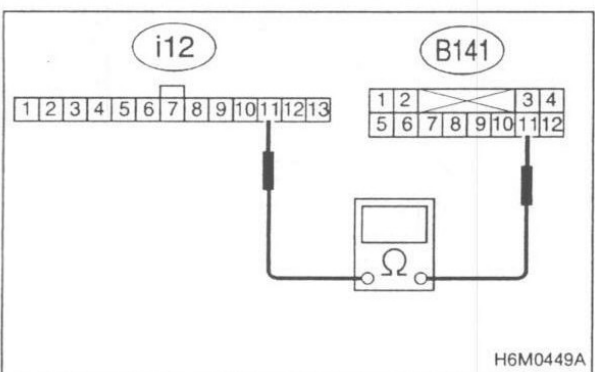
YES : Go to step 4.
NO : Repair harness or connector.



RHD NON-TURBO MODEL

CHECK : Connector & terminal
(B141) No. 11 — (i10) No. 7:
Is the resistance less than 10 Ω?

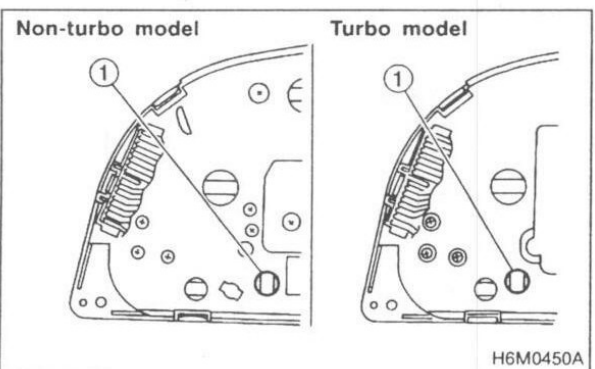
YES : Go to step 4.
NO : Repair harness or connector.



TURBO MODEL

CHECK : Connector & terminal
(B141) No. 11 — (i12) No. 11:
Is the resistance less than 10 Ω?

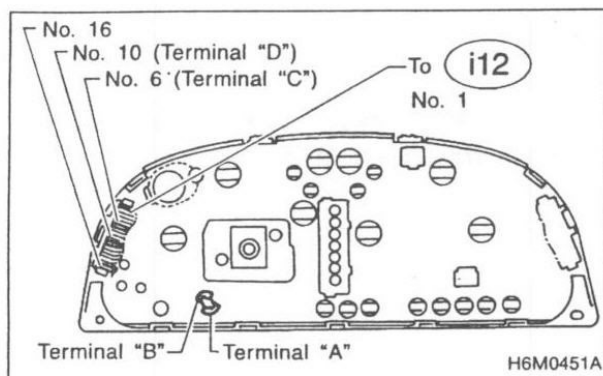
YES : Go to step 4.
NO : Repair harness or connector.



4 CHECK IMMOBILISER INDICATOR LIGHT CIRCUIT IN COMBINATION METER.

1) Remove LED bulb ① from combination meter.

5. Diagnostics Chart for Indicator Light



2) Measure resistance between indicator light circuit terminal.

LHD NON-TURBO MODEL

CHECK : Terminal
Terminal "A" — Terminal "D":
Is the resistance 750 Ω?

YES : Go to step 3).

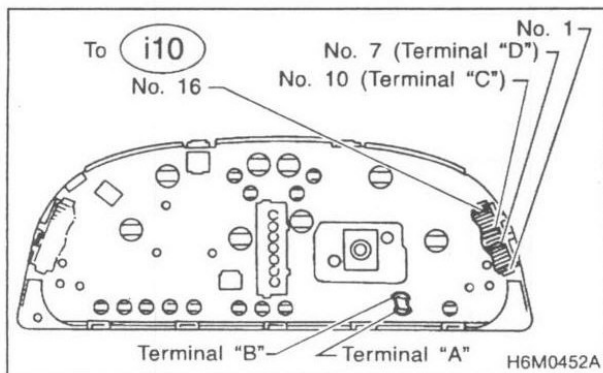
NO : Replace combination meter.

RHD NON-TURBO MODEL

CHECK : Terminal
Terminal "A" — Terminal "D":
Is the resistance 750 Ω?

YES : Go to step 3).

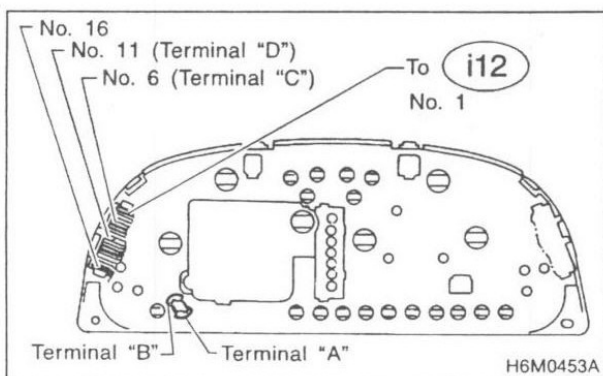
NO : Replace combination meter.

**TURBO MODEL**

CHECK : Terminal
Terminal "A" — Terminal "D":
Is the resistance 750 Ω?

YES : Go to step 3).

NO : Replace combination meter.



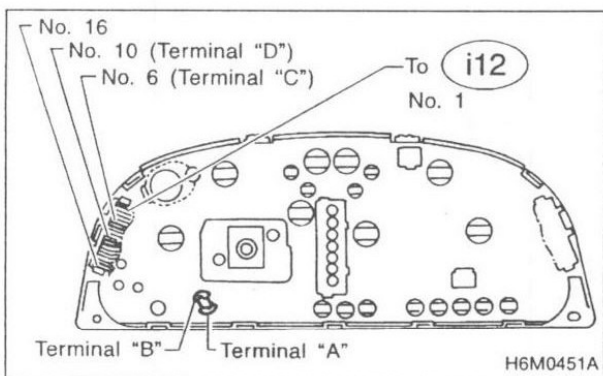
3) Measure resistance between indicator light circuit terminal.

LHD NON-TURBO MODEL

CHECK : Terminal
Terminal "B" — Terminal "C":
Is the resistance less than 10 Ω?

YES : Replace LED bulb.

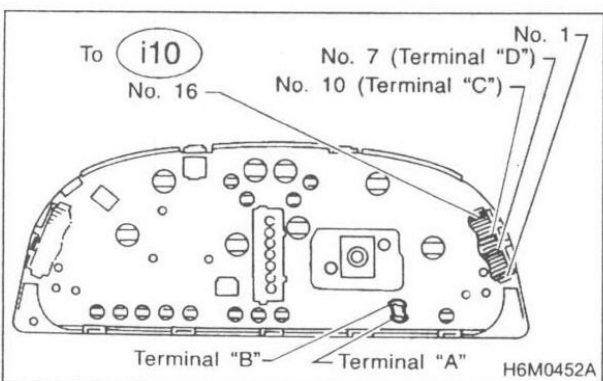
NO : Replace combination meter.

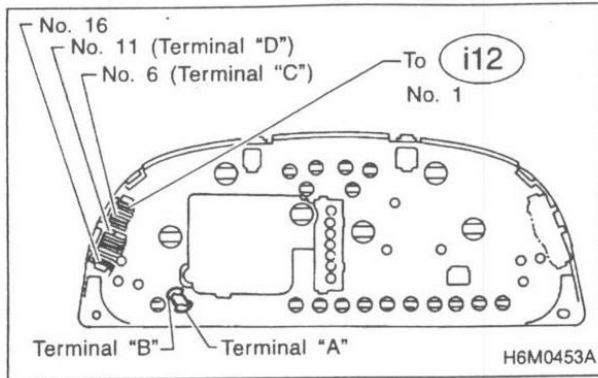
**RHD NON-TURBO MODEL**

CHECK : Terminal
Terminal "B" — Terminal "C":
Is the resistance less than 10 Ω?

YES : Replace LED bulb.

NO : Replace combination meter.





TURBO MODEL

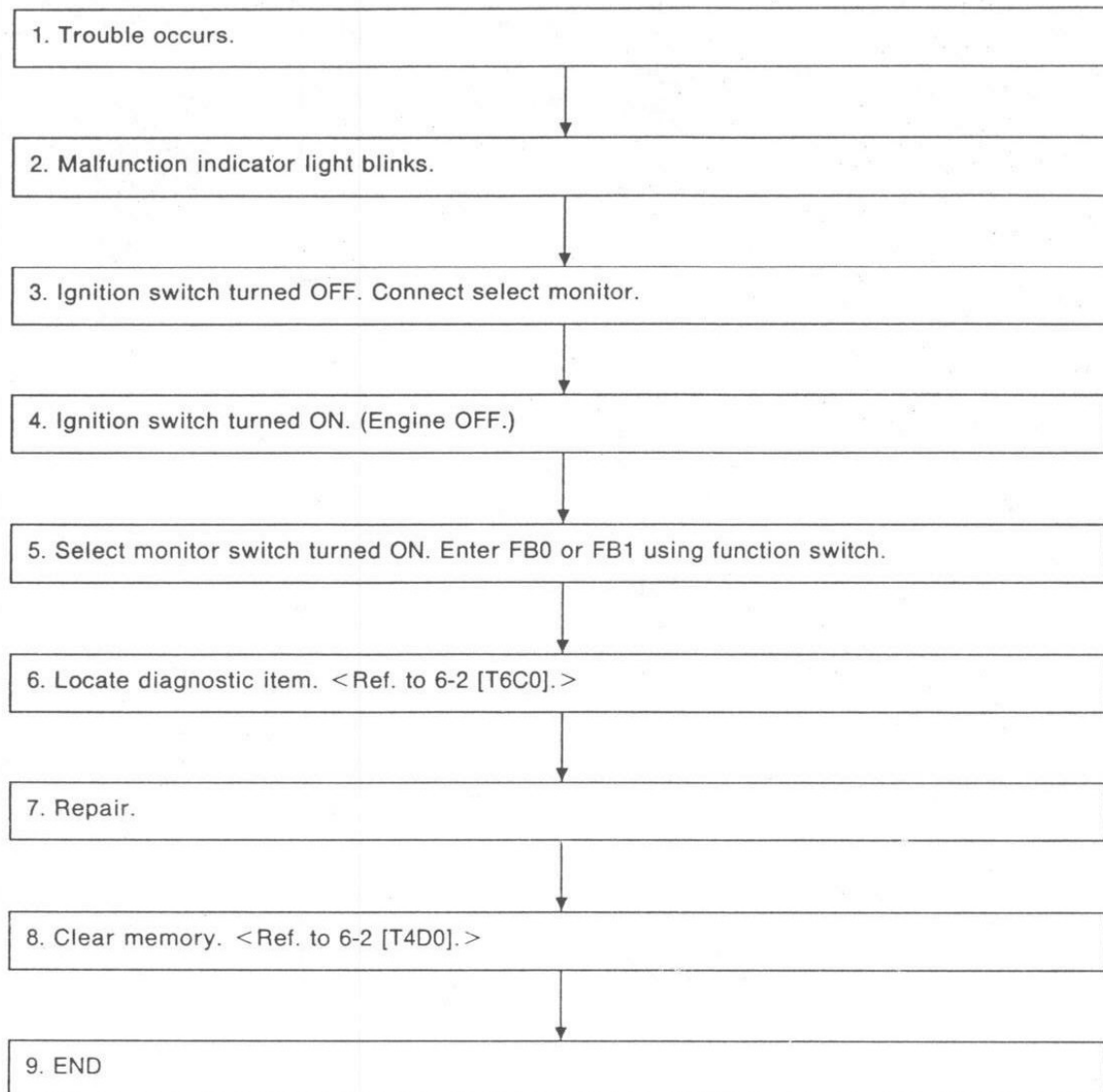
CHECK : *Terminal*
Terminal "B" — Terminal "C" :
Is the resistance less than 10 Ω ?

YES : Replace LED bulb.

NO : Replace combination meter.

6. Diagnostics Chart with Select Monitor

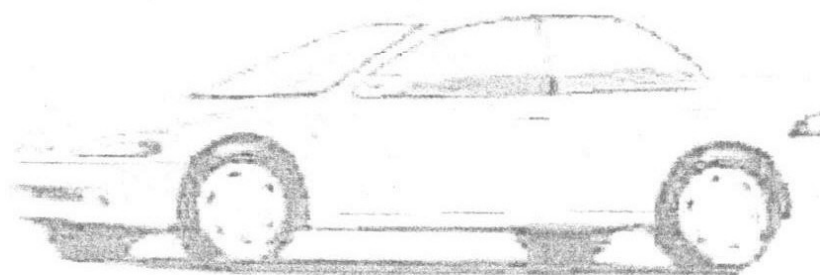
A: BASIC DIAGNOSTIC PROCEDURE



SERVICE MANUAL



SUBARU IMPREZA



Service manual

Wiring diagram

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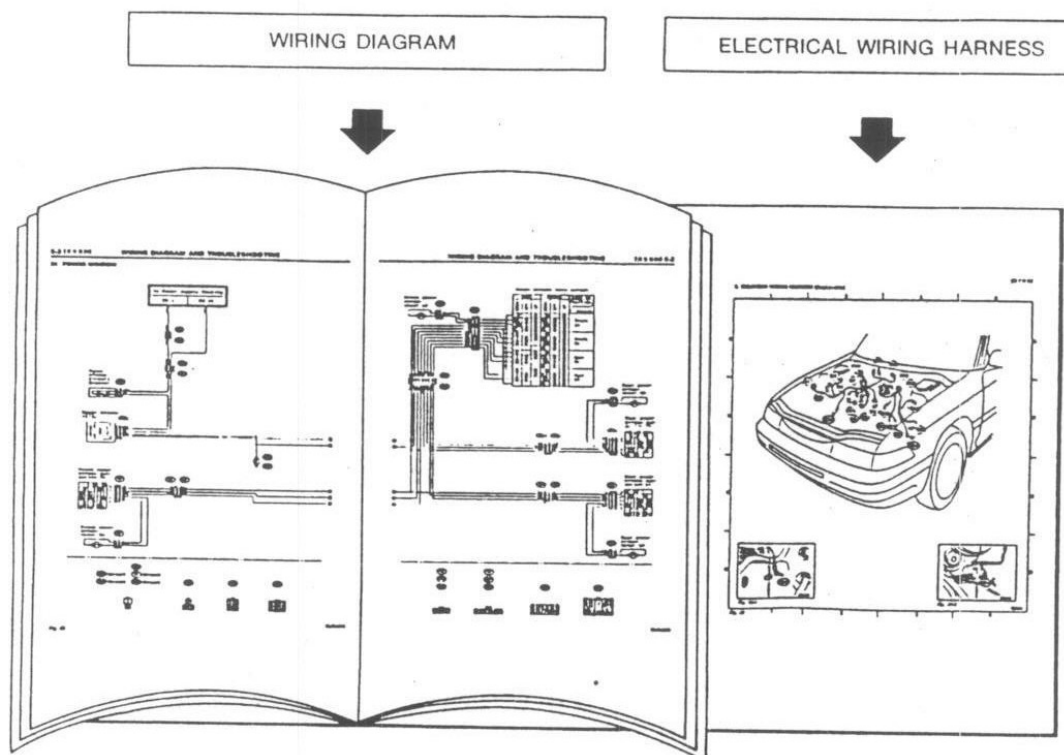
1. General Description

1. HOW TO USE THIS MANUAL

The description of the electrical system is divided into the charging system, starting system, etc.

1) First, open to the necessary electrical system section and wiring diagram.

2) Next, open the foldout page of the electrical wiring diagram. By observing the electrical wiring harness' illustrations (front, instrument panel, etc.), the wiring diagram connector can be located.



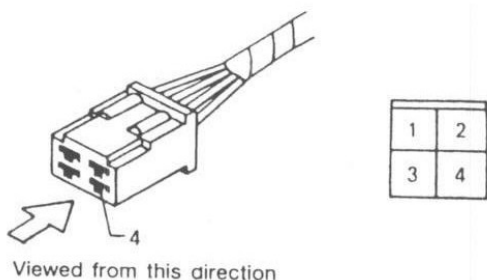
G6M0192

2. WIRING DIAGRAM

The wiring diagram of each system is illustrated so that you can understand the path through which the electric current flows from the battery.

Sketches and codes are used in the diagrams. They should read as follows:

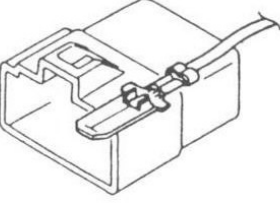
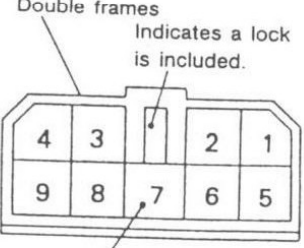
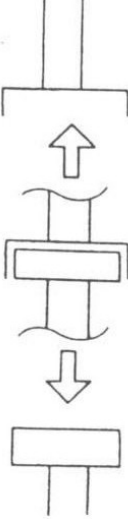
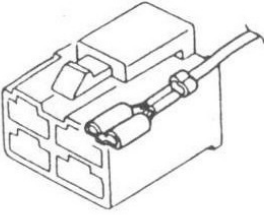
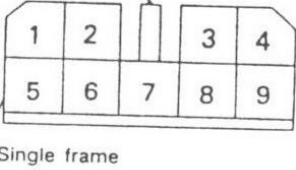
1) Each connector and its terminal position are indicated by a sketch of the connector in a disconnected state which is viewed from the front, as shown in figure.

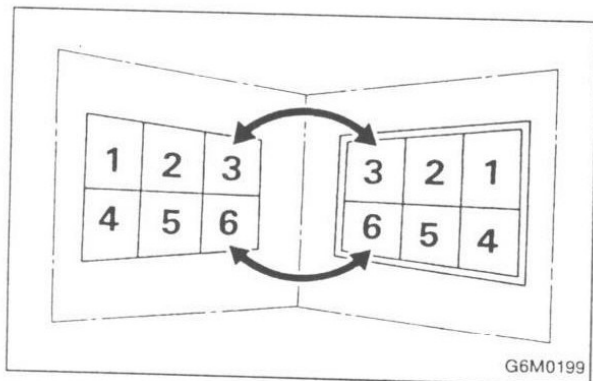


G6M0193

2) The number of poles or pins, presence of a lock, and pin number of each terminal are indicated in the sketch of each connector.

In the sketch, the highest pole number refers to the number of poles which the connector has. For example, the sketch of the connector shown in figure indicates the connector has 9 poles.

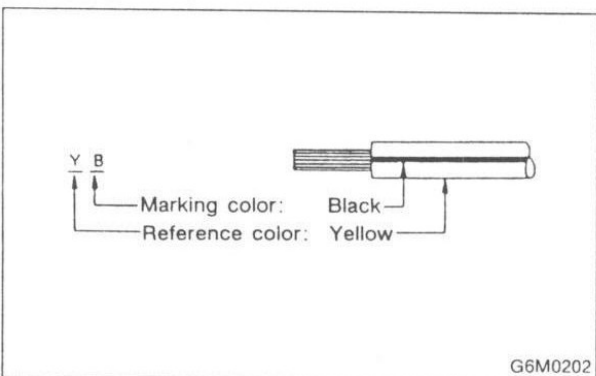
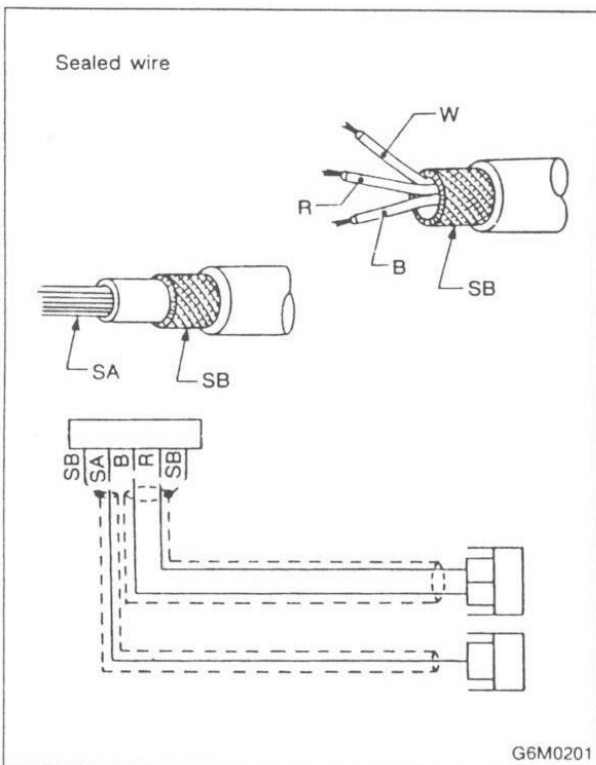
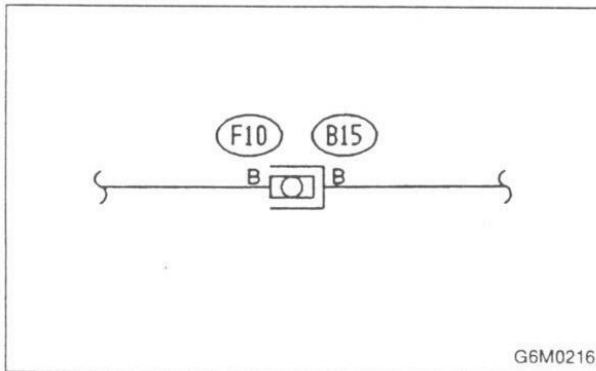
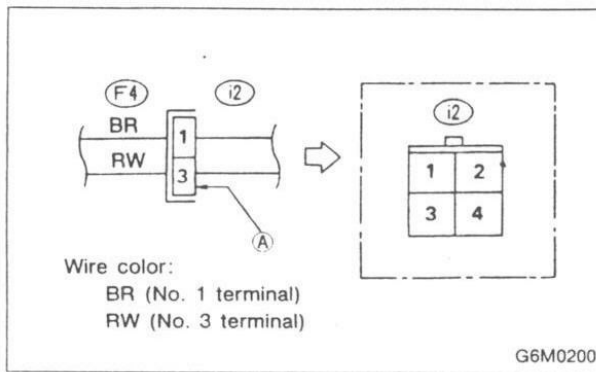
Connector used in vehicle	Connector shown in wiring diagram		
	Sketch	Symbol	Number of poles
 G6M0194	 G6M0196		Numbered in order from upper right to lower left.
 G6M0195	 G6M0197		Numbered in order from upper left to lower right.



When one set of connectors is viewed from the front side, the pole numbers of one connector are symmetrical to those of the other. When these two connectors are connected as a unit, the poles which have the same number are joined.

3) Electrical wiring harness

The connectors are numbered along with the number of poles, external colors, and mating connections in the accompanying list.



4) The sketch of each connector in the wiring diagram usually shows the "A" side of the connector. The relationship between the wire color, terminal number and connector is described in figure.

NOTE:

A wire which runs in one direction from a connector terminal sometimes may have a different color from that which runs in the other direction from that terminal.

5) In wiring diagram, connectors which have no terminal number refer to one-pole types. Sketches of these connectors are omitted intentionally.

6) The following color codes are used to indicate the colors of the wires used.

Color code	Color
L	Blue
B	Black
Y	Yellow
G	Green
R	Red
W	White
Br	Brown
Lg	Light green
Gr	Gray
P	Pink
Or	Orange
Lb	Light Blue
V	Violet
SA	Sealed (Inner)
SB	Sealed (Outer)

7) The wire color code, which consists of two letters (or three letters including Br or Lg), indicates the standard color (base color of the wire covering) by its first letter and the stripe marking by its second letter.

8) The table below lists the nominal sectional areas and allowable currents of the wires.

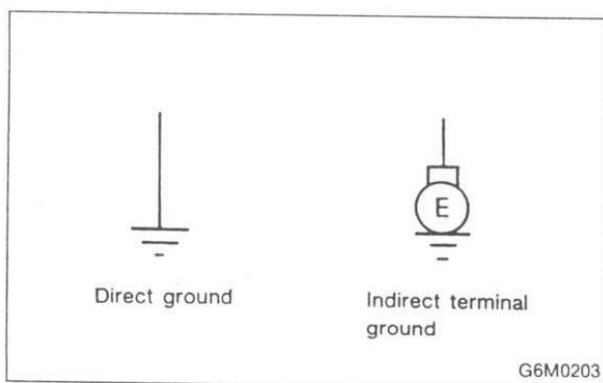
Nominal sectional area mm ²	No. of strands/ strand diameter	Outside diameter of finished wiring mm	Allowable current Amps/40°C
0.3	7/0.26	1.8	7
0.5	7/0.32	2.2 (or 2.0)	12
0.75	30/0.18	2.6 (or 2.4)	16
0.85	11/0.32	2.4 (or 2.2)	16
1.25	16/0.32	2.7 (or 2.5)	21
2	26/0.32	3.1 (or 2.9)	28
3	41/0.32	3.8 (or 3.6)	38
5	65/0.32	4.6 (or 4.4)	51
8	50/0.45	5.5	67

CAUTION:

When replacing or repairing a wire, be sure to use the same size and type of the wire which was originally used.

NOTE:

- The allowable current in the above table indicates the tolerable amperage of each wire at an ambient temperature of 40°C (104°F).
- The allowable current changes with ambient temperature. Also, it changes if a bundle of more than two wires is used.



9) Each unit is directly grounded to the body or indirectly grounds through a harness ground terminal. Different symbols are used in the wiring diagram to identify the two grounding systems.

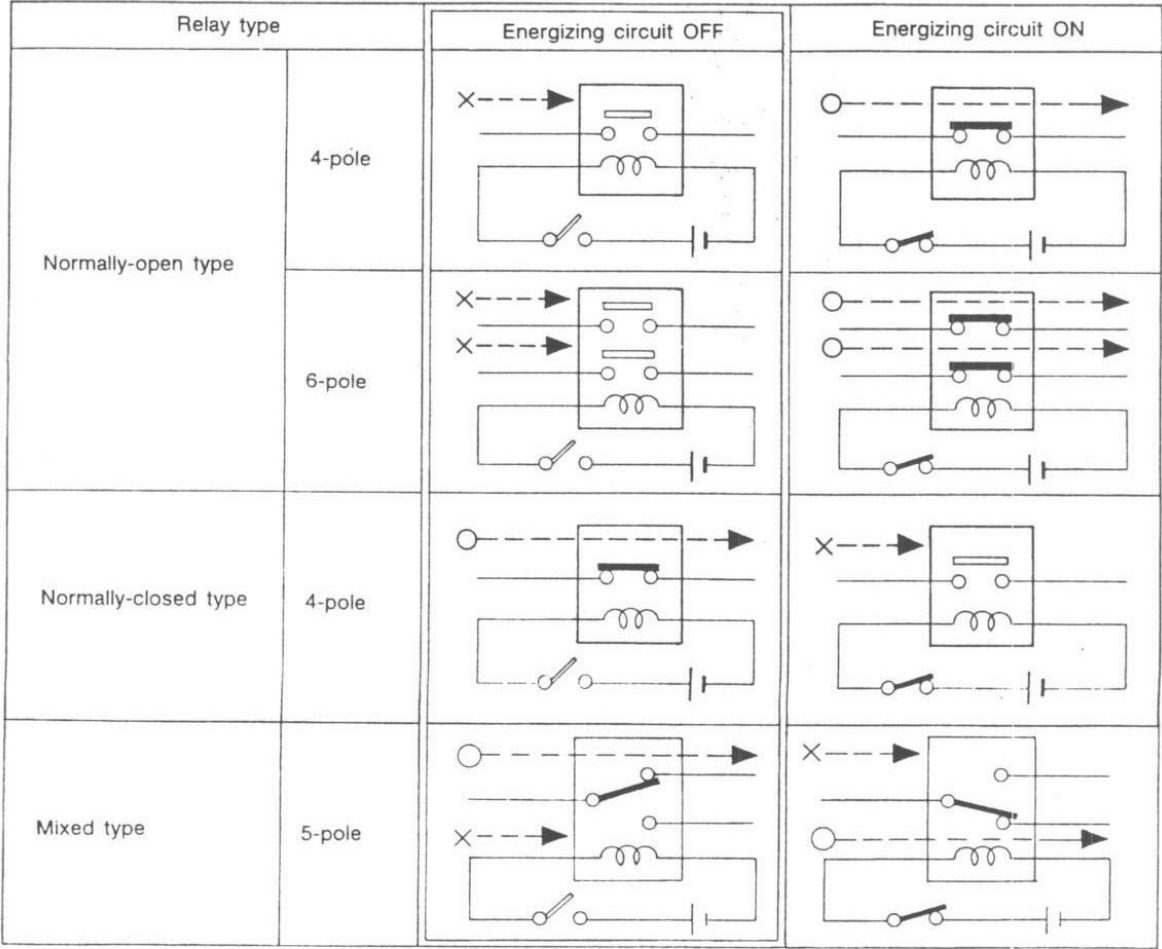
The ground points shown in the wiring diagram refer to the following:

- (GB) Body ground
- (GE) Engine ground
- (GR) Radio ground
- (GD) Rear defogger ground
- (GS) Sunroof ground

All wiring harnesses are provided with a ground point which should be securely connected.

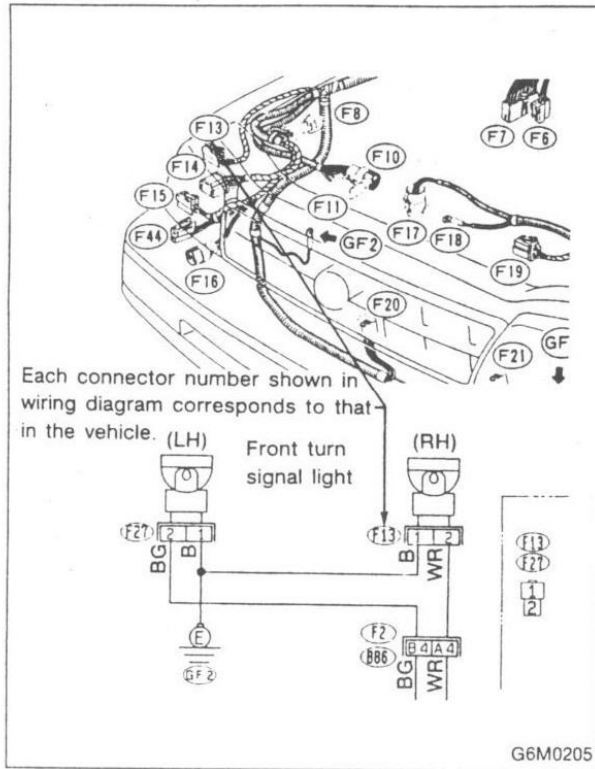
WIRING DIAGRAM

10) Relays are classified as normally-open or normally-closed.
The normally-closed relay has one or more contacts.
The wiring diagram shows the relay mode when the energizing circuit is OFF.



