
DAIHATSU

G202

Chassis

BODY ELECTRICAL SYSTEM

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GBE0001-0000

GENERAL INFORMATION

LOCK TYPE CONNECTOR

PRECAUTION:

- Disconnection and connection of each connector should be kept at a minimum level. If unnecessary disconnection or connection is repeated, it may cause unexpected troubles such as poor continuity and chattering.

GBE0002-0000

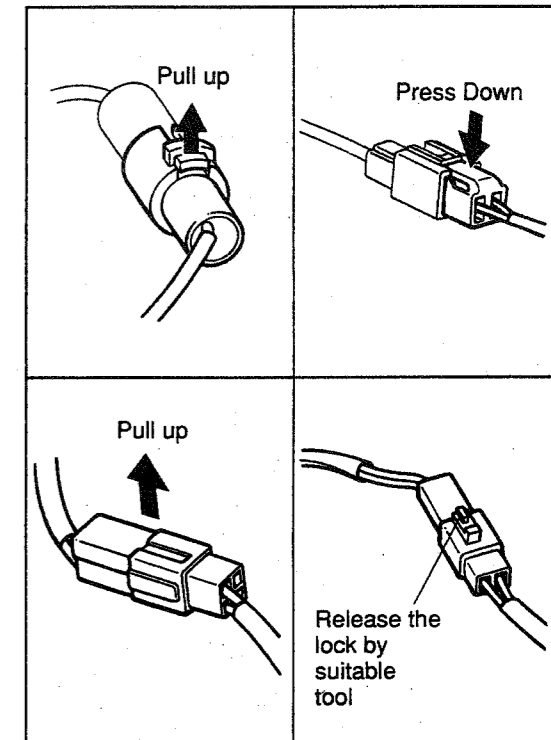
DISCONNECTION

The lock type of the connector comes in a push release type, a pull release type, a spring lock type, an one-way lock type and so on.

After confirming the shape of the lock, unlock the lock. Disconnect the connector while holding the connector by hand.

NOTE:

- Never pull the harness during the disconnection.
- Be sure to pull out the connector straight so as not to damage the terminal.



GBE0003-0001

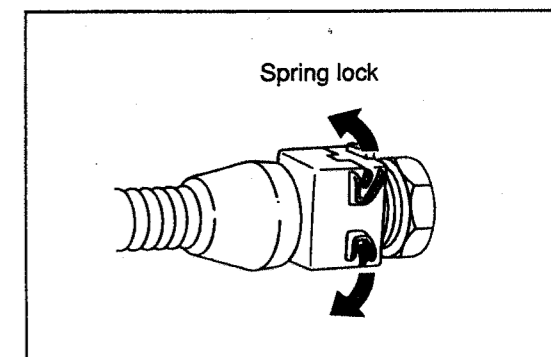
CONNECTION

Perform the connection until the lock is completely engaged.

After the connection has been made, ensure that the lock is engaged positively.

NOTE:

- Be sure to connect the connector straight so as not to damage the terminal.



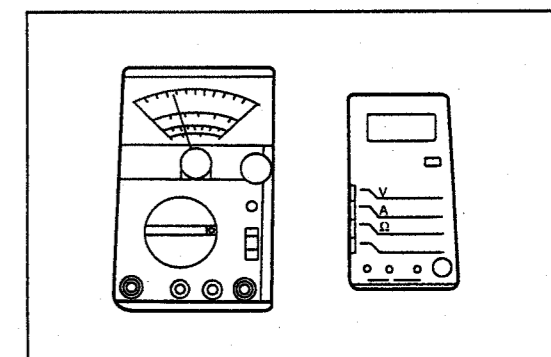
GBE0004-0002

INSPECTION

Tester (Volt/ohmmeter)

For the inspection, use a tester having an internal resistance of more than 10 kW/V.

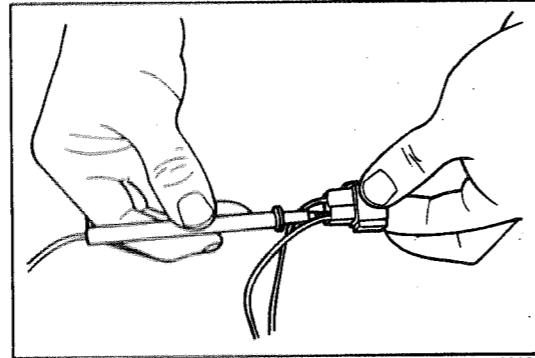
Use of a tester with a low internal resistance may cause wrong measurement or secondary troubles.



GBE0005-0003

Conventional type connector

When resistance measurement and/or voltage measurement is conducted at the connector section, insert the measuring probe from the back of the connector, being very careful not to damage the harness-to-terminal connections.



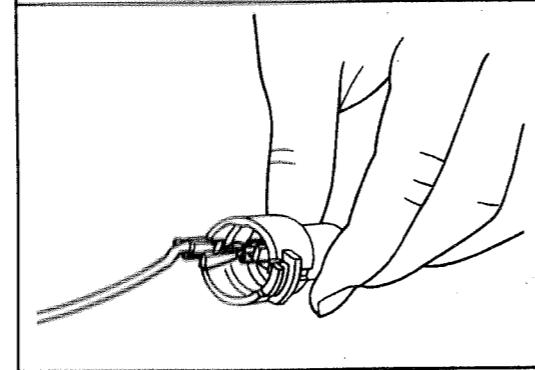
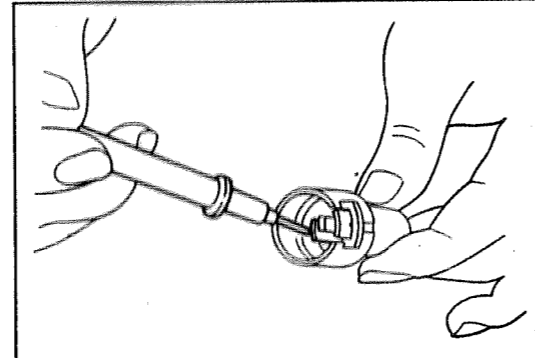
GBE00006-00004

Water-proof type connector

When resistance measurement and/or voltage measurement is conducted at the connector section, bring the measuring probe into contact with the terminal at the connection side of the connector.

Be very careful not to apply excessive force to the terminal at the connector side. Failure to observe this caution may deform the terminal, causing poor continuity.

As an alternative method, insert a male or female terminal into the connector terminal or connect an adequate attachment. Then, connect the measuring probe.



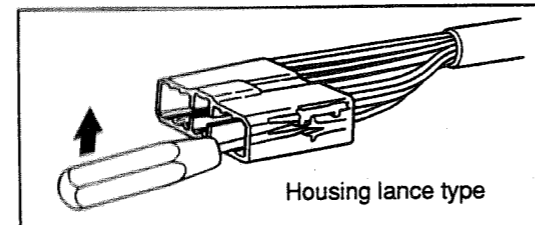
GBE00007-00005

TERMINAL REMOVAL/INSTALLATION

Removal of terminal

<Housing lance type>

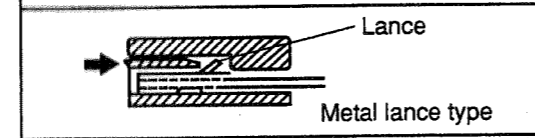
Insert a miniature screwdriver through the opening section of the connector into between the locking lug and the terminal. While prying up the locking lug with the screwdriver, pull the terminal backward.



Housing lance type

<Metal lance type>

While pushing the lance with the screwdriver, pull the terminal backward.



Lance

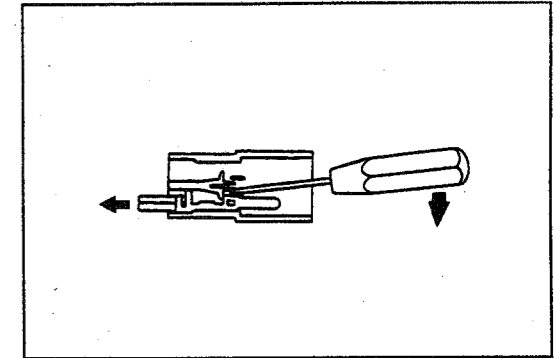
Metal lance type

GBE00008-00006

Installation of terminal

<Housing lance type>

Push the terminal into the protruding section of the connector, until the lock is engaged completely. Lightly pull the harness to assure that the locking has been made completely.



GBE00009-00007

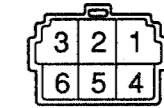
<Metal lance type>

Insert the terminal into the connector, until lance is locked completely. Lightly pull the harness to assure that the locking has been made completely.

PIN NUMBER OF CONNECTOR

(1) Pin number of female connector

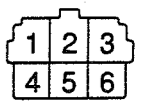
The numbering is made in sequence from the left/upper position to the right/under position.



Male

(2) Pin number of male connector

The numbering is made in sequence from the right/upper position to the left/under position.



Female

GBE00010-00008

OPERATION OF WIRE HARNESS

1. General instructions

(1) Never pull the connectors or step on them during the wire harness transport or assembly.

(Prevention of pulling-out of terminals, connector cracks, deformation and so forth)

(2) Care must be exercised to ensure that no scratch is made to the wire harness by burrs or edges during the wire harness transport or assembly.

(Prevention of scratches to the outer trim, electrical insulators and so forth)

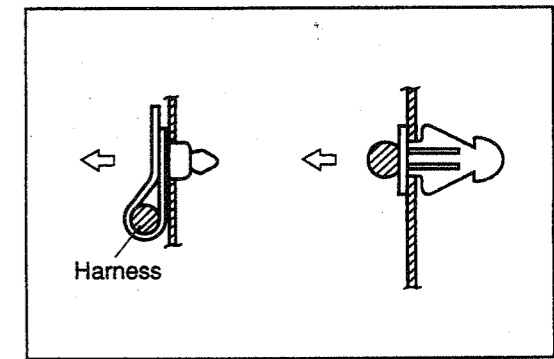
(3) Clamping method

In the case of resin clamps, ensure that the clamp section is fitted in the body hole.

NOTE:

• Ensure that the clamp will not be detached when it is pulled lightly in the arrow-headed direction.

(Prevention of interference due to the detachment of the clamp)

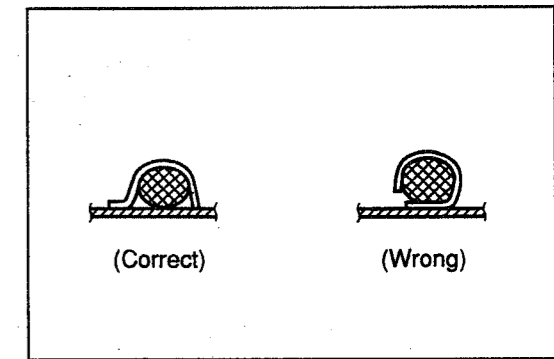


GBE00011-00000

GBE00012-00009

• In the case of metal sheet welded clamps, be sure to assemble the harness in such a way that the harness will not come in contact with the welded surface.

(Prevention of wire harness damage due to welding burrs)

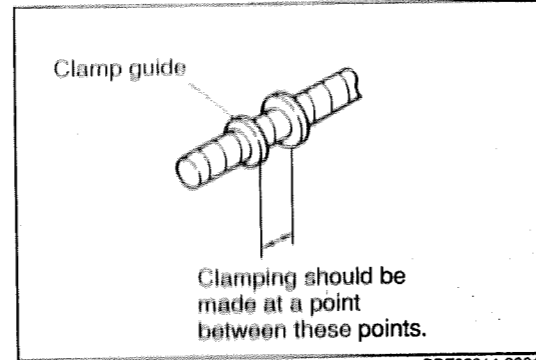


(Correct)

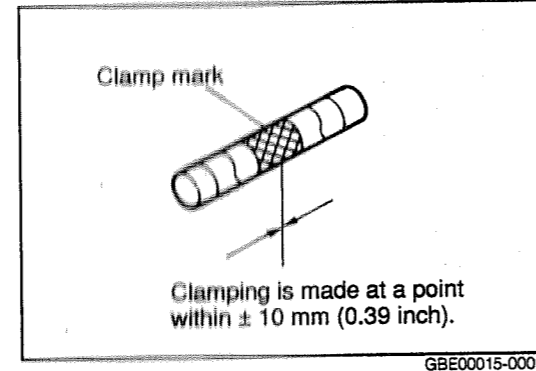
(Wrong)

GBE00013-00010

- In case that the locating guide of the clamp position or the clamp mark is clamped, make sure that the clamp is located within the guide. As for the clamp at the clamp mark section, ensure that the clamping is made at a point within ± 10 mm (0.39 inch).



(Prevention of slackness or interference)



(4) Terminals and connectors

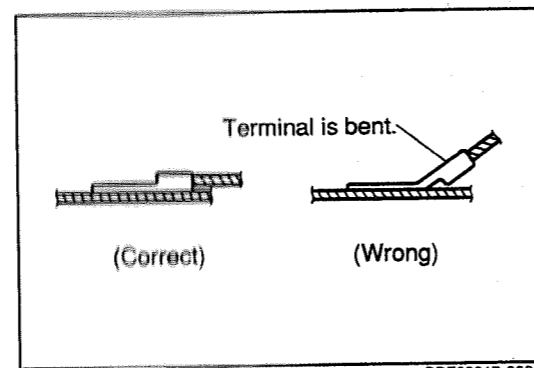
Perform the connection of connectors positively.

- Connector with lock Ensure that the locking is made.
- Connector without lock ... Connect the connector positively until it stops.

GBE00016-00000

Retention by screws

- When the tightening torque is specified, be sure to observe the specification strictly. (The tightening torque is posted in the table separately.)
- Ensure that the staked section may not come on the assembling surface.
- After completion of the tightening operation, lightly pull out the terminal. Ensure that there is no slackness.



GBE00018-00000

- When performing other operations, care must be exercised to ensure that no connected connector is detached by pulling out the wire harness forcibly.

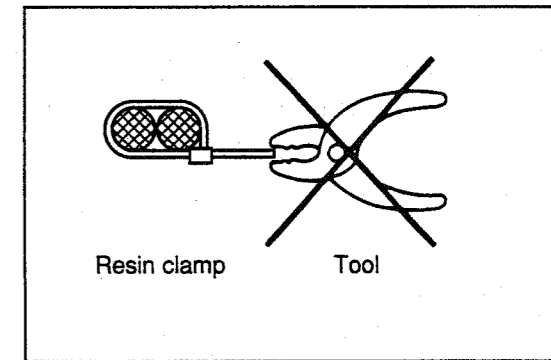
2. Work procedure for tightening-up type resin clamps

<Work procedure>

When the tightening-up type resin clamps are employed, do not use any pliers, cutting pliers or the like.

<Reason>

Prevention of clamps being cut or scratched



WIRING HARNESES

WARNING:

- The wire diameter and capacity of each harness have been determined to assure the normal operation of the electrical system.
- Hence, do not take power for accessories carelessly through the original wiring harness. Failure to observe this caution may cause system malfunction or fire.

GBE00020-00000

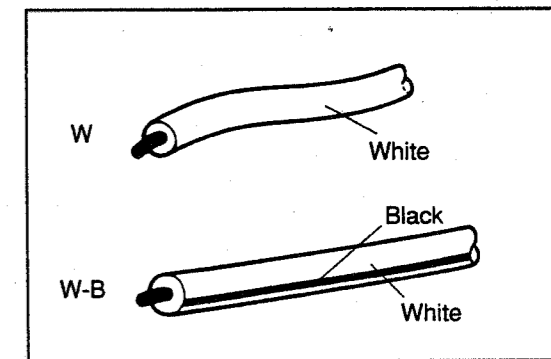
Wiring color code

- For identification purpose, each wire has its own color. Each color bears a code as described in the right table. These codes are used in the wiring diagram and will be helpful during trouble shooting.

Code	Gr	Br	B
Color	Gray	Brown	Black
Code	W	R	G
Color	White	Red	Green
Code	Y	L	O
Color	Yellow	Blue	Orange
Code	P	Lg	V
Color	Pink	Light green	Violet

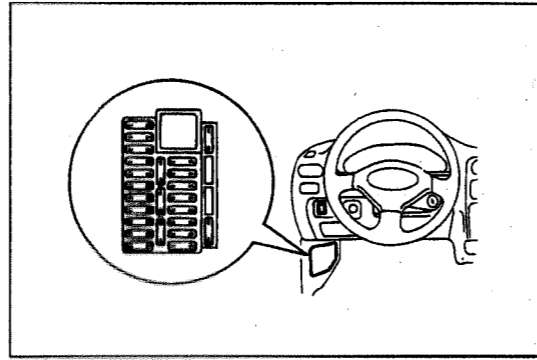
GBE00021-00000

- The wire color comes in two kinds: single color and composite color. In the case of single color, the whole outer coat of the harness is of a single color. In the case of composite color, a fine line of the second color is drawn on the harness basic color. In this case, the code is composed of the basic color code which comes first and the second color code which comes after a hyphen.



JUNCTION BLOCK (Main fuse block)

The junction block assembly is located underneath the instrument panel at the driver's foot side.



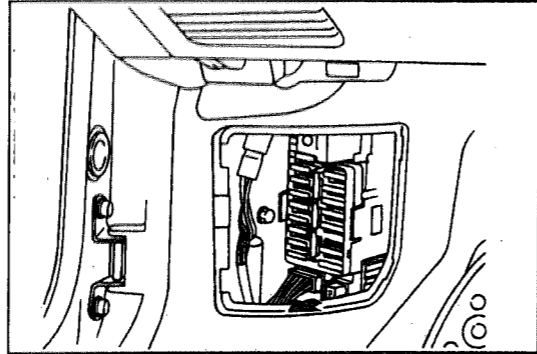
GBE00030-99999

Fuse check and replacement

1. Turn the ignition switch off and remove the fuse box lid.
2. Make sure that the switch of the malfunctioning component is off.
3. Attach the fuse puller and pull out the fuse.
4. When replacing a fuse with a new one, be sure to install a fuse having a capacity specified at the caution plate.

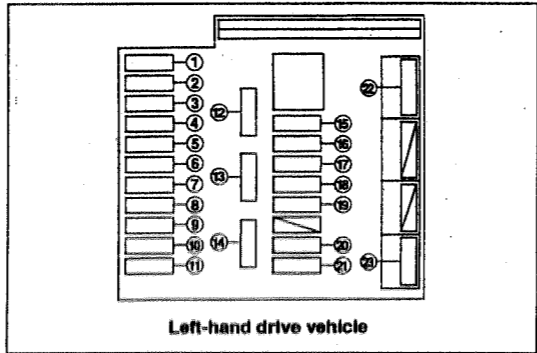
NOTE:

- The fuse puller is provided at the junction block.
- The fuse position should be checked by holding the caution plate.



GBE00000-99999

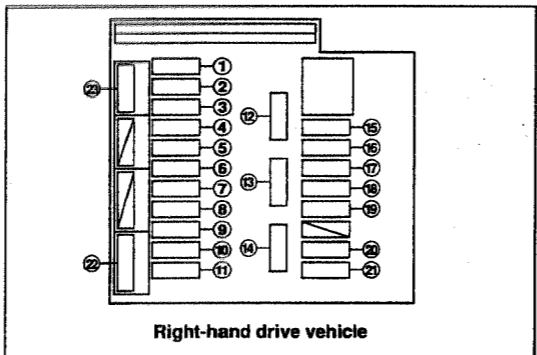
1. Defogger 20A
2. Engine 10A
3. Radio 15A
4. Non
5. Turn signal lamp 15A
6. Horn Hazard 15A
7. Wiper 15A
8. Non
9. Gauge 10A
10. Tail lamp 10A



Left-hand drive vehicle

GBE00000-99999

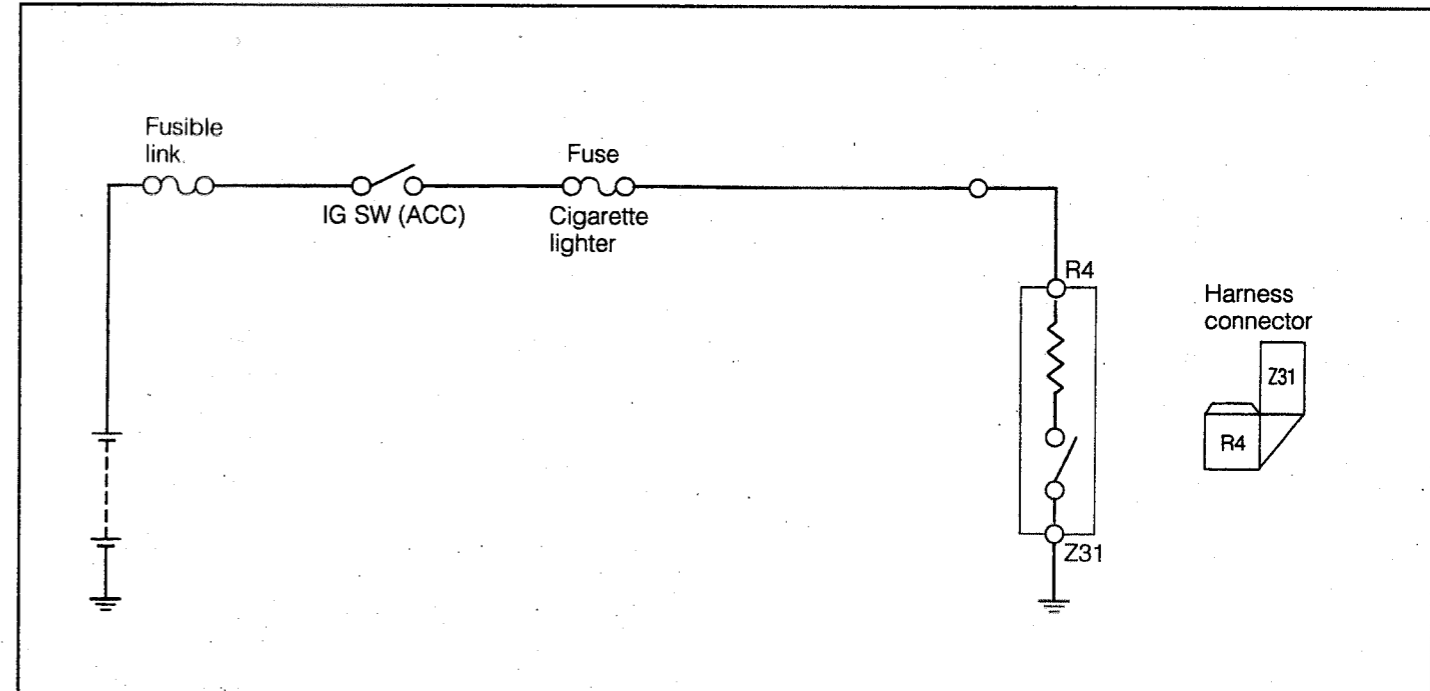
11. Cigarette lighter 15A
12. Spare 20A
13. Spare 15A
14. Spare 10A
15. Headlamp (Left) 15A
16. Headlamp (Right) 15A
17. Non
18. Heater 30A
19. Stop lamp 15A
20. Dome 15A
21. Non
22. Non
23. Non



Right-hand drive vehicle

GBE00031-99999

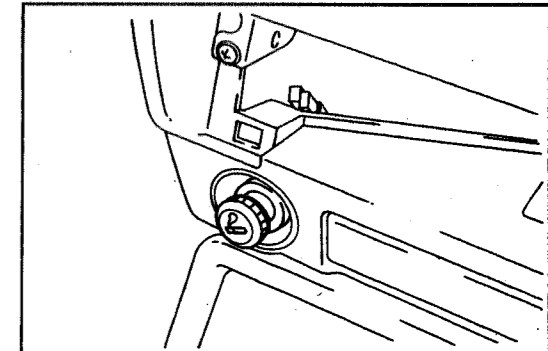
CIGARETTE LIGHTER



GBE00037-99999

INSPECTION

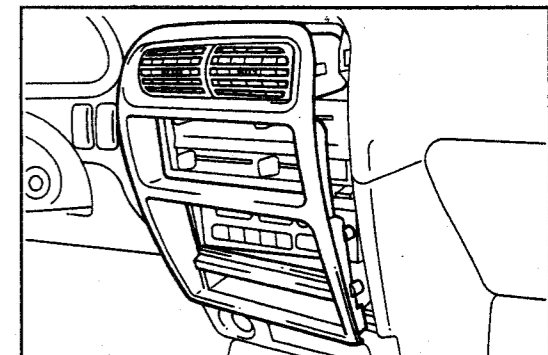
Push the cigarette lighter. Ensure that the heater section is heated and glows red. Ensure that the heater section returns to the original position within 18 seconds. If not, replace the cigarette lighter.