G6M0204

Key to symbols:
○ → : Current flows.
X → : Current does not flow.



11) Each connector number shown in the wiring diagram corresponds to that in the wiring harness. The location of each connector in the actual vehicle is determined by reading the first character of the connector (for example, a "F" for F8, "I" for i16, etc.) and the type of wiring harness.

The first character of each connector number refers to the area or system of the vehicle, as indicated in table below.

Symbol	Wiring harness and Cord
F	Front wiring harness
B	Bulkhead wiring harness
E	Engine wiring harness
T	Transmission cord
D	Door cord LH & RH, Rear door adapter cord LH & RH, Rear gate cord, Rear gate lock adapter cord
I	Instrument panel wiring harness
R	Rear wiring harness, Rear defogger cord, Roof cord, Fuel tank cord

2. Basic Diagnostics Procedures

The most important purpose of diagnostics is to determine which part is malfunctioning quickly, to save time and labor.

A: IDENTIFICATION OF TROUBLE SYMPTOM

Determine what the problem is based on the symptom.

B: PROBABLE CAUSE OF TROUBLE

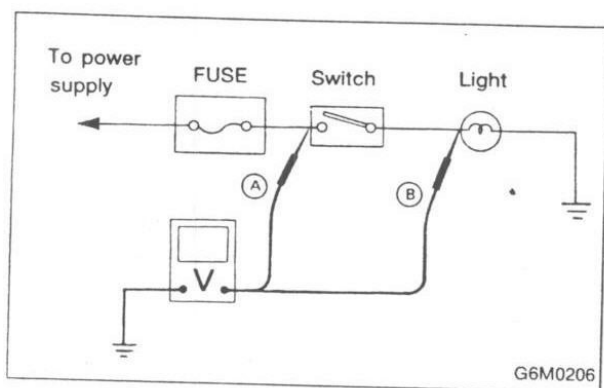
Look at the wiring diagram and check the system's circuit. Then check the switch, relay, fuse, ground, etc.

C: LOCATION AND REPAIR OF TROUBLE

- 1) Using the diagnostics narrow down the causes.
- 2) If necessary, use a voltmeter, ohmmeter, etc.
- 3) Before replacing certain component parts (switch, relay, etc.), check the power supply, ground, for open wiring harness, poor connectors, etc. If no problems are encountered, check the component parts.

D: CONFIRMATION OF SYSTEM OPERATION

After repairing, ensure that the system operates properly.

**E: INSPECTION****1. VOLTAGE MEASUREMENT**

1) Using a voltmeter, connect the negative lead to a good ground point or negative battery terminal and the positive lead to the connector or component terminal.

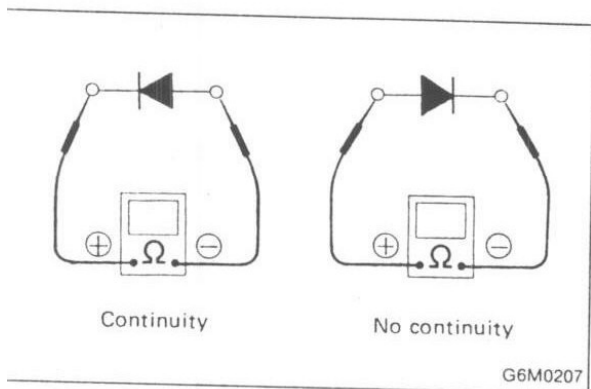
2) Contact the positive probe of the voltmeter on connector (A).

The voltmeter will indicate a voltage.

3) Shift the positive probe to connector (B). The voltmeter will indicate no voltage.

With test set-up held as it is, turn switch ON. The voltmeter will indicate a voltage and, at the same time, the light will come on.

4) The circuit is in good order. If a problem such as a lamp failing to light occurs, use the procedures outlined above to track down the malfunction.

**2. CIRCUIT CONTINUITY CHECKS**

1) Disconnect the battery terminal or connector so there is no voltage between the check points.

Contact the two leads of an ohmmeter to each of the check points.

If the circuit has diodes, reverse the two leads and check again.

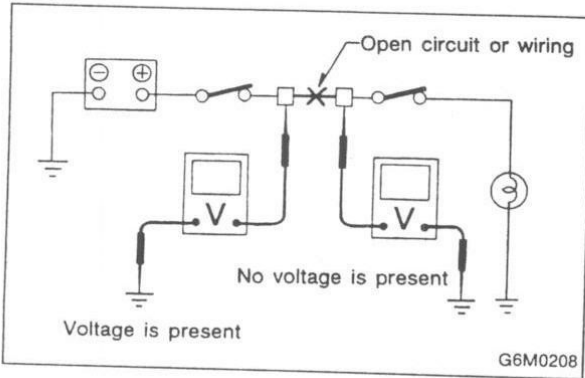
2) Use an ohmmeter to check for diode continuity.

When contacting the negative lead to the diode positive side and the positive lead to the negative side, there should be continuity.

When contacting the two leads in reverse, there should be no continuity.

3) Symbol "o—o" indicates that continuity exists between two points or terminals. For example, when a switch position is "3", continuity exists among terminals 1, 3 and 6, as shown in table below.

Terminal	1	2	3	4	5	6
Switch Position						
OFF						
1	o—o				o—o	
2	o—o			o—o		o—o
3	o—o		o—o			o—o
4	o—o	o—o				o—o



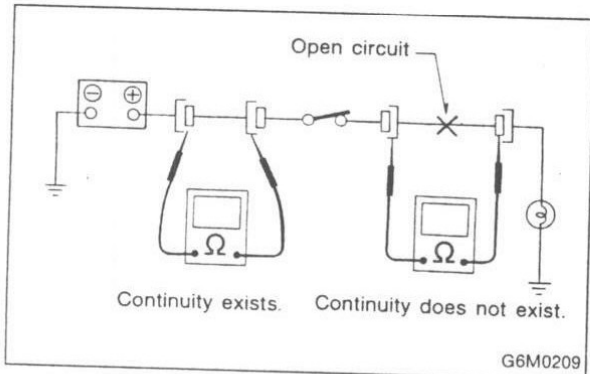
3. HOW TO DETERMINE AN OPEN CIRCUIT

1) Voltmeter Method

An open circuit is determined by measuring the voltage between respective connectors and ground using a voltmeter, starting with the connector closest to the power supply. The power supply must be turned ON so that current flows in the circuit. If voltage is not present between a particular connector and ground, the circuit between that connector and the previous connector is open.

2) Ohmmeter method

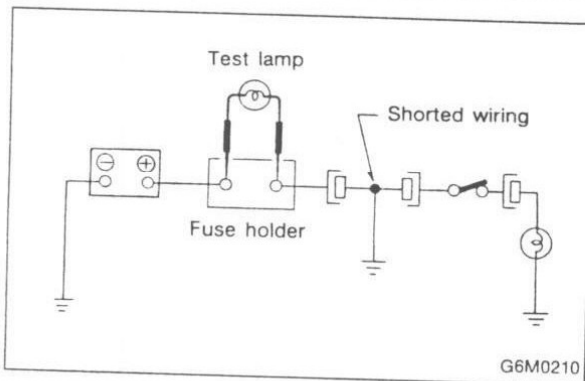
Disconnect all connectors affected, and check continuity in the wiring between adjacent connectors. When the ohmmeter indicates "infinite", the wiring is open.



4. HOW TO DETERMINE A SHORT-CIRCUIT

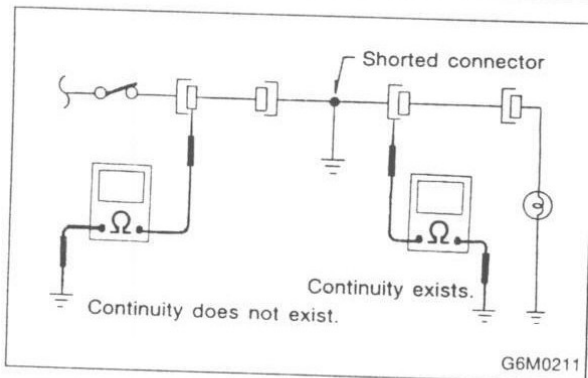
1) Test lamp method

Connect a test lamp (rated at approximately 3 watts) in place of the blown fuse and allow current to flow through the circuit. Disconnect one connector at a time from the circuit, starting with the one located farthest from the power supply. If the test lamp goes out when a connector is disconnected, the wiring between that connection and the next connector (farther from the power supply) is shorted.



2) Ohmmeter method

Disconnect all affected connectors, and check continuity between each connector and ground. When ohmmeter indicates continuity between a particular connector and ground, that connector is shorted.



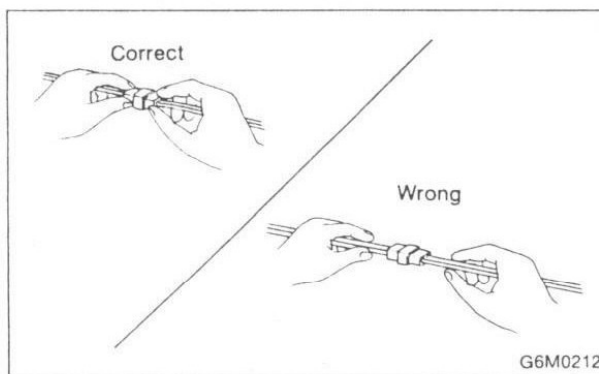
3. Working Precautions

1. PRECAUTIONS WHEN WORKING WITH THE PARTS MOUNTED ON THE VEHICLE

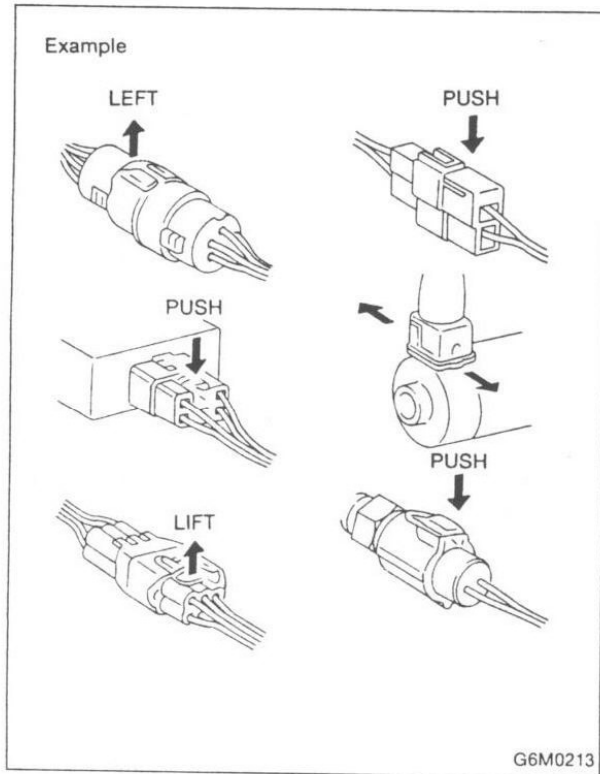
- 1) When working under a vehicle which is jacked-up, always be sure to use safety stands.
- 2) The parking brake must always be applied during working. Also, in automatic transmission vehicles, keep the select lever set to the P (Parking) range.
- 3) Be sure the workshop is properly ventilated when running the engine. Further, be careful not to touch the belt or fan while the engine is operating.
- 4) Be careful not to touch hot metal parts, especially the radiator and exhaust system immediately after the engine has been shut off.

2. PRECAUTIONS IN TROUBLE DIAGNOSIS AND REPAIR OF ELECTRIC PARTS

- 1) The battery cable must be disconnected from the battery's (-) terminal, and the ignition switch must be set to the OFF position, unless otherwise required by the diagnostics.
- 2) Securely fasten the wiring harness with clamps and slips so that the harness does not interfere with the body end parts or edges and bolts or screws.
- 3) When installing parts, be careful not to catch them on the wiring harness.

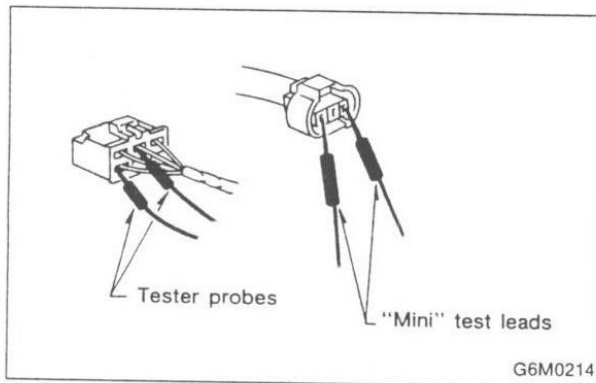


- 4) When disconnecting a connector, do not pull the wires, but pull while holding the connector body.



5) Some connectors are provided with a lock. One type of such a connector is disconnected by pushing the lock, and the other, by moving the lock up. In either type the lock shape must be identified before attempting to disconnect the connector.

To connect, insert the connector until it snaps and confirm that it is tightly connected.



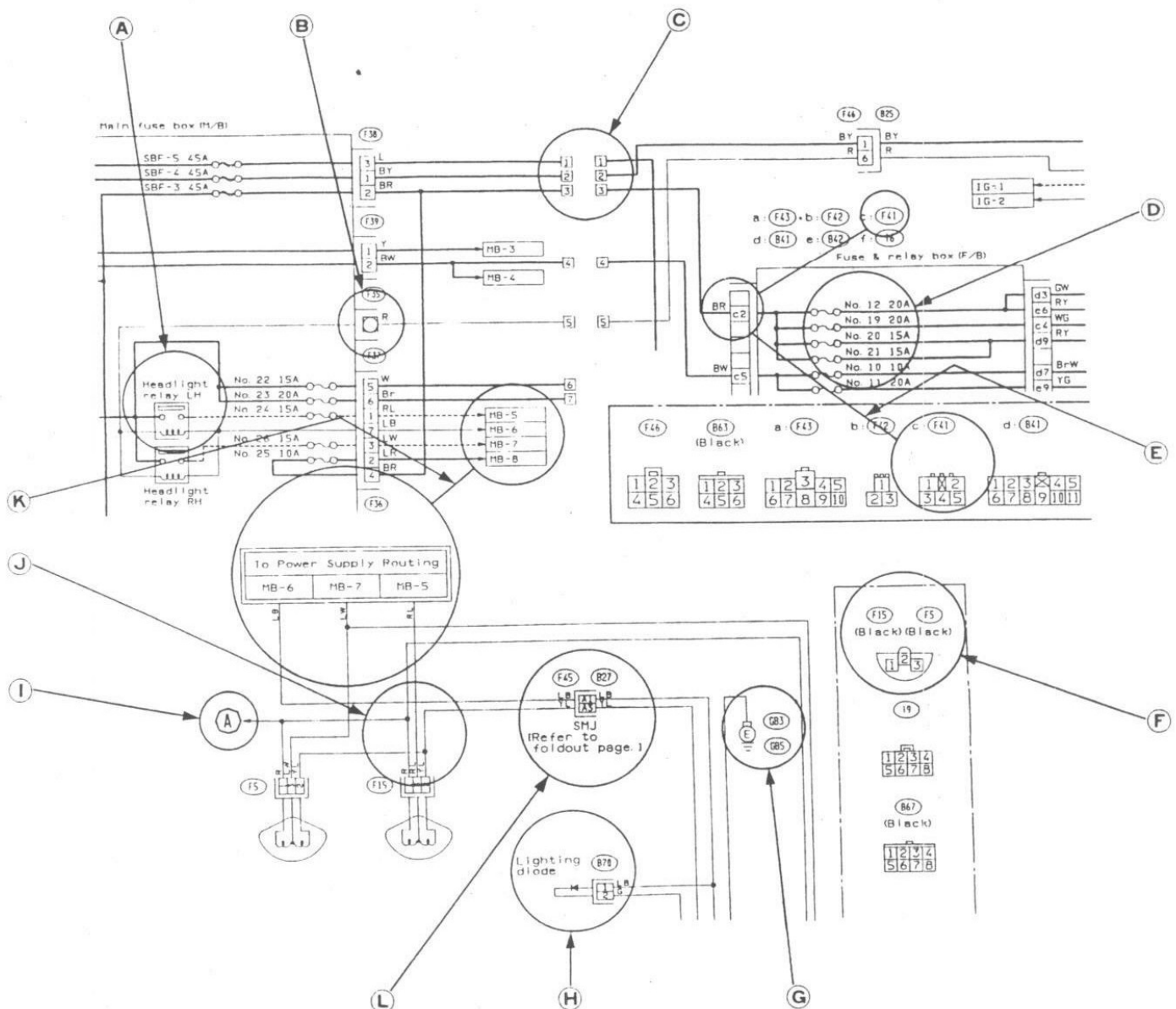
6) When checking continuity between connector terminals, or measuring voltage across the terminal and ground, always contact tester probe(s) on terminals from the wiring connection side. If the probe is too thick to gain access to the terminal, use "mini" test leads.

To check water-proof connectors (which are not accessible from the wiring side), contact test probes on the terminal side being careful not to bend or damage the terminals.

7) Sensors, relays, electrical unit, etc., are sensitive to strong impacts.

Handle them with care so that they are not dropped or mishandled.

4. How to Use Wiring Diagram



A: RELAY

A symbol used to indicate a relay.

B: CONNECTOR-1

The sketch of the connector indicates the one-pole types.

C: WIRING CONNECTION

Some wiring diagrams are indicated in foldouts for convenience. Wiring destinations are indicated where necessary by corresponding symbols (as when two pages are needed for clear indication).

D: FUSE No. & RATING

The "FUSE No. & RATING" corresponds with that used in the fuse box (main fuse box, fuse and joint box).

E: CONNECTOR-2

1. Each connector is indicated by a symbol.
2. Each terminal number is indicated in the corresponding wiring diagram in an abbreviated form.
3. For example, terminal number "C2" refers to No. 2 terminal of connector (C:F41) shown in the connector sketch.

F: CONNECTOR SKETCH

1. Each connector sketch clearly identifies the shape and color of a connector as well as terminal locations. Non-colored connectors are indicated in natural color.
2. When more than two types of connector number are indicated in a connector sketch, it means that the same type connectors are used.

G: GROUND

Each grounding point can be located easily by referring to the corresponding wiring harness.

H: DIODE

A symbol is used to indicate a diode.

I: WIRE TRACING ON EXTENDED WIRING DIAGRAMS

For a wiring diagram extending over at least two pages, a symbol (consisting of the same characters with arrows), as shown below, facilitates wire tracing from one page to the next.

A ↔ A, B ↔ B

J: SYMBOLS OF WIRE CONNECTION AND CROSSING

	Symbol	Refers to wires which are connected and branched at the "dot" point.
	Symbol	Refers to wires which are crossed but not connected.

K: POWER SUPPLY ROUTING

A symbol is used to indicate the power supply in each wiring diagram.

"MB-5", "MB-6", etc., which are used as power supply symbols throughout the text, correspond with those shown in the POWER SUPPLY ROUTING in the wiring diagram.

Accordingly, using the POWER SUPPLY ROUTING and wiring diagrams permits service personnel to understand the entire electrical arrangement of a system.

L: SMJ

A symbol is used to indicate the terminal arrangement of the super multiple junction (SMJ). The SMJ is not shown in respective wiring diagrams but is indicated on the next page.

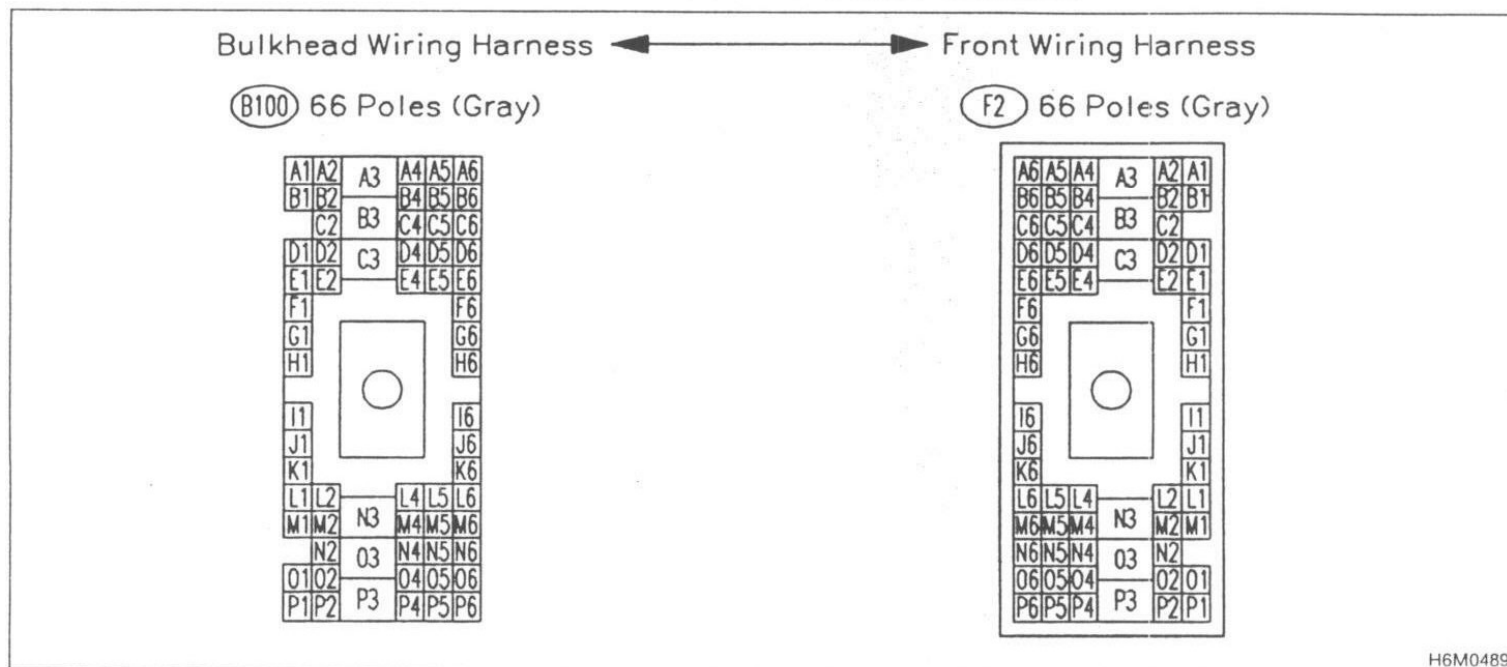
SYMBOLS AND ABBREVIATIONS

A number of symbols and abbreviations are used in each wiring diagram to easily identify parts or circuits.

5. How to Use Super Multiple Junction (SMJ)

The "SMJ" indicated in wiring diagram is shown in a simplified form.

TERMINAL ARRANGEMENT



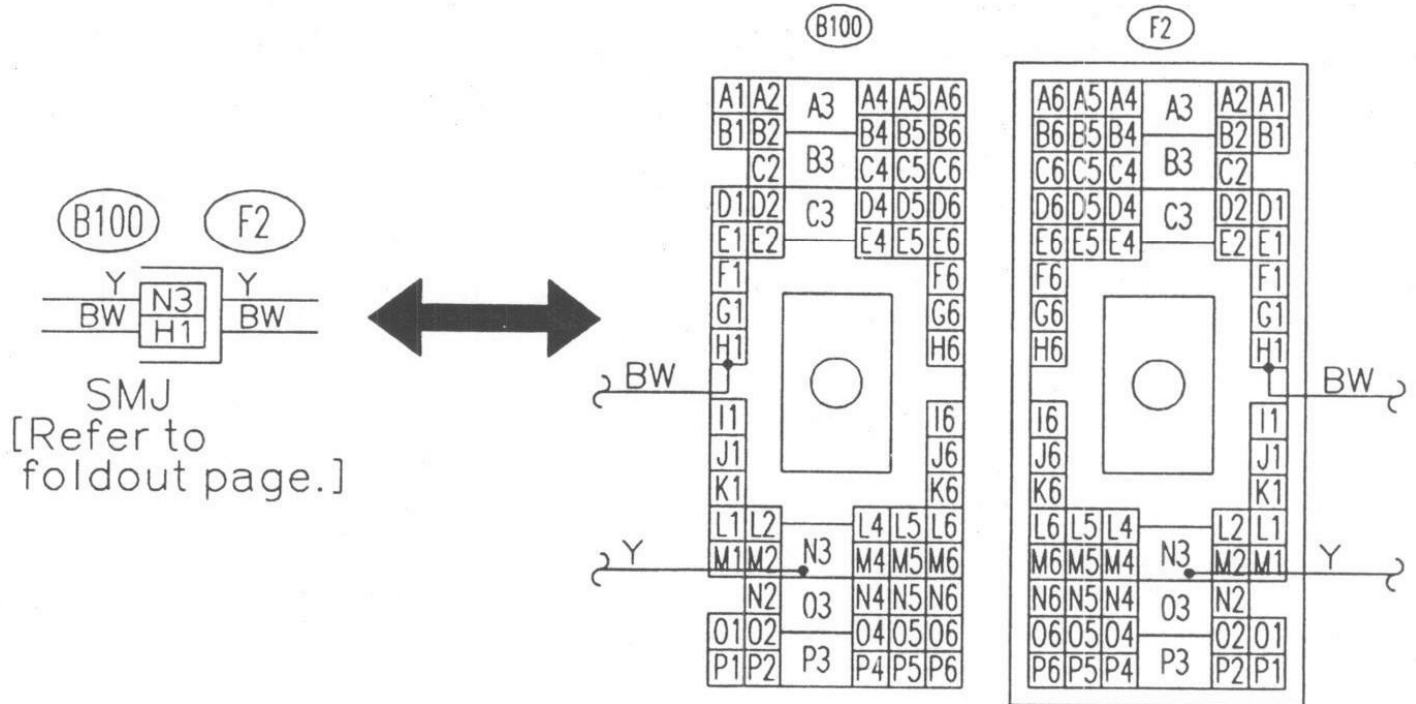
CAUTION:

- Align the cutout portion of one connector with that of other before tightening the connecting bolt.
- Do not tighten the bolt excessively since this may deform the connectors.