GBE00038-99999

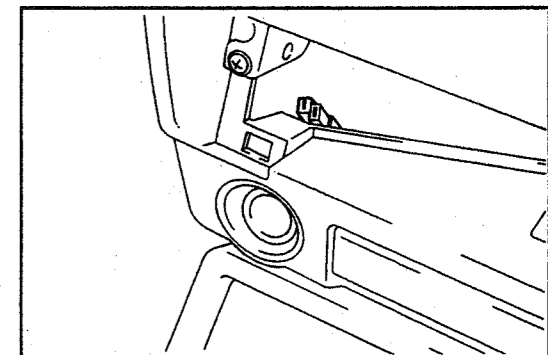
REMOVAL

1. Remove the retaining screws of the instrument cluster finish center panel.
2. Pull out the instrument cluster finish center panel.



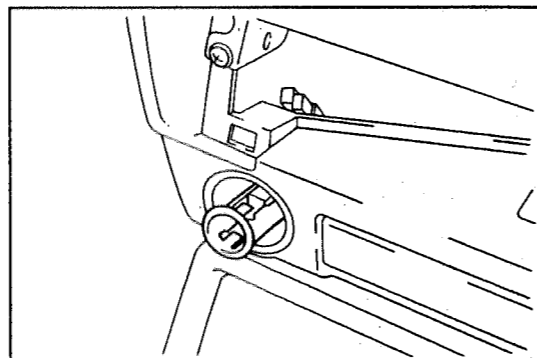
GBE00039-99999

3. Disconnect the connector from the cigarette lighter assembly.



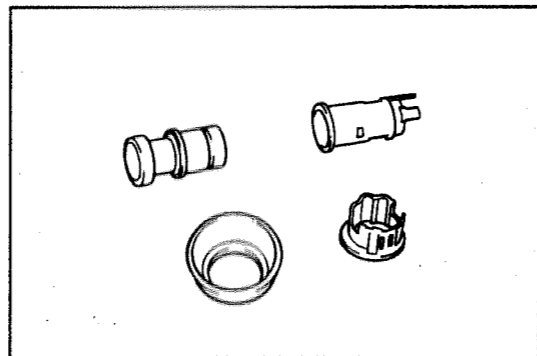
GBE00040-99999

- Turn about 2° and pull out 10 mm the cigarette lighter assembly. Then turn back about 2° (align the embossed at the connector side) and pull out the cigarette lighter assembly from the cigarette lighter bezel.



GBE00041-99999

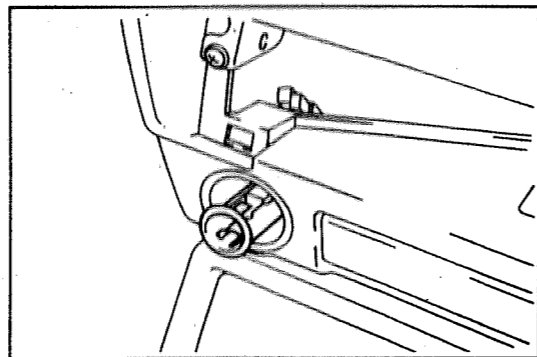
- Remove the cigarette lighter.



GBE00042-99999

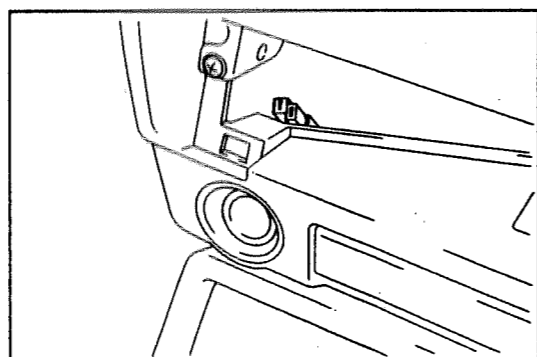
INSTALLATION

- Align the embossed and insert the cigarette lighter assembly to the bezel.



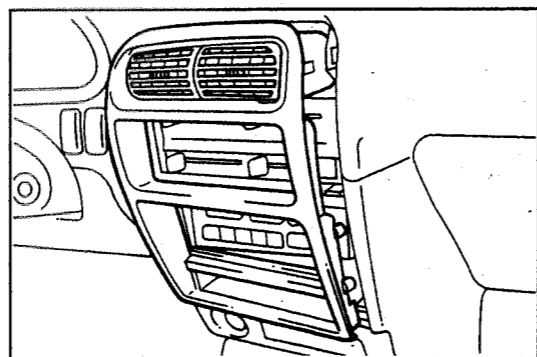
GBE00043-99999

- Connect the connector of the cigarette lighter assembly.



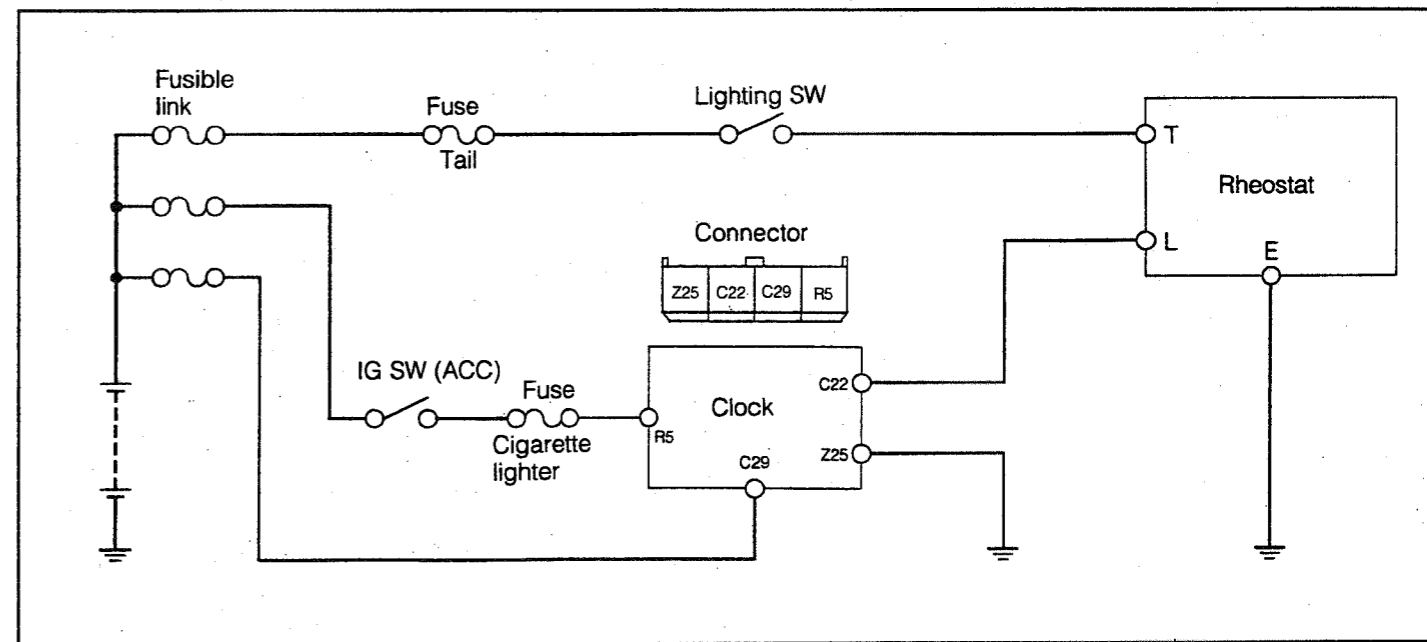
GBE00044-99999

- Install the instrument cluster finish center panel with the retaining screws.



GBE00045-99999

**CLOCK
CIRCUIT DIAGRAM**

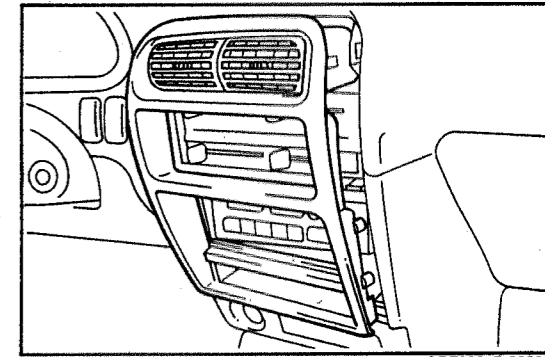


GBE00046-99999

REMOVAL

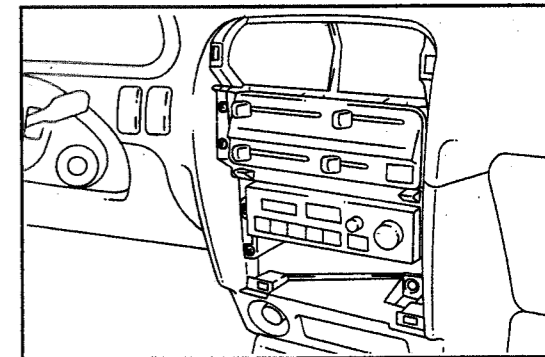
Removal of instrument panel

- Remove the retaining screws of the instrument cluster finish center panel.
- Pull out the instrument cluster finish center panel.



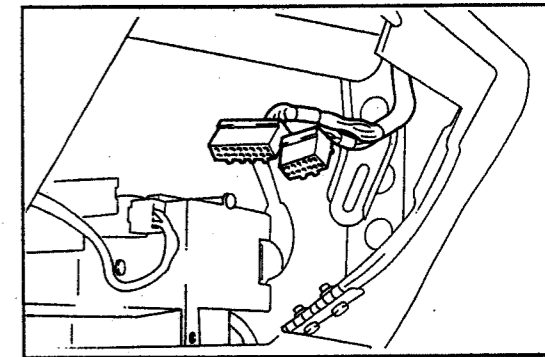
GBE00047-99999

- Remove the retaining screws of the radio assembly.
- Disconnect the connector of the radio assembly.
- Disconnect the connector of the antenna connector from the radio assembly.
- Remove the retaining screws of the heater control assembly.



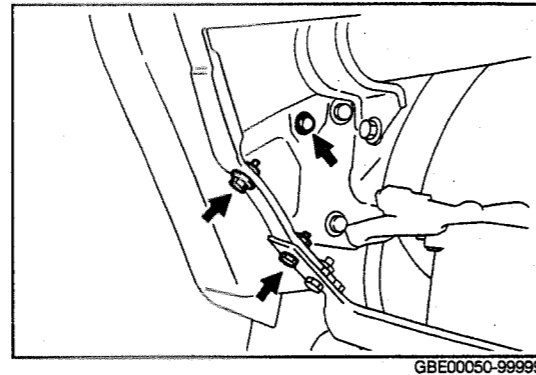
GBE00048-99999

- Remove the instrument panel finish lower panel.
- Remove the glove compartment door assembly.
- Disconnect the connector of the automatic transmission ECU connectors, if equipped.

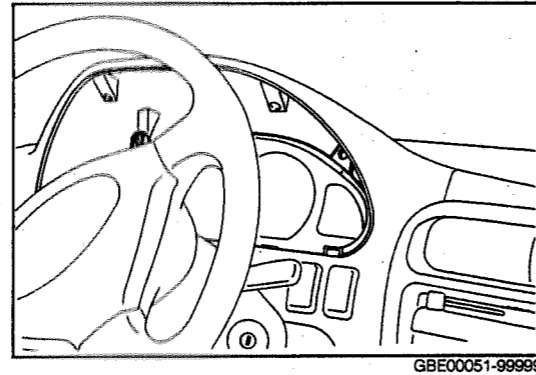


GBE00049-99999

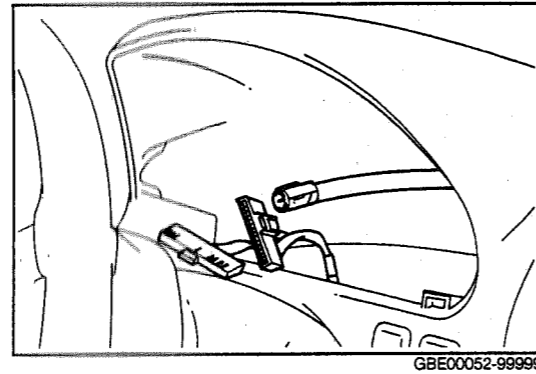
10. Remove the retaining bolts and screws as follows:
 - (1) Upper part of instrument panel; 4 bolts
 - (2) Right side of instrument panel; 1 bolt and 2 screws
 - (3) Left side of instrument panel; 1 bolt and 2 screws



11. Disconnect the wire instrument panel connector.
12. Disconnect the speedometer cable at the transmission case side.
13. Remove the instrument panel cluster finish panel by removing the two screws.

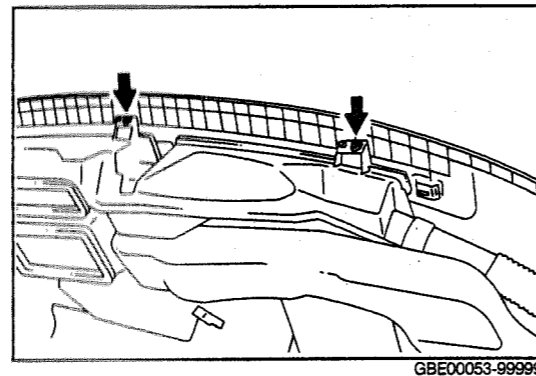


14. Remove the combination meter assembly by removing the four screws.
15. Disconnect the speedometer cable coupler and wire harness connectors at the back side of the combination meter assembly.
16. Remove the instrument panel subassembly from the body.

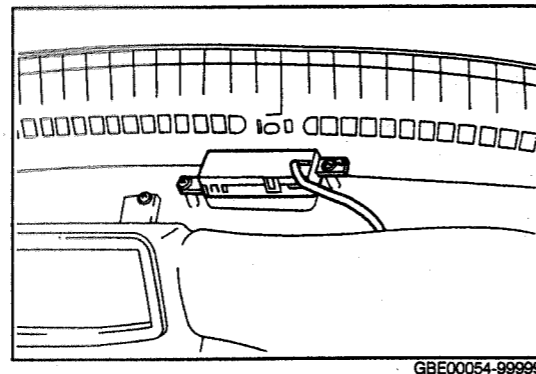


Removal of clock

1. Remove the air duct from the instrument panel.



2. Disconnect the connector of the clock wire sub-harness.
3. Remove the clock by loosening the two screws.



INSPECTION

Ensure that voltage is applied between the terminal of the vehicle side connector and the ground under the conditions given in the table below.

Terminal	Contents	Voltage with ground	Conditions
1: ACC	Power source (display operation)	Battery voltage	Ignition switch turned ACC
2: CLOCK	Power source (system operation)	Battery voltage	At all times
3: TAIL	Power source (illumination)	Battery voltage	Light switch turned on
4: EARTH	System ground	Zero voltage	At all times

If not, check for open wire or wiring short.

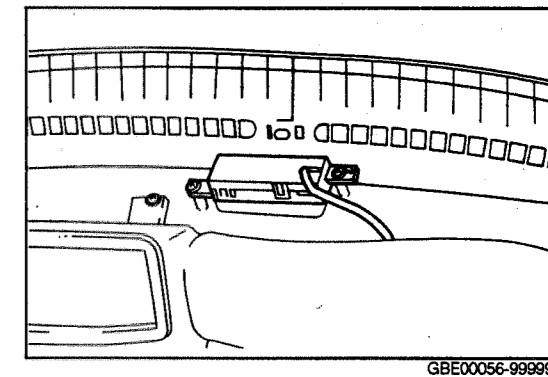
If the clock exhibits abnormality, even if the terminal voltage is normal, replace the clock.

GBE00055-00000

INSTALLATION

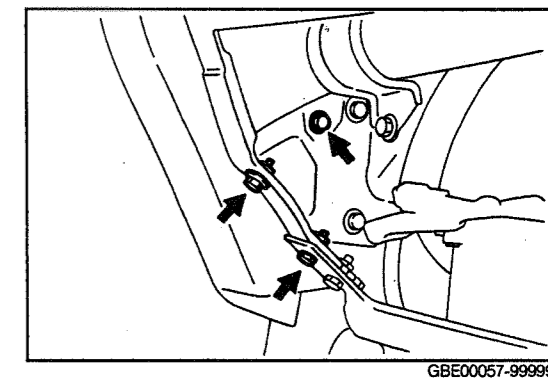
Installation of clock

1. Install the clock with the retaining screw.
2. Connect the connector to the clock wire sub-harness.
3. Install the air duct.

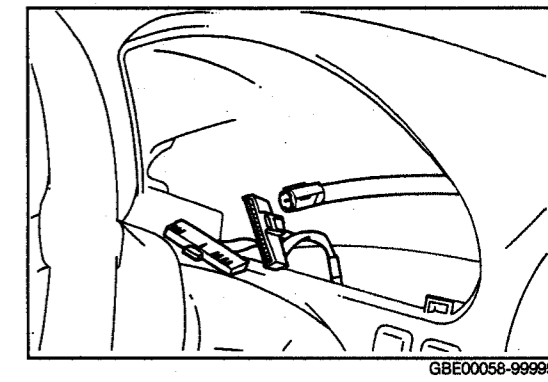


Installation of instrument panel

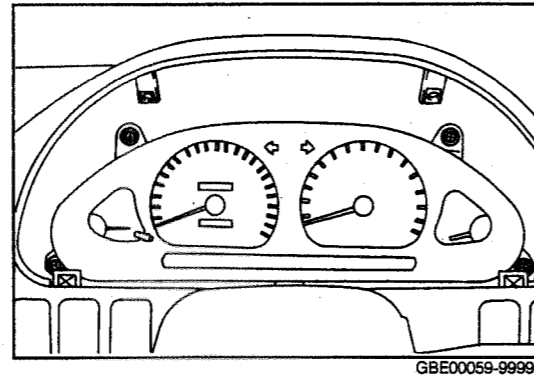
1. Install the instrument panel subassembly to the body.
2. Tighten the retaining bolts as follows:
 - (1) Upper part of instrument panel; 4 bolts
 - (2) Right side of instrument panel; 3 bolts
 - (3) Left side of instrument panel; 3 bolts



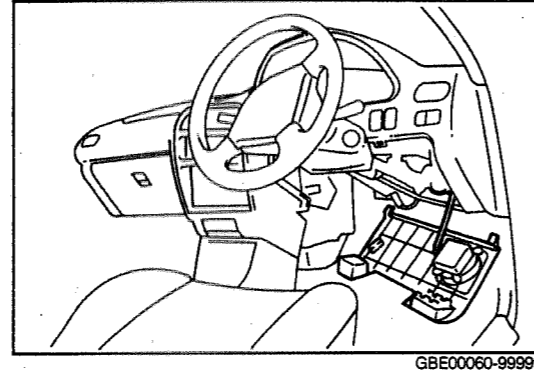
3. Connect the wire instrument panel connector.
4. Connect the speedometer cable coupler and wire harness connectors to the combination meter.
5. Connect the speedometer cable coupler to the transmission case.



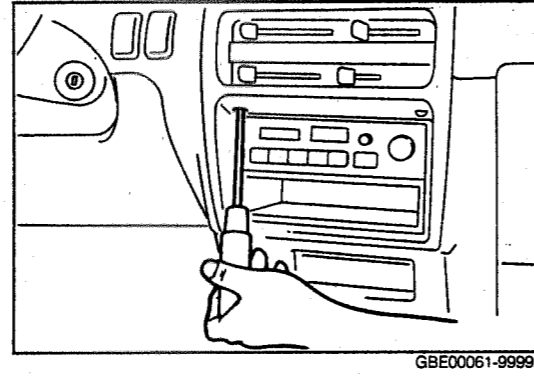
6. Tighten the retaining screws of the combination meter.
7. Install the instrument panel cluster finish panel by two screws.



8. Connect the connectors of the automatic transmission ECU.
9. Install the glove compartment door assembly with the two screws.
10. Install the instrument panel finish lower panel with two screws.