Tightening torque:

$5.9 \pm 1.5 \text{ N}\cdot\text{m}$ ($0.6 \pm 0.15 \text{ kg}\cdot\text{m}$ $4.4 \pm 1.1 \text{ ft}\cdot\text{lb}$)

EXPLANATION OF SMJ SHOWN IN THE WIRING DIAGRAM



H6M0490

ABBREVIATION LIST

Abbr.	Full name
ABS	Antilock Brake System
ACC	Accessory
A/C	Air Conditioning
AT	Automatic Transmission
+ B	Battery
DN	Down
E	Ground
F/B	Fuse & Joint Box
FL1.5	Fusible link 1.5 mm ²
IG	Ignition
Illumi.	Illumination
LH	Left Hand
Lo	Low

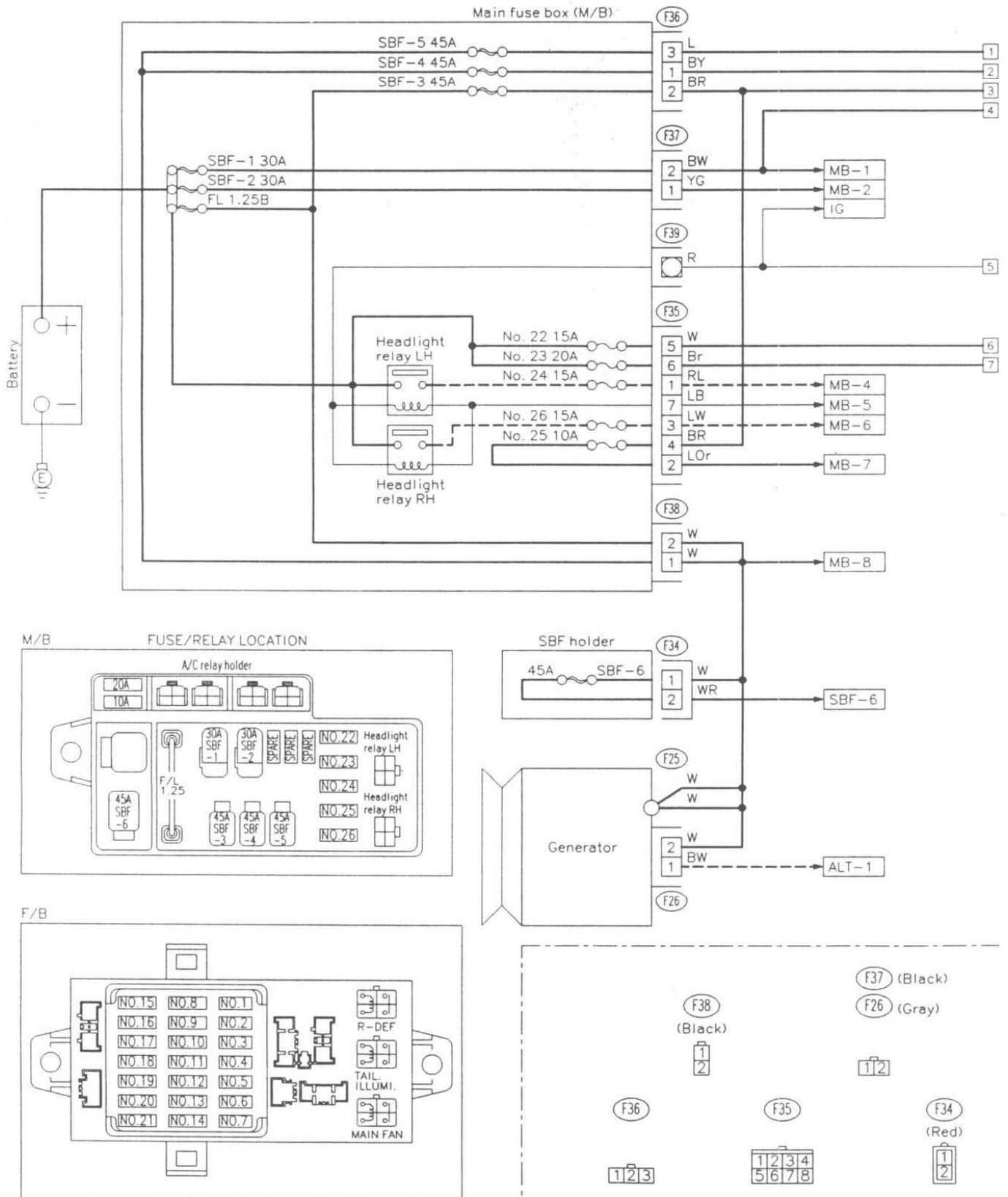
Abbr.	Full name
M	Motor
M/B	Main Fuse Box
MG	Magnet
Mi	Middle
OP	Optional Parts
PASS	Passing
RH	Right Hand
SBF	Slow Blow Fuse
ST	Starter
SW	Switch
UP	Up
WASH	Washer

6. Wiring Diagram

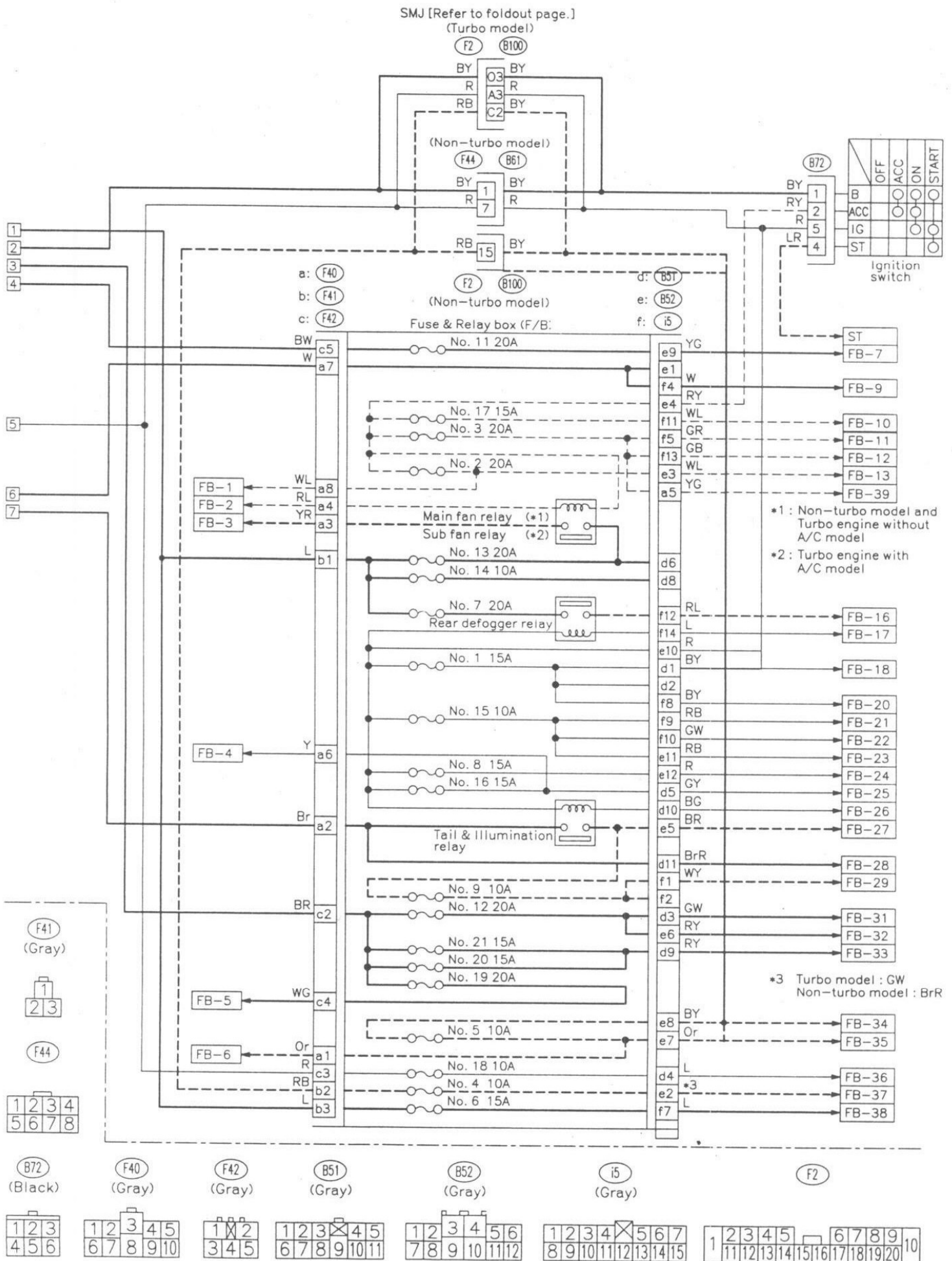
1. POWER SUPPLY ROUTING

● LHD model

- Battery current
- Current from ignition switch IG terminal
- Current from ignition switch ACC terminal
- Other currents

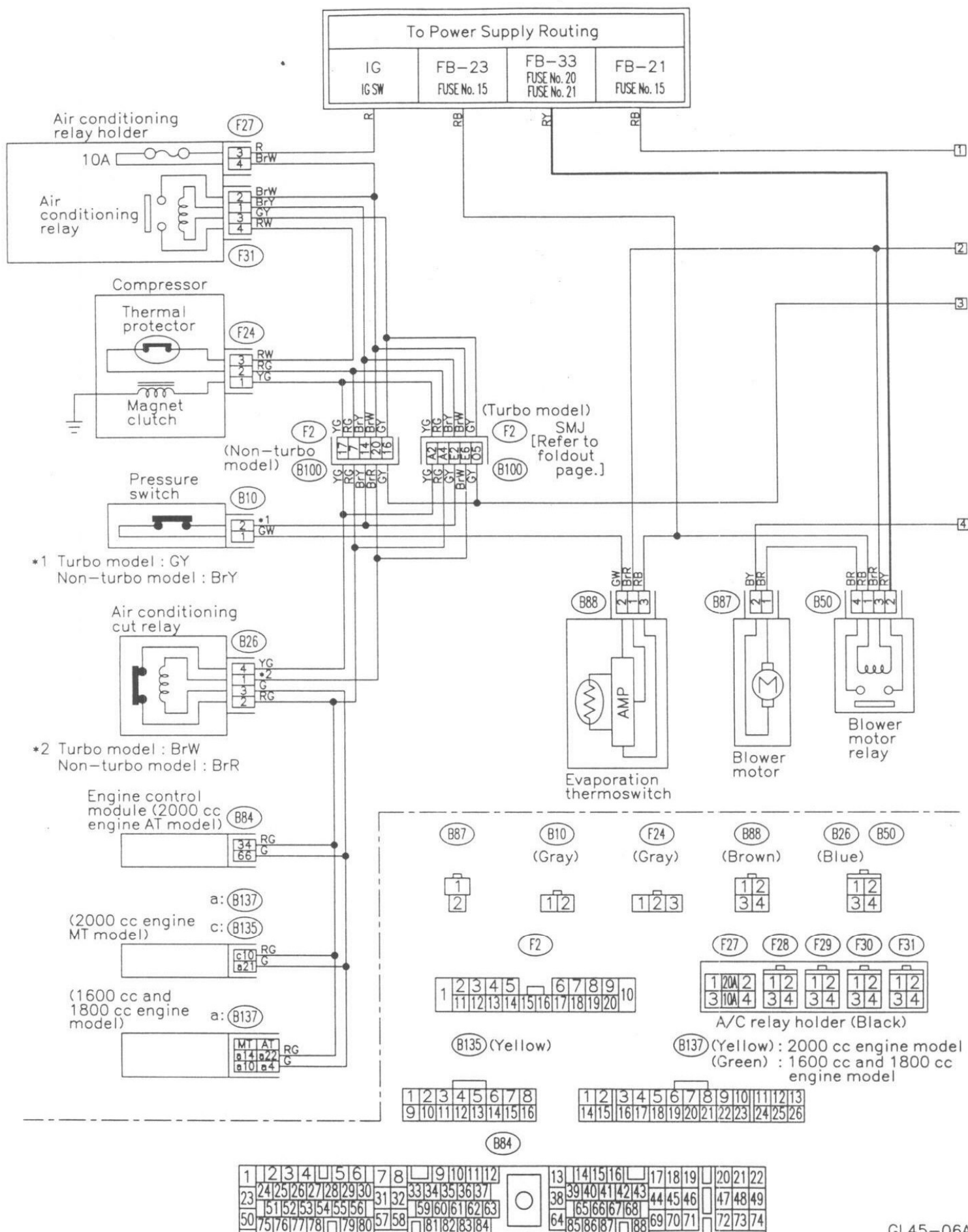


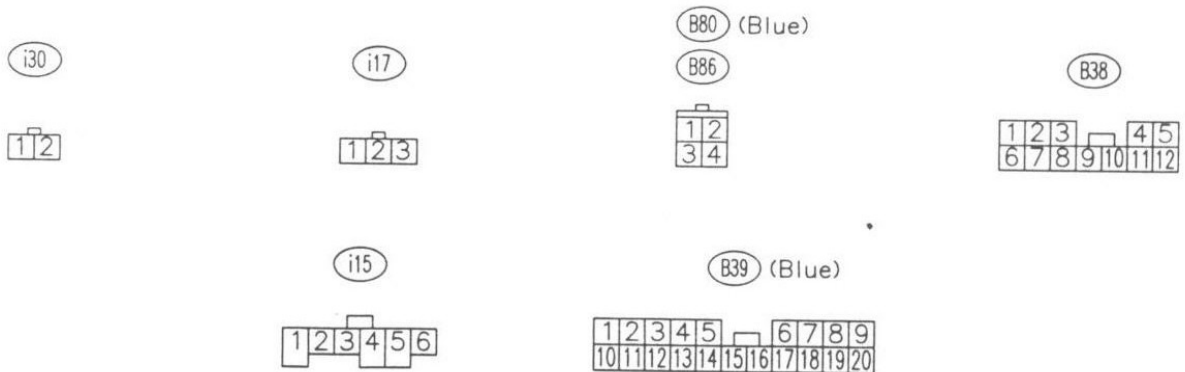
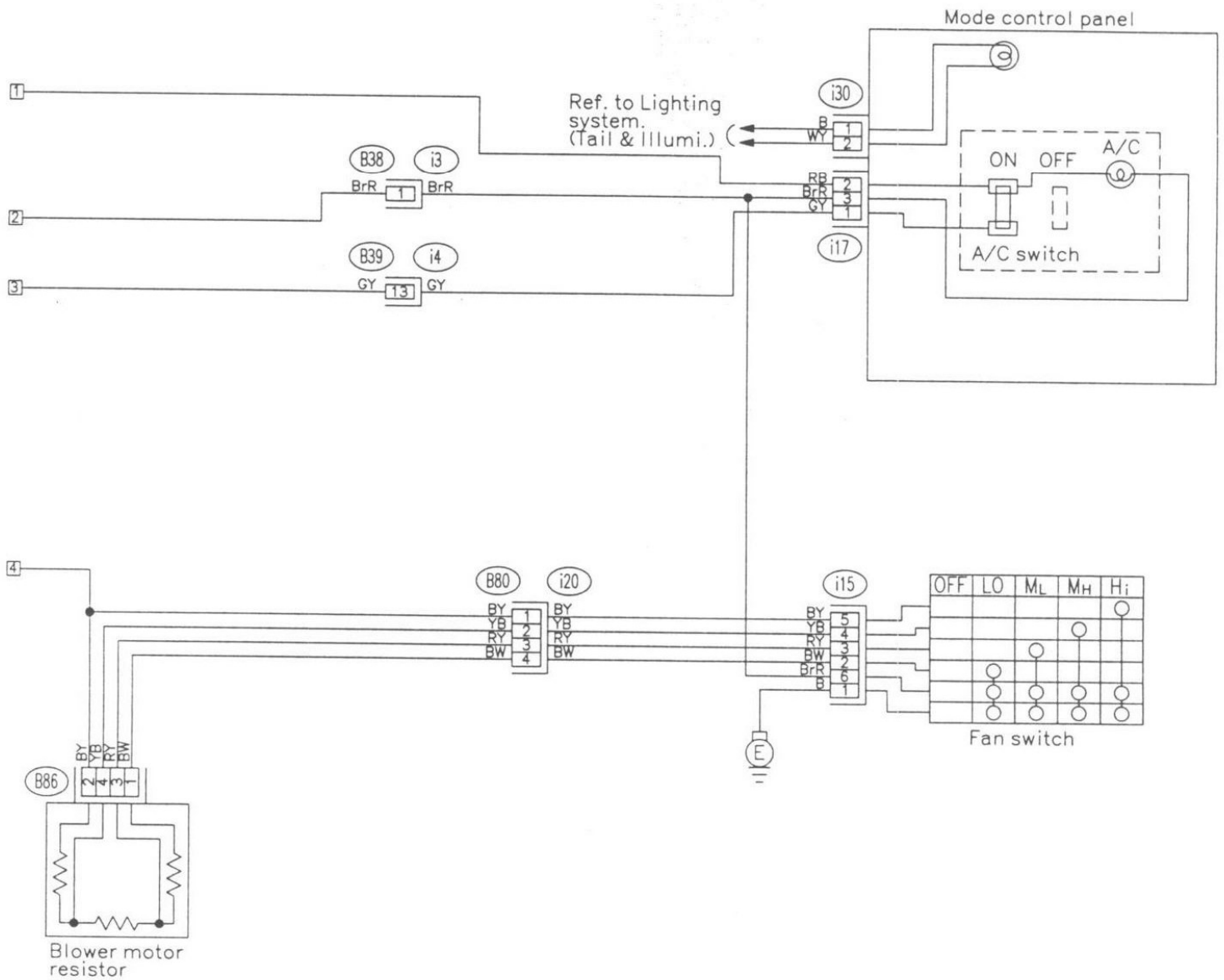
GL01-06A



3. AIR CONDITIONING SYSTEM

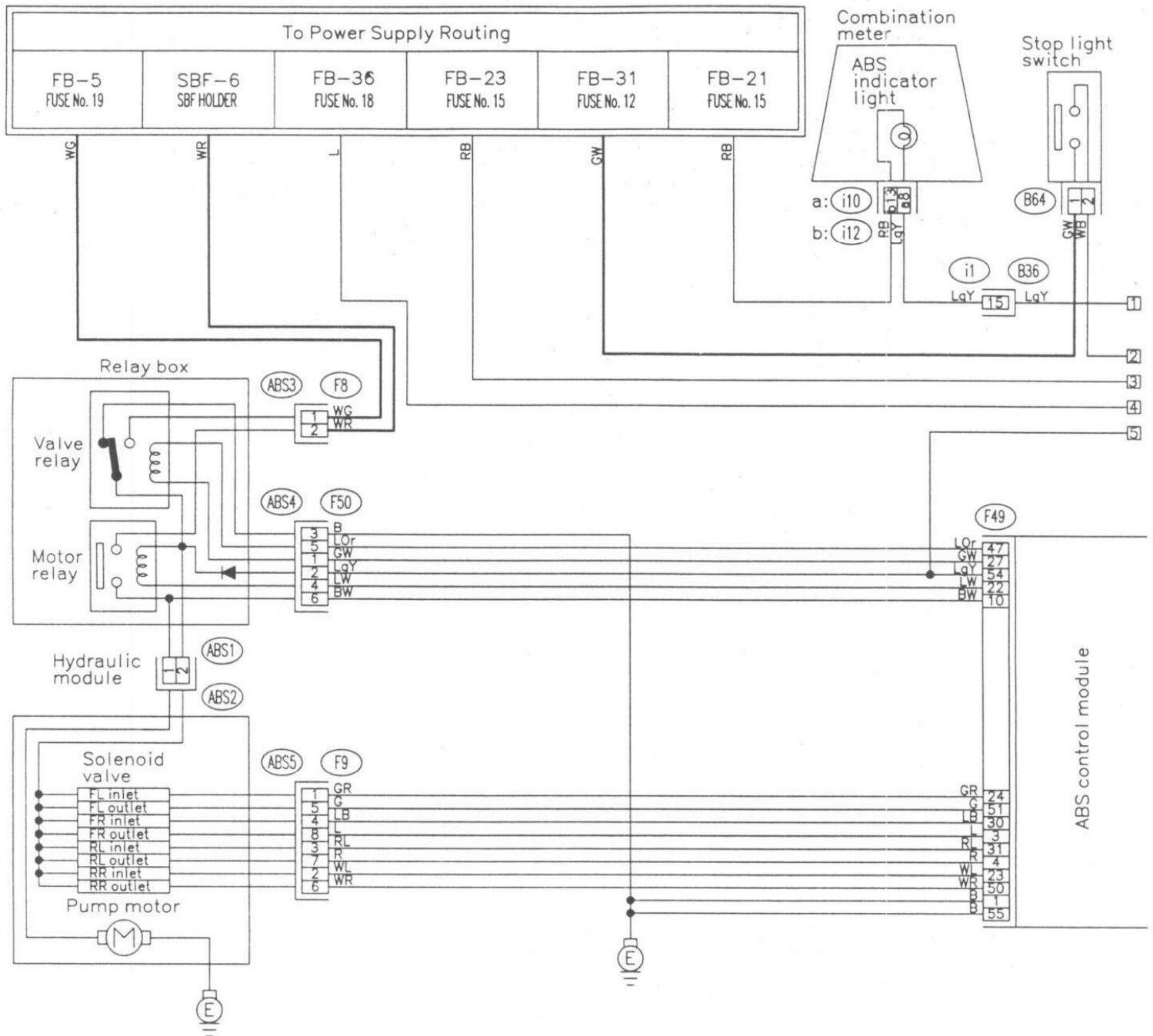
● LHD model





4. ANTI-LOCK BRAKE SYSTEM

● LHD model



(Black) (B64) (ABS1) (Black)

(F50) (Black)

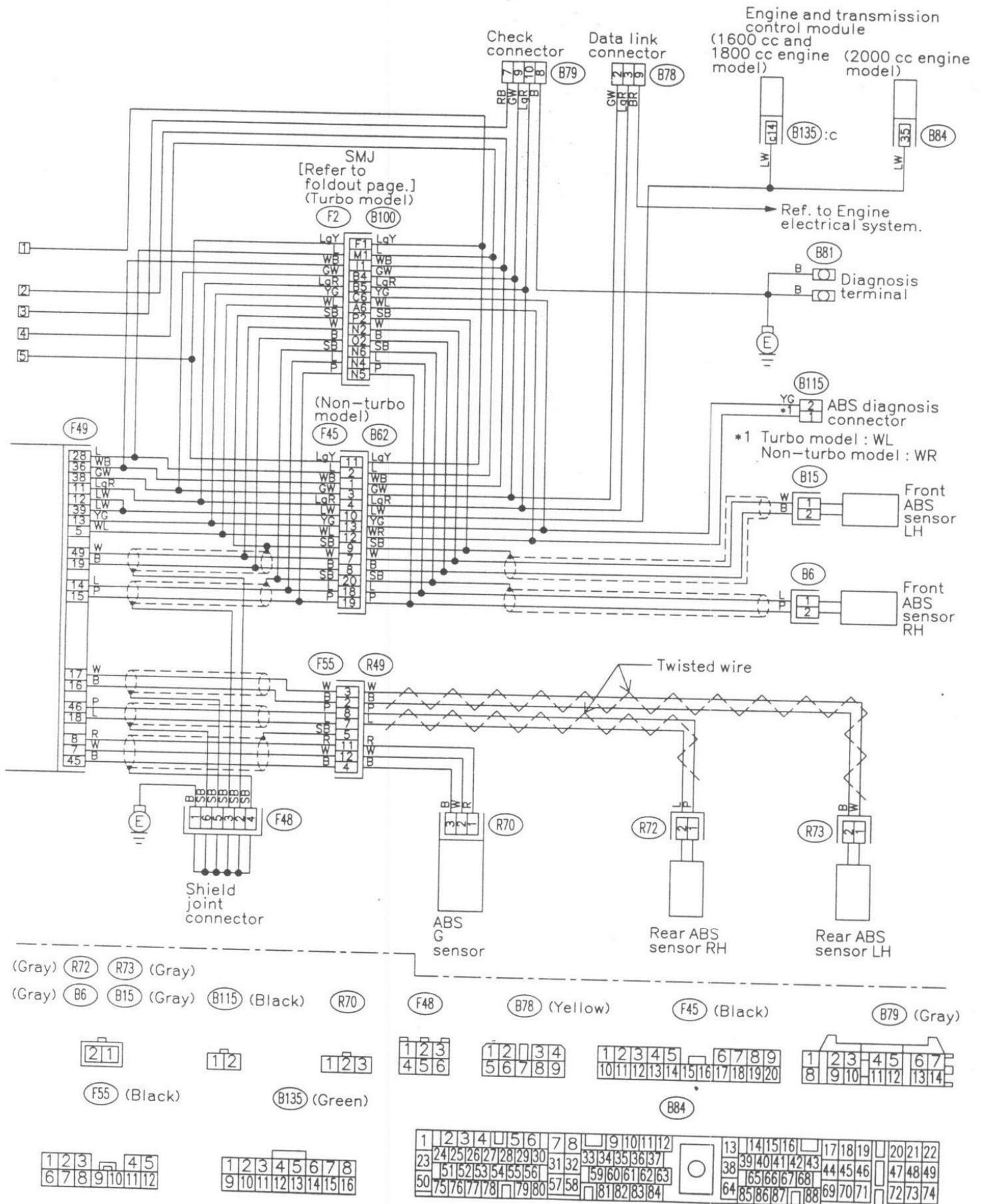
(F9) (Gray)

(Gray) (i10) (i12) (Gray)

(i1) (Black)

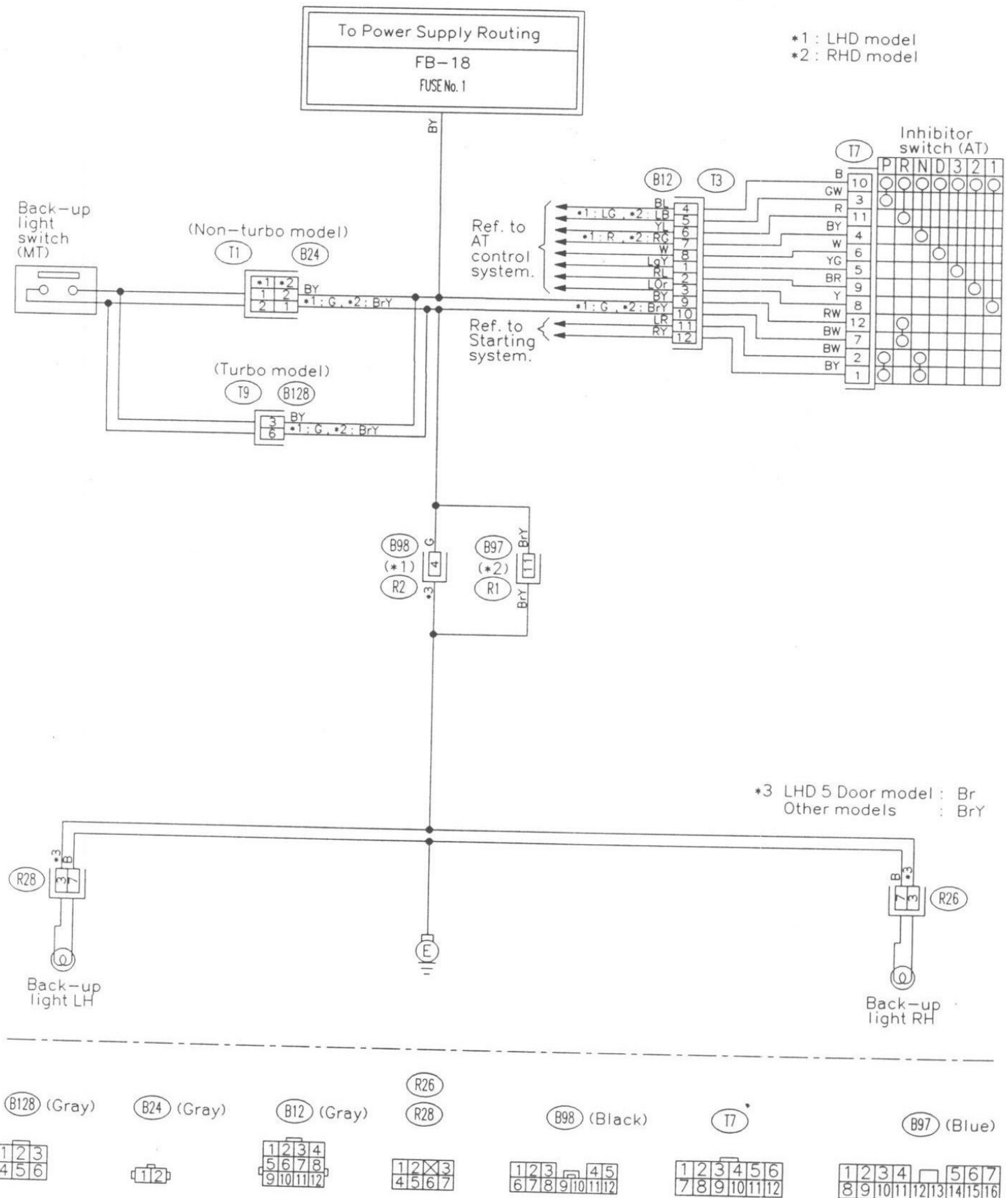
(F49) (Black)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56





7. BACK-UP LIGHT SYSTEM

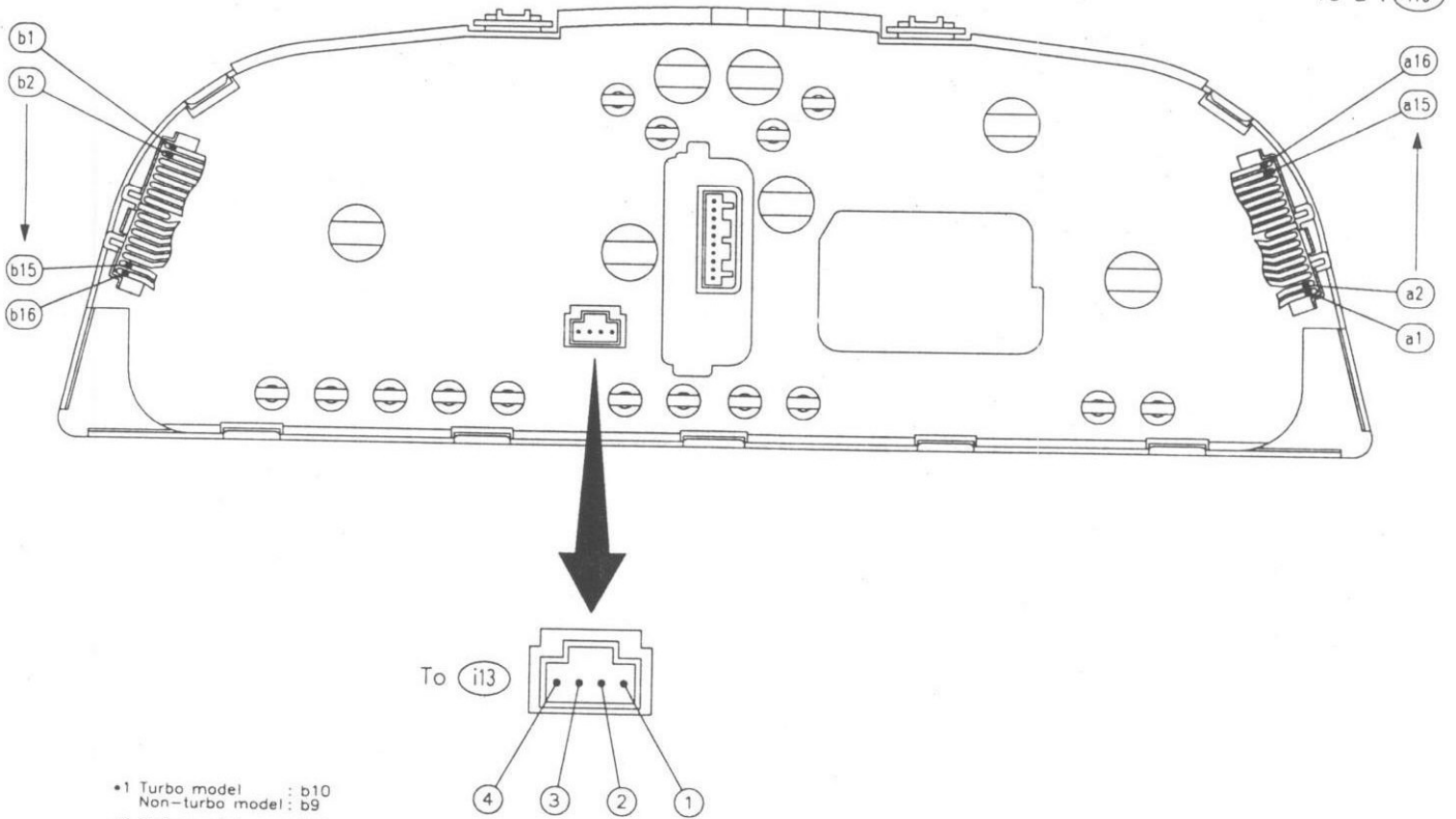


9. COMBINATION METER

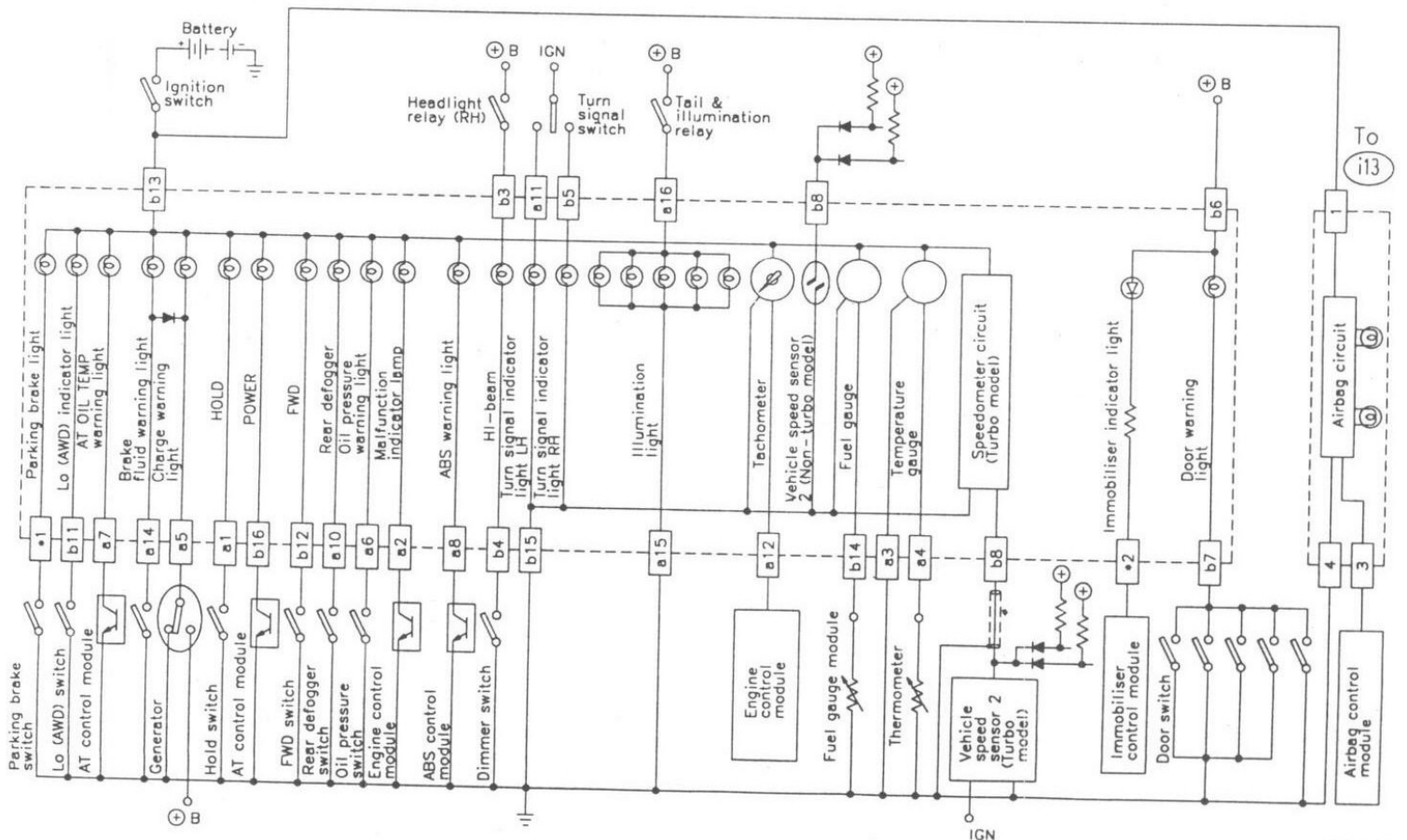
● LHD model

To b : (i12)