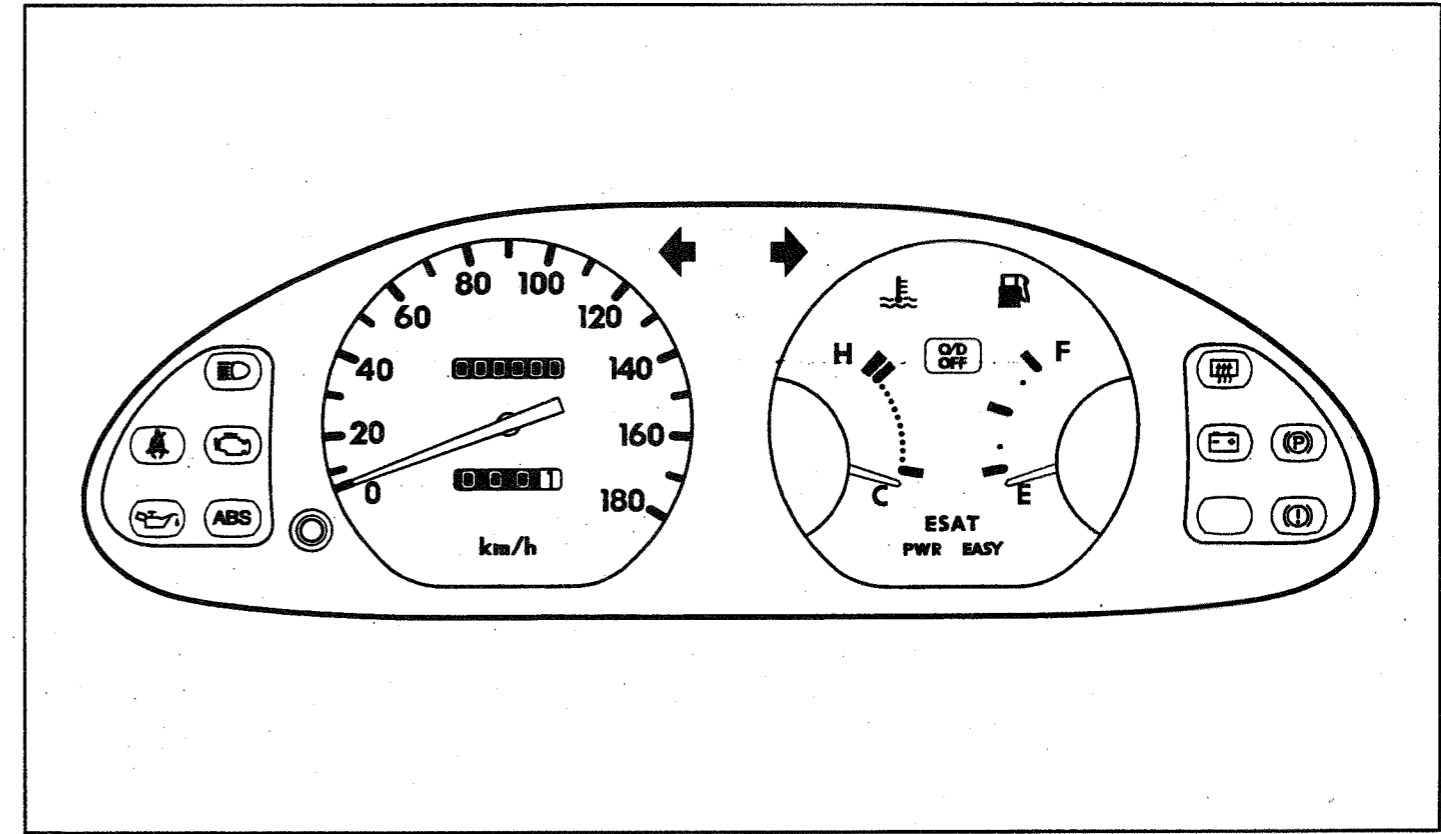


11. Tighten the retaining screws of the heater control assembly.
12. Connect the wire harness connector of the radio assembly. Connect the antenna coupler to the radio assembly.
13. Install the radio assembly with four screws.
14. Install the instrument cluster finish center panel with two screws.

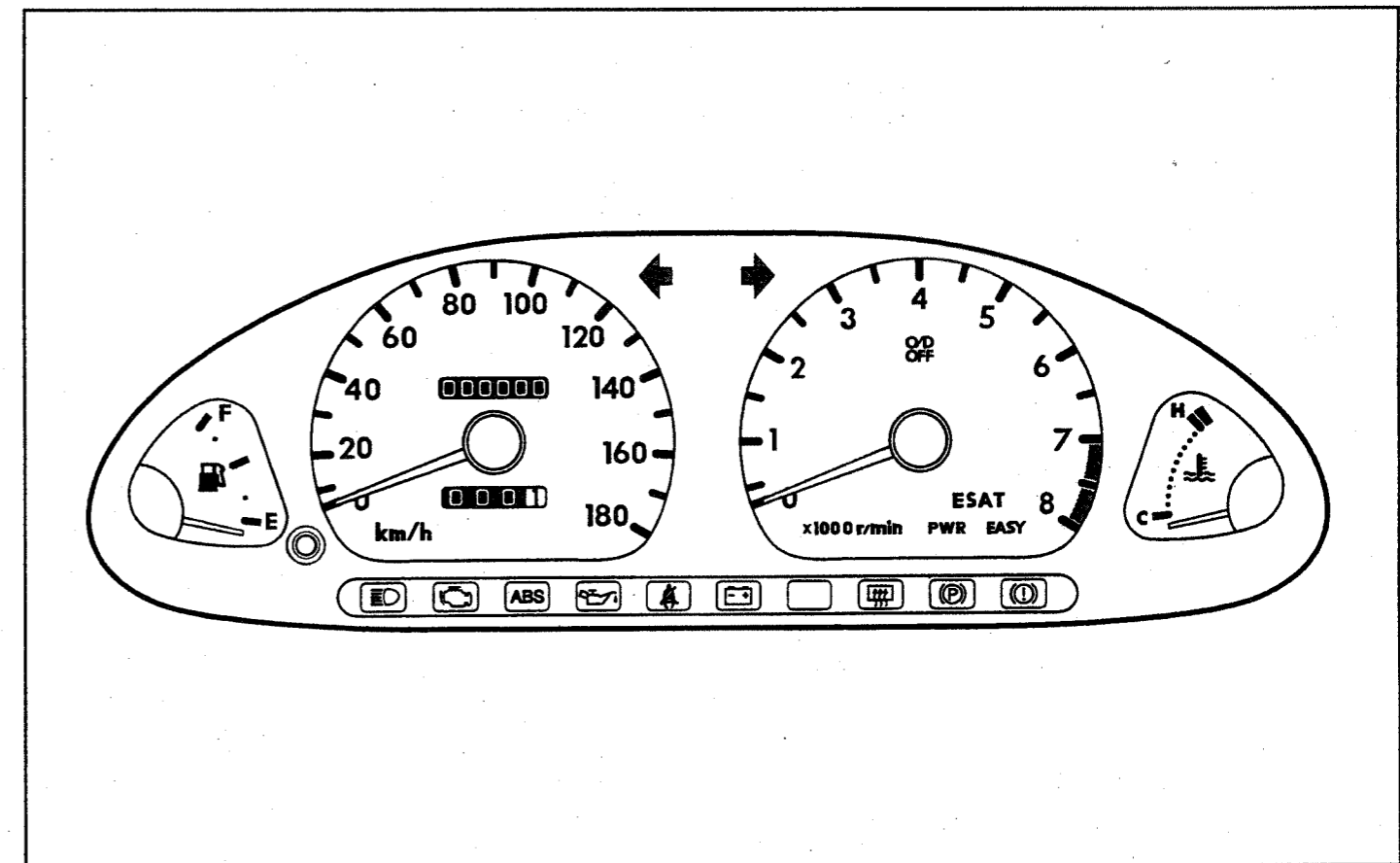


COMBINATION METER

Version A ; Single meter

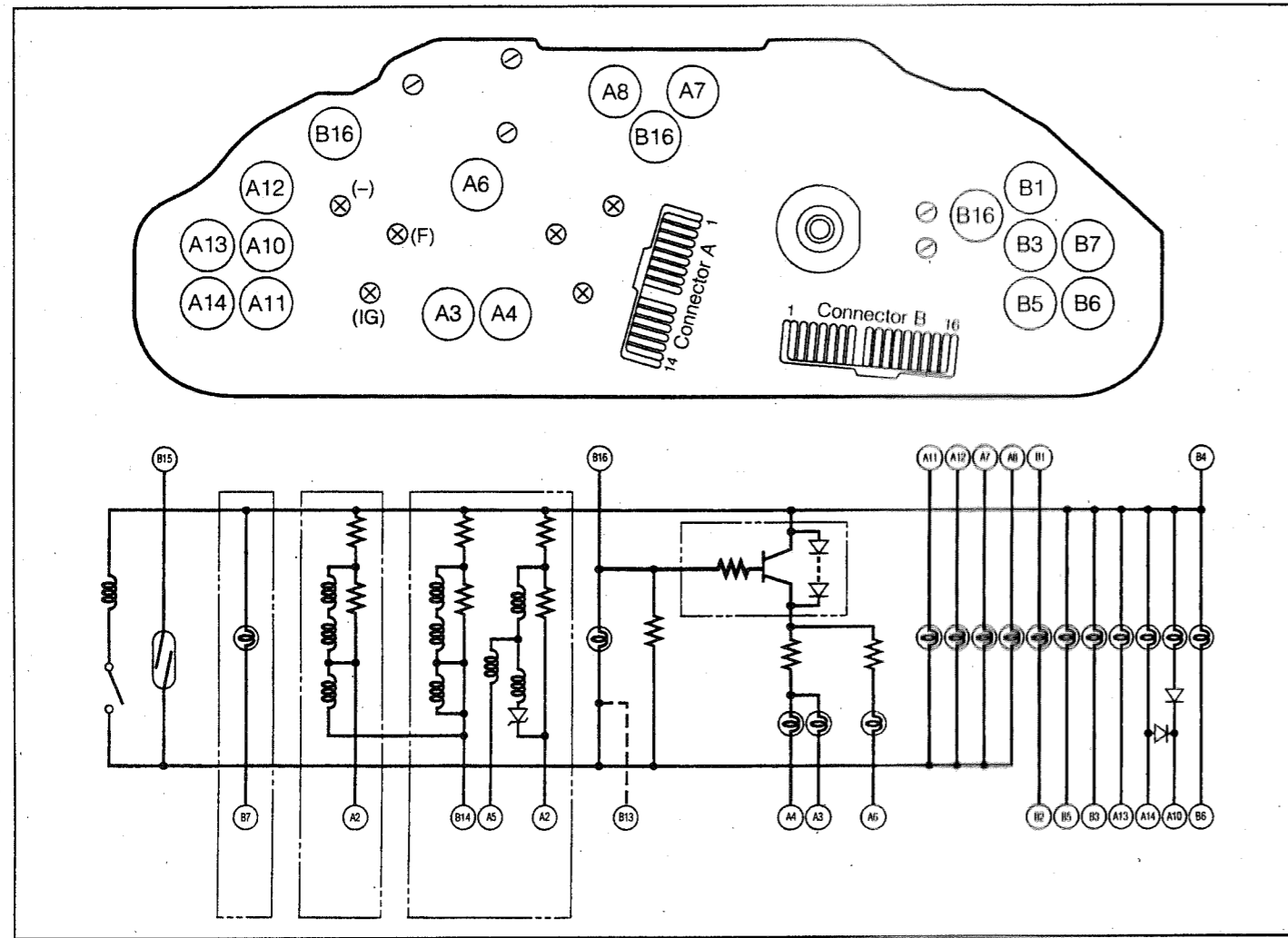


Version B ; Twin meter



CIRCUIT PANEL

Single meter type



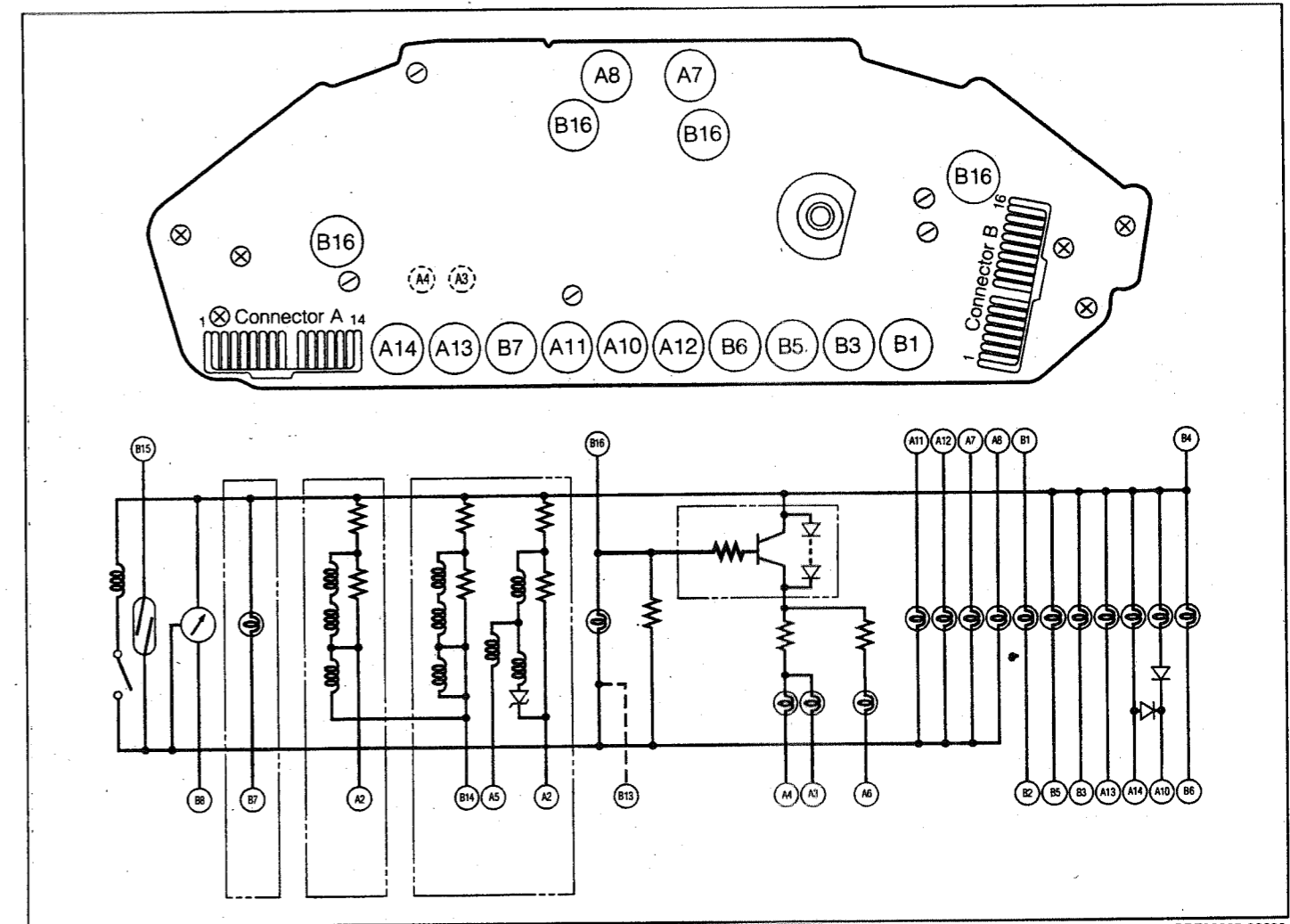
GBE00063-99999

Terminal arrangement

Terminal	AUS	GCC	EC/GENERAL	Terminal	AUS	GCC	EC/GENERAL
A1	—	—	—	B1	High beam (+)	High beam (+)	High beam (+)
A2	Water temp.	Water temp.	Water temp.	B2	High beam (-)	High beam (-)	High beam (-)
A3	—	—	—	B3	—	—	—
A4	—	—	—	B4	Ignition (+)	Ignition(+)	Ignition (+)
A5	Gauge earth	Gauge earth	Gauge earth	B5	Choke	Choke	Choke
A6	—	—	—	B6	Oil	Oil	Oil
A7	Turn LH	Turn LH	Turn LH	B7	—	Seat belt	—
A8	Turn RH	Turn RH	Turn RH	B8	—	—	—
A9	Power earth	Power earth	Power earth	B9	—	—	—
A10	Charge lamp	Charge lamp	Charge lamp	B10	—	—	—
A11	Red hazard	—	Red hazard	B11	—	—	—
A12	Defogger	Defogger	Defogger	B12	—	—	—
A13	—	—	Parking brake	B13	Rheostat	—	—
A14	Brake	Brake	Brake	B14	Fuel sender	Fuel sender	Fuel sender
				B15	—	—	—
				B16	Meter illumi.	Meter illumi.	Meter illumi.

GBE00064-00000

Twin meter type



GBE00065-99999

Terminal arrangement

Terminal	AUS	GCC	EC/GENERAL	Terminal	AUS	GCC	EC/GENERAL
A1	—	—	—	B1	High beam (+)	High beam (+)	High beam (+)
A2	Water temp.	Water temp.	Water temp.	B2	High beam (-)	High beam (-)	High beam (-)
A3	—	—	—	B3	—	—	—
A4	—	—	—	B4	Ignition (+)	Ignition(+)	Ignition (+)
A5	Gauge earth	Gauge earth	Gauge earth	B5	Choke	Choke	Choke
A6	—	—	—	B6	Oil	Oil	Oil
A7	Turn LH	Turn LH	Turn LH	B7	—	Seat belt	—
A8	Turn RH	Turn RH	Turn RH	B8	Tachometer	Tachometer	Tachometer
A9	Power earth	Power earth	Power earth	B9	—	—	—
A10	Charge lamp	Charge lamp	Charge lamp	B10	—	—	—
A11	Red hazard	—	Red hazard	B11	—	—	—
A12	Defogger	Defogger	Defogger	B12	—	—	—
A13	—	—	Parking brake	B13	Rheostat	—	—
A14	Brake	Brake	Brake	B14	Fuel sender	Fuel sender	Fuel sender
				B15	—	—	—
				B16	Meter illumi.	Meter illumi.	Meter illumi.

GBE00066-00000

FUNCTIONS OF WARNING AND INDICATOR

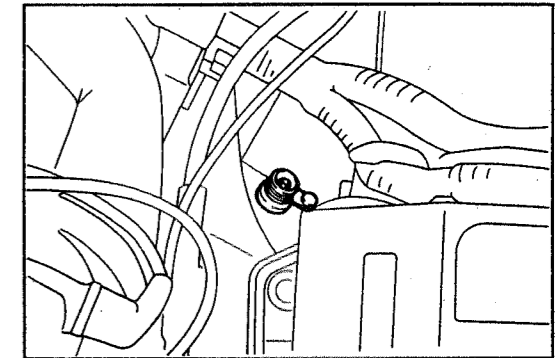
	Name and purpose	Symbol	Function
Indicator	High beam		Glowes when upper beams of headlamps are turned on.
	Turn signal		Flashes when turn signal switch of hazard warning switch is turned on.
	Rear window defogger		Glowes when rear window defogger switch is turned on.
Warning	Brake		Glowes when brake fluid level becomes too low, and/or when parking brake is applied.
	Parking brake		Glowes when parking brake is applied while the engine is running.
	Charge		Glowes when charging system is encountered with abnormality while engine is running.
	Hazard		Blinks when hazard switch is turned on
	Oil		Glowes when oil pressure becomes to low while the engine is running.
	Seat belt		Glowes when driver is not fastened, and goes out when driver fastened.
	Choke		Glowes when choke knob is pulled out with the engine warmed up.

GBE00067-00019

REMOVAL AND INSTALLATION

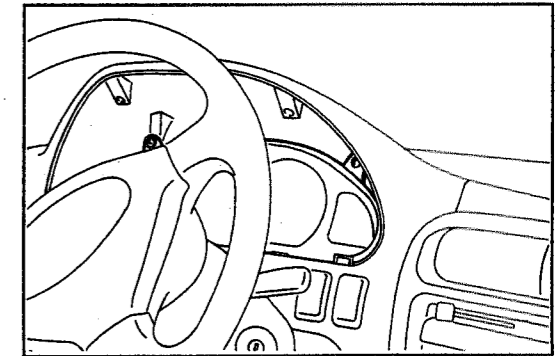
Removal of combination meter

1. Disconnect the speedometer cable at the transmission case side.
2. Remove the instrument cluster finish panel from the instrument panel by removing the screws.



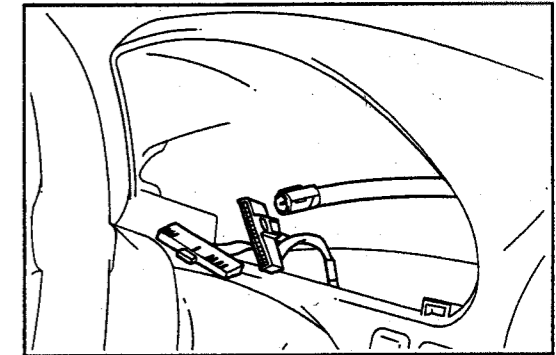
GBE00068-99999

3. Remove the combination meter assembly by removing the attaching screws.



GBE00069-99999

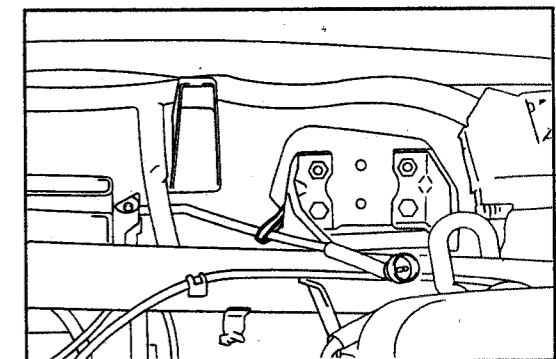
4. Disconnect the speedometer cable and wire harness coupler at the back side of the combination meter assembly.
5. Remove the combination meter assembly.



GBE00070-99999

Installation

1. Connect the speedometer cable and wire harness couplers at the back side of combination meter assembly.
2. Install the combination meter assembly with the four screws.
3. Install the instrument cluster finish panel subassembly with the two screws.



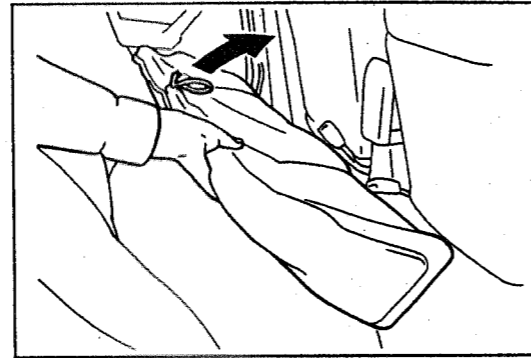
GBE00071-99999

FUEL GAUGE & WATER TEMPERATURE GAUGE

FUEL SENDER GAUGE

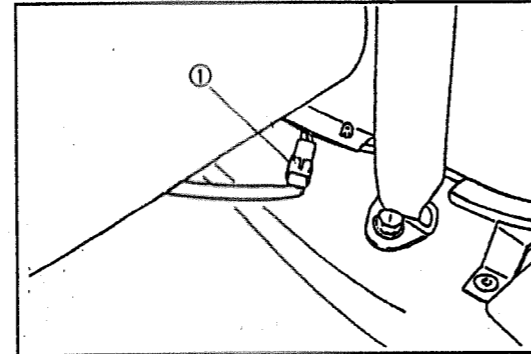
In-vehicle inspection

1. Remove or raise the rear seat cushion.



GBE00072-99999

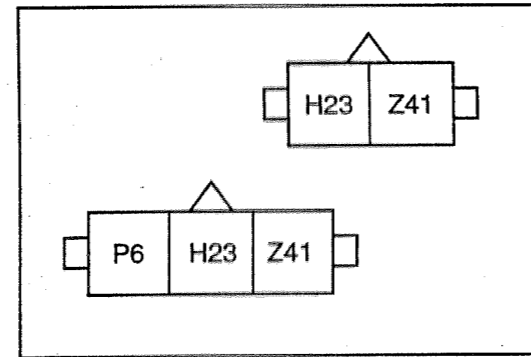
2. Disconnect the connector of the wire harness for the sender gauge/fuel pump assembly.



GBE00073-99999

3. Connect the ohmmeter (Circuit tester) between the terminal H23 and Z41.
4. Ensure that the resistance conforms to the standard value for float position specified in the table.
5. Ensure that the resistance varies gradually when the float is moved from the upper position to lower position.

Float position	Resistance (Ω)
F	3 ± 2
E	120 ± 7



GBE00074-00020

If the specification is not met, replace the fuel sender gauge.

Replacement

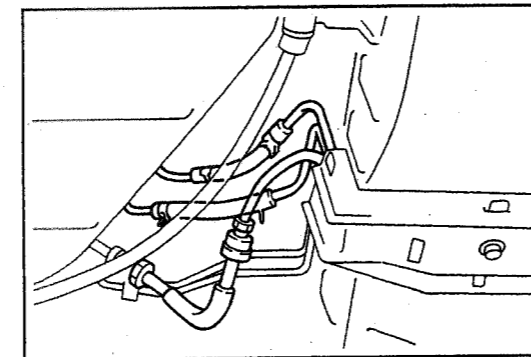
1. Push the rubber grommet attached on the service hole cover into the fuel sender gauge side.

GBE00075-00000

2. Remove the fuel tank inlet hose and breather hose.
3. Remove the fuel main tube and return hose.
4. Remove the vent hose.

WARNING:

- Never allow any fire to be brought near the working site.



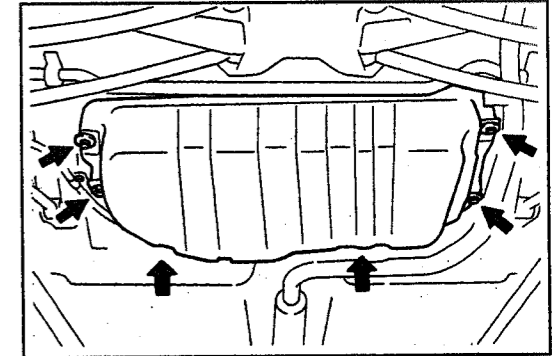
GBE00076-99999

5. Remove the parking brake cable clumps.
6. Remove the fuel tank by loosening the four bolts.

NOTE:

- Put a suitable stand under the fuel tank.

7. Remove the fuel tank from the body.



GBE00077-99999

8. Disconnect the connector of the fuel sender gauge from the wire harness of the fuel pump. (Only for EFI engine)

9. Remove the fuel sender gauge by removing the screws.

GBE00078-00000

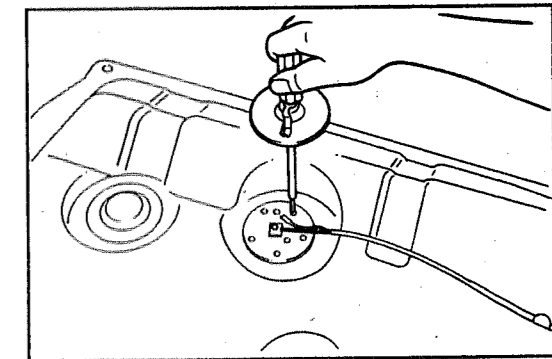
Installation

1. Place a new gasket on the fuel tank.

WARNING:

- Be sure to replace the fuel sender gauge gasket with new one. Failure to observe this caution may cause fire.

2. Install the fuel sender gauge to the fuel tank.
Tightening Torque: 1.5 - 2.5 N·m



GBE00079-99999

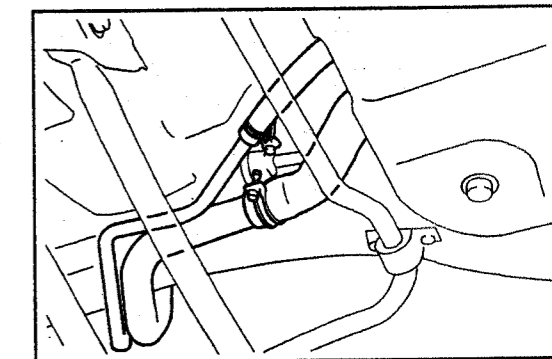
3. Install the fuel tank to the body with the attaching bolts.

NOTE:

- Before tighten the bolts, route the wiring harness of the sender gauge through the service hole cover at the rear seat.

GBE00080-00000

4. Connect the vent hose.
5. Connect the fuel main tube and return hose.
6. Connect the fuel tank hose and breather hose.
7. Connect the parking brake clump to the body.
8. Connect the connector of the wire harness for fuel sender gauge.
9. Install the rear seat cushion.

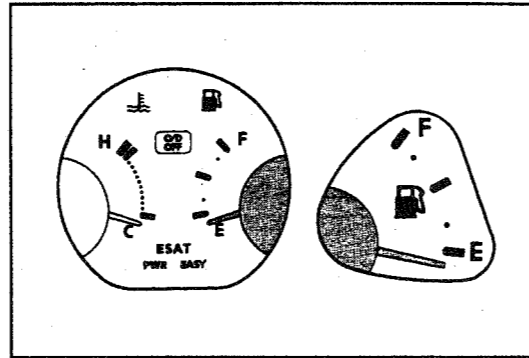


GBE00081-99999

FUEL RECEIVER GAUGE

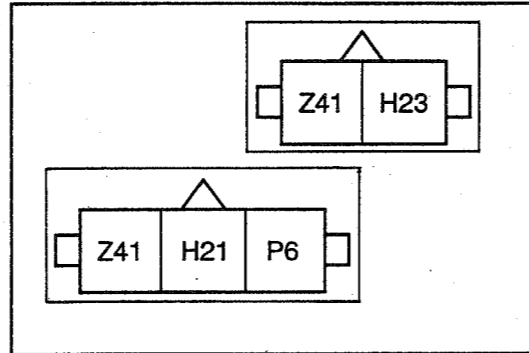
In-Vehicle inspection

1. Disconnect the connector of the fuel sender gauge/fuel pump assembly.
2. Under this condition, turn ON the ignition switch. Ensure that the pointer of the receiver gauge returns to the position "E."



GBE00082-99999

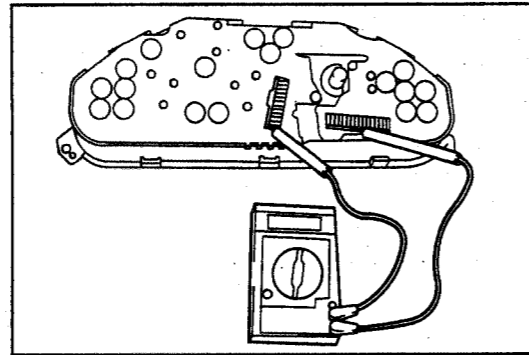
3. Turn OFF the ignition switch. Connect the harness connector H23 and Z41 with a suitable wire.
4. Under this condition, turn ON the ignition switch. Ensure that the pointer of the receiver gauge rises gradually and registers the position "F."
5. Turn OFF the ignition switch. Ensure that the pointer of the receiver gauge remains stationary and registers the position "F."



GBE00083-00021

Unit check

1. Remove the combination meter.
2. Measure the resistance between the terminals.
Specified Resistance: B4 - B14 about 90Ω
B4 - A5 about 115Ω



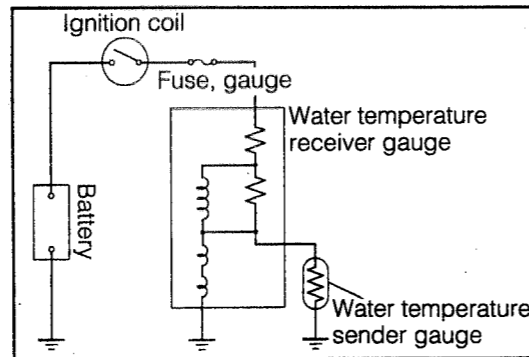
GBE00084-99999

If not the specified value, replace the unit.

WATER TEMPERATURE SENDER GAUGE

In-Vehicle inspection

- (1) Disconnect the connector of the water temperature sender gauge located at the cylinder head.
- (2) Under this condition, turn ON the ignition switch. Ensure that the pointer of the receiver gauge turns to highest position.



GBE00085-99999

- (3) Turn OFF the ignition switch, Ground the harness connector of the water temperature sender gauge.
- (4) Under this condition, Turn ON the ignition switch. Ensure that the pointer of the receiver gauge rises gradually lowest position.

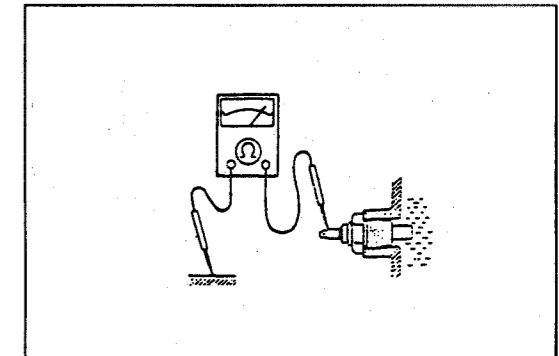
GBE00086-00000

Unit check

1. Disconnect the connector of the water temperature sender gauge.
2. Measure the resistance between the terminal and the unit body.

Specified Resistance: Approx. 150Ω at 20°C

If not the specified value, follows the next procedure.

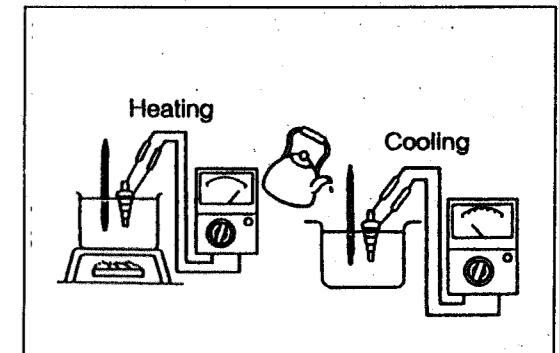


GBE00087-99999

3. Drain the engine coolant from the radiator.
4. Remove the sender gauge.
5. Measure the resistance between the terminals as in the illustration.

Specifications (Approximately):

Temperature (°C)	Resistance (Ω)
50	190 - 260
115	24 - 28



GBE00088-99999

6. Clean the threaded portion of new water temperature sender gauge. Wind seal tape around the threaded portion.
7. Install the sender gauge to the cylinder head.
8. Fill the engine coolant.

NOTE:

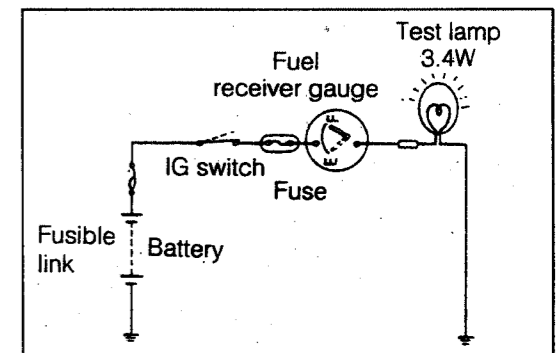
- Make sure if no leak the coolant.

GBE00089-00000

WATER TEMPERATURE RECEIVER GAUGE

In-Vehicle inspection

1. Disconnect the connector from the harness of the water temperature sender gauge at engine compartment.
2. Ground the terminal at the harness side through a test lamp (12V - 3.4W).
3. Turn ON the ignition switch. Ensure that the test lamp goes on and the pointer of the receiver gauge starts to rise gradually.



GBE00090-99999

Unit check

1. Remove the combination meter, measure the resistance between the terminals.

Specified Resistance: B4 - A2: 145Ω
B4 - A5: 115Ω

If not the specified value, replace the unit.

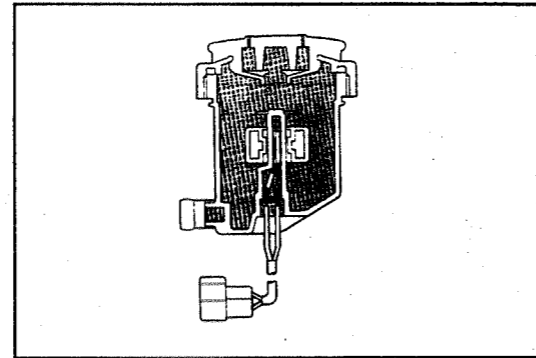
2. Ensure that the voltage at the terminal when the ignition switch ON position.

GBE00091-00000

BRAKE FLUID LEVEL WARNING

Inspection

1. Ensure that the brake fluid is filled to specified level.
2. Disconnect the connector.
3. Connect an ohm meter. Ensure that no continuity exist. If continuity exists, replace the brake fluid reservoir tank.



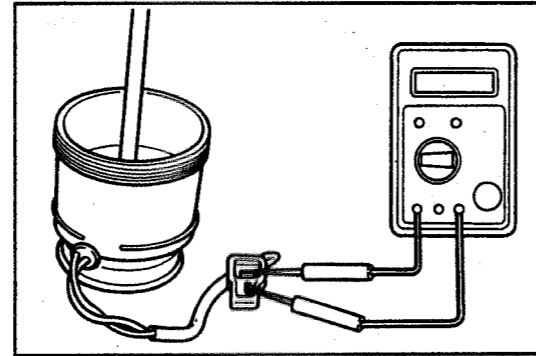
GBE00092-99999

4. Press down the float with a clean rod. Ensure that continuity exists.

If no continuity exists, replace the brake fluid reservoir tank.

NOTE:

- As for a rod to be used for pressing down the float, be sure to thoroughly clean it. Special care must be exercised to ensure that no dust nor water gets into the reservoir.



GBE00093-99999

PARKING BRAKE WARNING

Inspection

1. Disconnect the connector of the parking brake switch located at the center console.
2. Ensure that the parking brake warning lamp or brake warning lamp goes on when short the connector at the harness side.

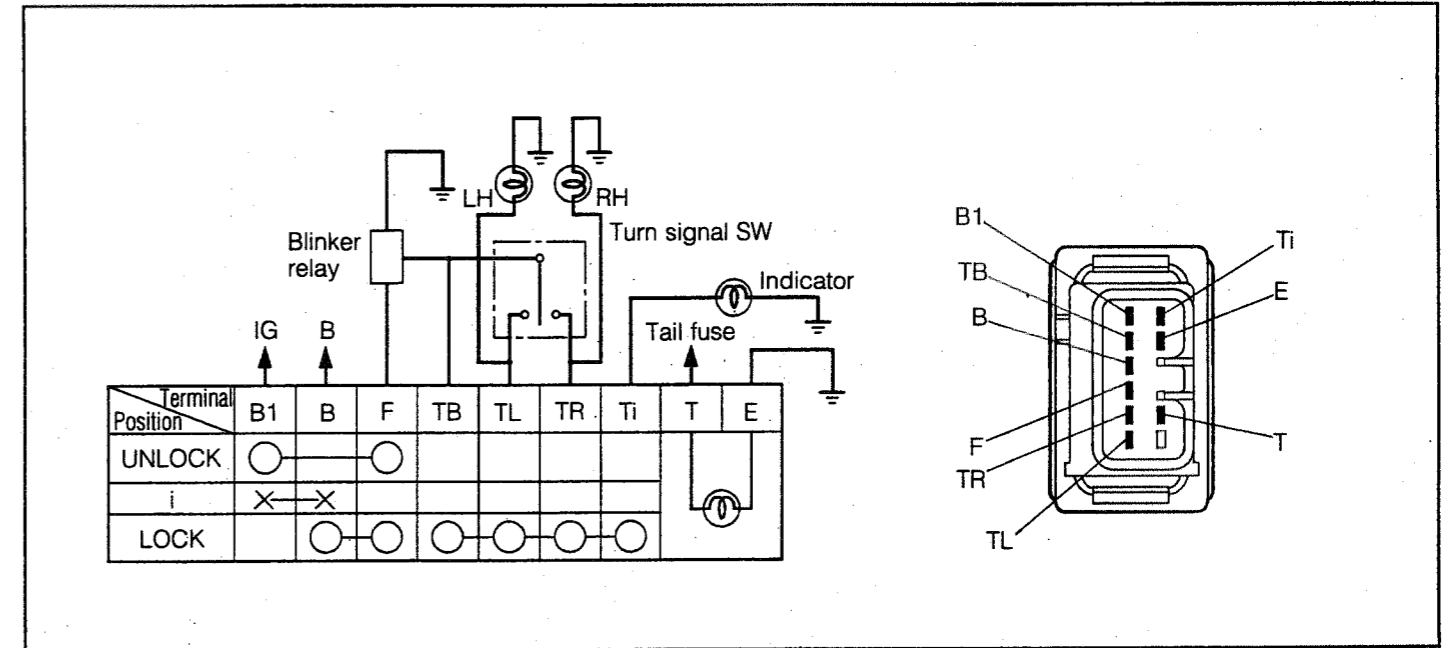
If no glows the lamp, check the wire harness.

3. Ensure that continuity exists between the terminal and the body earth when the parking brake lever is pulled up ward.

GBE00094-00000

HAZARD WARNING

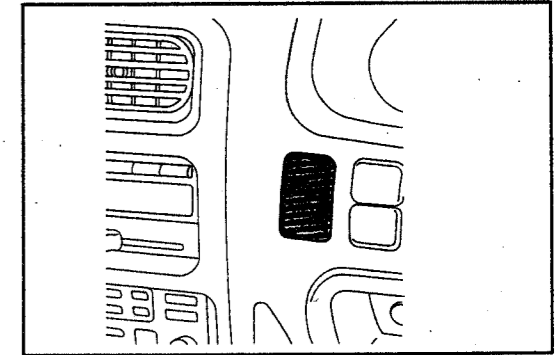
BLINKER CIRCUIT DIAGRAM



GBE00095-99999

Inspection of switch

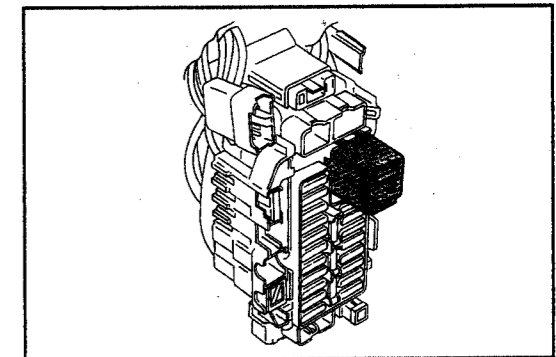
1. Remove the switch from the instrument panel.
2. Disconnect the connector of the hazard warning switch.
3. Ensure that continuity exists between the terminals as indicated in the circuit diagram.



GBE00096-99999

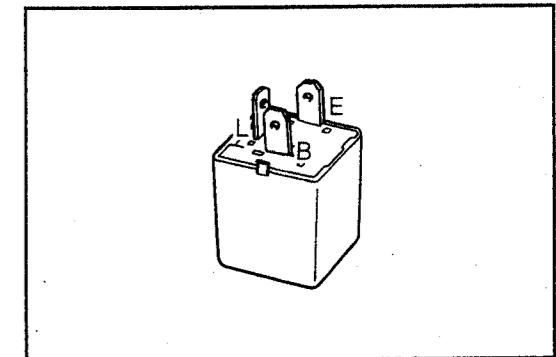
Inspection of blinker unit

1. Remove the blinker unit from the junction block (Main fuse box).
2. Ensure if the voltage exists the terminal B at the junction block when ignition switch is turned ON.



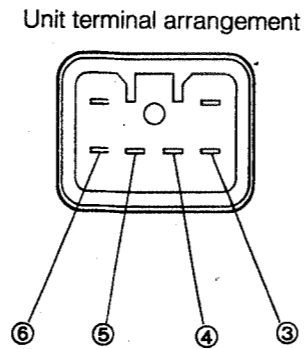
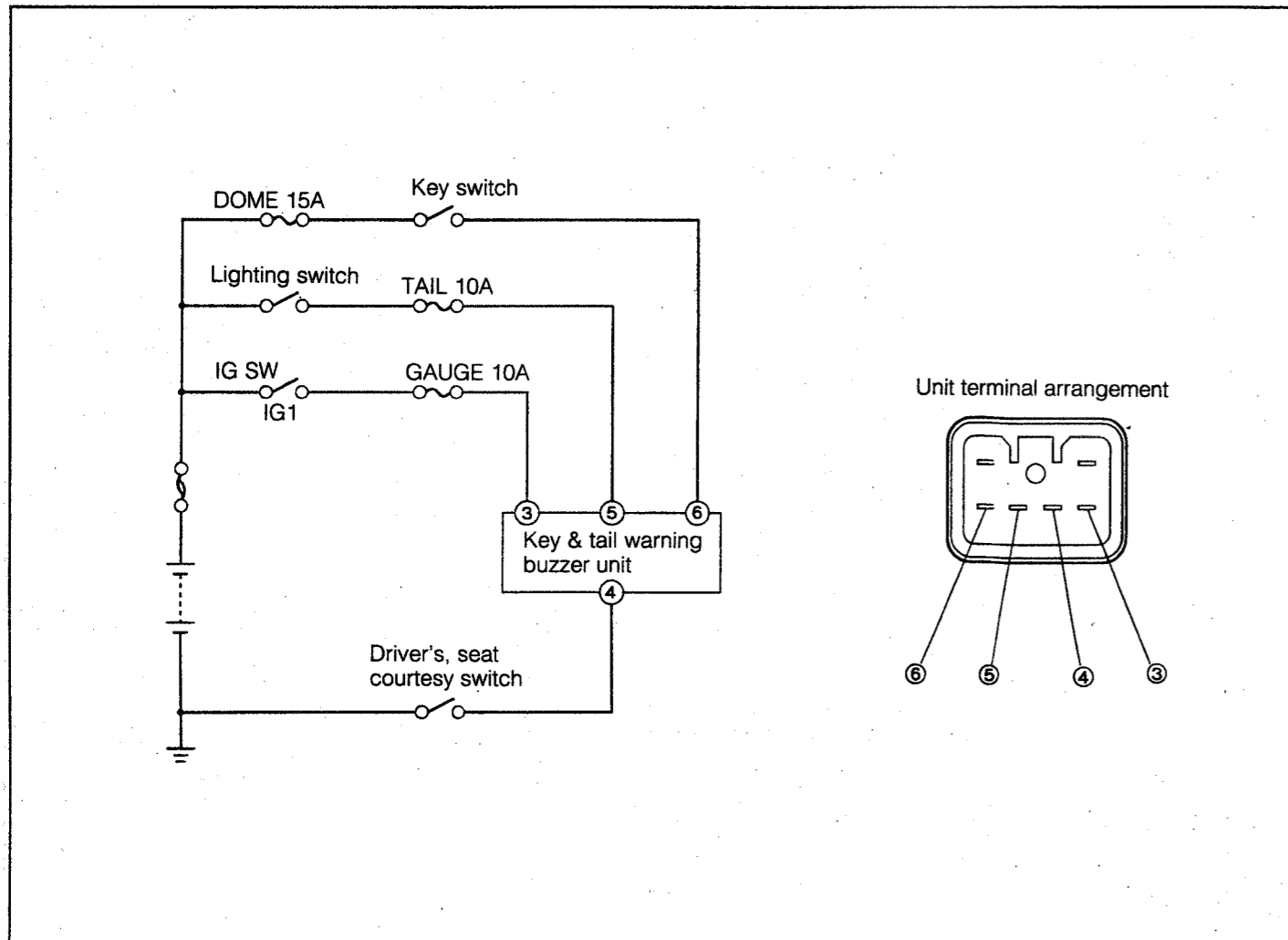
GBE00097-99999

3. Ensure if the voltage exists the terminal when hazard switch turned ON.
4. Connect the blinker unit. Under above 2. and 3. condition, if the specified voltage exists at the terminal and the blinker unit will not work, then the unit is failure.