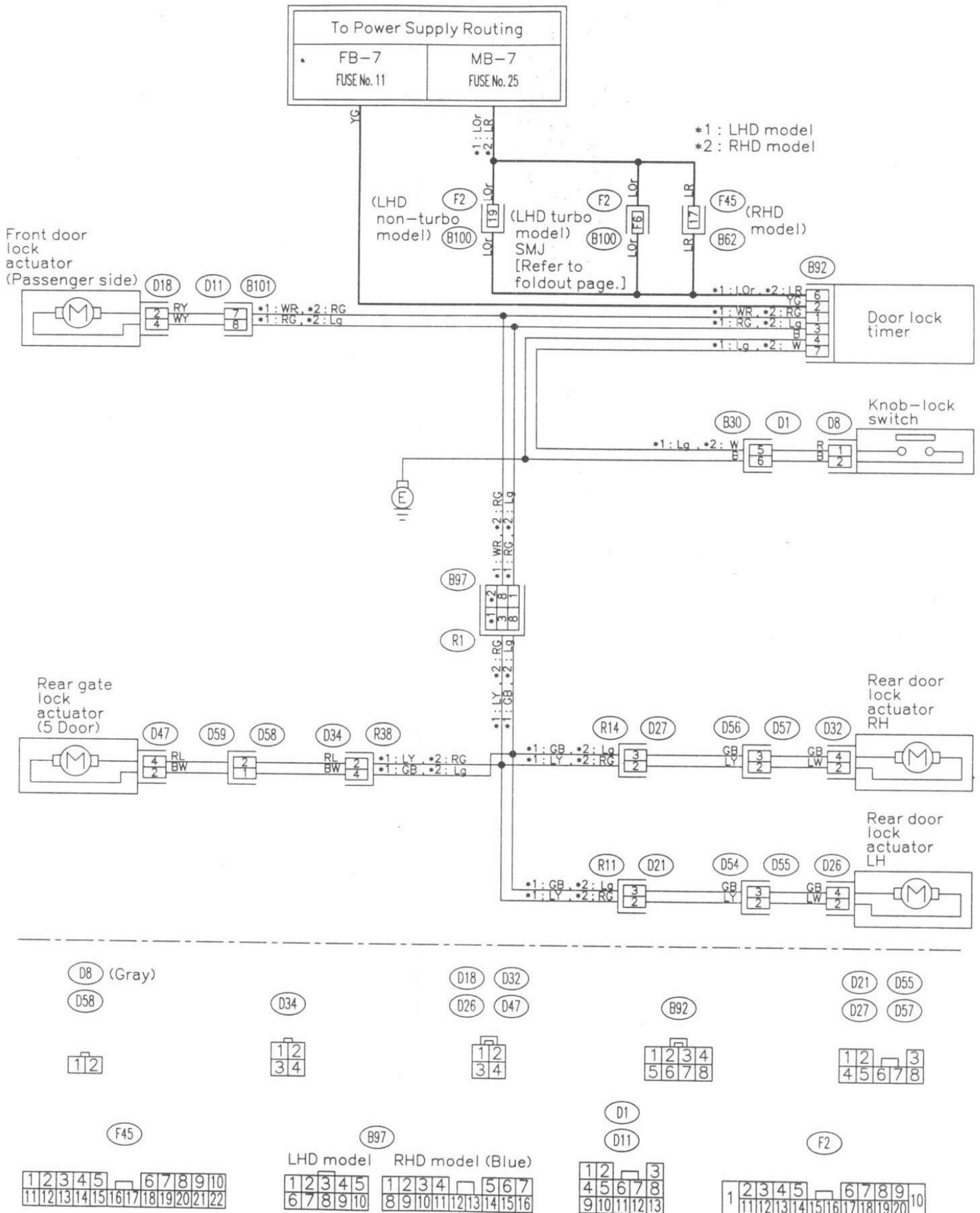
To a : (i10)



- 1 Turbo model : b10
Non-turbo model : b9
- 2 Turbo model : b11
Non-turbo model : b10



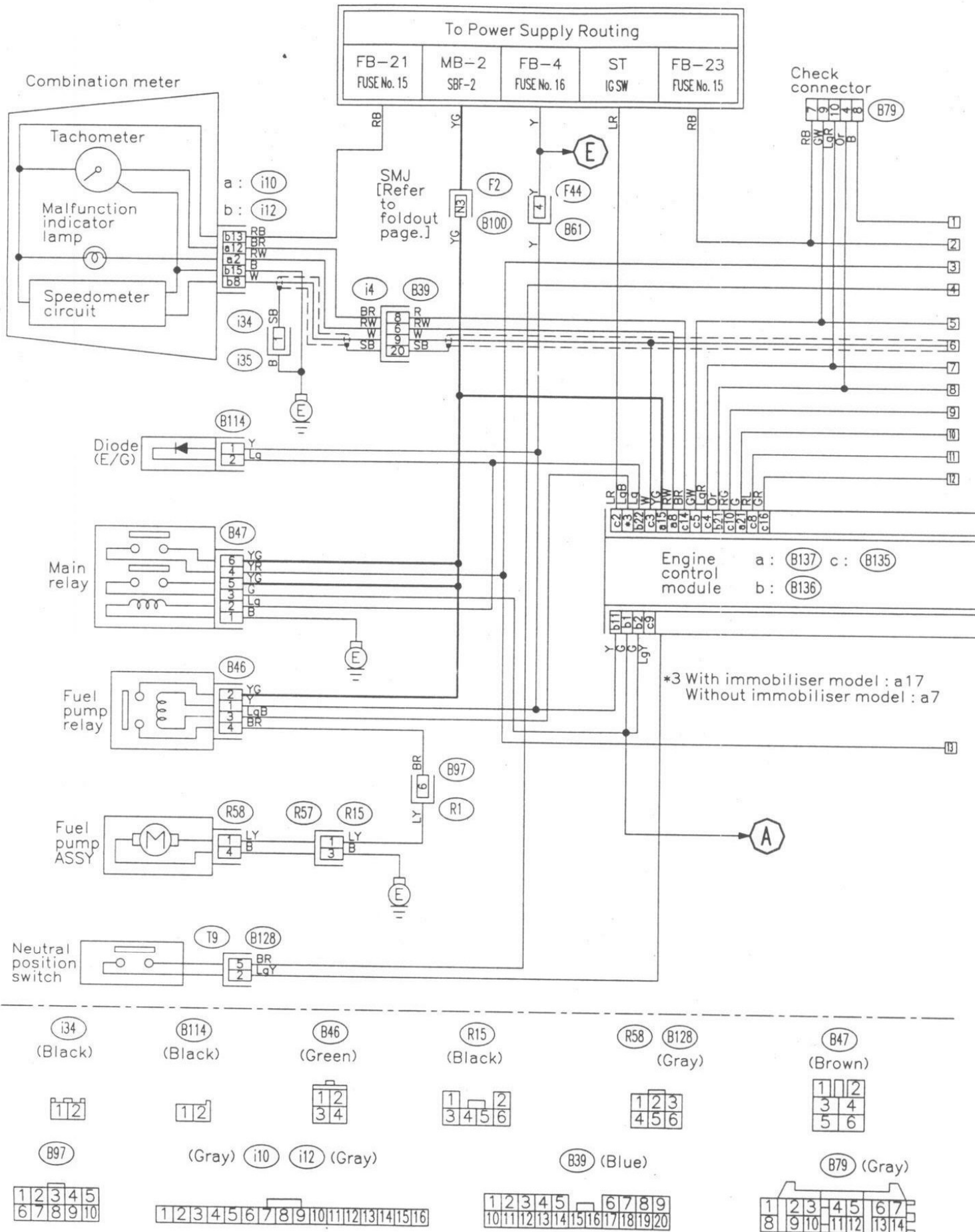
11. DOOR LOCK SYSTEM



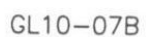
WIRING DIAGRAM

12. ENGINE ELECTRICAL SYSTEM

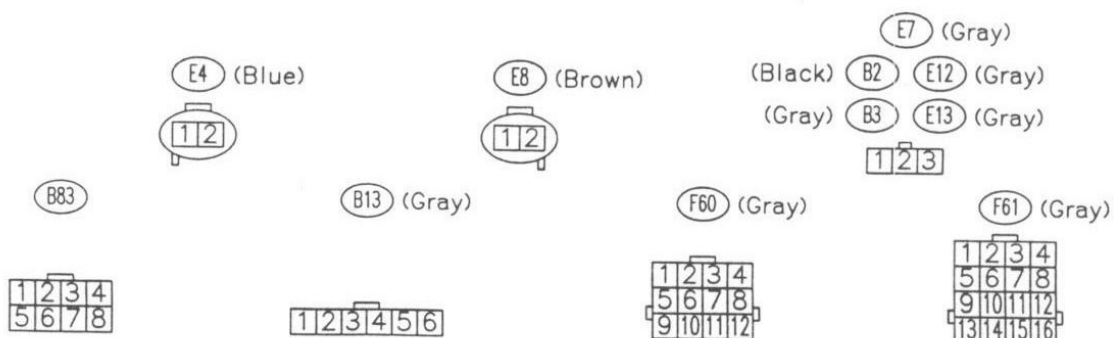
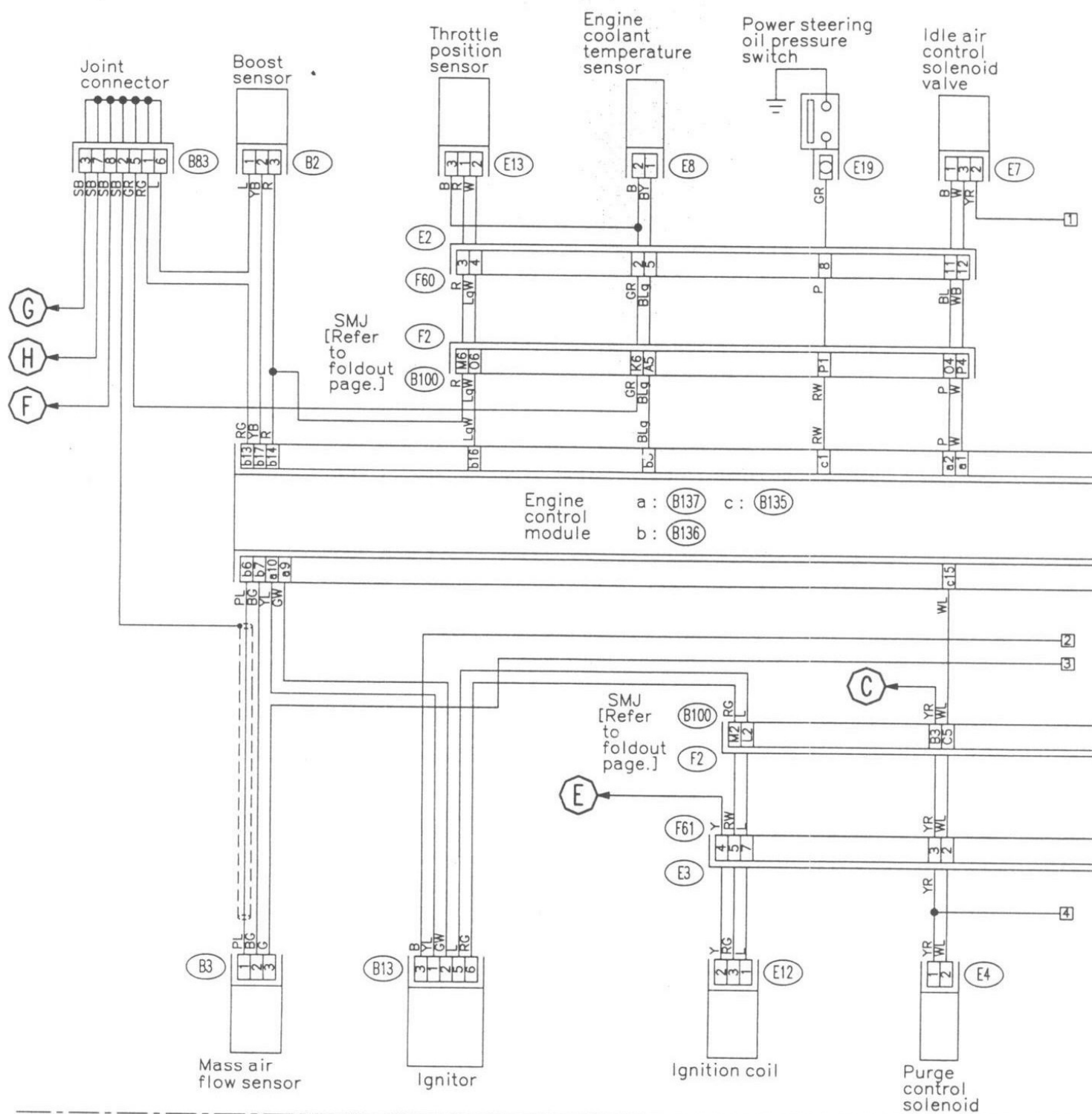
● LHD turbo model

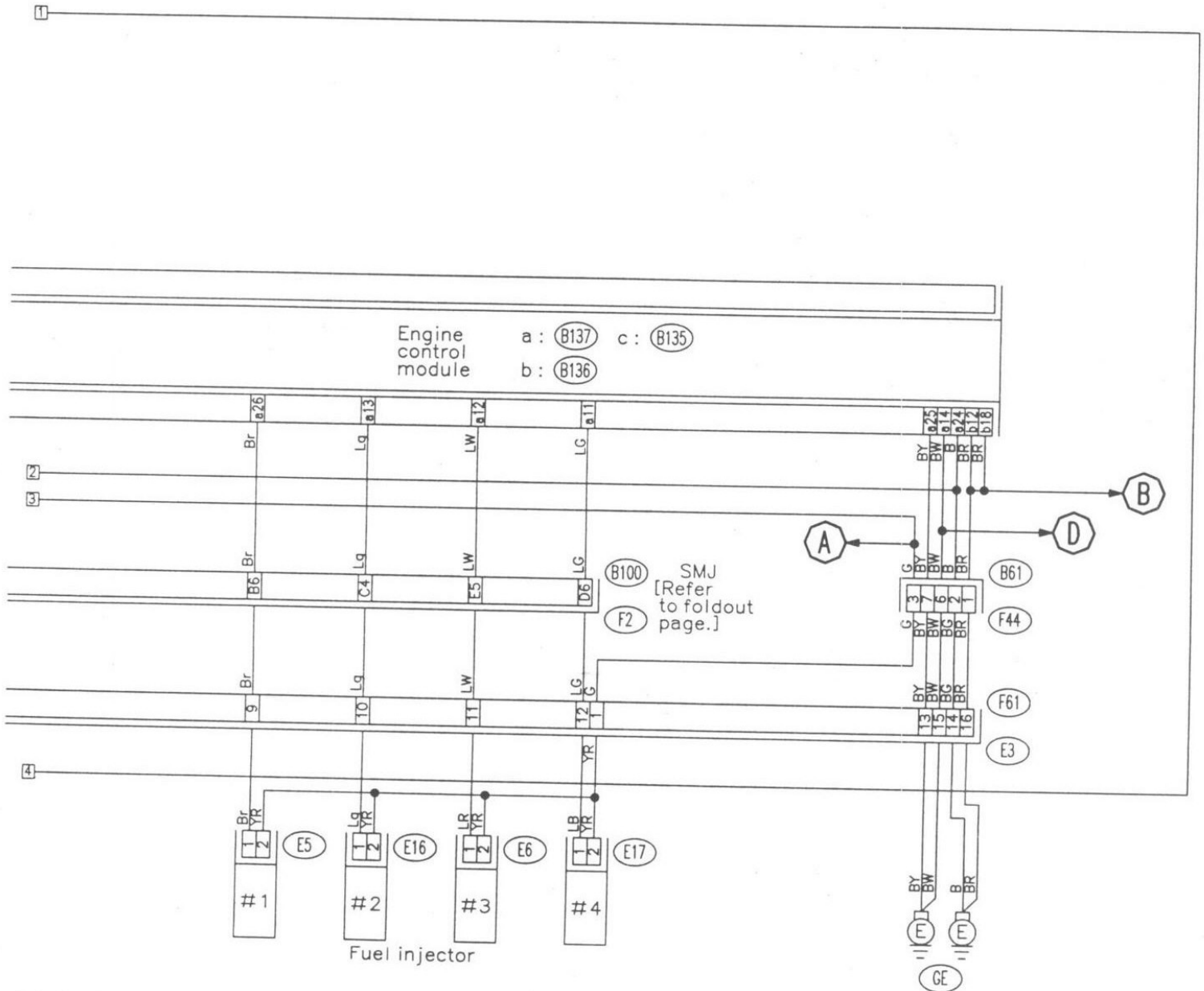


[D6012] 6-3
6. Wiring Diagram



WIRING DIAGRAM





(Light gray) (E5) (E6) (Dark gray)
(Light gray) (E16) (E17) (Dark gray)

(F44)



1	2	3	4	5
6	7	8	9	10

(B135) (Yellow)

(B136) (Yellow)

(B137) (Yellow)

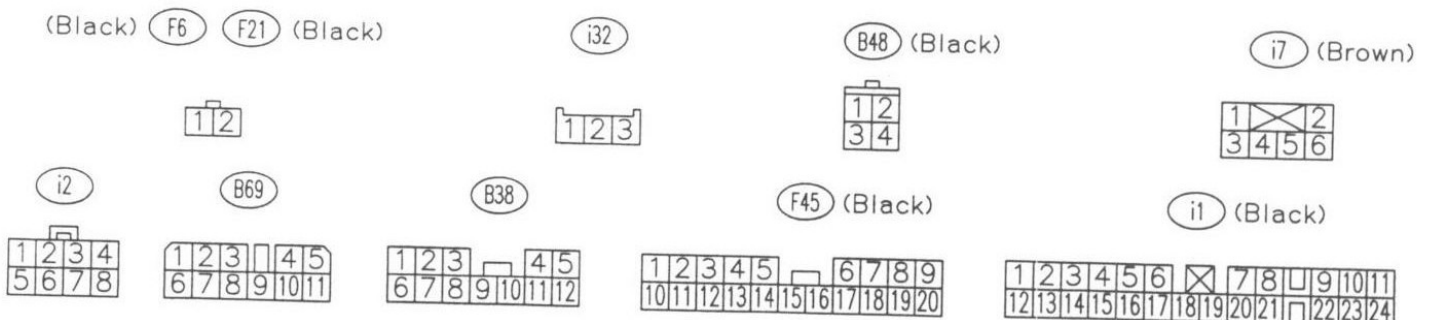
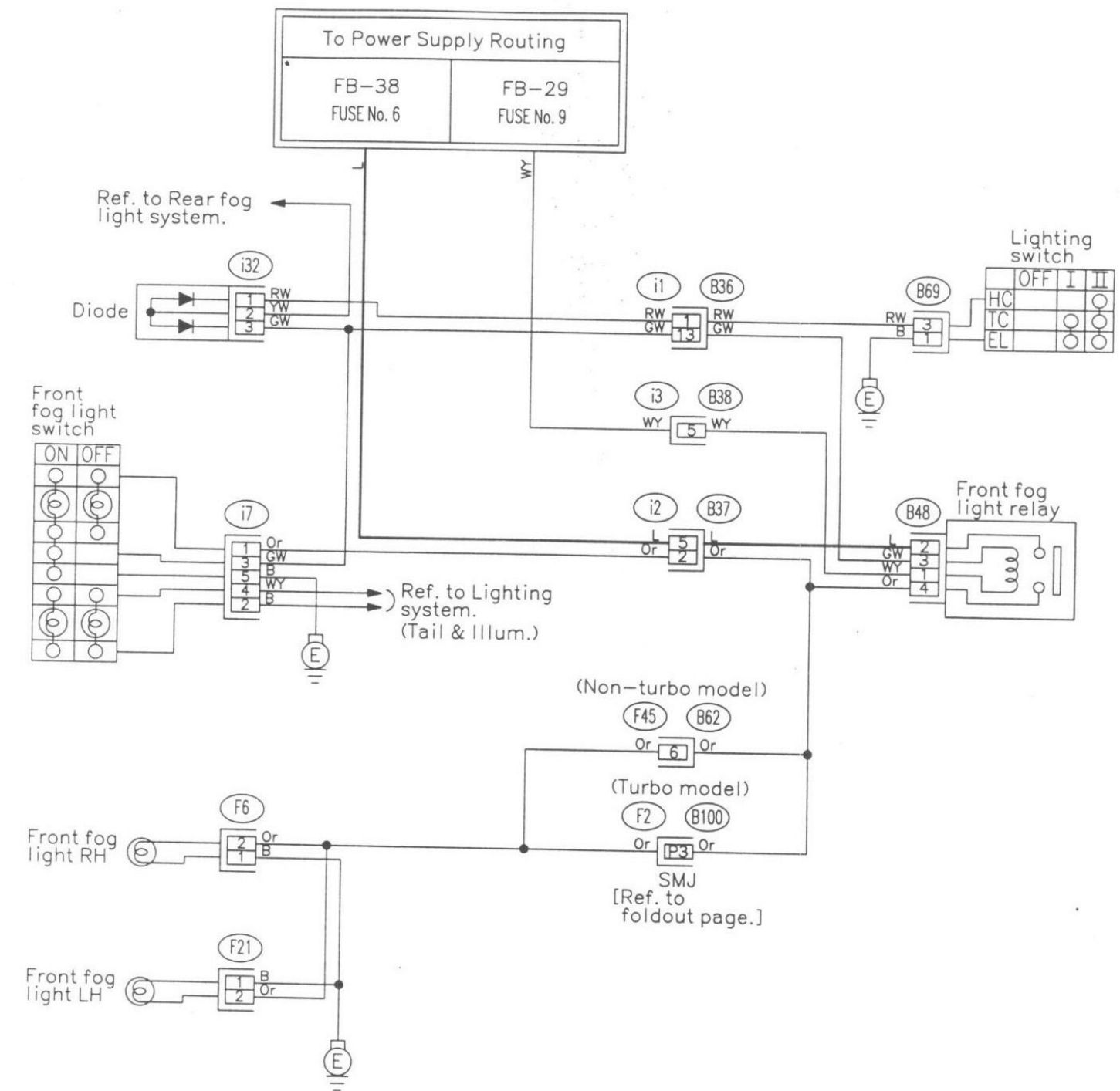
1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

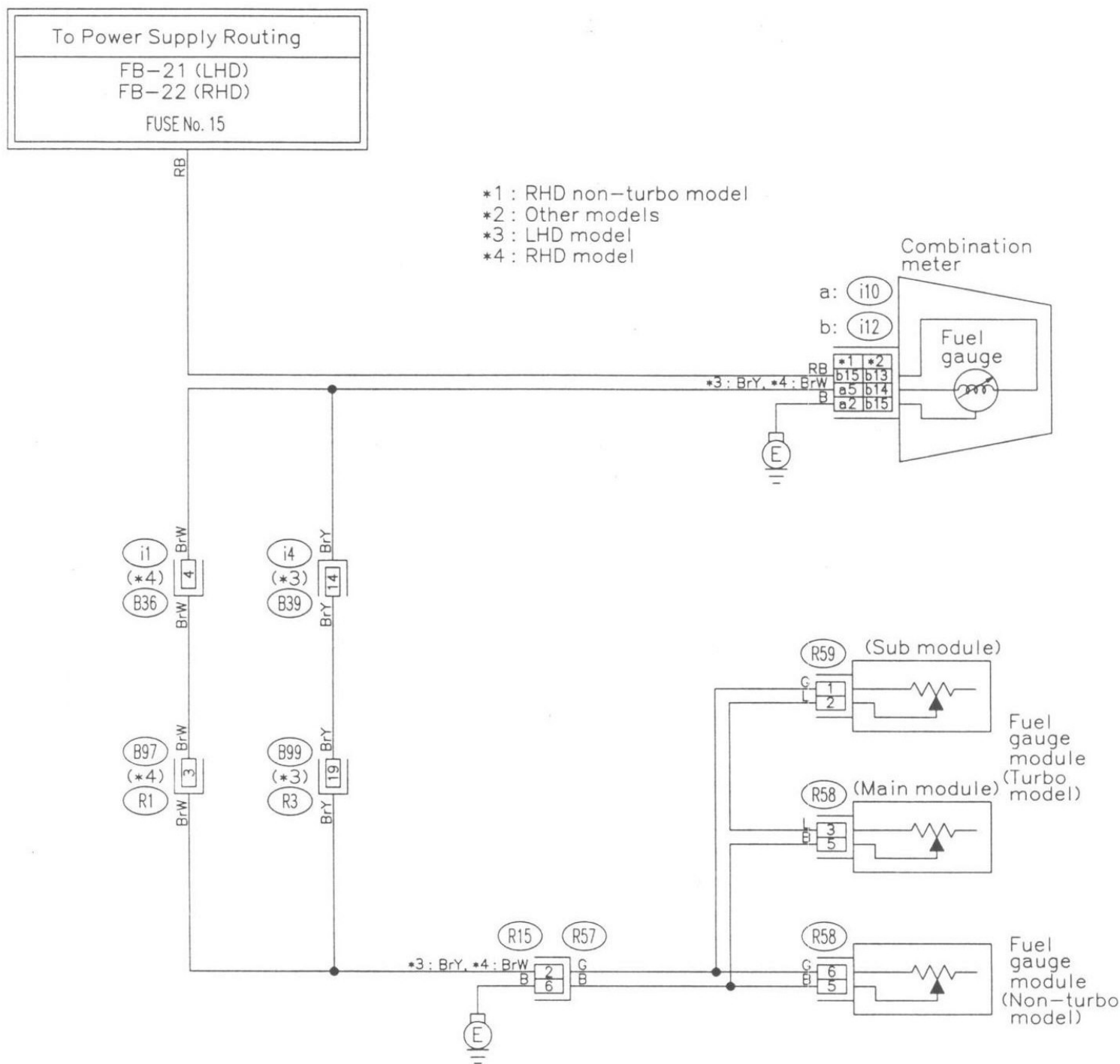
13. FRONT FOG LIGHT SYSTEM

● LHD model





15. FUEL GAUGE SYSTEM



R59

R58

R15 (Black)

i1 (Black)

(Gray) i10 i12 (Gray)

1 2

1 2 3
4 5 6

1 2
3 4 5 6

1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20 21 22

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

B39 (Blue)