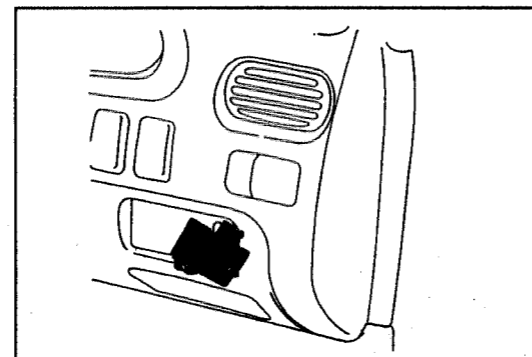
GBE00098-99999

**LIGHT-ON WARNING & KEY REMINDER BUZZER
CIRCUIT DIAGRAM**



INSPECTION

With the lamp switch turned ON, open the front door. Ensure that the warning buzzer is set off. If not, check for open wire or wiring short. Replace the light warning buzzer.



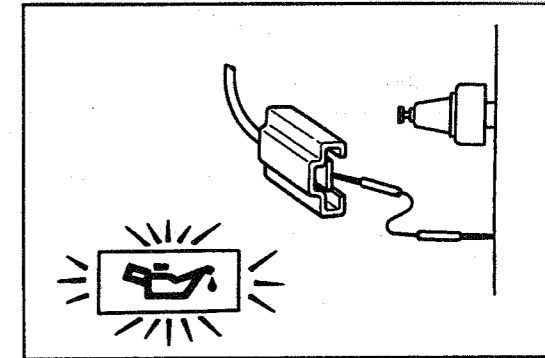
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GBE00100-99999

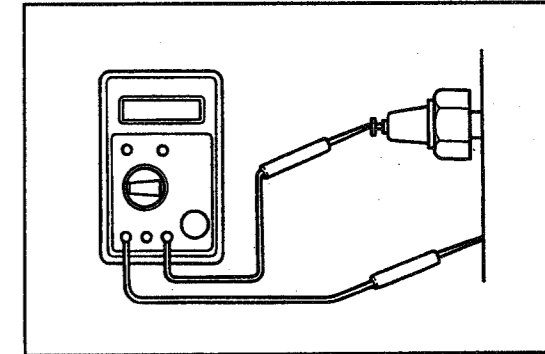
OIL PRESSURE WARNING

Inspection

1. Disconnect the connector.
2. Ensure that the oil pressure warning lamp glows when the ignition switch is turned ON.
3. Ensure that continuity exists between the oil pressure switch terminal and the earth while the engine is stopped, whereas no continuity exists while the engine is running.



GBE00101-99999

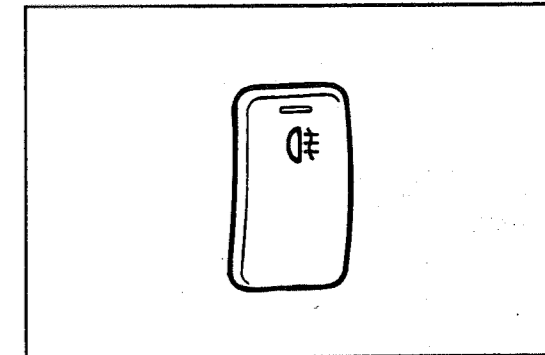


GBE00102-99999

REAR FOG LAMP WARNING

Inspection

1. Pull out the switch assembly from the instrument panel. Disconnect the connector.
2. Ensure that the rear fog lamp warning glows when short the connector at the harness and body earth.
3. Ensure that the continuity exists between the terminals while the switch turned ON.

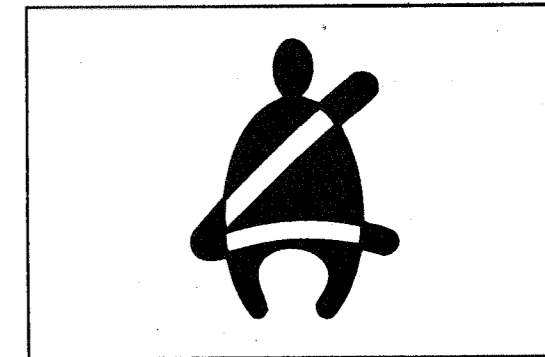


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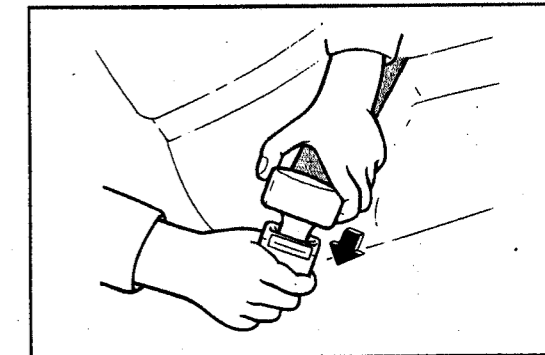
SEAT BELT WARNING

Inspection

1. Disconnect the connector of the seat belt buckle.
2. Ensure that the seat belt warning glows when short the terminal at the harness side and the body earth.
3. Ensure that continuity exists between the terminal of the buckle side and the body earth.
4. Ensure that no continuity exists when insert the tongue plate into the buckle until it clicks.

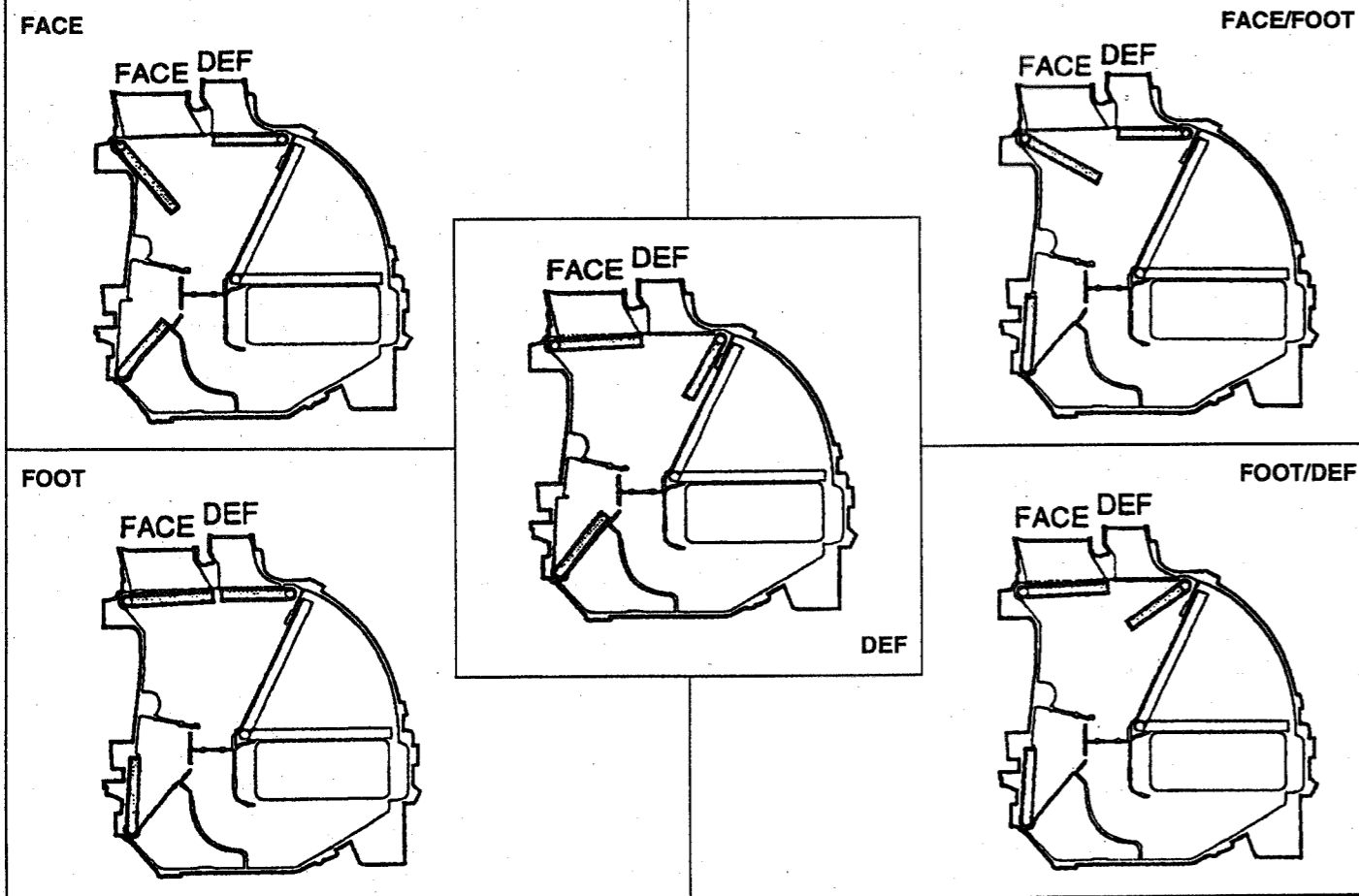
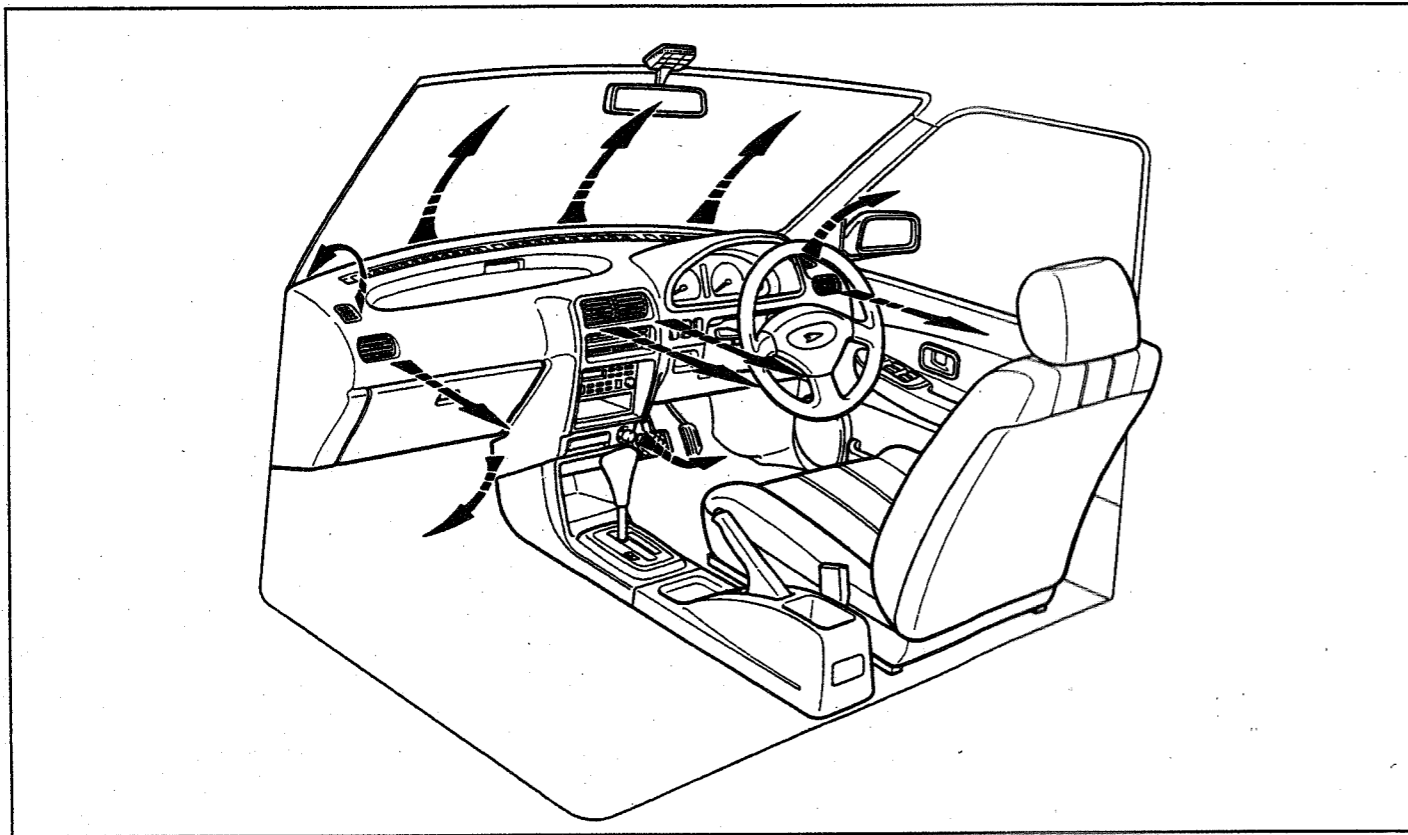


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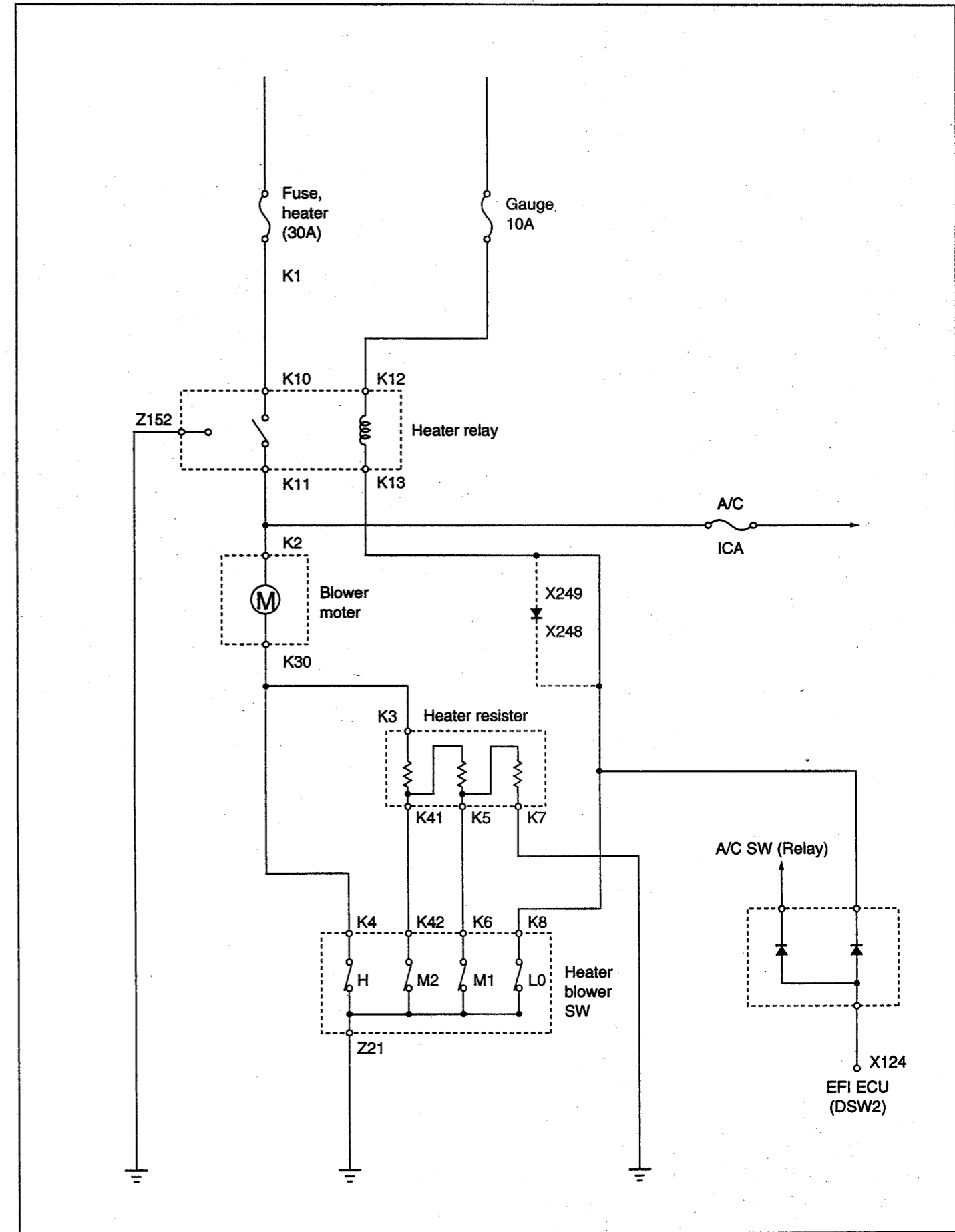


GBE00105-99999

HEATER & VENTILATION
VENTILATION SYSTEM

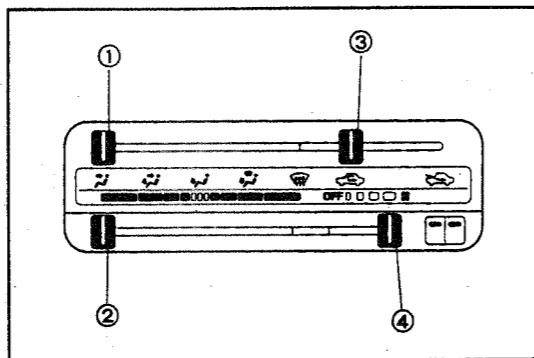


WIRING DIAGRAM



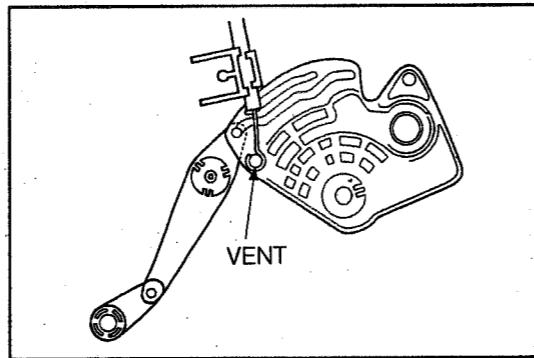
ADJUSTMENT OF VENTILATION CONTROL

1. Ensure that the control levers move in a right-and-left direction without stiffness and binding over the full range of each lever.



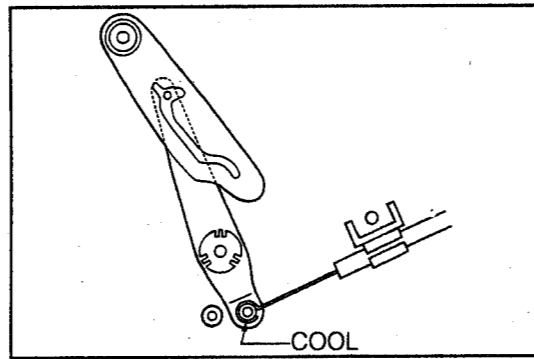
GBE00128-99999

2. Set the control lever to the VENT mode ①. Clamp the control cable.



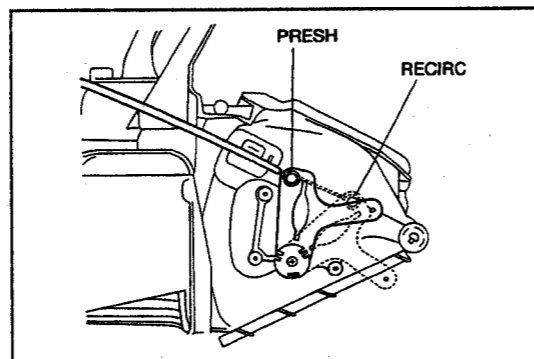
GBE00129-99999

3. Set the control lever to the COOL mode ②. Clamp the control cable.



GBE00130-99999

4. Set the control lever to the RECIRC mode ③. Clamp the control cable.



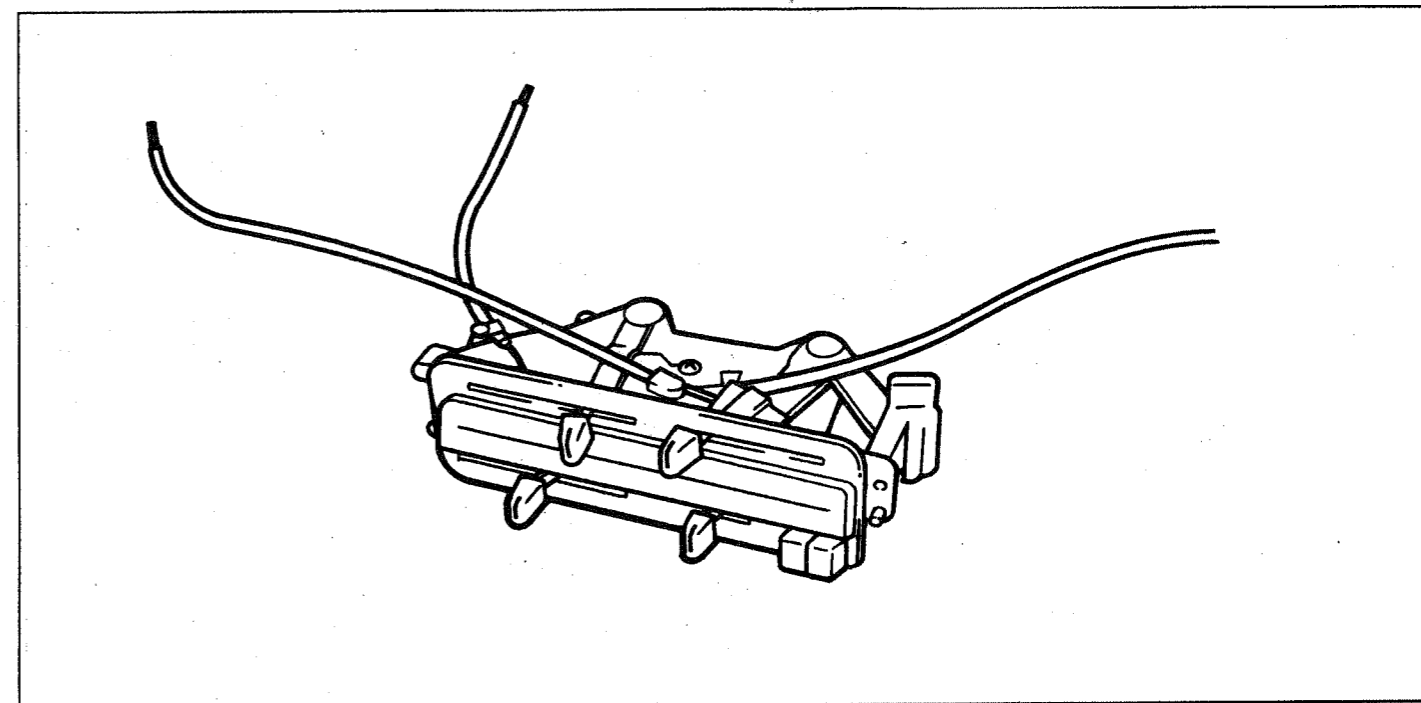
GBE00131-99999

5. After completion of the adjustments in the steps 2 through 4, set the blower switch to the most highest position ④. Check the following items.