B99

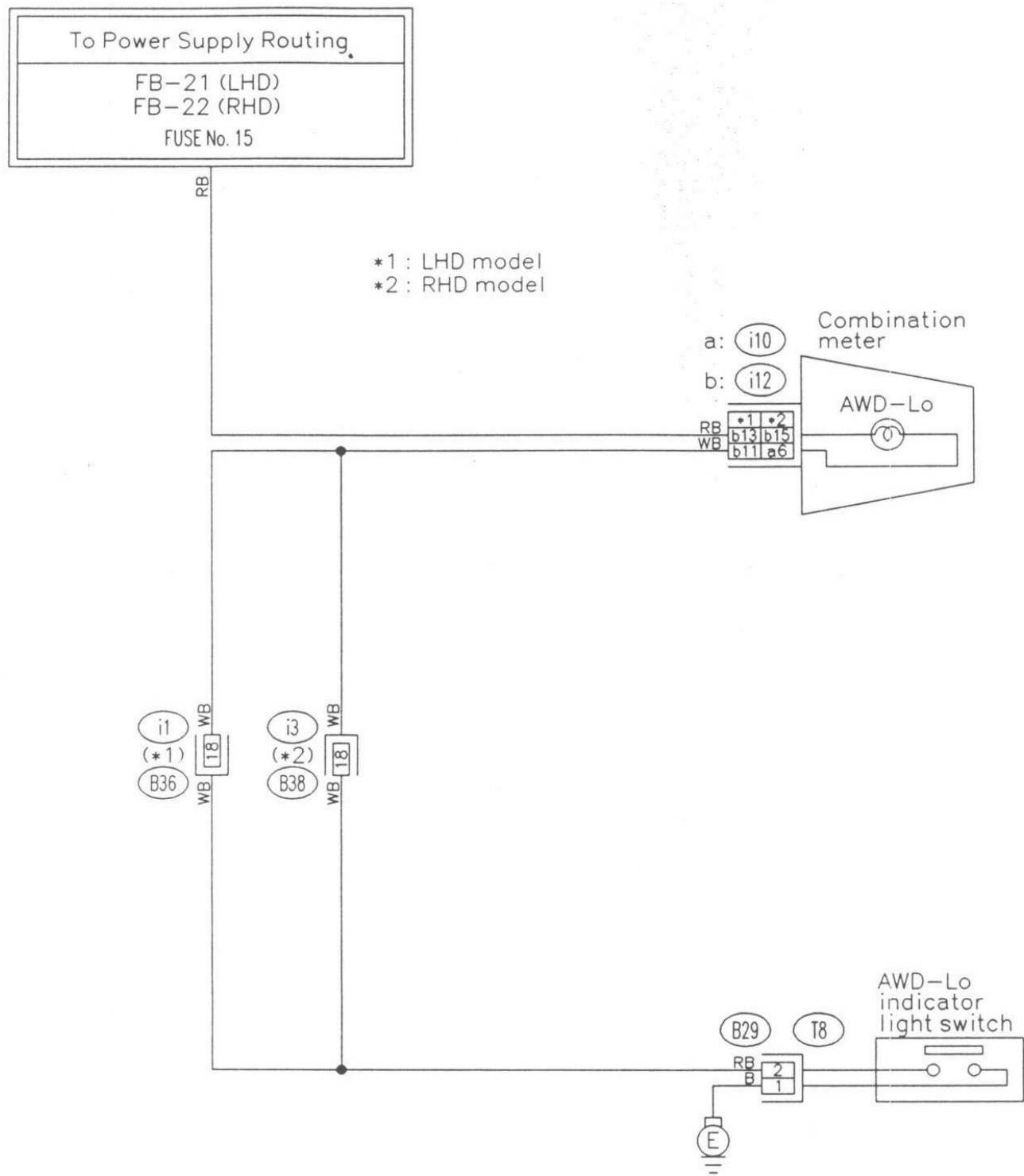
B97 (Blue)

1 2 3 4 5 6 7 8 9
10 11 12 13 14 15 16 17 18 19 20

1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20

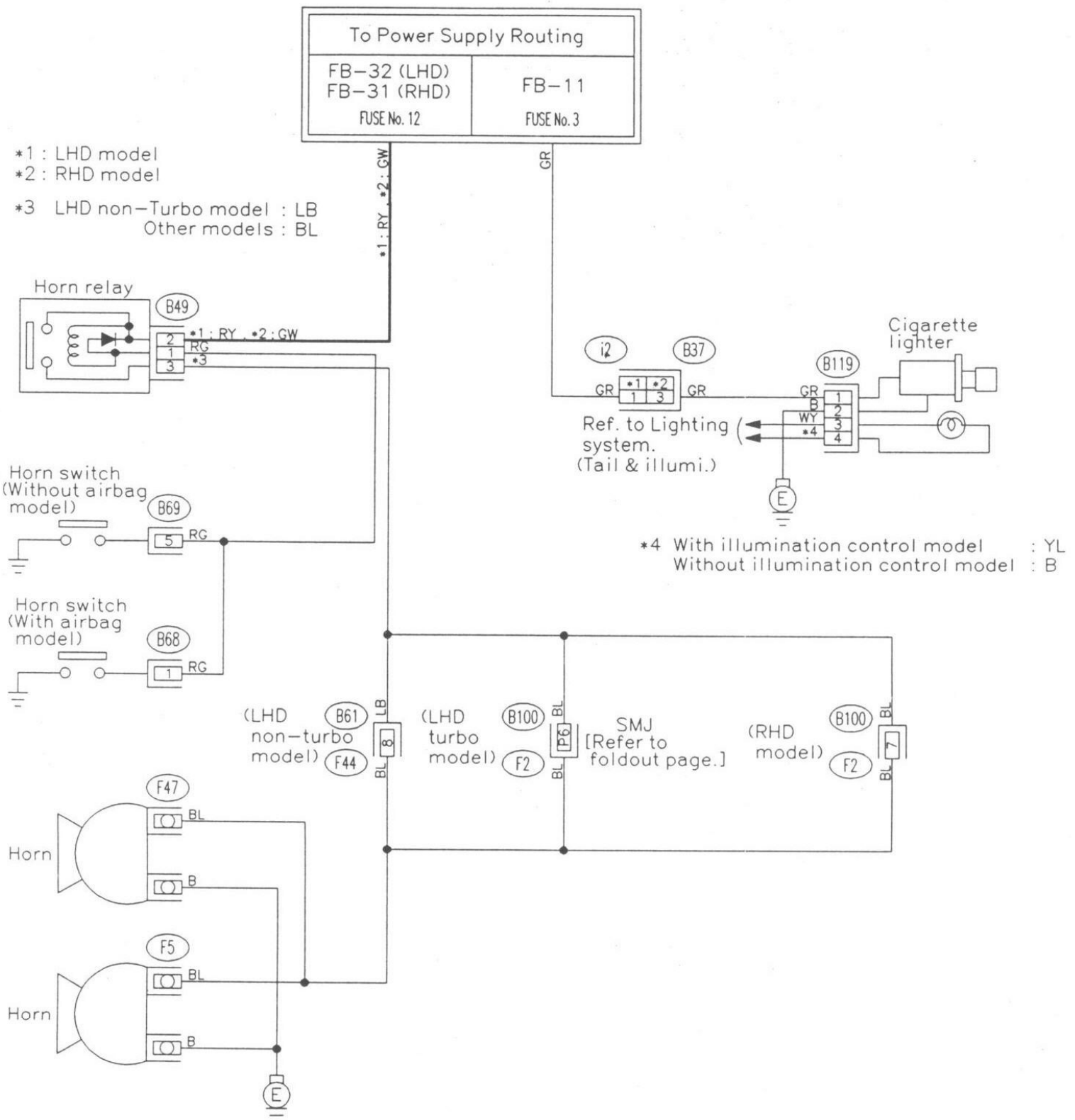
1 2 3 4 5 6 7
8 9 10 11 12 13 14 15 16

16. FULL TIME DUAL-RANGE SYSTEM



B29 (Gray)	B38 (Blue)	(Gray) i10 i12 (Gray)	i1 (Black)
1 2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

17. HORN AND CIGARETTE LIGHTER SYSTEM



(B49) (Black)

(B119)

(B68) (Black)

(i2)

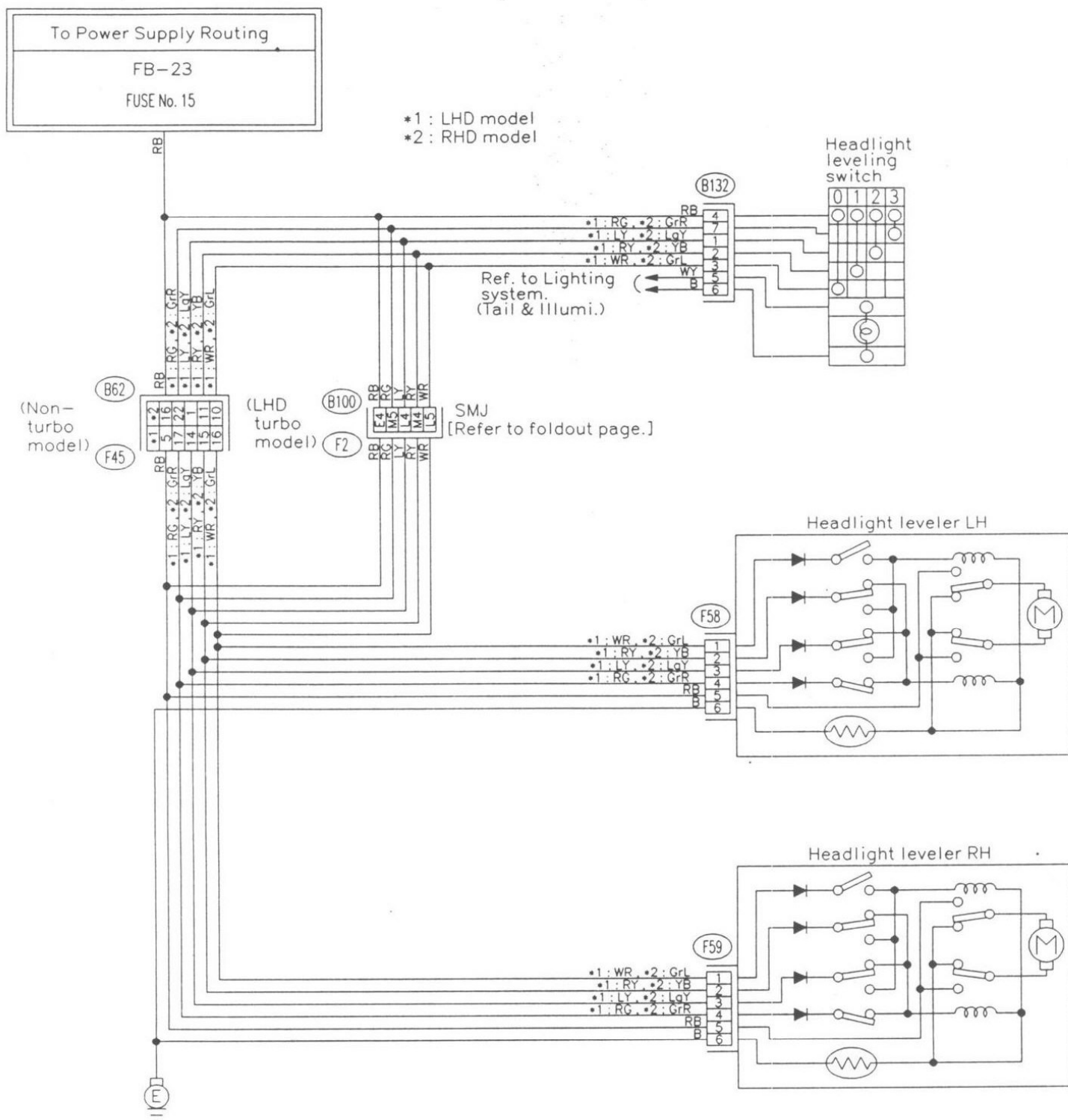
(F2) (F44)

(B69)

LHD model RHD model



18. HEADLIGHT BEAM LEVELER SYSTEM



F59 (Gray)

F58 (Gray)

B132

F45

1	2	3
4	5	6

1	2	3
4	5	6

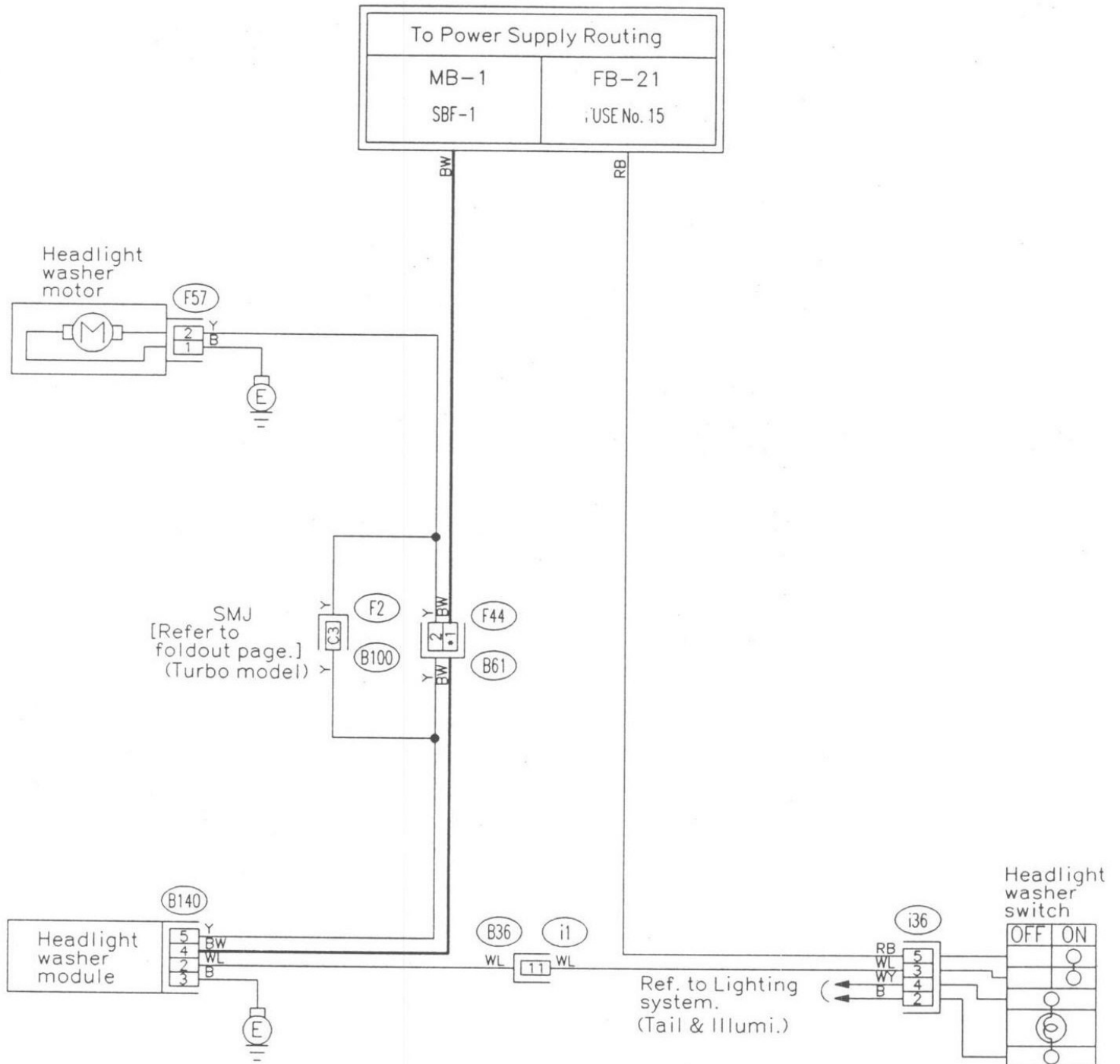
1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

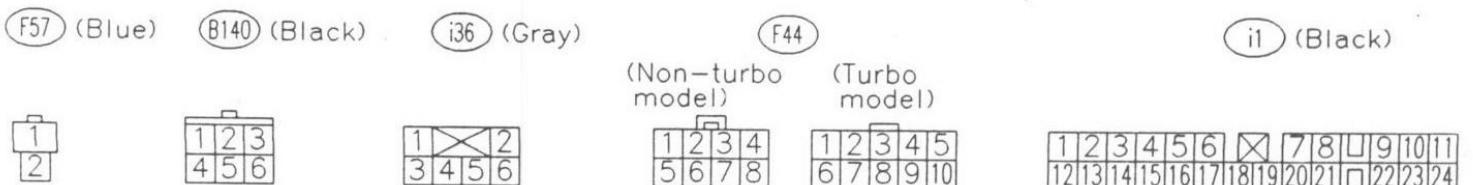
GL83-05

19. HEADLIGHT WASHER SYSTEM

● LHD model

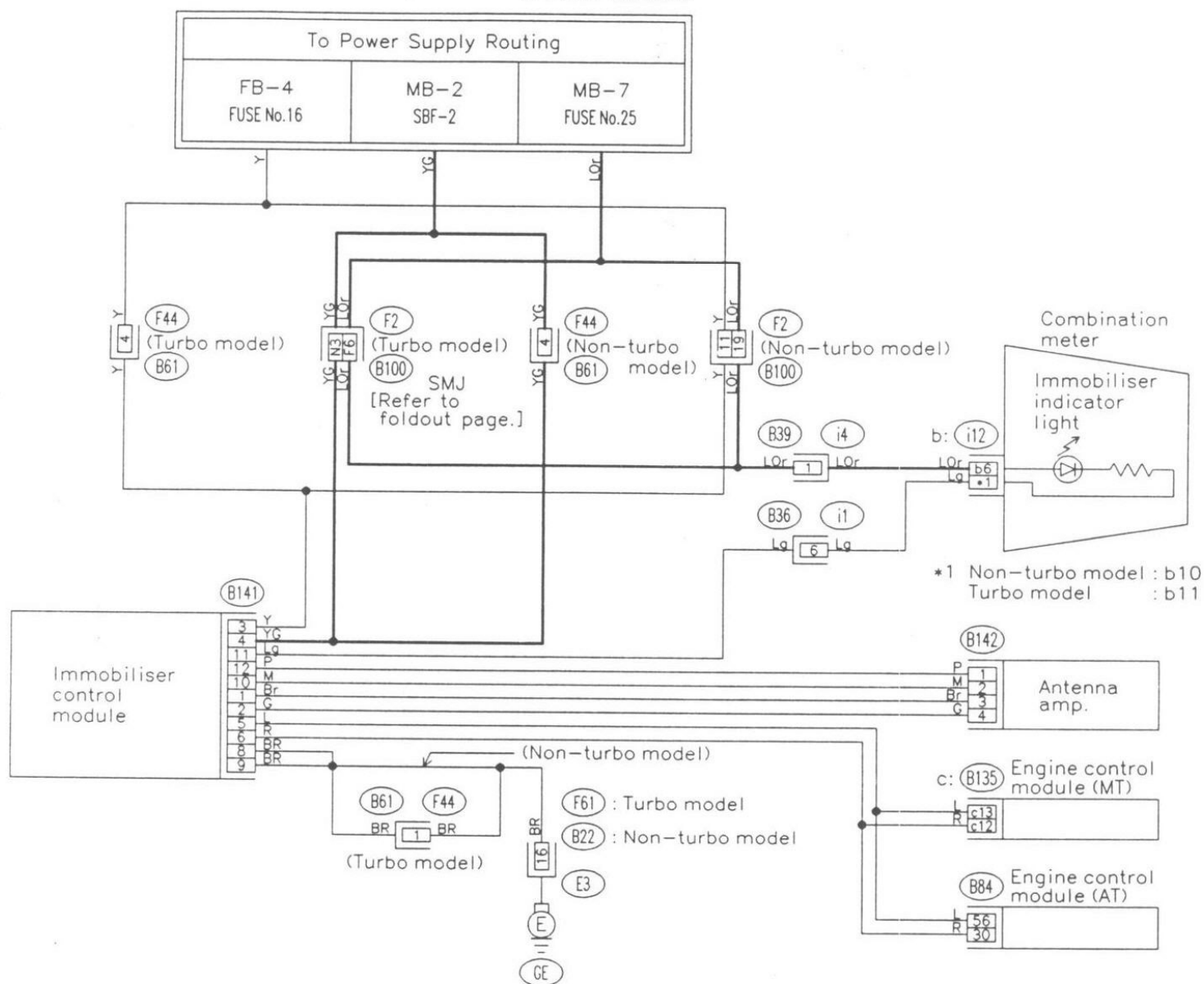


*1 Turbo model : 5
Non-turbo model : 3

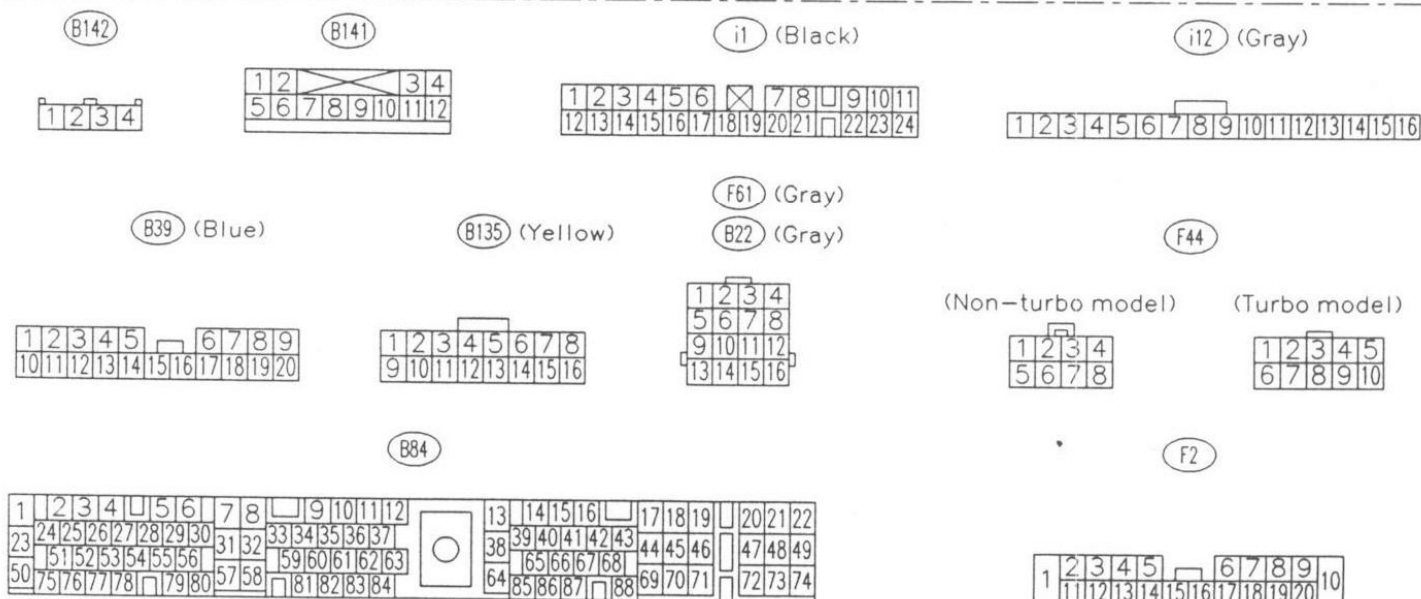


20. IMMOBILISER SYSTEM

● LHD model

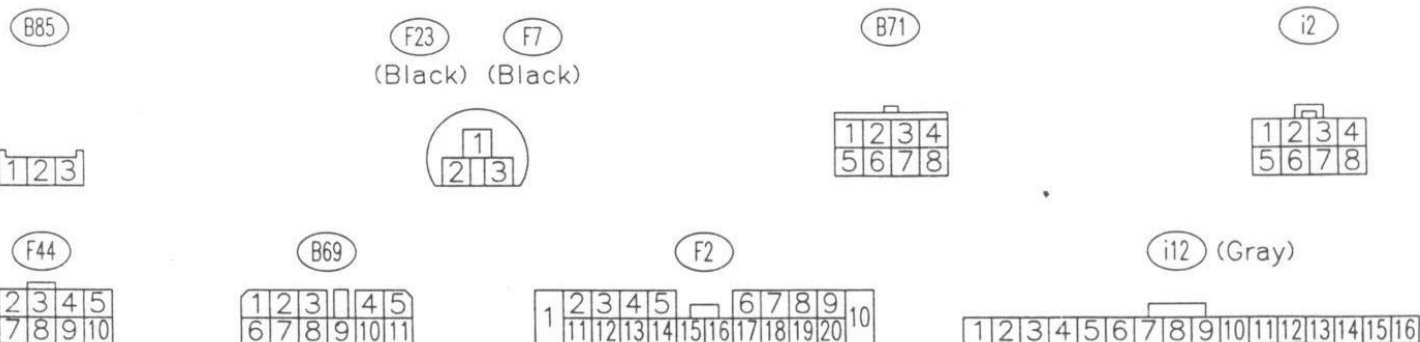
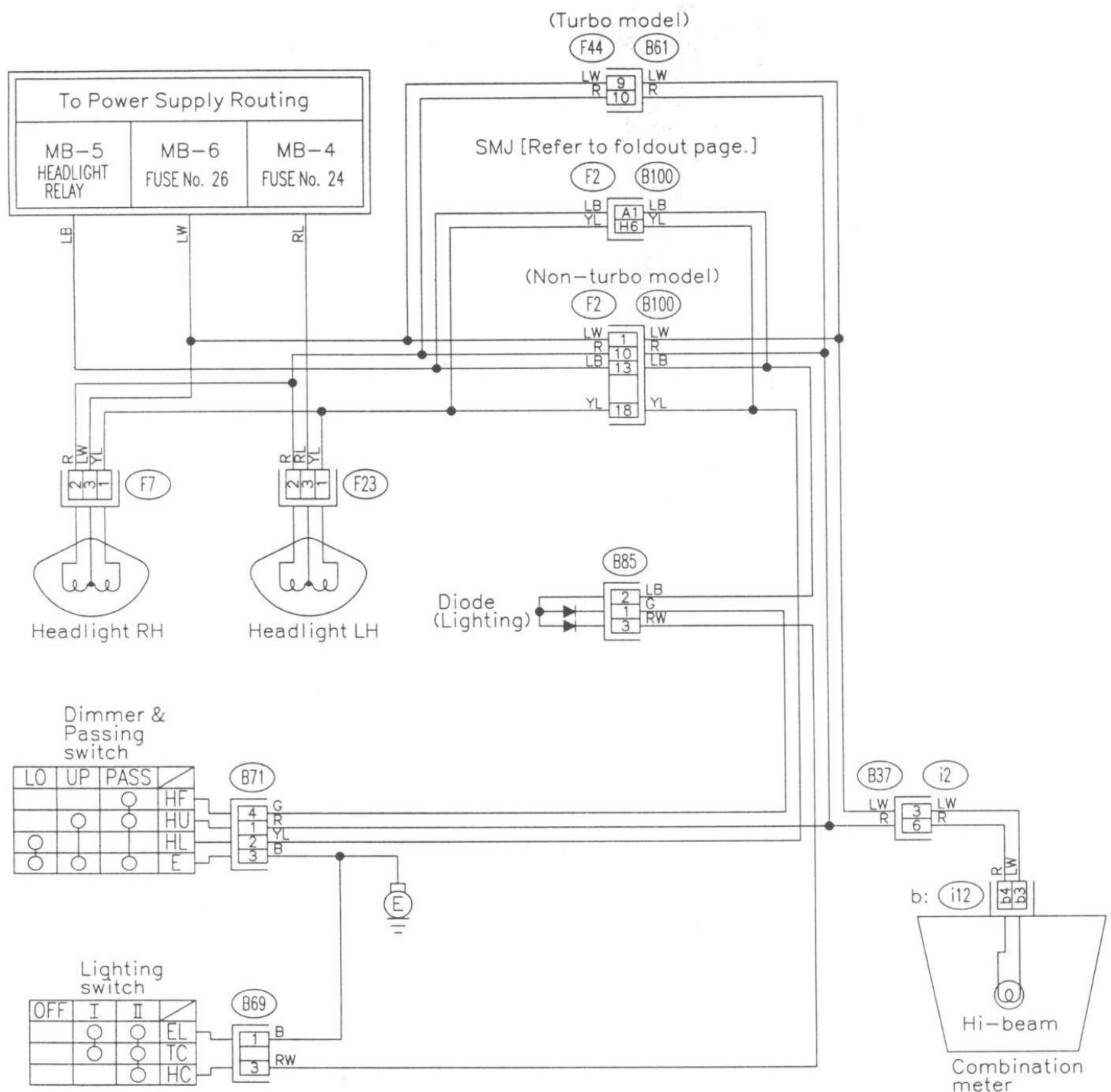