- (1) When the VENT mode is selected, ensure that no air leaks from the foot side outlet and defroster.
- (2) When the DEF mode is selected, ensure that no air leaks from the foot side outlet and register.
- (3) When the FOOT mode is selected, ensure that no air leaks from the register. If not, readjust the control lever.

GBE00132-00000

HEATER CONTROL ASSEMBLY



GBE00133-99999

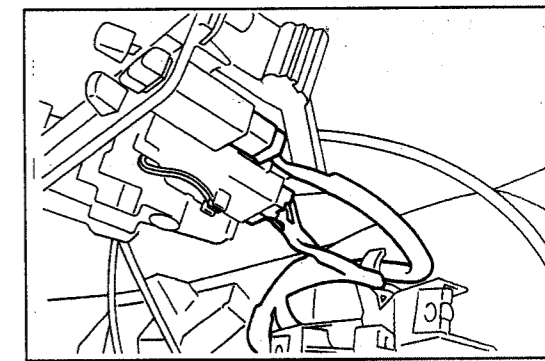
REMOVAL
Removal of instrument panel

- NOTE:
- See page BE-11, clock removal.

GBE00134-00000

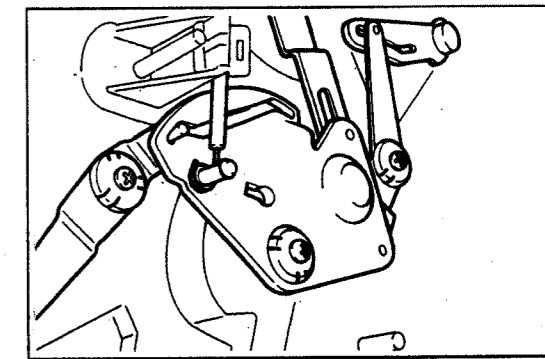
Removal of heater control assembly

1. Disconnect the connector of the blower switch.
2. Disconnect the connector of the air conditioner switch, if equipped.



GBE00135-99999

3. Disconnect the control cables from the heater unit.



GBE00136-99999

INSPECTION

Blower switch

When the blower switch is set to each stage, ensure that continuity exists between the respective terminals as indicated in the table.

	Z21	K8	K6	K42	K4
OFF					
Lo	○	○			
M1	○	○	○		
M2	○	○		○	
Hi	○	○			○

Blower resistor

1. Remove the blower resistor by removing the screws.

2. Ensure that resistance between the respective terminals conforms to the following specifications.

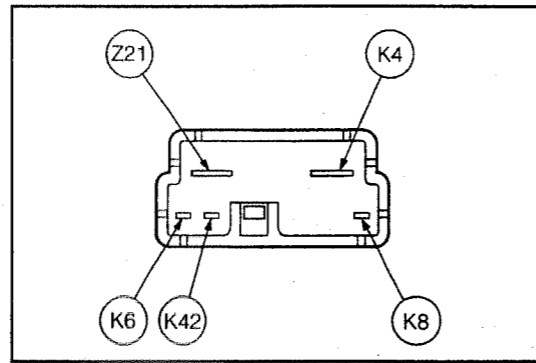
Between terminal H and M2; 0.7Ω
 Between terminal M2 and M1; 0.5Ω
 Between terminal M1 and L; 1.4Ω

Blower motor

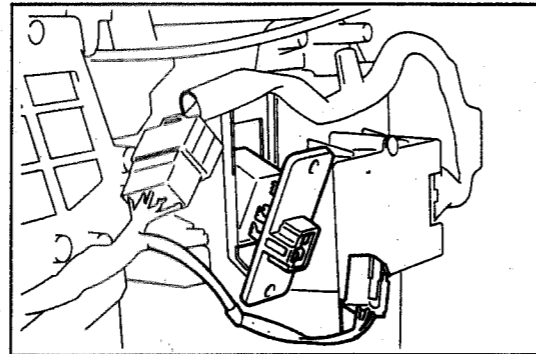
1. Remove the blower motor from the blower assembly by removing the screws.
2. Connect the connectors to the 12 V battery. Ensure that the motor rotates smoothly.

NOTE:

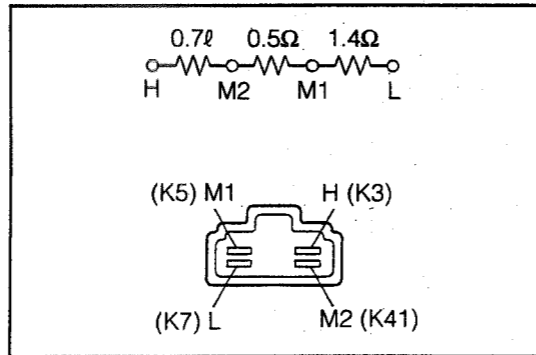
- Never hits top of the blower fan shaft.



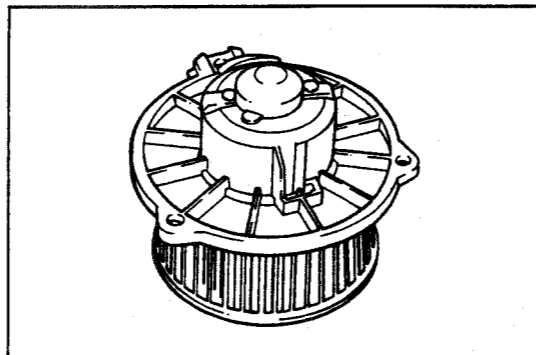
GBE00137-99999



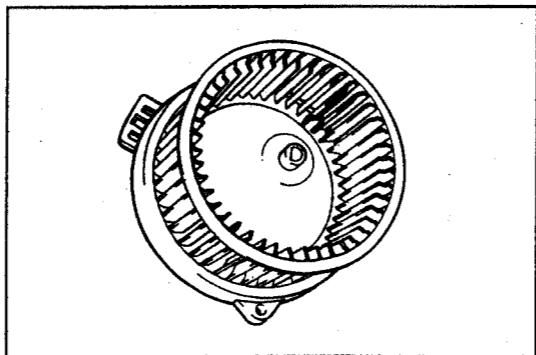
GBE00138-99999



GBE00139-99999



GBE00140-99999



GBE00141-99999

INSTALLATION

1. Install the heater control cables to the heater unit.

NOTE:

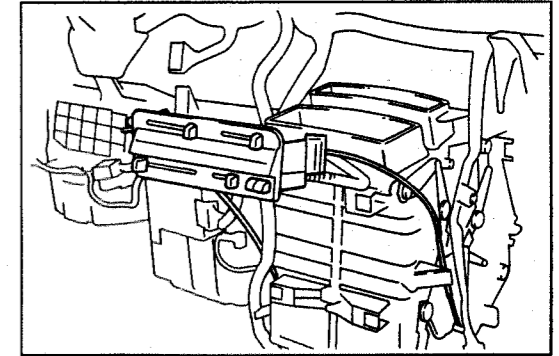
- See page BE-30, adjustment of heater ventilation control.

2. Connect the connector of the blower switch.

3. Install the instrument panel.

NOTE:

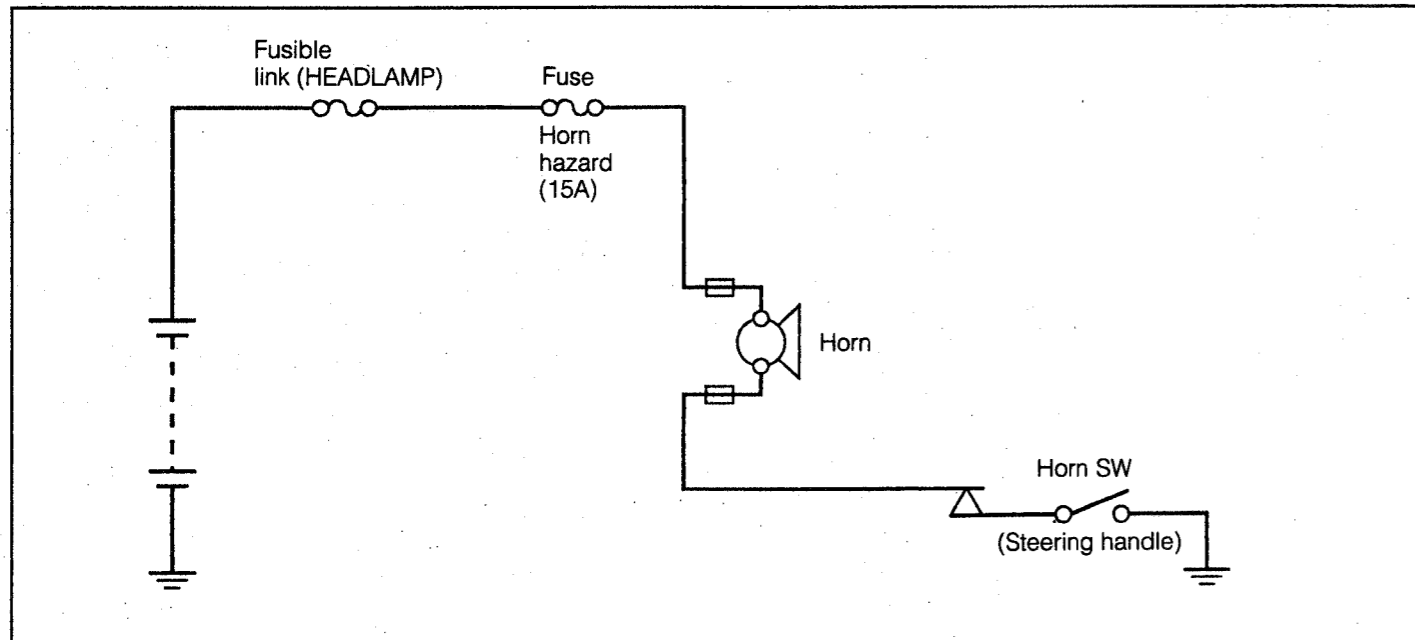
- See page BE-13, clock installation.



GBE00142-99999

GBE00143-00000

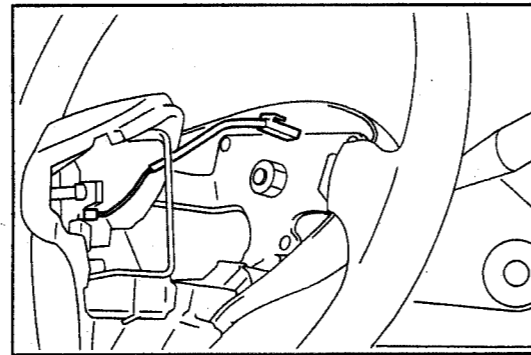
**HORN
CIRCUIT DIAGRAM**



GBE00144-99999

HORN SWITCH

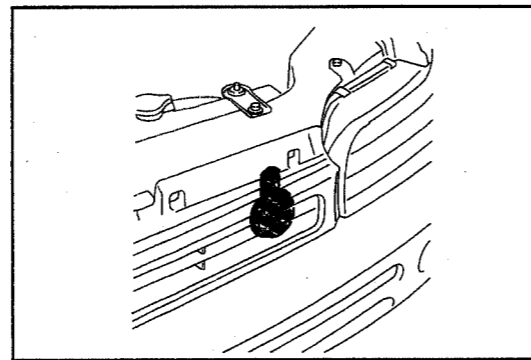
1. Disconnect the battery ground cable from the negative (-) terminal of the battery.
2. Remove the steering horn button or wheel pad.
3. Disconnect the coupler of the of the horn button.
4. Connect the battery ground cable to the negative terminal (-) of the battery.
Ensure that the horn set off when the coupler contact to the steering column.



GBE00145-99999

HORN UNIT

1. Disconnect the battery ground cable from the negative (-) terminal of the battery.
2. Remove the radiator grill and front bumper from the body.
3. Disconnect the connector of the horn.
4. Remove the horn.



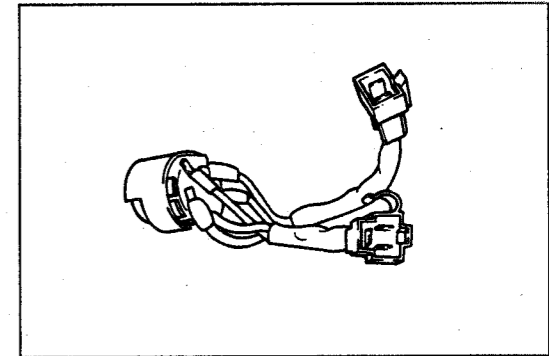
GBE00146-99999

5. Test the horn by connecting battery voltage to the terminals.
If the horn fails to sound, replace the horn.

GBE00147-00000

**IGNITION KEY SWITCH
INSPECTION**

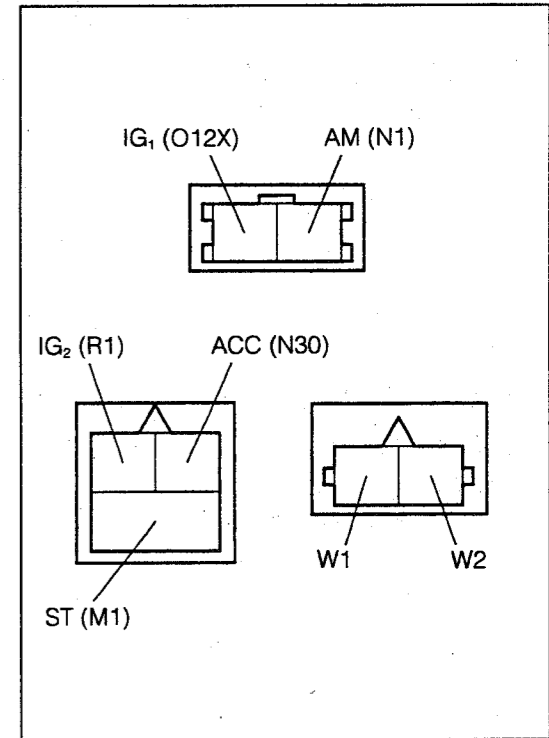
1. Remove the instrument pane finish lower panel.
2. Disconnect the connector of the ignition key switch.
3. Ensure that continuity exists between the respective terminals as indicated in the continuity table.



GBE00148-99999

Continuity table of ignition switch

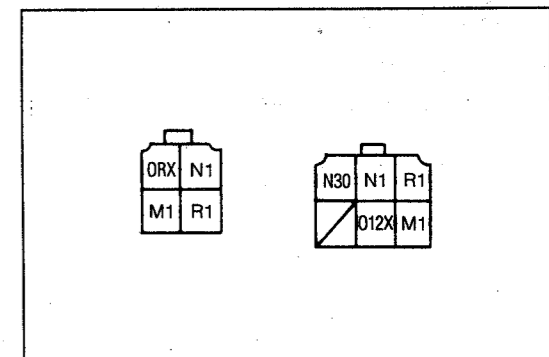
	O12X	N30	N1	M1
LOCK				
ACC	○	○		
ON	○	○	○	
START	○		○	○



GBE00149-99999

Continuity table of key warning

	W1	W2
Key out		
Key in	○	○

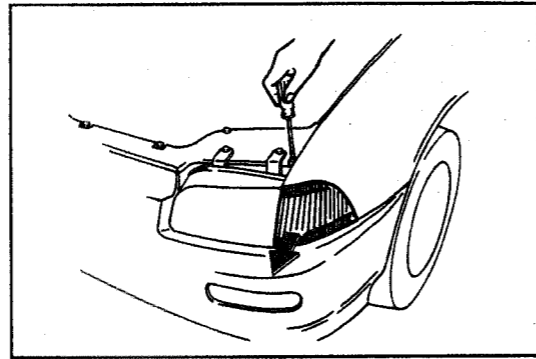


GBE00150-99999

LIGHTING AND SWITCHES

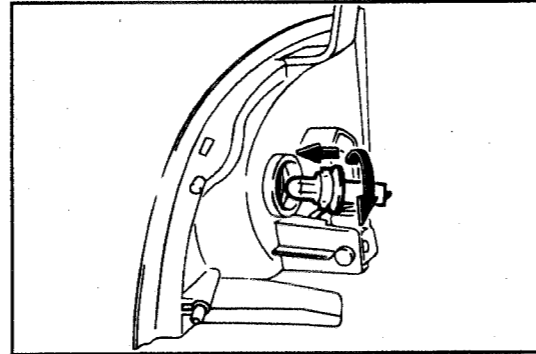
**CLEARANCE LAMP
REPLACEMENT OF BULB**

1. Open the engine food.
2. Remove the screw and slide the lamp assembly forward.



GBE00151-99999

3. Remove the bulb holder by turning it counterclockwise.
4. Remove the bulb by pulling it.

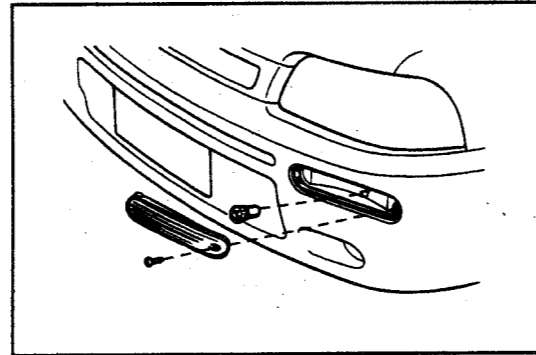


GBE00152-99999

FRONT TURN SIGNAL LAMP

REPLACEMENT OF BULB

1. Remove the screw to remove the lens.
2. Turn the bulb counterclockwise while pushing it.

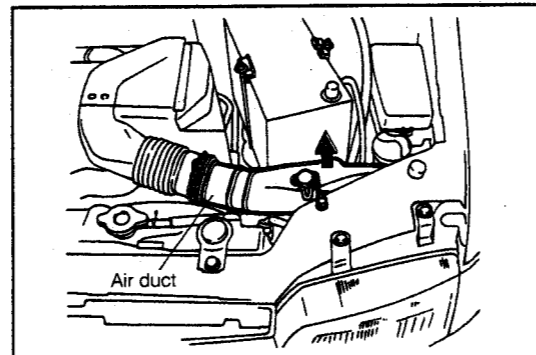


GBE00153-99999

HEADLAMP

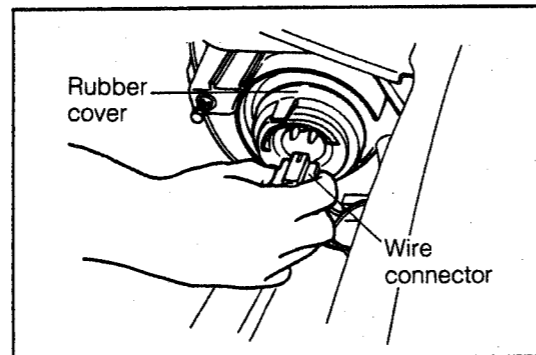
Bulb replacement

- (1) Remove the air duct. (Only for left side)



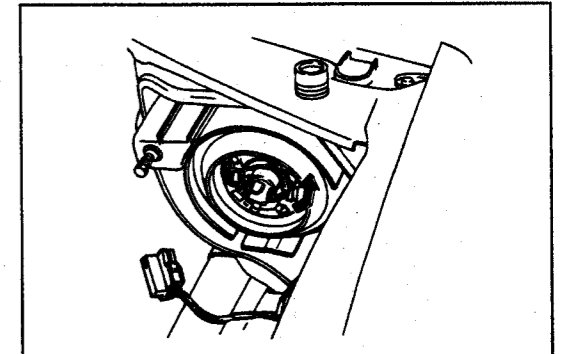
GBE00154-99999

- (2) Disconnect the connector while pushing the both sides and remove the rubber cover.



GBE00155-99999

- (3) Disengage the clip.

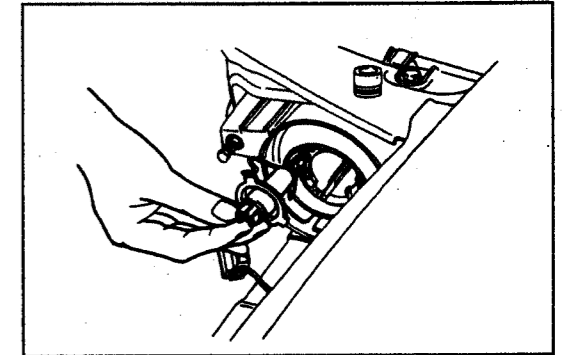


GBE00156-99999

- (4) Remove the bulb.

CAUTION:

- The halogen bulb reaches a very high temperature while it is put into use. If any lubricant gets on the bulb surface, it will result in significantly reduced lamp life. Hence, be very careful not allow your fingers, etc., to touch with the glass position during the replacement. Be sure to hold the flange section to replace the bulb.

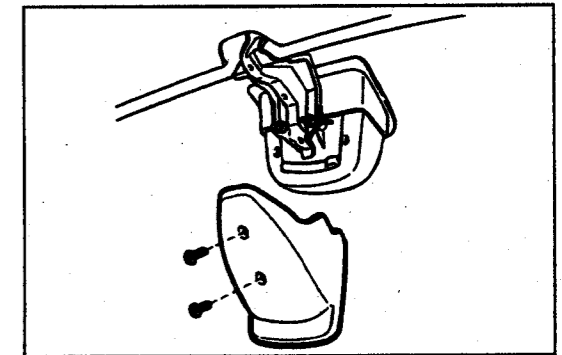


GBE00157-99999

HIGH-MOUNTED STOP LAMP

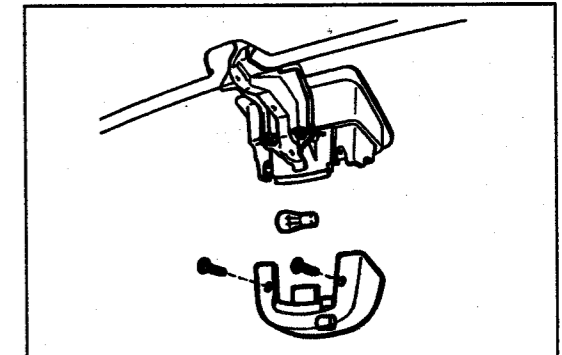
REPLACEMENT OF BULB

1. Remove the two screws and detach the cover.



GBE00158-99999

2. Remove the two screws and detach the cover.
3. Remove the bulb by turning it counterclockwise while pushing the bulb.

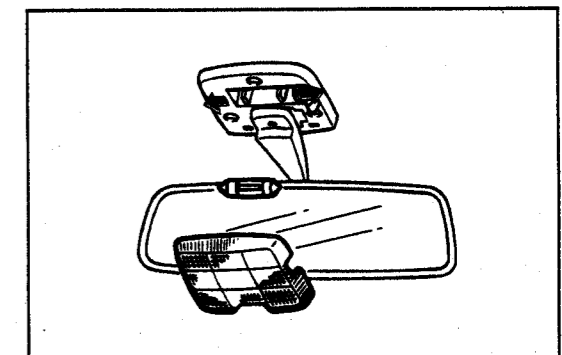


GBE00159-99999

INTERIOR LAMP

REPLACEMENT OF BULB

1. Lightly pry the lens to detach it.
2. Pull out the bulb straight.

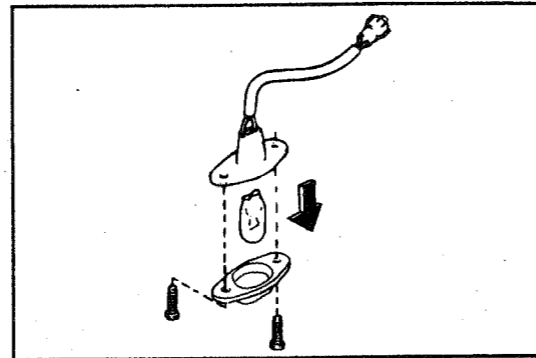


GBE00160-99999

LICENSE PLATE LAMP

REPLACEMENT OF BULB

1. Remove the two screws.
2. Remove the bulb by pulling it.

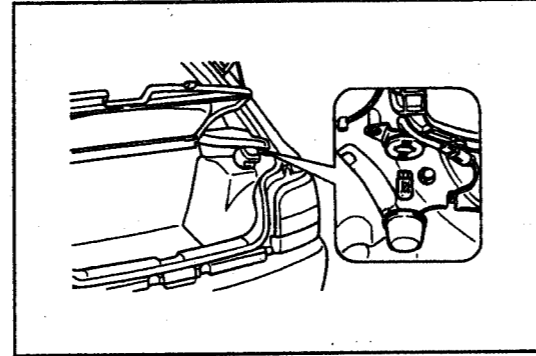


GBE00161-99999

LUGGAGE ROOM LAMP

REPLACEMENT OF BULB

1. Turn the lens counterclockwise.
2. Remove the bulb by pulling it.

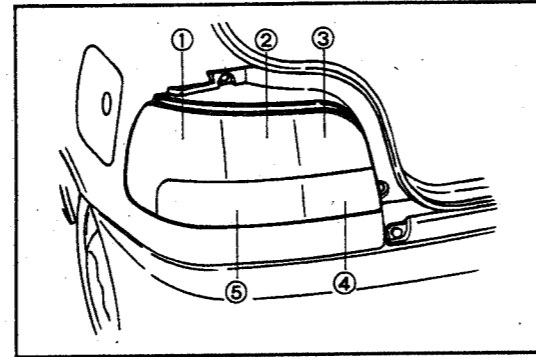


GBE00162-99999

REAR COMBINATION LAMP

REPLACEMENT OF BULB

1. Remove the two screws to detach the lamp assembly.
2. Remove the bulb holder by turning it counterclockwise.

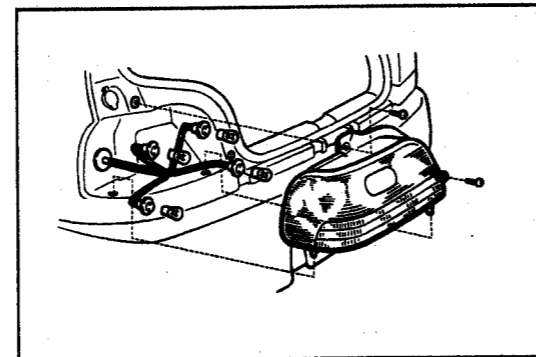


GBE00163-99999

3. Remove the bulb by turning it counterclockwise while pushing the bulb.

NOTE:

- When installing the lamp assembly, be sure to align the lower projection of the lamp assembly with the body hole.

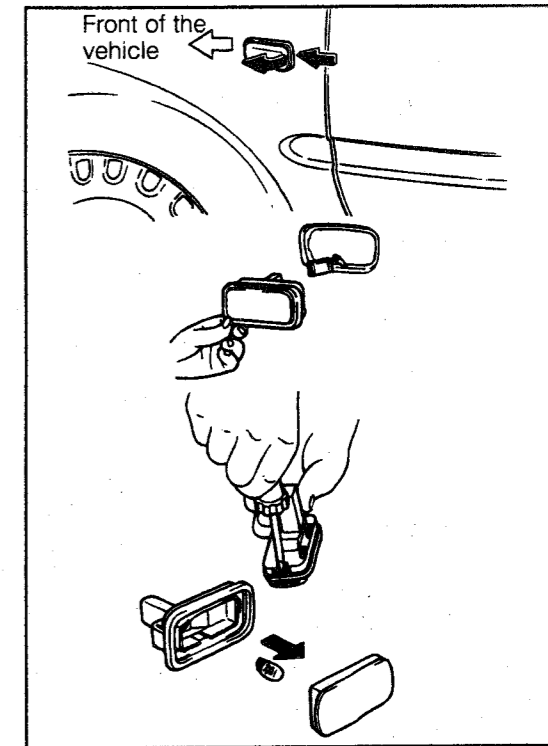


GBE00164-99999

SIDE TURN SIGNAL LAMP

REPLACEMENT OF BULB

1. Using a screwdriver, remove the side turn signal lamp assembly from the fender by pushing it toward the front part of the vehicle while avoiding scratching the body by means of a suitable cloth or the like.
2. Disconnect the connector and remove the side turn signal lamp.
3. Remove the lens by disengaging the lock.
4. Pull out the bulb.



GBE00165-99999

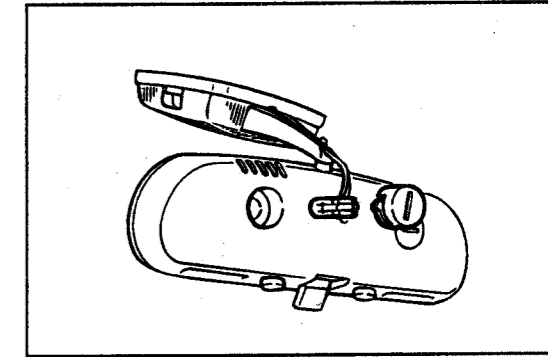
SPOT LAMP

REPLACEMENT OF BULB

1. Turn the socket counterclockwise by means of a coin.
2. Remove the bulb by pulling it.

CAUTION:

- Do not turn the mirror excessively.
- Failure to observe this caution may break the wiring.

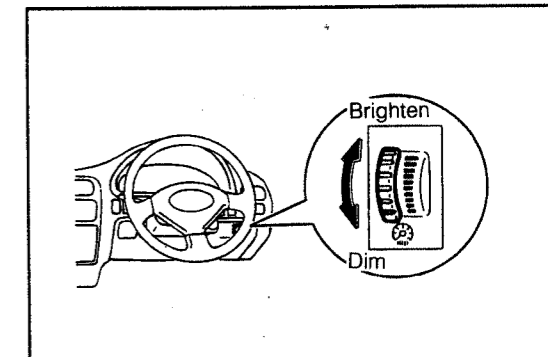


GBE00166-99999

RHEOSTAT CONTROL

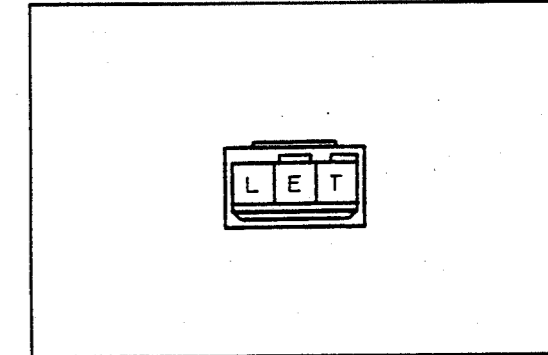
INSPECTION

1. Connect the battery (+) to the T terminal and a 3.4 wattage test bulb (+) to the L terminal. Connect the battery (-) to the E terminal and test bulb (-) to the E terminal.



GBE00167-99999

2. Ensure that the luminous intensity of the test lamp varies when the rheostat control dial is turned slowly. If not, replace the control switch.

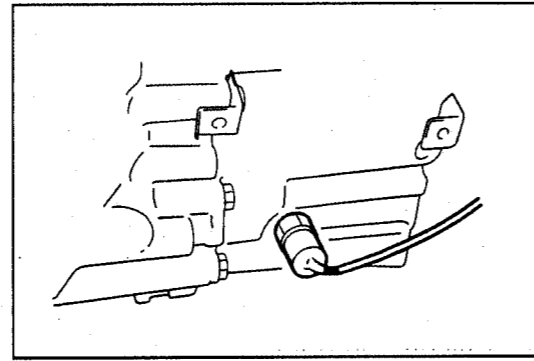


GBE00168-99999

BACK UP LAMP SWITCH

Manual transmission

1. Disconnect the connector of the back up lamp switch. (on the transmission case)
2. Ensure that continuity exists between the terminals when shift lever of the manual transmission is shifted to the reverse position.
If no continuity exists, replace the switch.

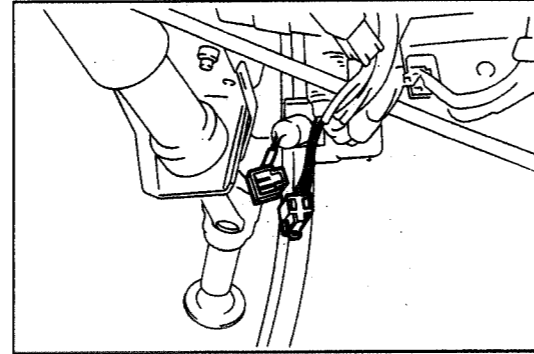


GBE00169-99999

STOP LAMP SWITCH

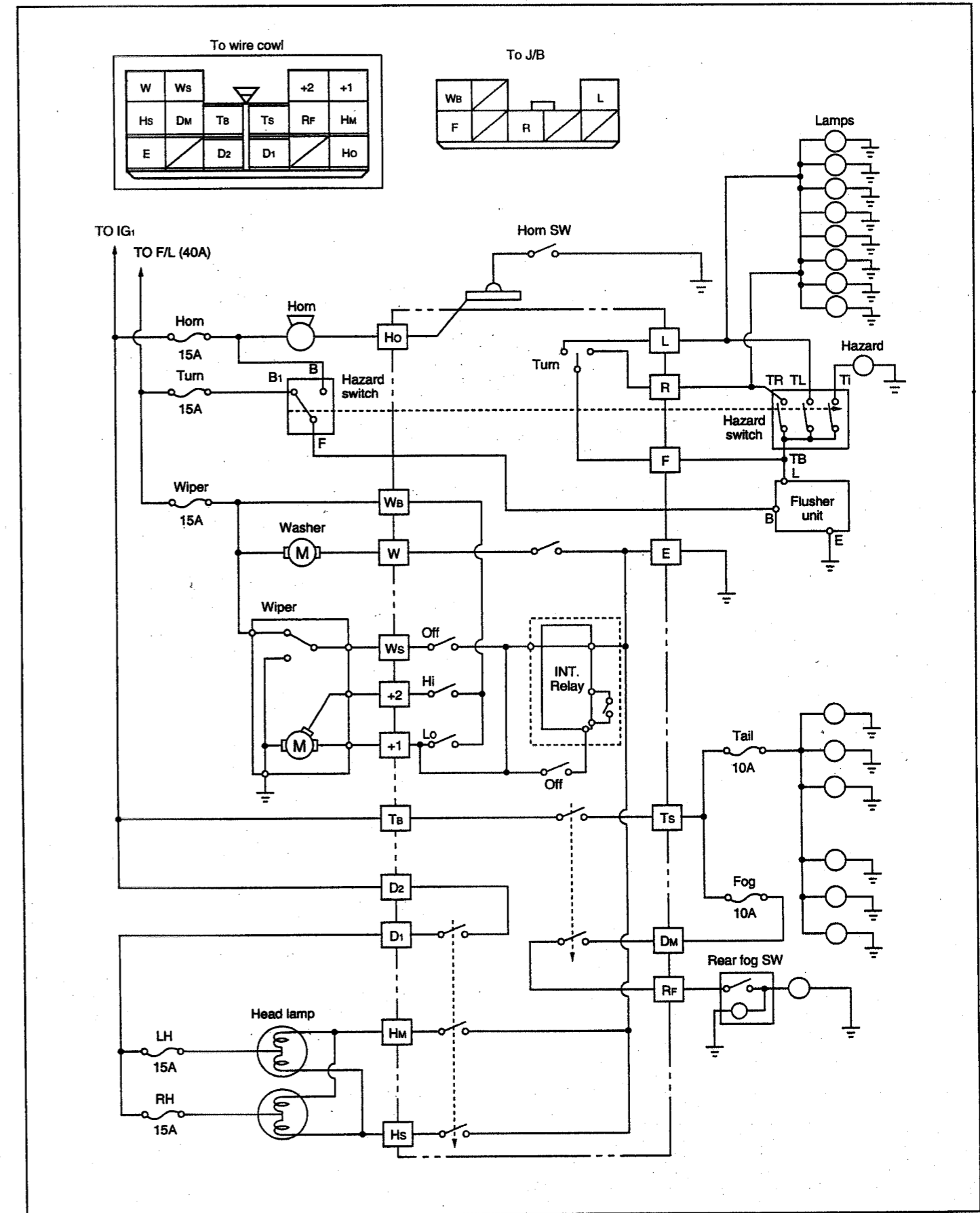
Inspection

1. Disconnect the connector of the stop lamp switch. (at the brake pedal arm)
2. Ensure that continuity exists between the terminals when the brake pedal is depressed.
3. Ensure that no continuity exists between the terminals when the brake pedal is not depressed.
If not, replace the stop lamp switch.



GBE00171-99999

**MULTI-USE LEVER SWITCH
WIRING DIAGRAM**



GBE00172-00023

IN-VEHICLE INSPECTION

1. Ensure that each of the turn signal, dimmer, lighting, hazard warning and front wiper switches is functioning smoothly with a positive detent feeling.

REMOVAL

1. Remove the horn button or pad.
2. Remove the steering wheel.
3. Remove the instrument panel finish lower panel.
4. Remove the steering column lower cover by removing five screws.
5. Disconnect the connector of the multi-use lever switch.
6. Disconnect the connectors of the ignition key switch.
7. Remove the steering column sub-assembly from the instrument panel reinforcement sub-assembly by removing the attaching bolts.
8. Remove the steering column upper cover.
9. Remove the attaching screws of the multi-use lever switch.
10. Remove the multi-use lever switch toward you.

INSPECTION

Disconnect the connector for multi-use lever switch. Ensure that continuity exists between the respective terminals in accordance with the continuity table.

Lighting switch

		HM	HS	E	TB	TS	D1	D2	DM	RF
OFF	HF	○	○				○	○		
	HL									
	HU									
I	HF	○	○		○	○	○	○		
	HL				○	○				
	HU				○	○				
II	HF	○	○		○	○	○	○	○	○
	HL		○		○	○	○	○	○	○
	HU	○	○		○	○	○	○	○	○

Turn signal switch

	F	L	R
Left	○	○	
N			
Right	○		○

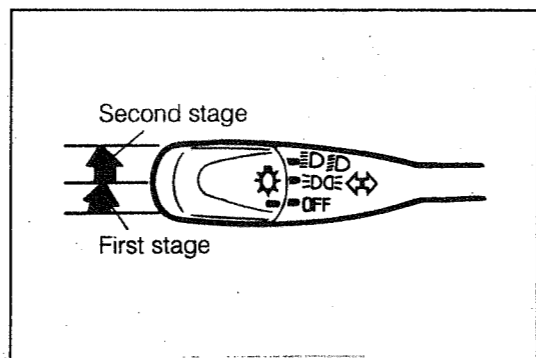
Wiper switch

	WB	Hi	Lo	Ws	Int1	Int2
OFF			○	○		
INT			○	○	○	○
Lo	○		○			
Hi	○	○				

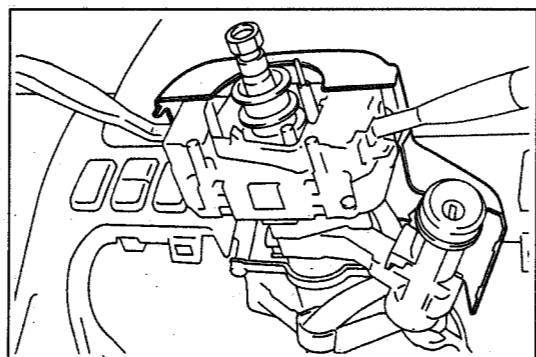
Washer switch

	W	E
OFF		
Lo	○	○

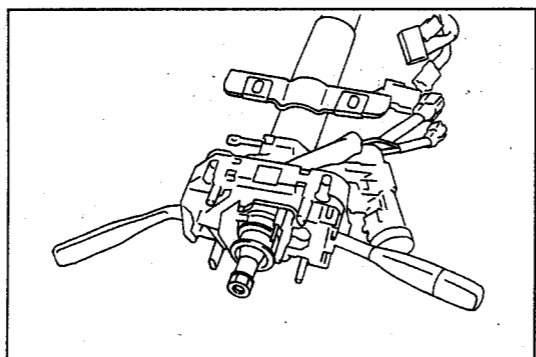
GBE00176-00000



GBE00173-99999



GBE00174-99999



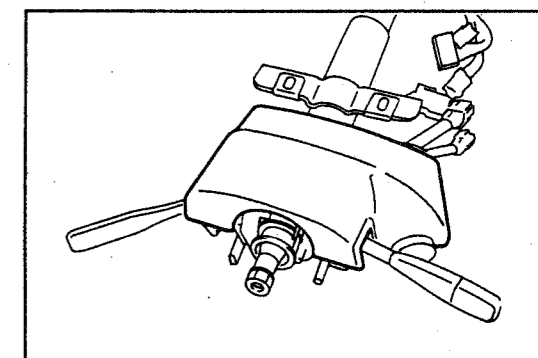
GBE00175-99999

INSTALLATION

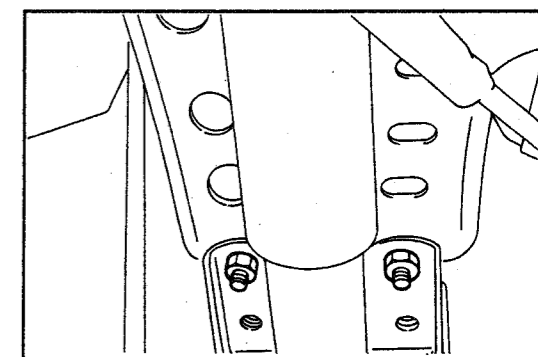
1. Install the multi-use lever switch in to the steering shaft.
2. Tighten the screws of the multi-use lever switch assembly.
3. Install the steering column upper cover.
4. Install the steering column sub-assembly to the instrument panel reinforcement sub-assembly.
Tightening Torque:
15 - 21 N·m (150 - 220 kgf·cm) for bolt
10 - 15 N·m (100 - 160 kgf·cm) for nut
5. Connect the connector of the multi-use lever switch.
6. Connect the connectors of the ignition key switch.
7. Install the steering column lower cover with five screws.
8. Install the instrument panel finish lower panel with two screws.

9. Install the steering wheel with nut.
Tightening Torque: 28 - 41 N·m (280 - 420 kgf·cm)

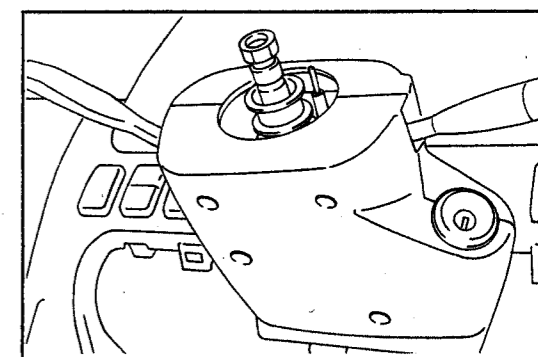
10. Connect the connector of the horn button.
11. Install the horn button or pad.