*1 Non-turbo model : b10
Turbo model : b11

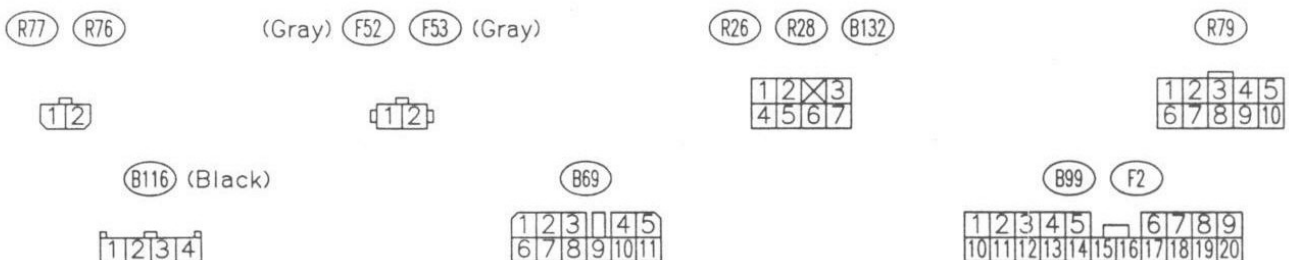
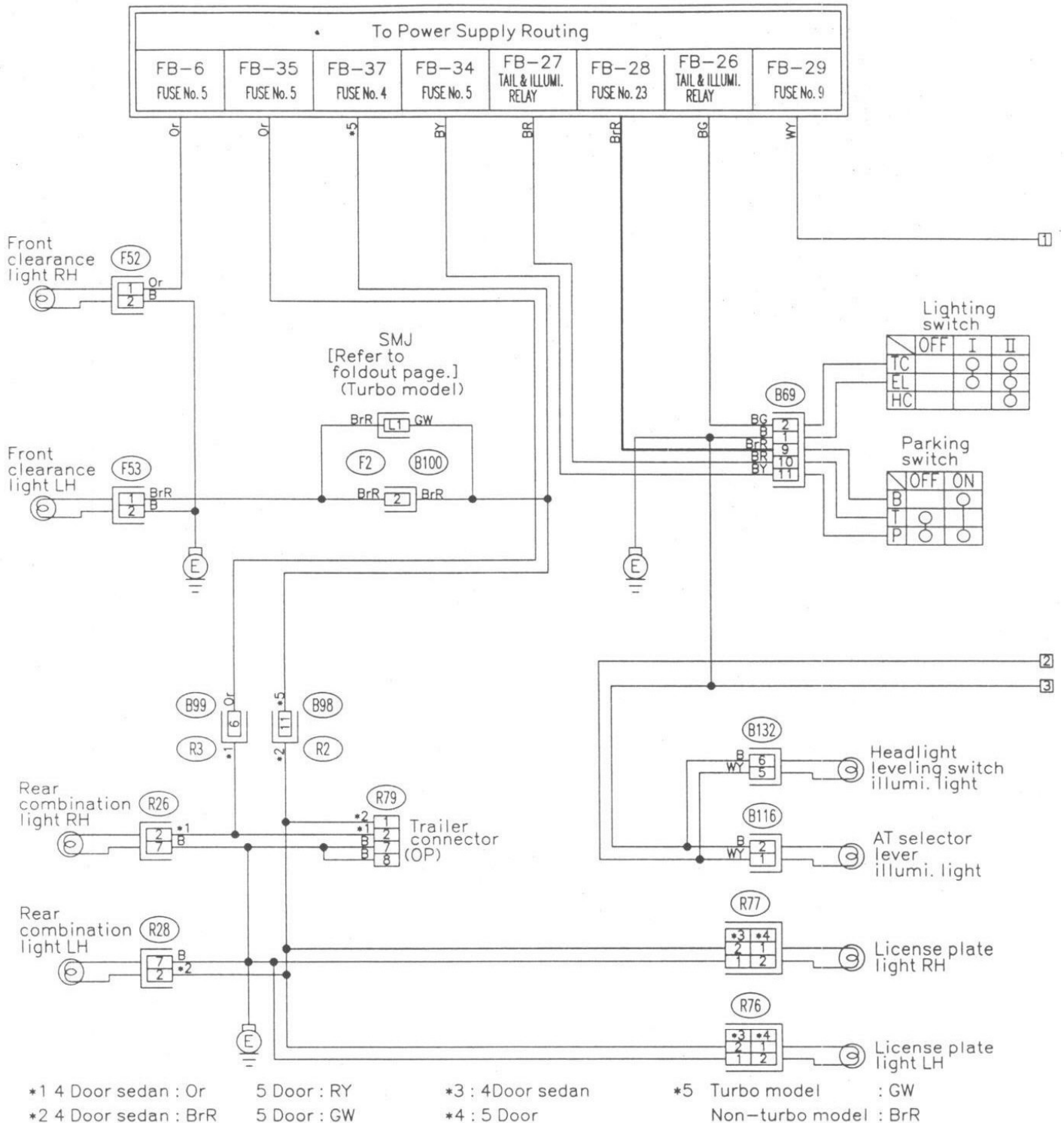


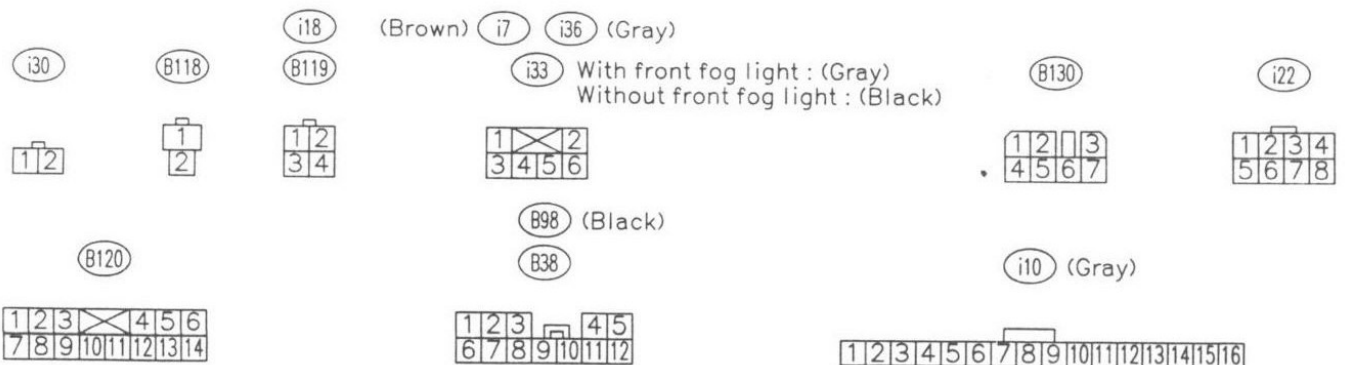
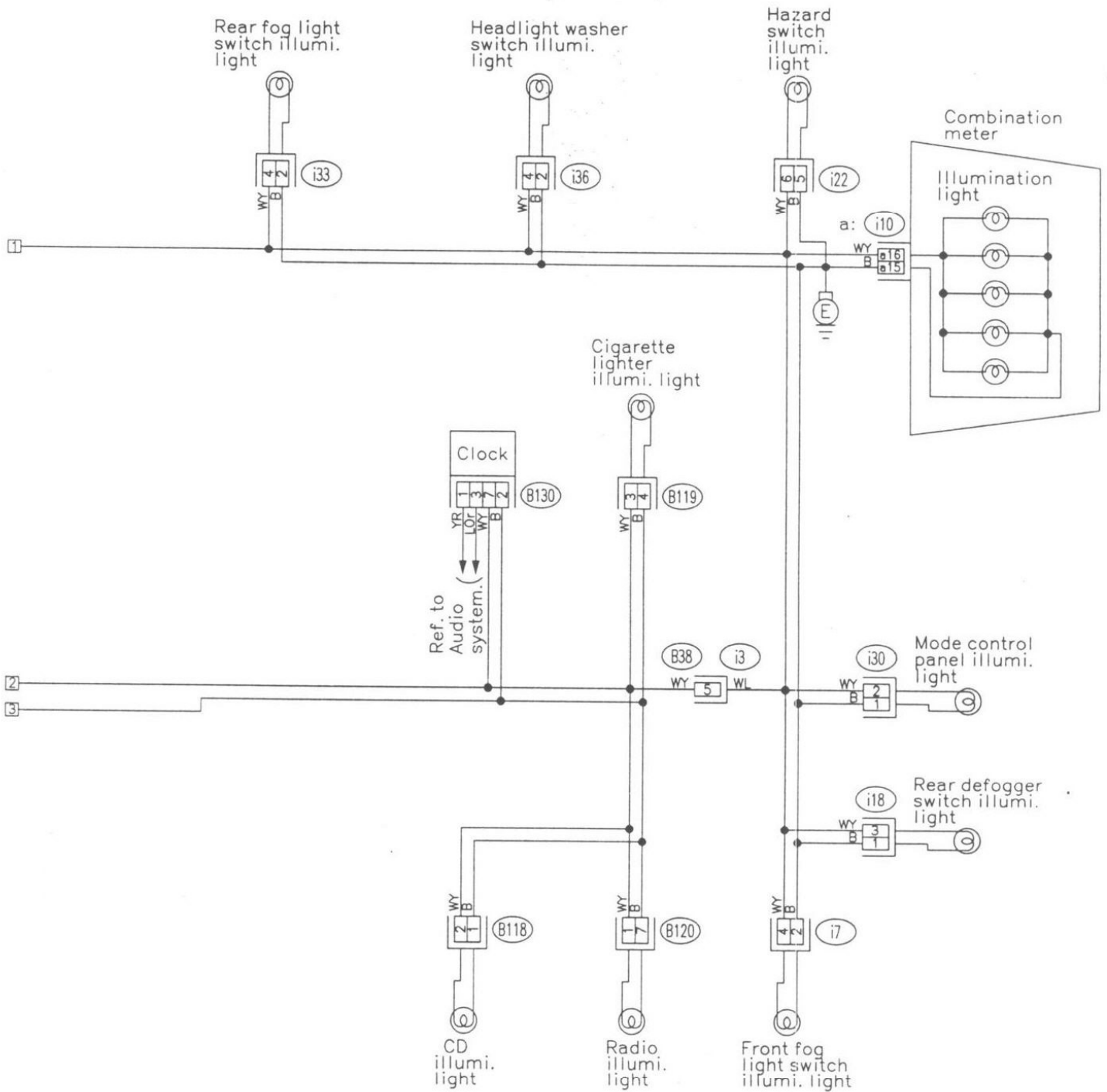
21. LIGHTING (HEADLIGHT) SYSTEM

● LHD model



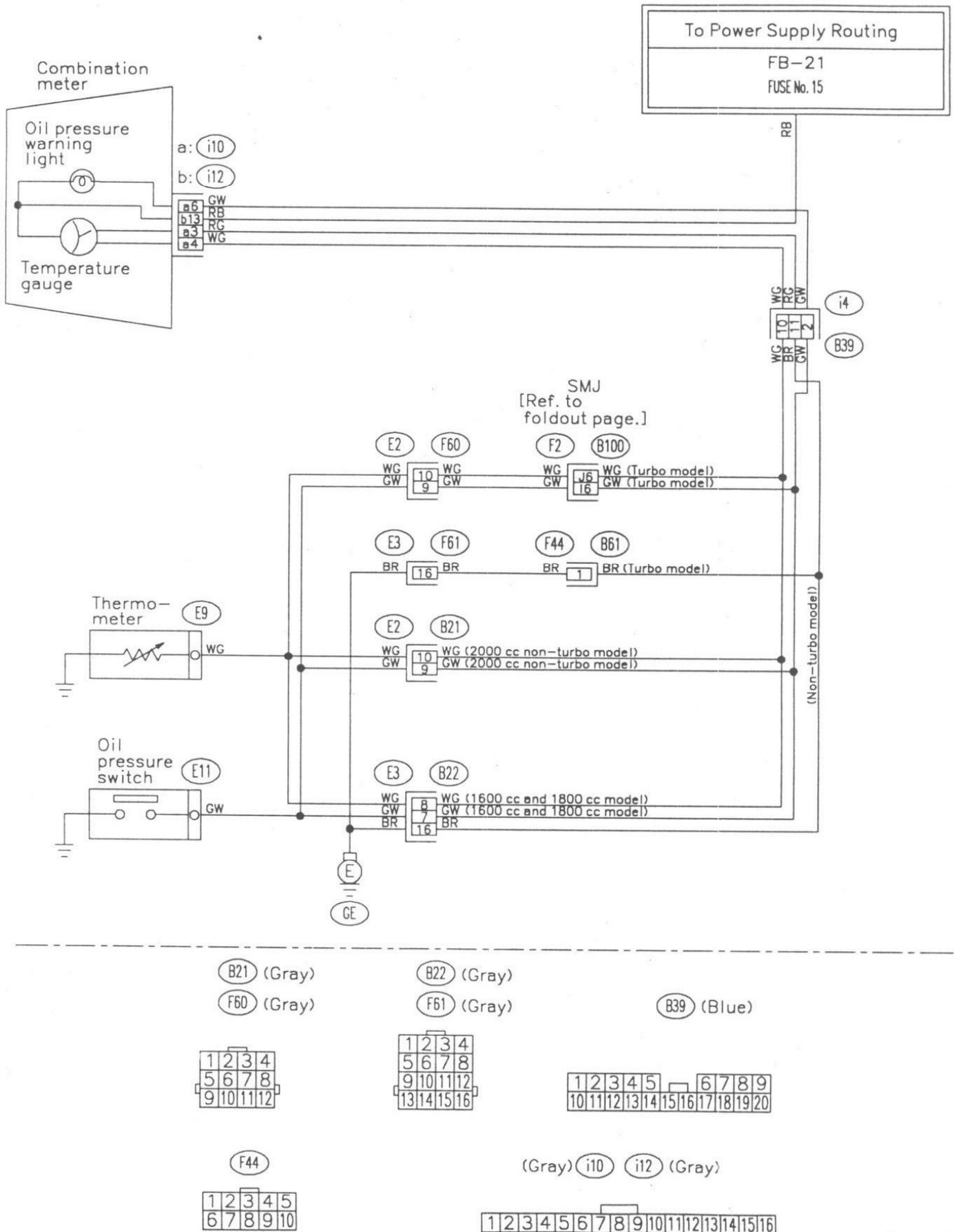
22. LIGHTING
(TAIL LIGHT-ILLUMINATION LIGHT-ETC.) SYSTEM
● LHD model





23. OIL PRESSURE AND TEMPERATURE GAUGE SYSTEM

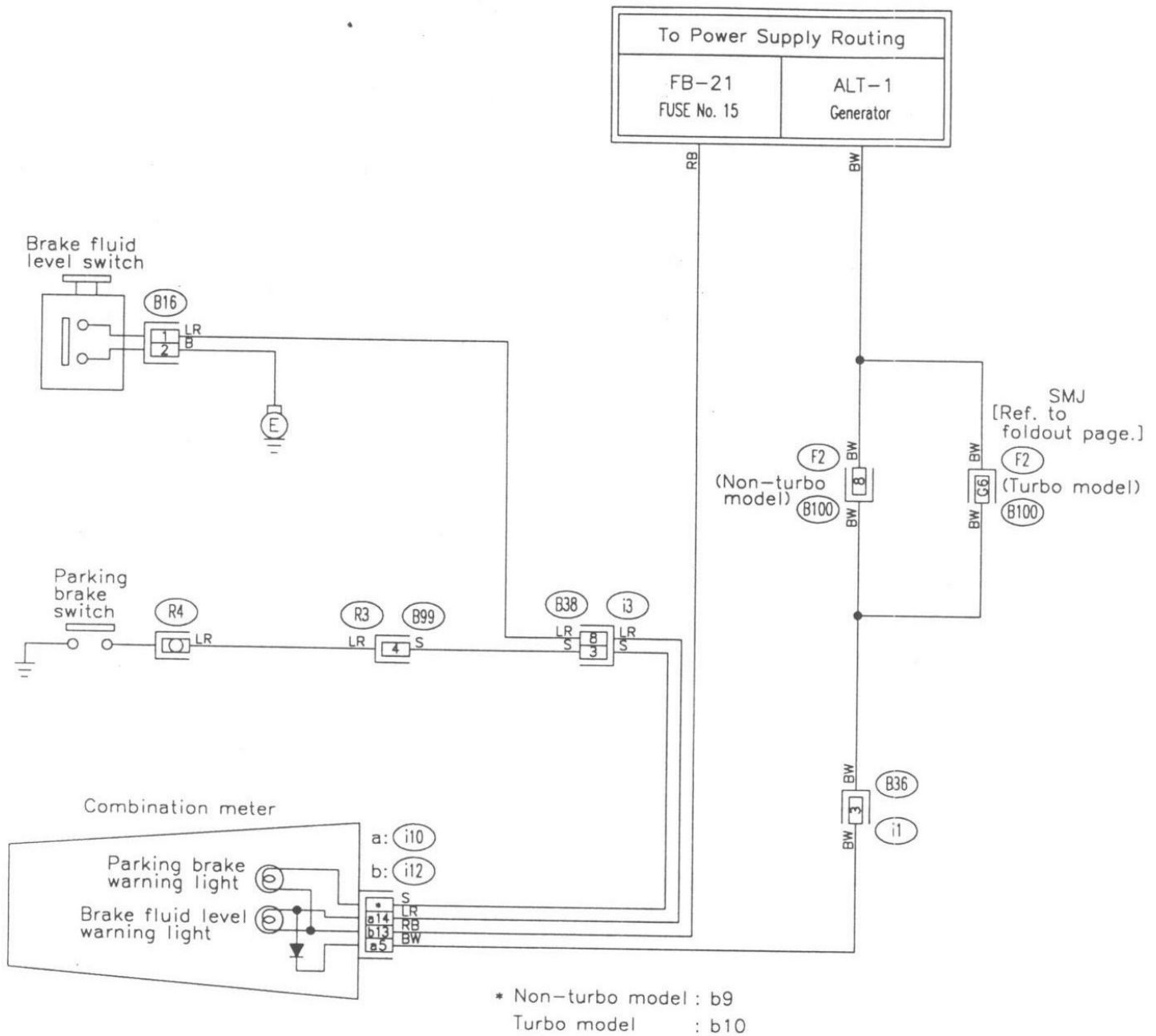
● LHD model



WIRING DIAGRAM

24. PARKING BRAKE AND BRAKE FLUID LEVEL WARNING SYSTEM

● LHD model



B16 (Gray)

12

B38

1	2	3	4	5
6	7	8	9	10
11	12			

i10 (Gray)

i12 (Gray)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

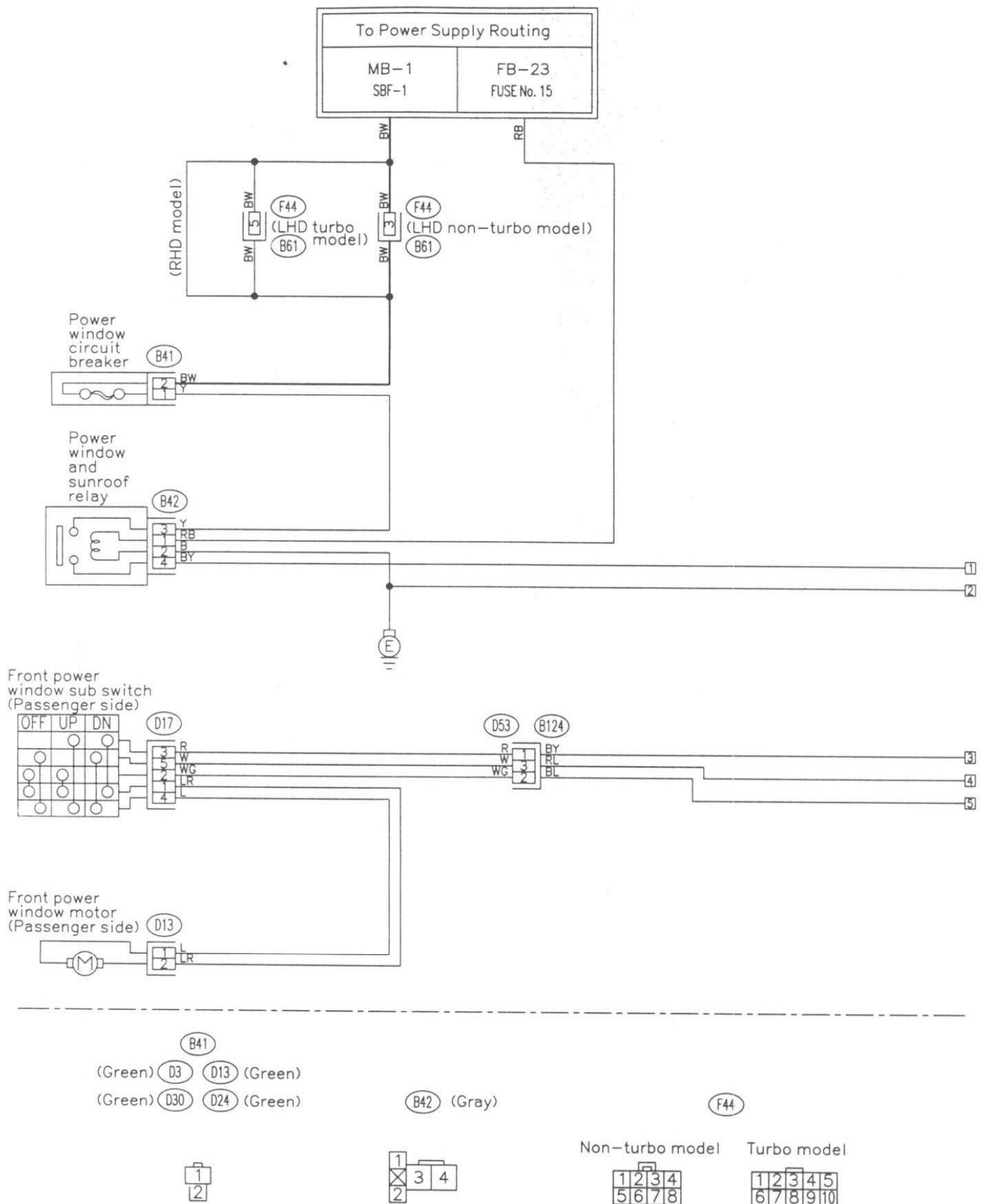
i1 (Black)

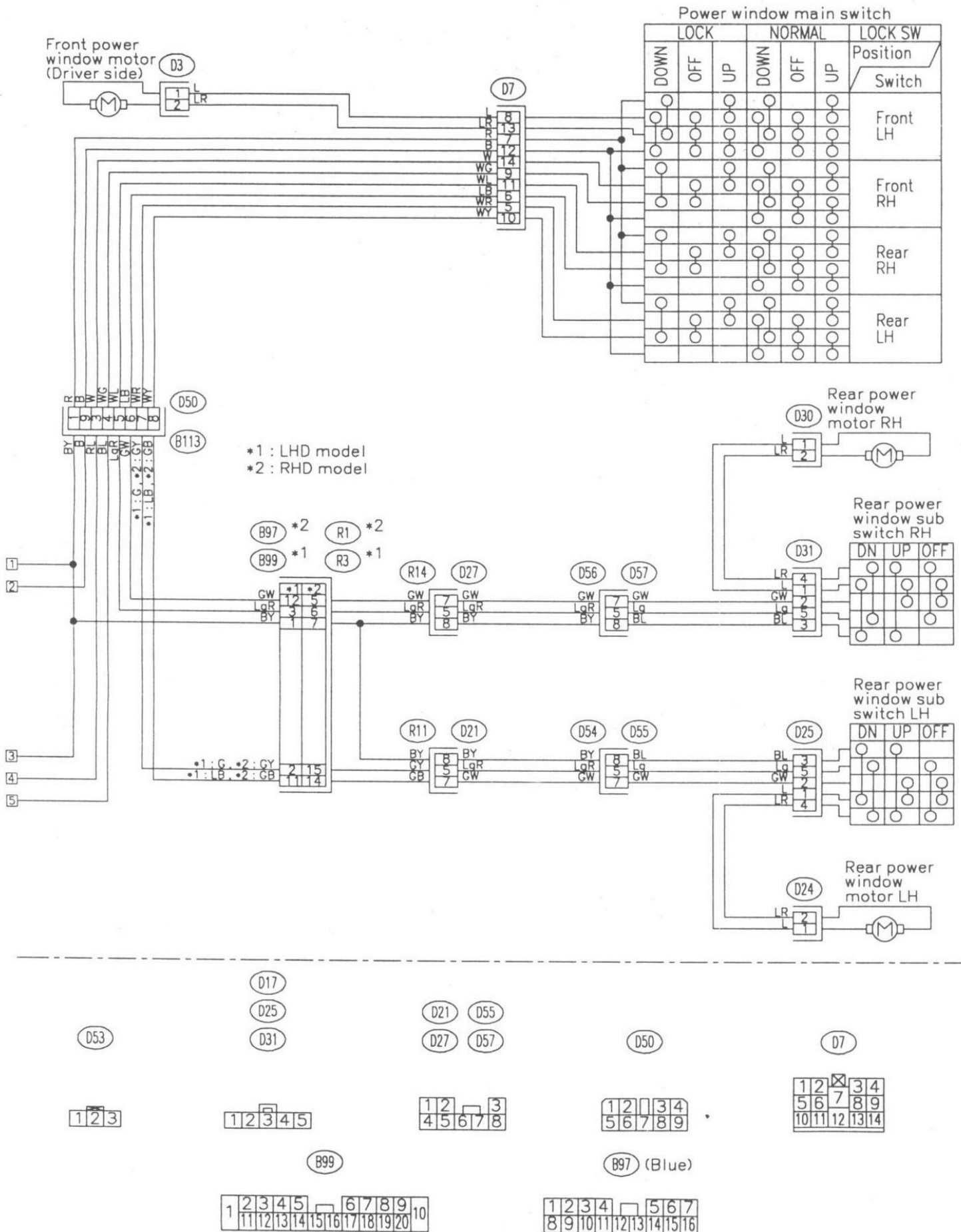
1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22
23	24									

B99 F2

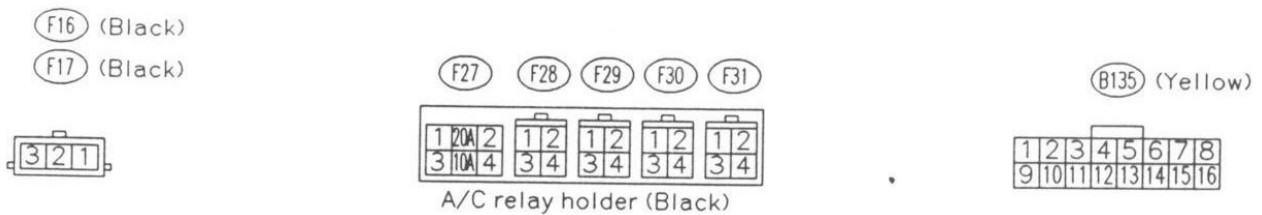
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

25. POWER WINDOW SYSTEM



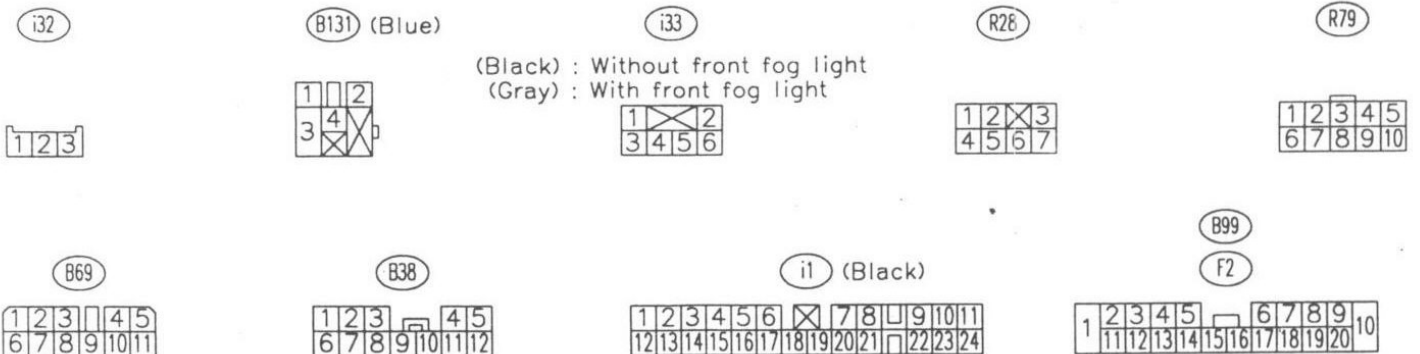
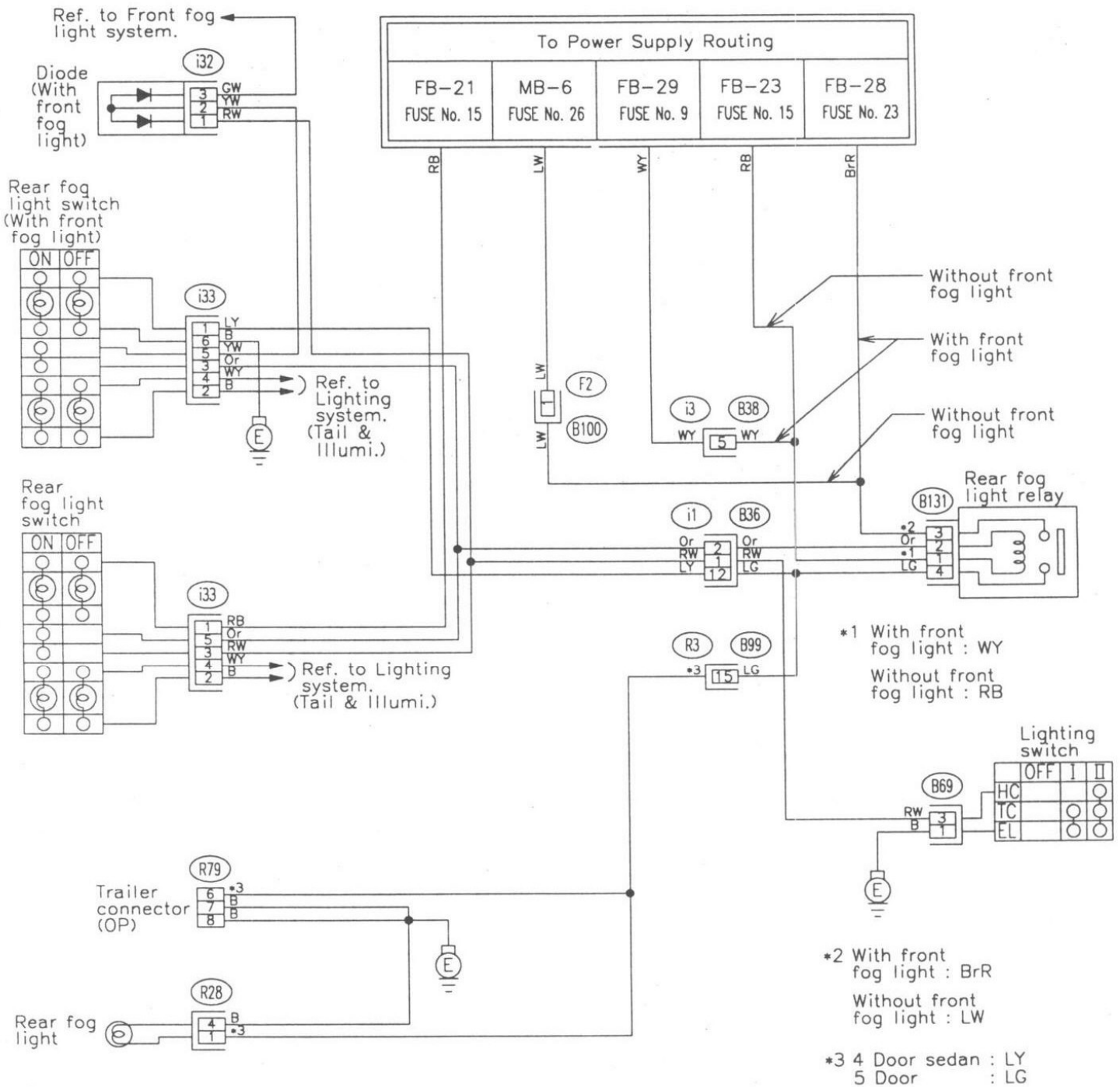


- LHD turbo with A/C model



27. REAR FOG LIGHT SYSTEM

● LHD model



To Power Supply Routing

FB-16 Rear defogger relay	FB-17 Rear defogger relay	FB-21 (LHD) FB-22 (RHD) FUSE No. 15
---------------------------------	---------------------------------	---

*1 : RHD non-turbo model
*2 : Other models

Combination meter
Rear defogger

Rear defogger switch

Ref. to Lighting system.
(Tail & Illumi.)

*3 LHD model : B
RHD model : YL

Rear defogger (4 Door sedan)

Rear defogger (5 Door)

Rear defogger condenser
(RHD 5 Door model)

RHD model LHD model

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

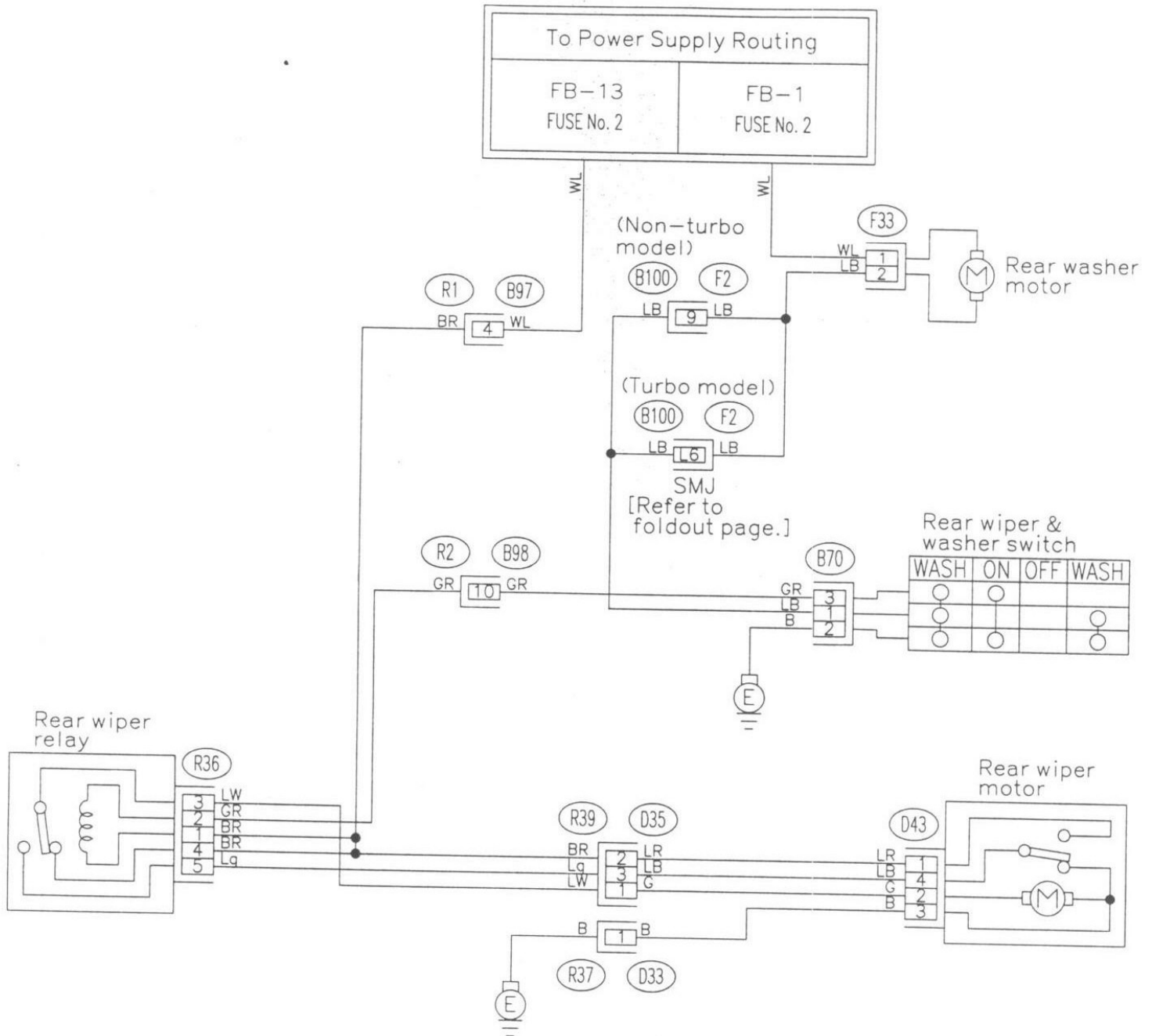
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

WIRING DIAGRAM

29. REAR WIPER AND WASHER SYSTEM

● LHD model



F33



D33



D43



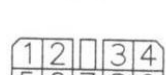
D35



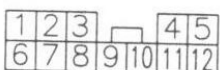
R36 (Black)



B70



B98 (Black)



B97

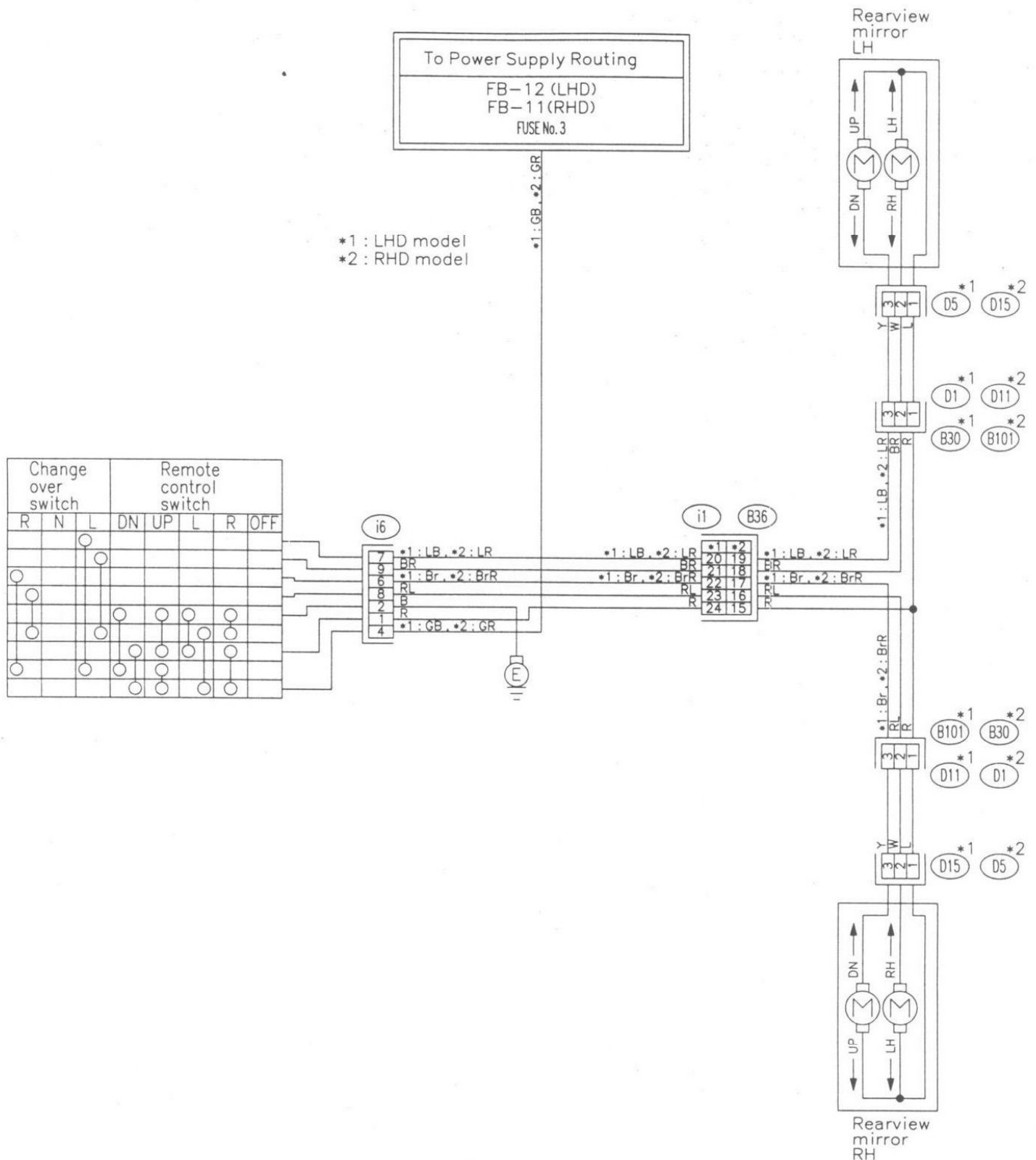


F2



GL51-03

30. REMOTE CONTROL REARVIEW MIRROR SYSTEM



D5
D15

i6

D1
D11

i1 (Black)

1	2	3
4	5	6

1	2	3	4	5
6	7	8	9	10

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15

RHD model

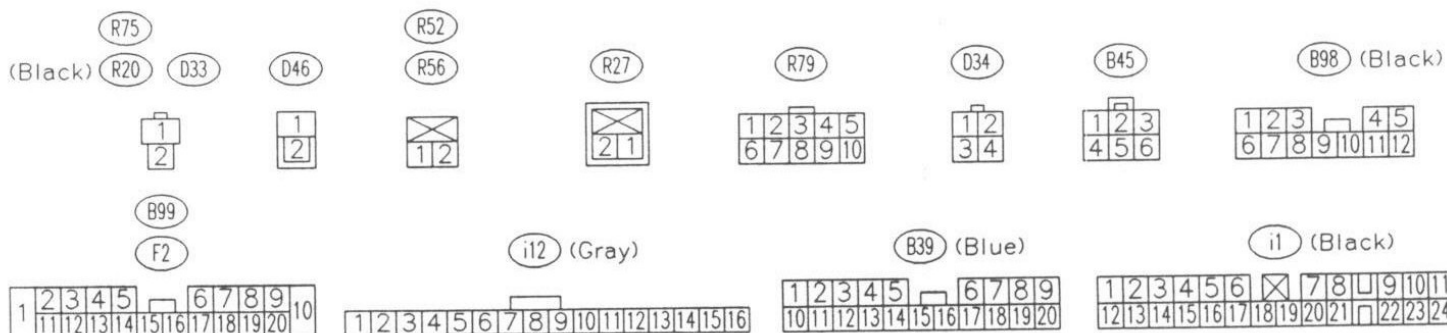
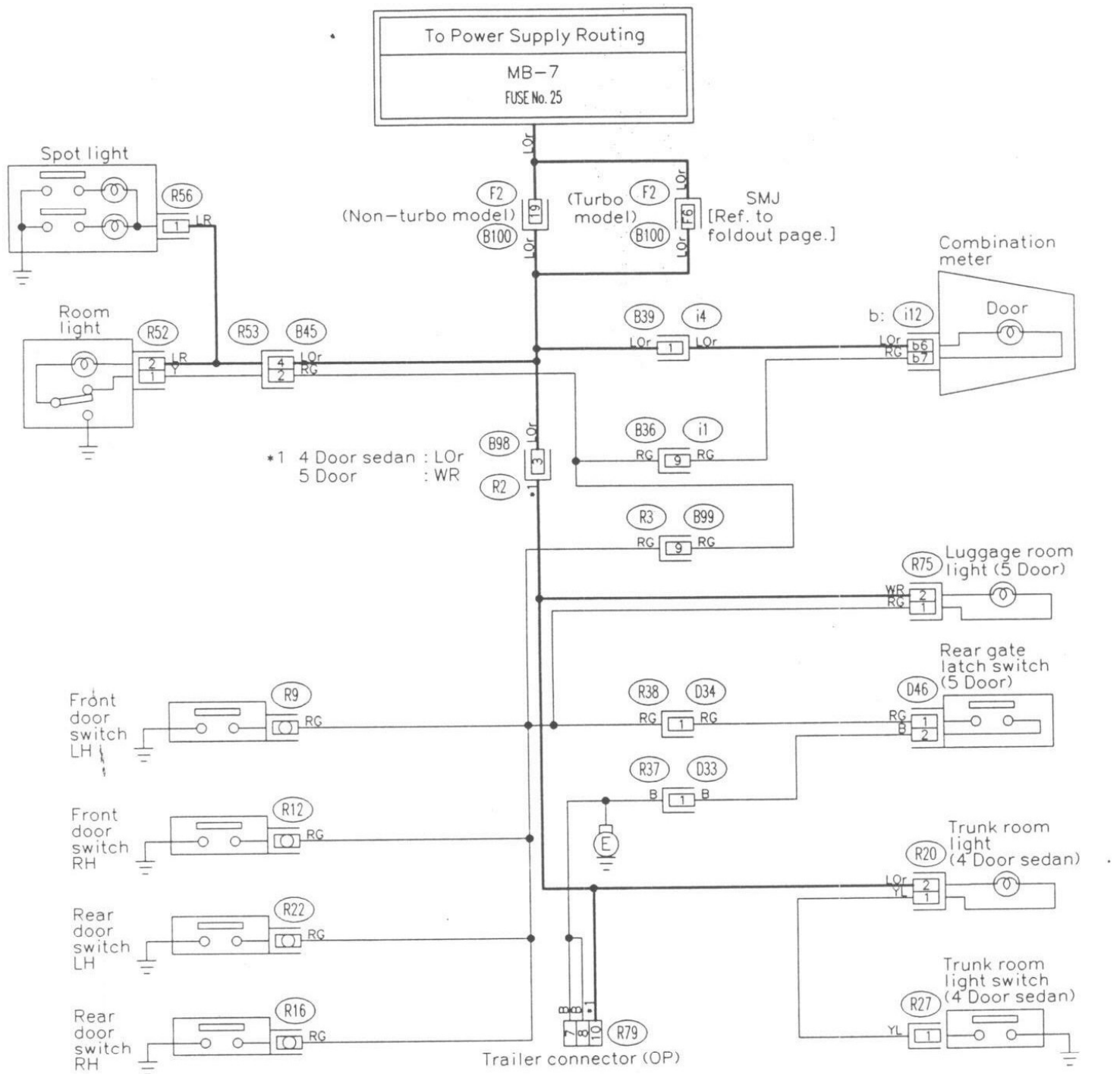
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

LHD model

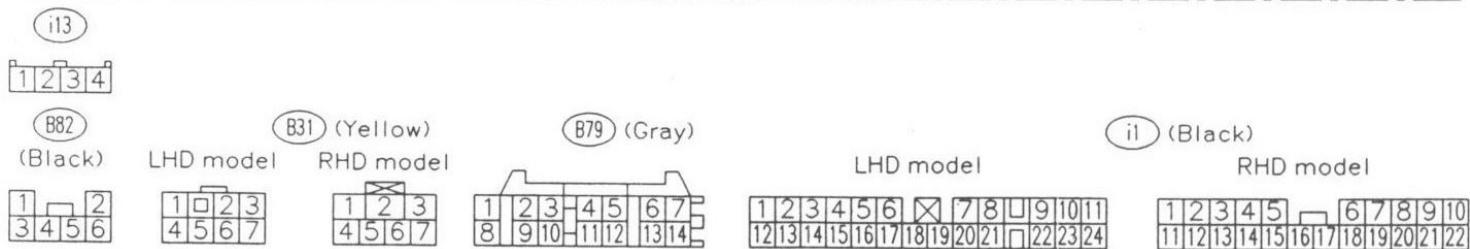
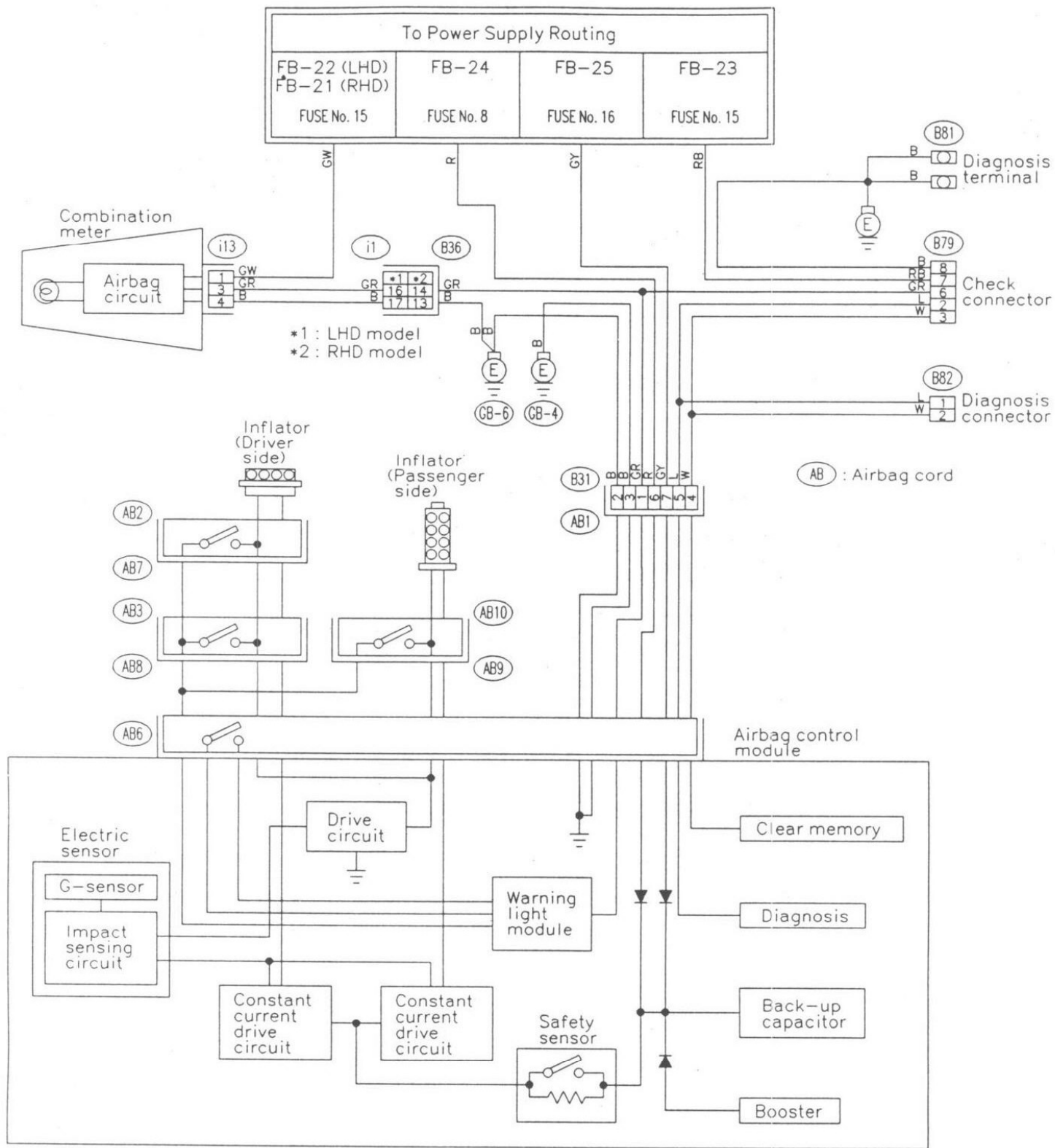
1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16	17	18	19	20	21	22
23	24	25	26	27	28	29	30	31	32	33

32. SPOT LIGHT, ROOM LIGHT, LUGGAGE AND TRUNK ROOM LIGHT SYSTEM

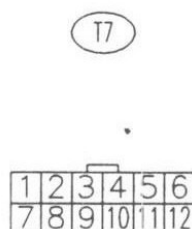
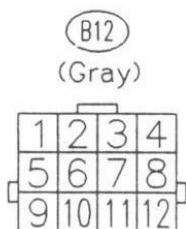
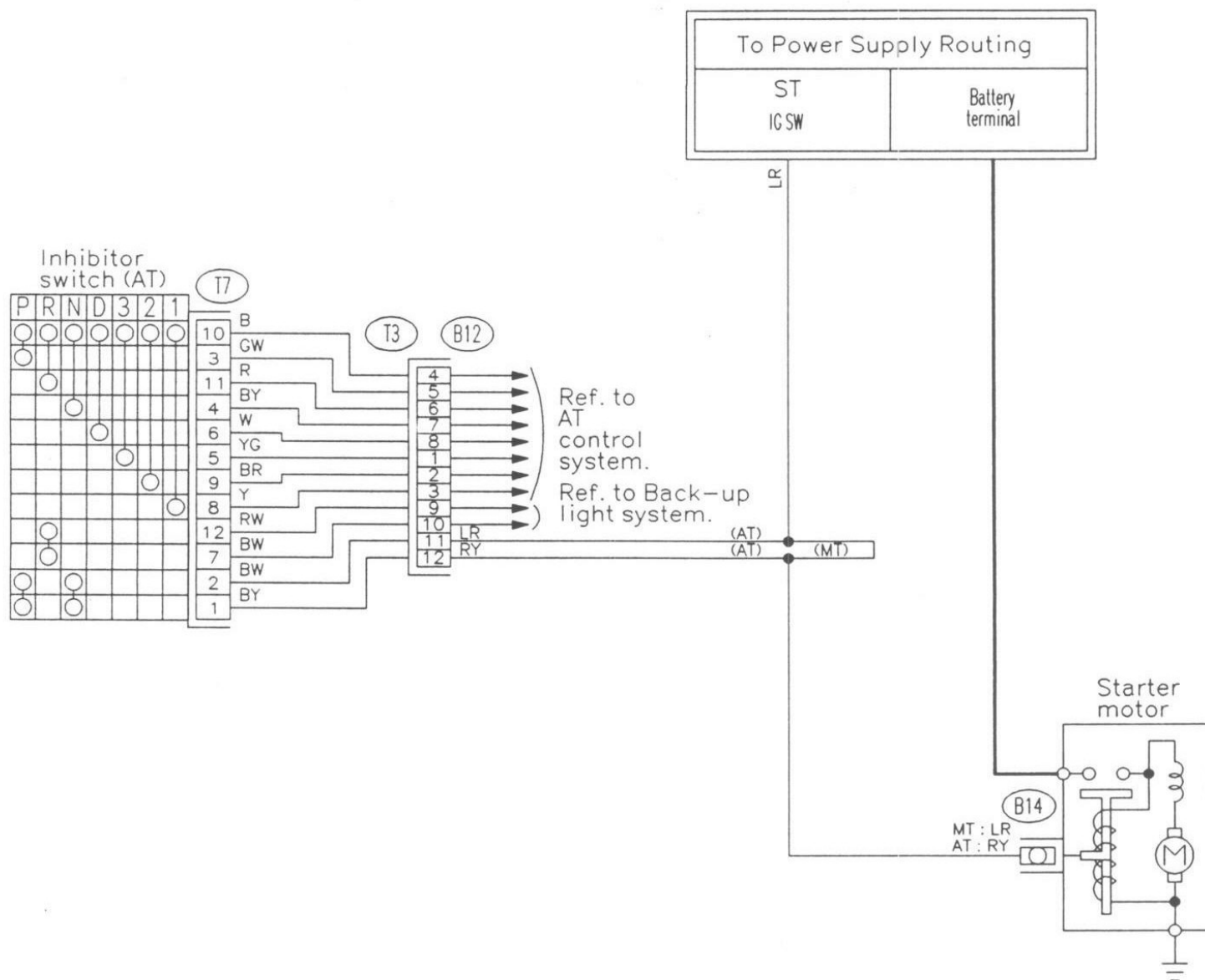
● LHD model



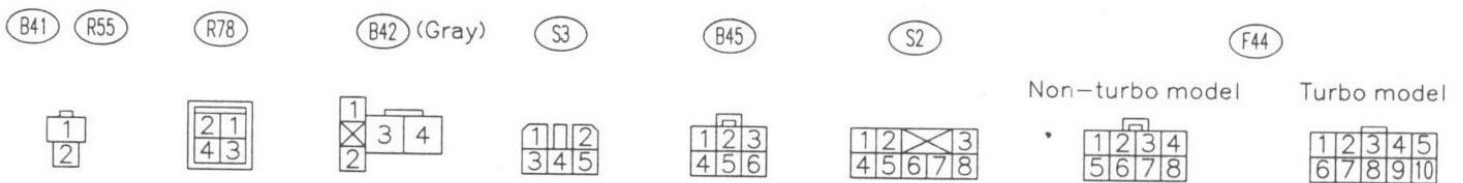
33. SRS (AIRBAG SYSTEM)



34. STARTING SYSTEM

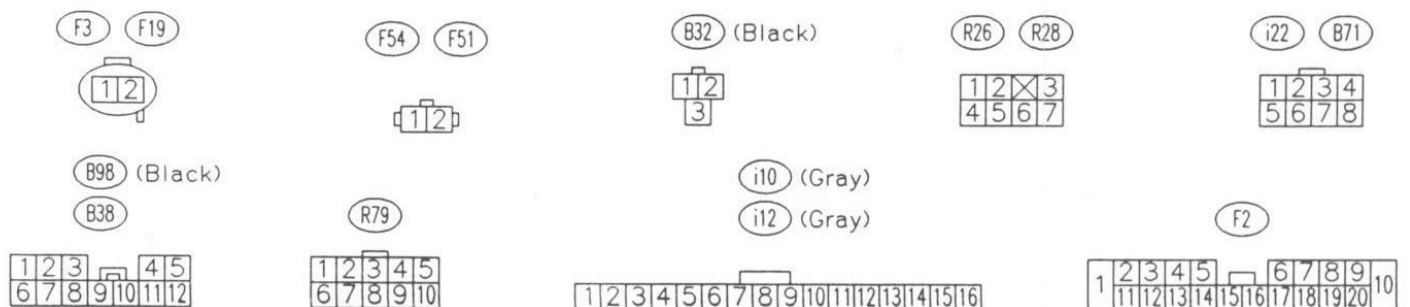
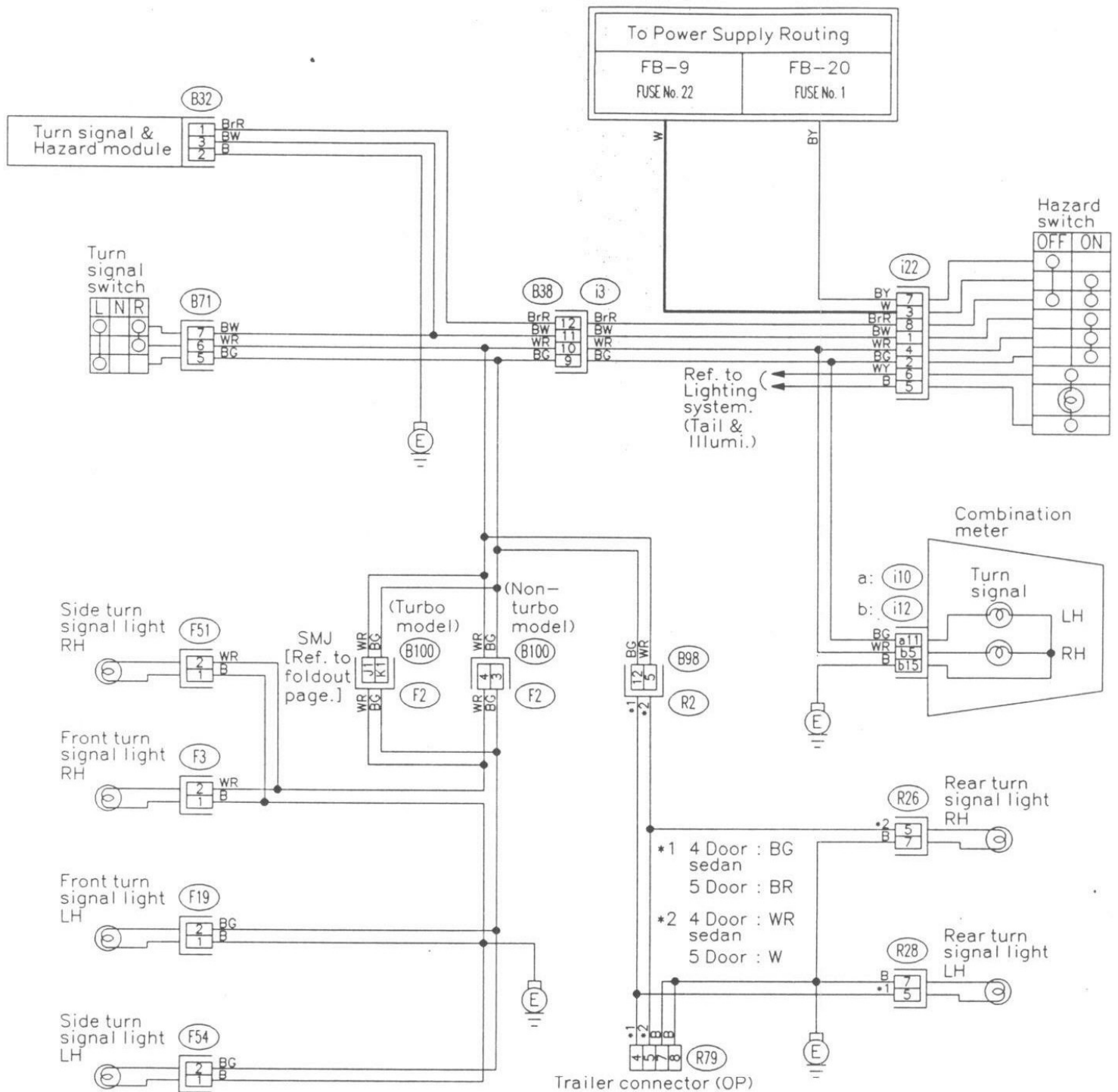


The diagram illustrates the electrical connections for a sunroof system. It begins with a power supply routing section at the top left, which branches into two main paths: one for the LHD non-turbo model (using fuse F44 and relay B61) and another for the LHD turbo model (using fuse F44 and relay B61). The RHD model is also shown. The power then flows through a series of components: a power window and sunroof circuit breaker (B41), a power window and sunroof relay (B42), and a sunroof motor (S3). The sunroof control module (S2) is connected to the motor and the sunroof switch (R78). The sunroof switch has two positions: 'Close' and 'Tilt & Slide'. The diagram also shows the connection to the battery (E) and the ground (CS).



37. TURN SIGNAL AND HAZARD SYSTEM

● LHD model

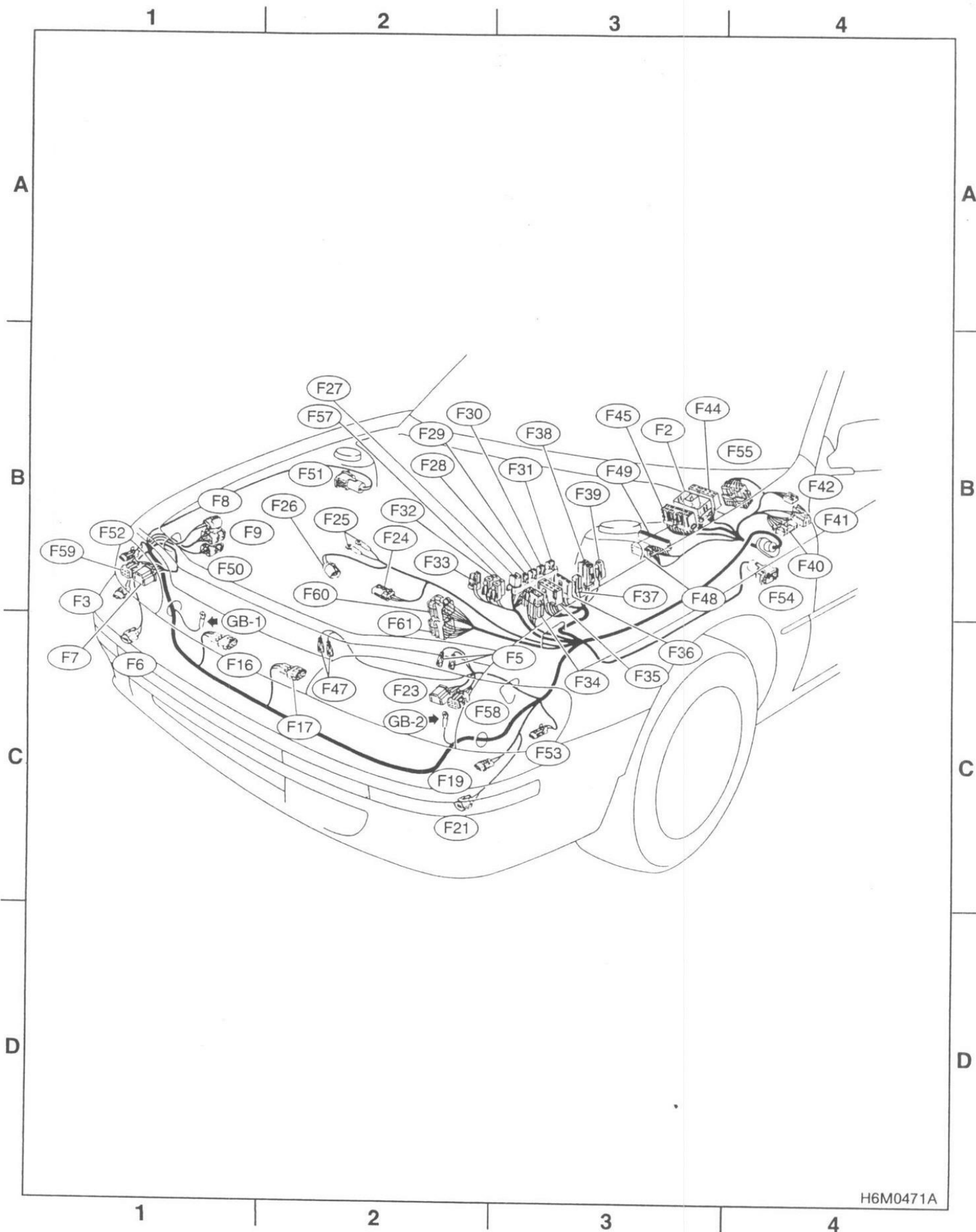


1. FRONT WIRING HARNESS AND GROUND POINT (LHD MODEL)

Connector			Connecting to	
No.	Pole	Color	No.	Name
F2	20	★	B100	Bulkhead wiring harness (Non-turbo model)
	66	Gray	B100	Bulkhead wiring harness (Turbo model) (SMJ)
F3	2	★		Front turn signal light RH
F5	1 x 2	★		Horn
F6	2	Black		Front fog light RH
F7	3	Black		Headlight RH
F8	2	Gray		Hydraulic module (ABS)
F9	8	Gray		
F16	2	Black		Sub fan motor (Non-turbo model)
	3	Black		Sub fan motor (Turbo model)
F17	2	Black		Radiator main fan motor (Non-turbo model)
	3	Black		Radiator main fan motor (Turbo model)
F19	2	★		Front turn signal light LH
F21	2	Black		Front fog light LH
F23	3	Black		Headlight LH
F24	3	Gray		A/C compressor
F25	1 x 2	★		Generator
F26	2	Gray		
F27	4	Black		A/C fuse (Relay holder)
F28	4	Black		A/C sub fan relay (Relay holder) (Non-turbo model)
				A/C main fan relay-2 (Relay holder) (Turbo model)
F29	4	Black		A/C sub fan relay-2 (Relay holder) (Turbo model)
F30	4	Black		A/C main fan relay-1 (Relay holder) (Turbo model)
F31	4	Black		A/C relay (Relay holder)
F32	2	Green		Front washer motor

Connector			Connecting to	
No.	Pole	Color	No.	Name
F33	2	★		Rear washer motor
F34	2	Red		SBF holder
F35	8	★		M/B
F36	3	★		
F37	2	Black		
F38	2	Black		
F39	1	Brown		F/B
F40	10	Gray		
F41	3	Gray		
F42	5	Gray		
F44	8	★	B61	Bulkhead wiring harness (Non-turbo model)
	10	★	B61	Bulkhead wiring harness (Turbo model)
F45	20	Black	B62	Bulkhead wiring harness (Non-turbo model)
F47	1 x 2	★		Horn
F48	6	★		Shield joint connector (ABS)
F49	83	Black		ABS control module
F50	6	Black		ABS relay box
F51	2	★		Side turn signal light RH
F52	2	Gray		Front marker light RH
F53	2	Gray		Front marker light LH
F54	2	★		Side turn signal light LH
F55	12	Black	R49	Rear wiring harness (ABS)
F57	2	Blue		Headlight washer motor
F58	6	Gray		Headlight beam leveler actuator LH
F59	6	Gray		Headlight beam leveler actuator RH
F60	12	Gray	E2	Engine wiring harness (Turbo model)
F61	16	Gray	E3	

★: Non-colored



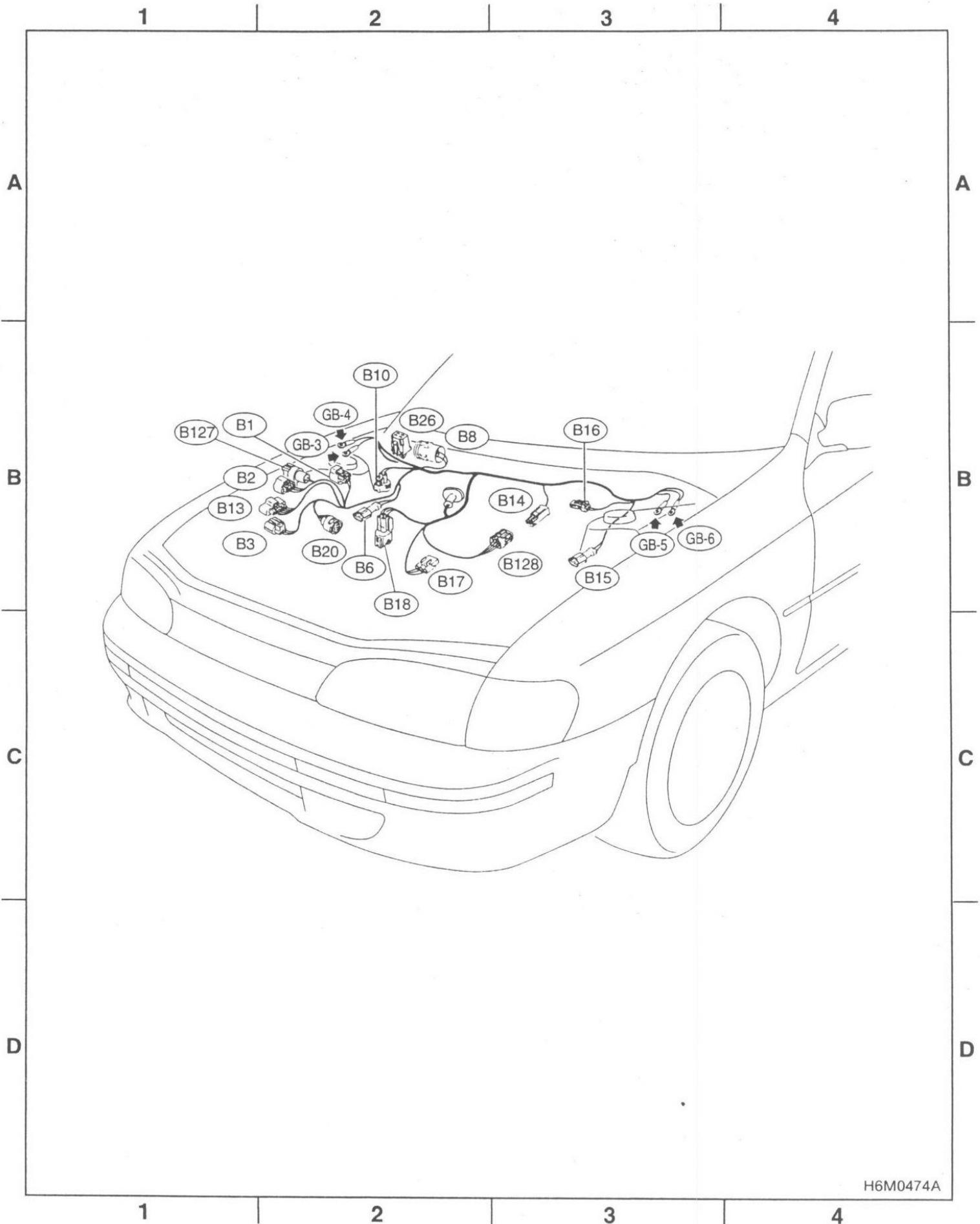
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2. BULKHEAD WIRING HARNESS AND GROUND POINT (IN ENGINE ROOM)

● LHD turbo model

Connector			Connecting to	
No.	Pole	Color	No.	Name
B1	2	Brown		Pressure exchange solenoid valve
B2	3	Black		Boost sensor
B3	3	Gray		Mass air flow sensor
B6	2	Gray		ABS front sensor RH
B8	5	★		Front wiper motor
B10	2	Gray		A/C pressure switch
B13	6	Gray		Ignitor
B14	1	Black		Starter (Magnet)
B15	2	Gray		ABS front sensor LH
B16	2	Gray		Brake fluid level switch
B17	3	Black		Vehicle speed sensor
B18	4	Gray		Oxygen sensor
B20	8	Gray	E1	Engine wiring harness
B26	4	Blue		A/C cut relay
B127	2	Black		Wastegate control solenoid valve
B128	6	Gray	T9	Transmission

★: Non-colored



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ENGINE WIRING HARNESS, TRANSMISSION CORD AND GROUND POINT (Turbo engine model)

Connector			Connecting to	
No.	Pole	Color	No.	Name
E1	8	Gray	*B20	Bulkhead wiring harness
E2	12	Gray	F60	Front wiring harness (LHD model)
			B21	Bulkhead wiring harness (RHD model)
E3	16	Gray	F61	Front wiring harness (LHD model)
			B22	Bulkhead wiring harness (RHD model)
E4	2	Blue		Purge control solenoid valve
E5	2	Light-gray		Injector #1
E6	2	Dark-gray		Injector #3
E7	3	Gray		Idle air control solenoid
E8	2	Brown		Engine coolant temperature sensor
E9	1	★		Thermometer
E10	2	Gray		Crankshaft position sensor
E11	1	★		Oil pressure switch
E12	3	Gray		Ignition coil
E13	3	Gray		Throttle position sensor
E14	1	Gray		Knock sensor
E15	2	Light-gray		Camshaft position sensor
E16	2	Light-gray		Injector #2
E17	2	Dark-gray		Injector #4
E19	1	Gray		Power steering oil pressure switch

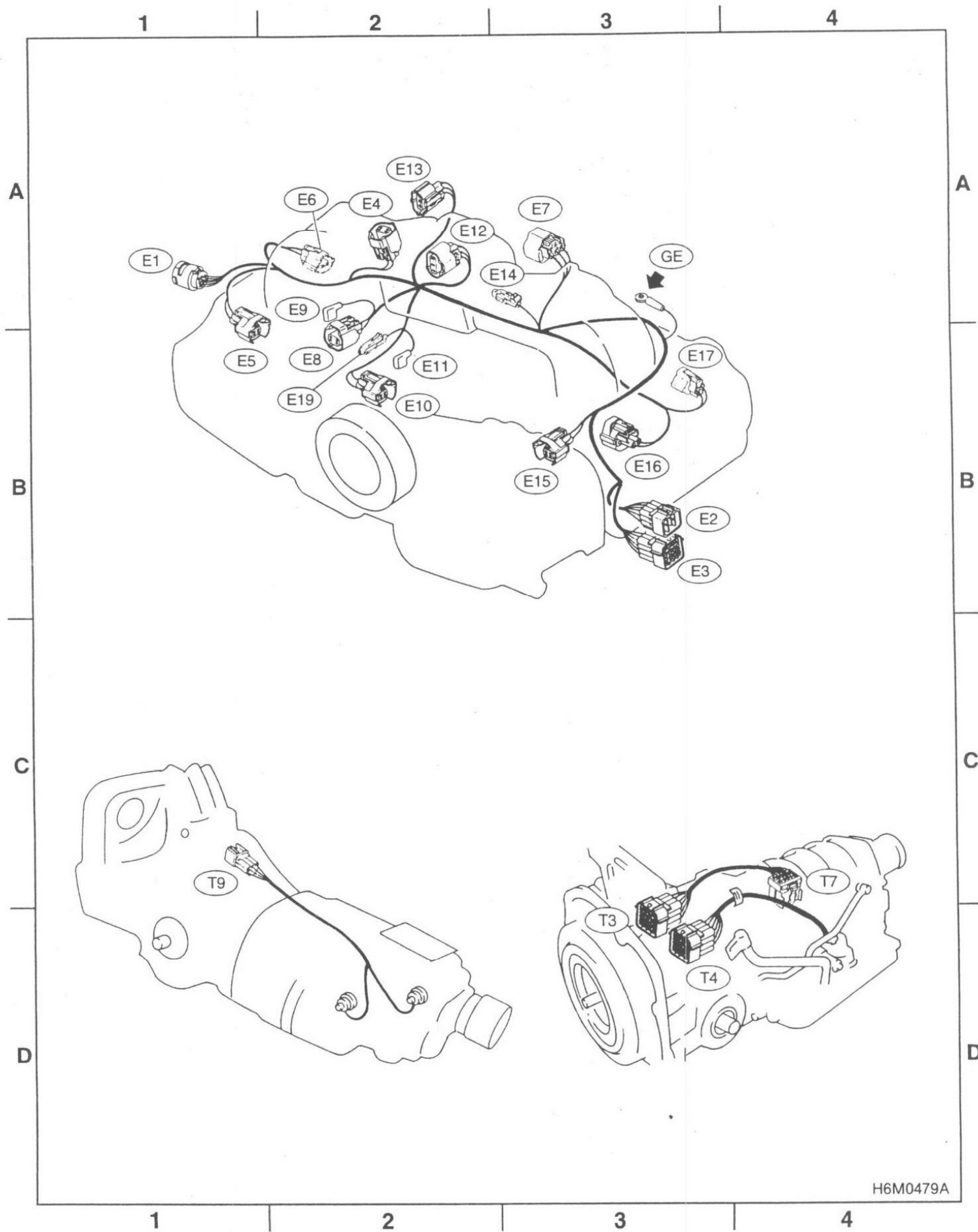
Connector			Connecting to	
No.	Pole	Color	No.	Name
T3	12	Gray	B12	Bulkhead wiring harness (AT)
T4	16	Gray	B11	
T7	12	★		Inhibitor switch (AT)
T9	6	Gray	B128	Bulkhead wiring harness (MT)

Non-colored

WIRING DIAGRAM

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7. Electrical Wiring Harness and Ground Point



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4. BULKHEAD WIRING HARNESS (IN COMPARTMENT)

● LHD model

Connector			Connecting to	
No.	Pole	Color	No.	Name
B30	13	★	D1	Front door cord LH
B31	7	Yellow	AB1	SRS (Airbag) harness
B32	3	Black		Turn & hazard module
B36	24	Black	i1	Instrument panel wiring harness
B37	8	★	i2	
B38	12	★	i3	
B39	20	Blue	i4	
B41	2	★		Power window circuit breaker
B42	4	Gray		Power window and sunroof relay
B45	6	★	R53	Roof cord
B46	4	Green		Fuel pump relay
B47	6	Brown		Main relay
B48	4	Black		Front fog light relay
B49	3	Black		Horn relay
B50	4	★		Blower relay
B51	11	Gray		F/B
B52	12	Gray		
B61	8	★	F44	Front wiring harness (Non-turbo model)
	10	★	F44	Front wiring harness (Turbo model)
B62	20	Black	F45	Front wiring harness (Non-turbo model)
B64	2	Black		Stop light switch
B68	5	Black		Horn switch (With airbag)
B69	11	★		Combination switch
B70	9	★		
B71	8	★		
B72	6	Black		Ignition switch
B75	2	Green	B76	Test mode connector
B76	2	Green	B75	
B78	9	Yellow		Data link connector
B79	14	Gray		Check connector
B80	4	Blue	i20	Instrument panel wiring harness
B81	1 x 2	★		Diagnosis terminal (Ground)
B82	6	Black		Diagnosis connector
B83	6	★		Shield joint connector (1600 cc and 1800 cc engine model and 2000 cc non-turbo MT model)
	8	★		Shield joint connector (Turbo model)
	20	★		Shield joint connector (2000 cc engine AT model)
B84	88	★		Engine and transmission control module (2000 cc engine AT model)
B85	3	★		Diode (Lighting)
B86	4	★		Blower motor resistor
B87	2	★		Blower motor

Connector			Connecting to	
No.	Pole	Color	No.	Name
B88	4	Brown		Evaporator thermoswitch
B92	8	★		Door lock timer
B97	10	★	R1	Rear wiring harness
B98	12	Black	R2	
B99	20	★	R3	
B100	20	★	F2	Front wiring harness (Non-turbo model)
	66	Gray	F2	Front wiring harness (SMJ) (Turbo model)
B101	13	★	D11	Front door cord RH
B113	9	★	D50	Front door cord LH
B115	2	Black		Check connector (ABS)
B116	4	Black		Select lever illumination light and power mode switch (AT)
B118	2	★		CD player illumination light
B119	4	★		Cigarette lighter
B120	14	★		Radio
B121	1	Black		Ground (Radio)
B122	6	★		Sensor ground joint connector (2000 cc non-turbo MT model)
B124	3	★	D53	Front door cord RH
B125	1	Black	B126	Read memory connector
B126	1	Black	B125	
B129	2	Black		Kick-down switch
B130	7	★		Clock
B131	4	Blue		Rear fog light relay
B132	7	★		Headlight leveling switch
B133	2	★		Hold mode switch
B134	12	Green		Engine and transmission control module
B135	16	Green		Engine and transmission control module
	16	Yellow		Engine control module (2000 cc engine MT model)
B136	22	Green		Engine and transmission control module
	22	Yellow		Engine control module (2000 cc engine MT model)
B137	26	Green		Engine and transmission control module
	26	Yellow		Engine control module (2000 cc engine MT model)
B138	1	★	B139	Joint connector (1600 cc and 1800 cc engine AT model)
B139	1	★	B138	
B140	6	Black		Headlight washer module
B141	12	★		Immobiliser control module
B142	4	★		Antenna amp. (Immobiliser)

★: Non-colored

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7. Electrical Wiring Harness and Ground Point

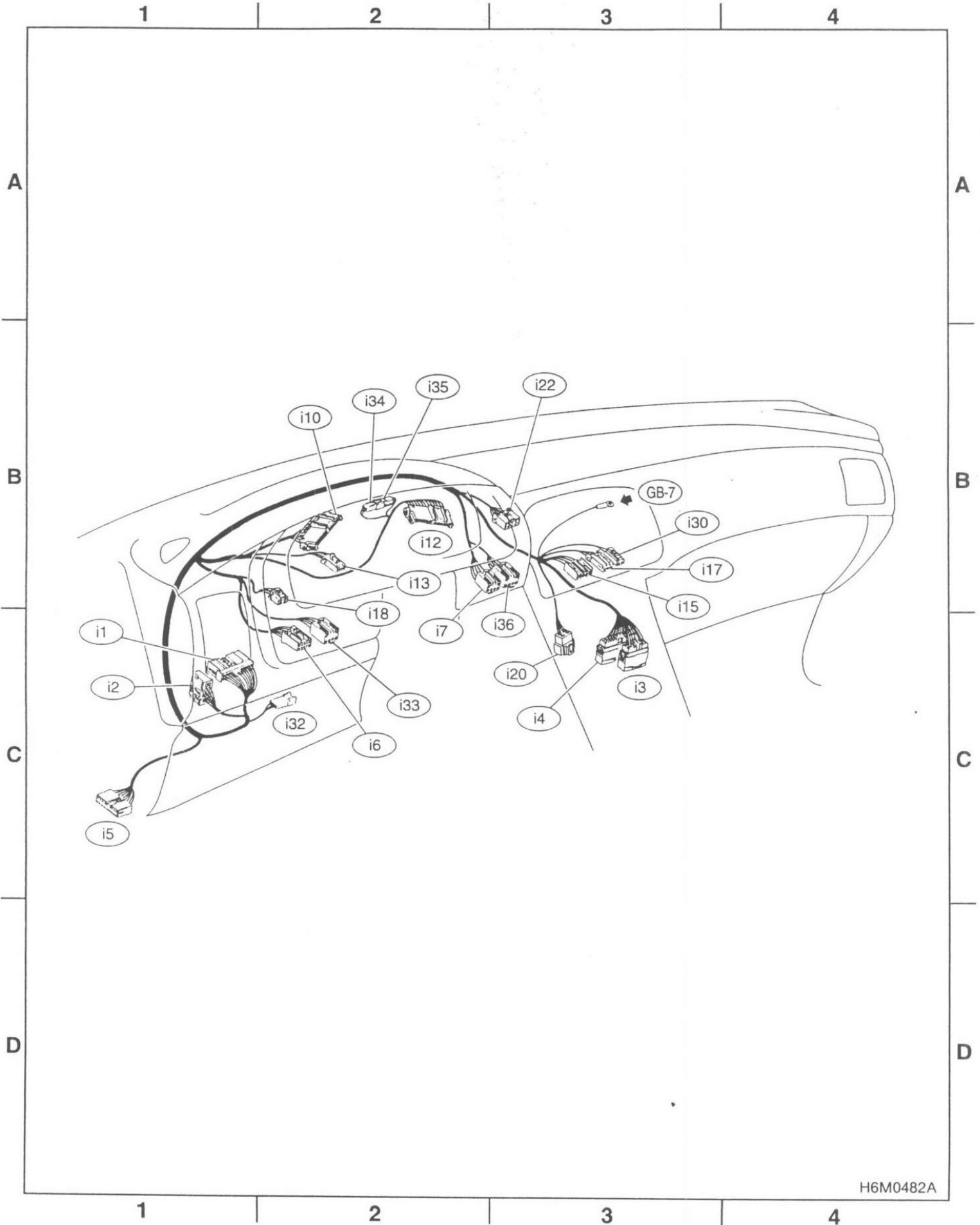
7. Electrical Wiring Harness and Ground Point



5. INSTRUMENT PANEL WIRING HARNESS AND GROUND POINT (LHD MODEL)

Connector			Connecting to	
No.	Pole	Color	No.	Name
i1	24	Black	B36	Bulkhead wiring harness
i2	8	★	B37	
i3	12	★	B38	
i4	20	Blue	B39	
i5	15	Gray		F/B
i6	10	★		Remote control rearview mirror switch
i7	6	Brown		Front fog light switch
i10	16	Gray		Combination meter
i12	16	Gray		
i13	4	★		Combination meter (Airbag warning)
i15	6	★		Fan switch
i17	3	★		Mode control panel
i18	4	★		Rear defogger switch
i20	4	Blue	B80	Bulkhead wiring harness
i22	8	★		Hazard switch
i30	2	★		Mode control panel illumination light
i32	3	★		Diode (Rear fog light)
i33	6	Gray		Rear fog light switch
i34	2	Black	i35	Shield joint connector (Turbo model)
i35	2	Black	i34	
i36	6	Gray		Headlight washer switch

★: Non-colored



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6. REAR WIRING HARNESS AND GROUND POINT (LHD MODEL)

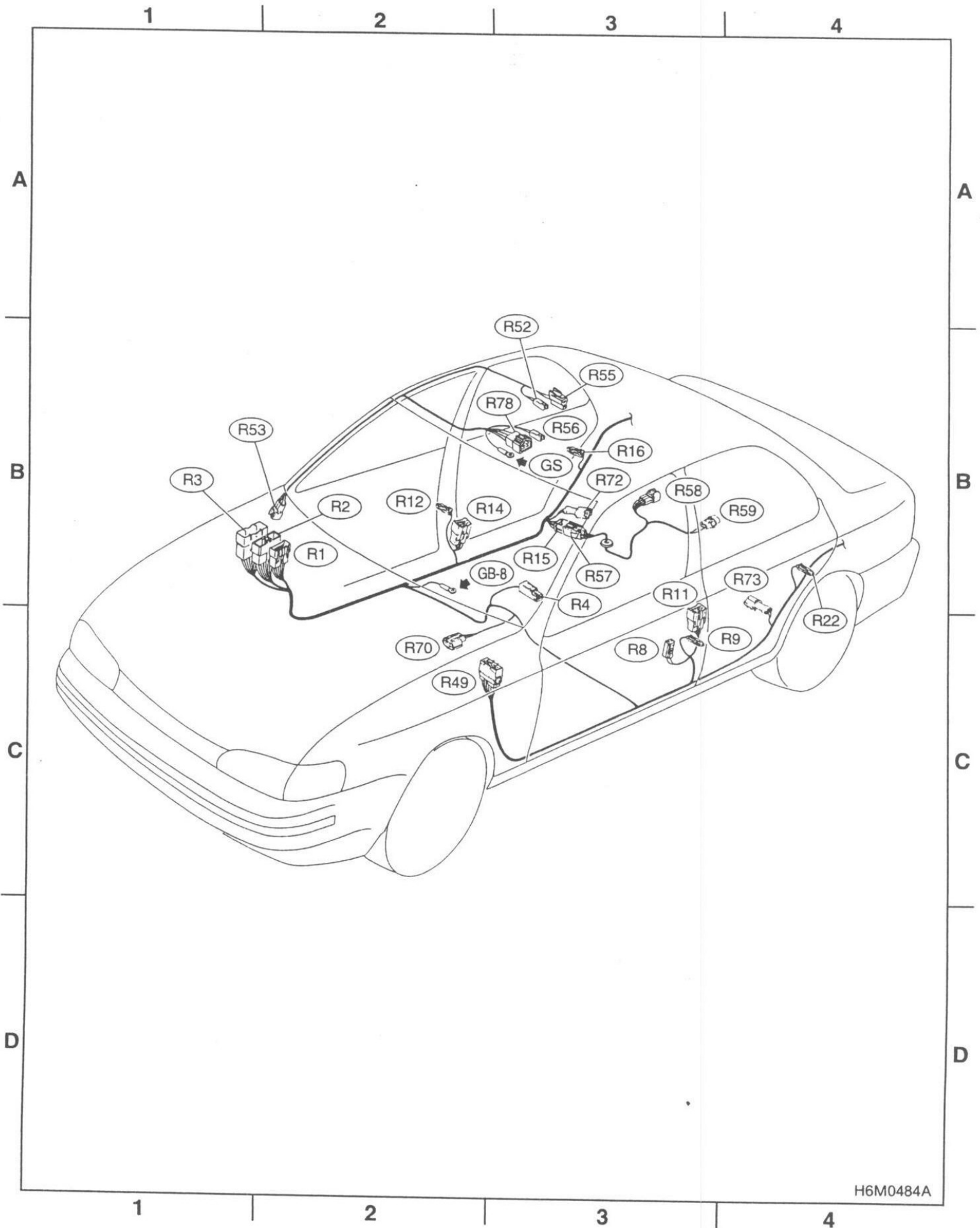
Connector			Connecting to	
No.	Pole	Color	No.	Name
R1	10	★	B97	Bulkhead wiring harness
R2	12	Black	B98	
R3	20	★	B99	
R4	1	Black		Parking brake switch
R8	2	★		Seat belt switch
R9	1	Brown		Front door switch LH
R11	8	★	D21	Rear door adapter cord LH
R12	1	Brown		Front door switch RH
R14	8	★	D27	Rear door adapter cord RH
R15	6	Black	R57	Fuel tank cord
R16	1	Brown		Rear door switch RH
R22	1	Brown		Rear door switch LH
R49	12	Black	F55	Front wiring harness (With ABS model)
R52	2	★		Room light
R53	6	★	B45	Bulkhead wiring harness
R55	2	★		Sunroof control module and sunroof motor
R56	2	★		Spot light
R57	6	Black	R15	Rear wiring harness
R58	6	★		Fuel gauge module & fuel pump assembly
R59	2	★		Fuel gauge sub module
R70	3	★		ABS G sensor
R72	2	Gray		Rear ABS sensor RH
R73	2	Gray		Rear ABS sensor LH

★: Non-colored

WIRING DIAGRAM

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7. Electrical Wiring Harness and Ground Point



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