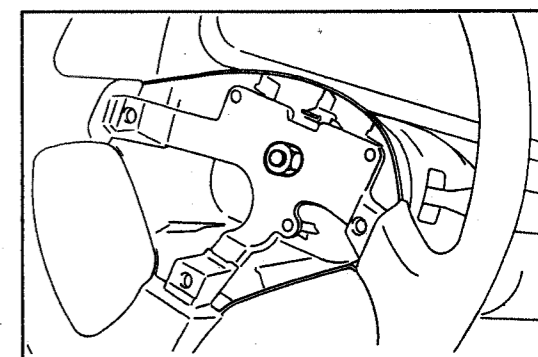
GBE00177-99999



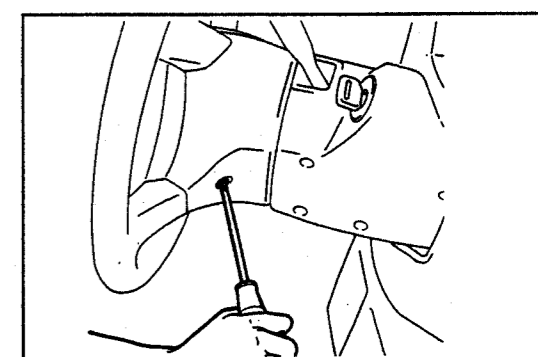
GBE00178-99999



GBE00179-99999

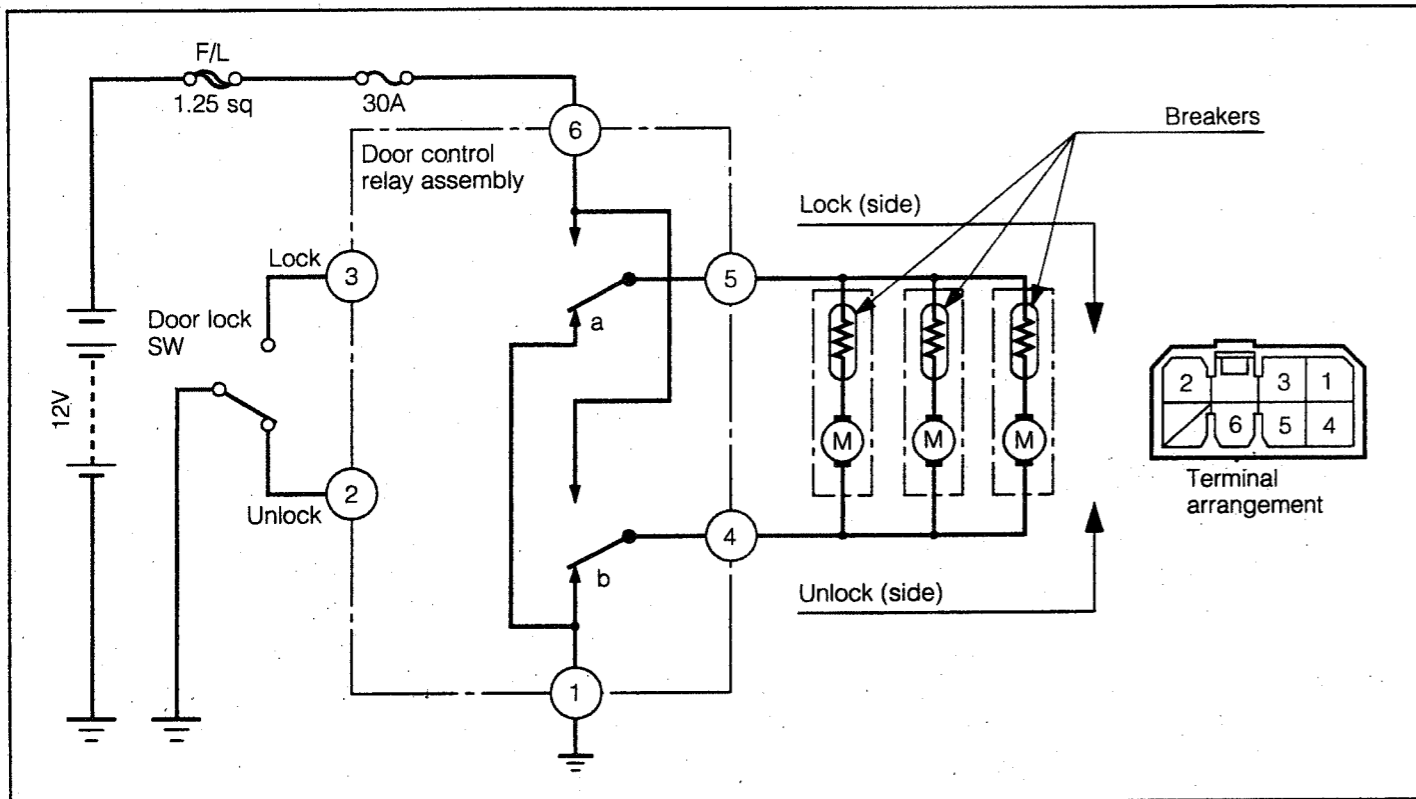


GBE00180-99999



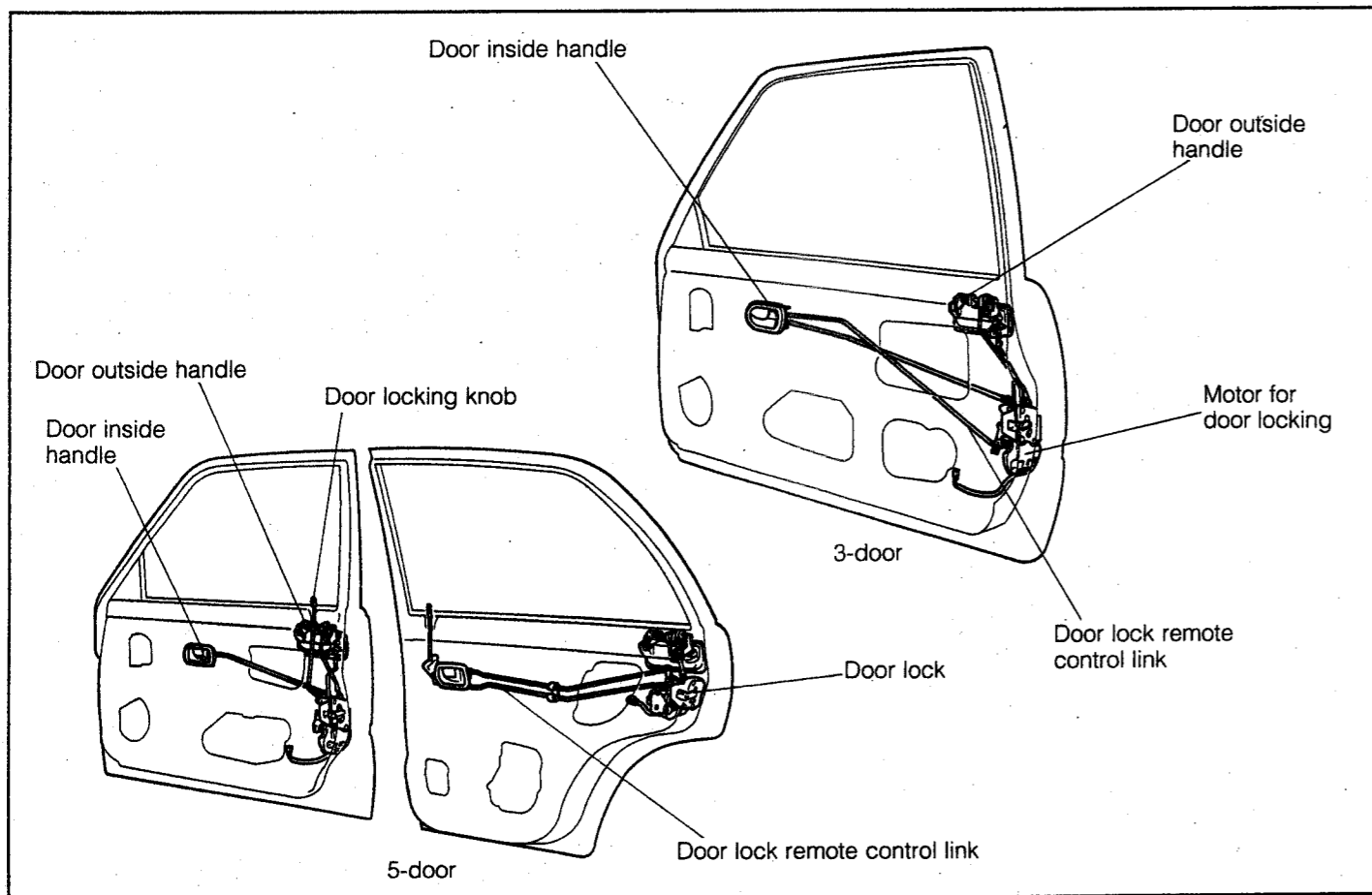
GBE00181-99999

**POWER DOOR LOCK SYSTEM
CIRCUIT DIAGRAM**



GBE00182-99999

COMPONENTS

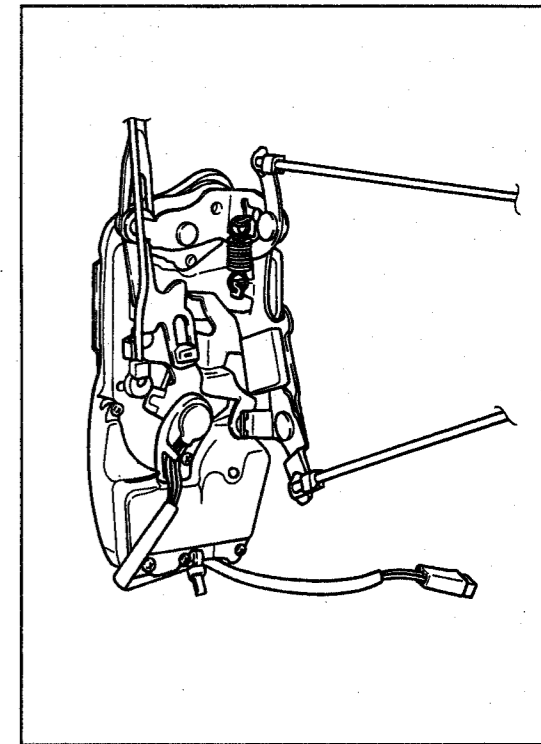


GBE00183-99999

REMOVAL

Removal of front door lock / door lock control switch assembly (Driver's side)

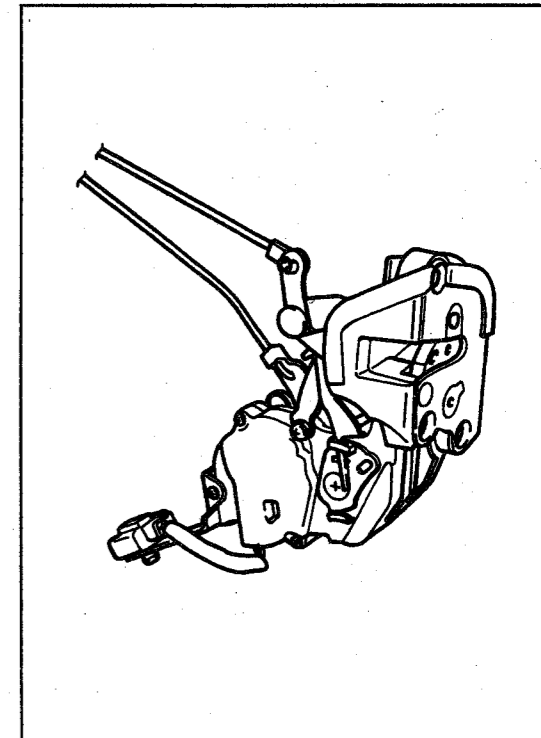
1. Detach the door locking knob from the front door lock control link.
2. Close the glass window. Disconnect the battery (-) terminal from the battery.
3. Remove the door trim-related parts.
4. Remove the link-related parts.
5. Remove the attaching bolt of the glass rail.
6. Remove the attaching screws of the front door lock assembly.
7. Take out the front door lock / door lock control switch assembly from the front door.



GBE00184-99999

Removal of rear door lock assembly

1. Detach the door locking knob from the rear door lock control link.
2. Close the glass window. Remove the door trim-related parts.
3. Remove the link-related parts.
4. Remove the attaching screws of the rear door lock assembly.
5. Take out the rear door lock assembly from the rear door.



GBE00185-99999

INSPECTION

Door lock control switch

When the door lock switch is set to the LOCK and UNLOCK positions, respectively, ensure that continuity between the terminals of the door lock switch conforms to the requirements as indicated in the table below.

Terminal	①	②	③
LOCK	○—	○—	
UNLOCK	○—		○—

GBE00186-00000

Door lock motor assembly (Front and rear)

Apply a voltage of 12V between the following two terminals. Ensure that the plunger operates in accordance with the table below.

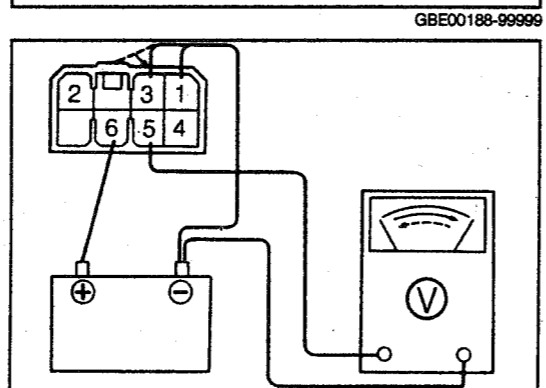
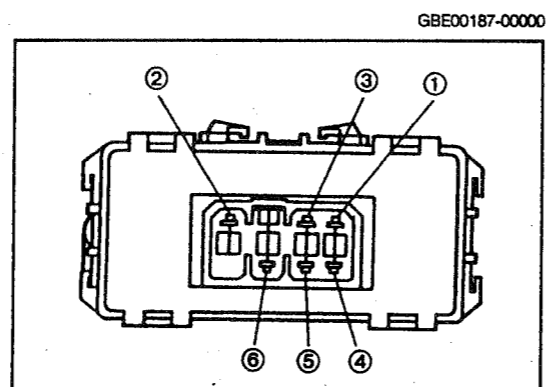
Terminal	①	②
Operation direction		
UNLOCK	⊕	⊖
LOCK	⊖	⊕

Door control relay

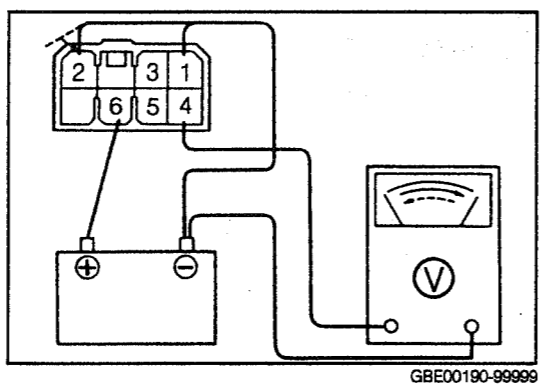
R.H.D. vehicle: Right cowl side
L.H.D. vehicle: Left cowl side

Connect the respective terminals each other as illustration. Perform the following checks.

- When the negative (-) terminal is connected to the terminal 3, ensure that the relay operates as follows:
The relay "a" is turned ON, accompanying an operating sound. A voltage of 12 V is applied to the terminal 5. Immediately after this (about 0.2 seconds later), the relay is turned OFF, accompanying an operating sound. Then, the voltage at the terminal 5 drops to 0 V.



- When the negative (-) terminal is connected to the terminal 2, ensure that the relay operates as follows:
The relay "b" is turned ON, accompanying an operating sound. A voltage of 12 V is applied to the terminal 4. Immediately after this (about 0.2 seconds later), the relay is turned OFF, accompanying an operating sound. Then, the voltage at the terminal 4 drops to 0 V.

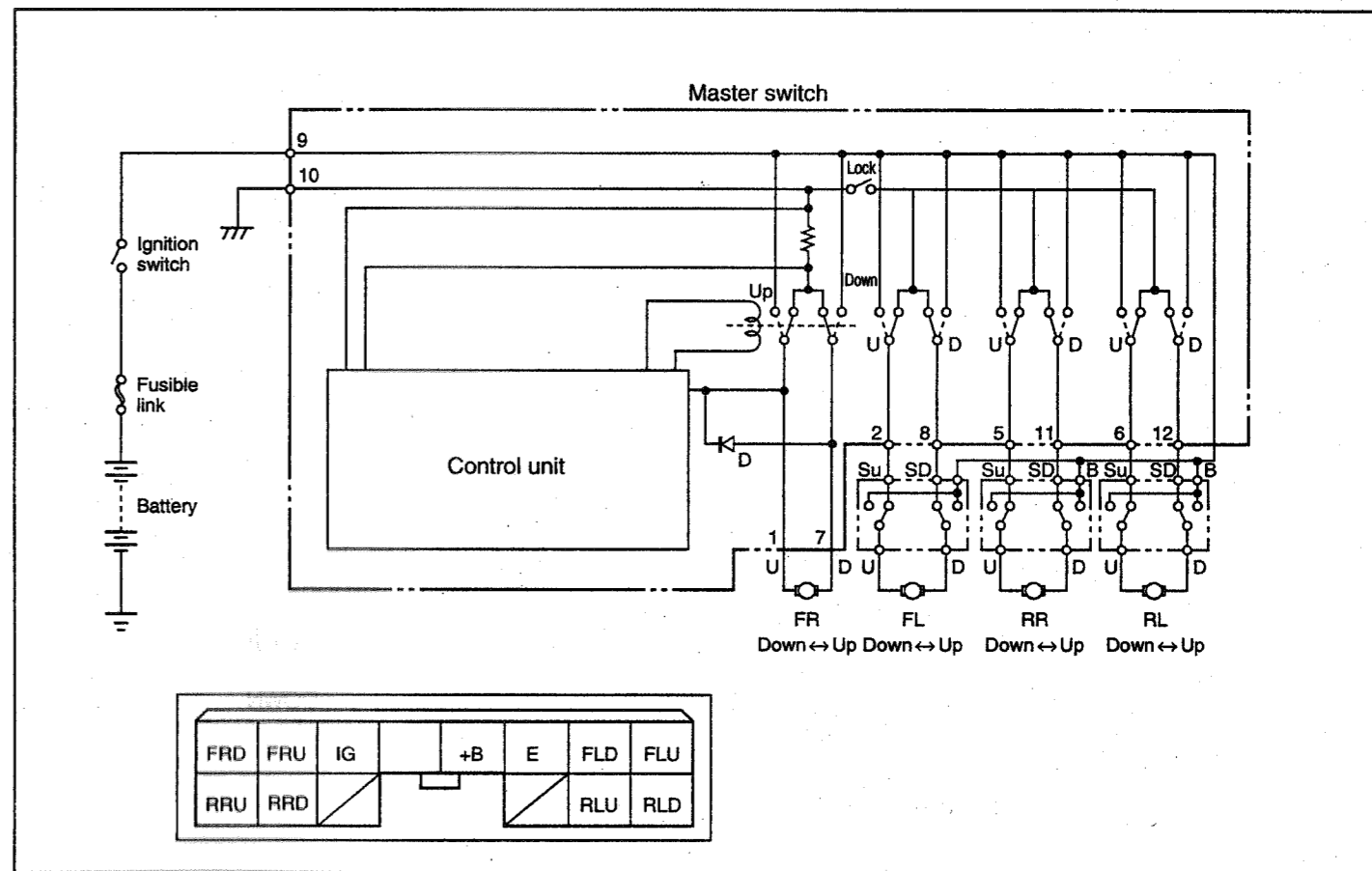


POWER WINDOWS

CIRCUIT DIAGRAM

NOTE:

- For the removal and installation procedures for the power window related parts, refer to the Body section.



INSPECTION OF SWITCHES

Master switch at driver's seat side (4 DOOR)

When the switch is operated, ensure that continuity between the terminals conforms to the requirements as indicated in the table below.

Window lock switch		Power window switch															
		Driver's seat side				Front passenger's seat side				Rear right			Rear left				
		IG	FRU	FRD	E	IG	FLU	FLD	E	IG	RRU	RRD	E	IG	RLU	RLD	E
ON	UP	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	OFF		○		○		○		○		○		○		○		○
	DOWN	○		○		○		○		○		○		○		○	
OFF	UP	○	○	○	○	○	○			○	○			○	○		
	OFF		○		○		○		○		○		○		○		○
	DOWN	○		○		○		○		○		○		○		○	

If not, replace the master switch.

Master switch at driver's seat side (2 DOOR)

Lock SW		FR				FL			
		IG	FRU	FRD	E	IG	FLU	FLD	E
ON	UP	○	○			○	○		
	OFF		○	○	○		○	○	○
	DOWN	○		○		○		○	
OFF	UP	○	○			○	○		
	OFF		○	○	○		○	○	○
	DOWN	○		○		○		○	

Switch at front passenger's seat side

When the switch is operated, ensure that continuity between the terminals conforms to the requirements as indicated in the table below.

Terminal	U	SU	SD	B	D
UP	○			○	○
OFF	○	○	○	○	○
DOWN	○			○	○

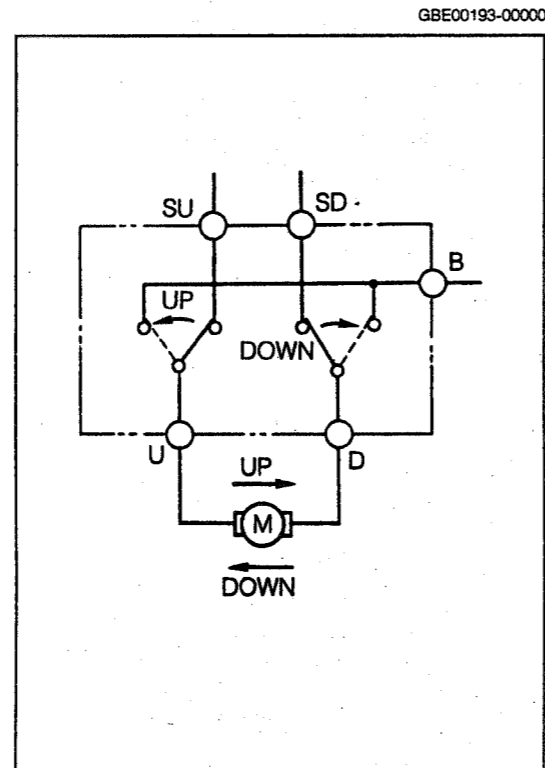
If not, replace the switch.

Switches at rear seat side

When the switch is operated, ensure that continuity between the terminals conforms to the requirements as indicated in the table below.

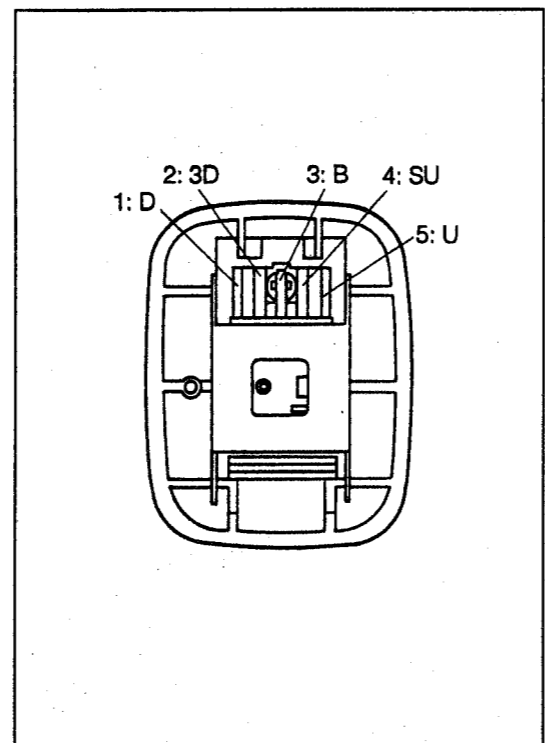
Terminal	B	SU	SD	U	D
UP	○			○	○
OFF	○	○	○	○	○
DOWN	○			○	○

If not, replace the switch.



GBE00193-00000

GBE00194-99999



GBE00195-99999

INSPECTION OF MOTOR

For the removal and installation procedures for the regulator motor, refer to the Body section.

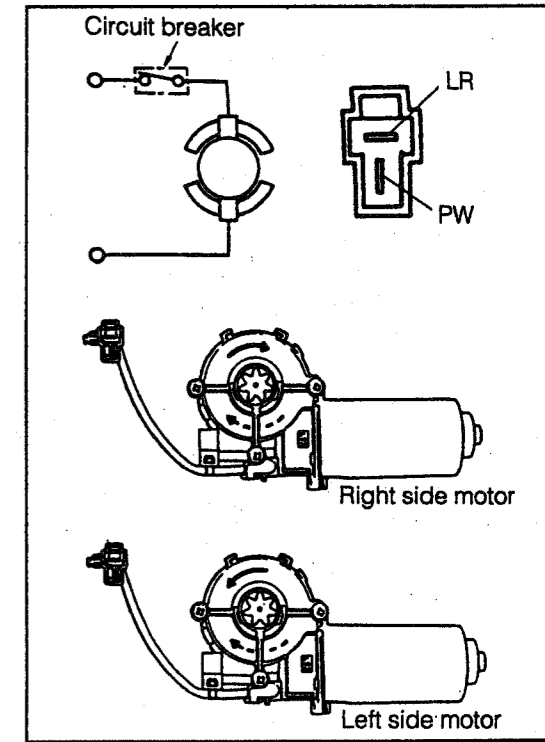
GBE00196-00000

Left side motor

Connect the positive (+) terminal of the battery to the connector PW of the power window motor; the negative (-) terminal to the connector LR. Ensure that the motor rotates counterclockwise, as viewed from the driving shaft side. Connect the positive (+) terminal of the battery to the connector LR of the power window motor; the negative (-) terminal to the connector PW. Ensure that the motor rotates clockwise, as viewed from the driving shaft side.

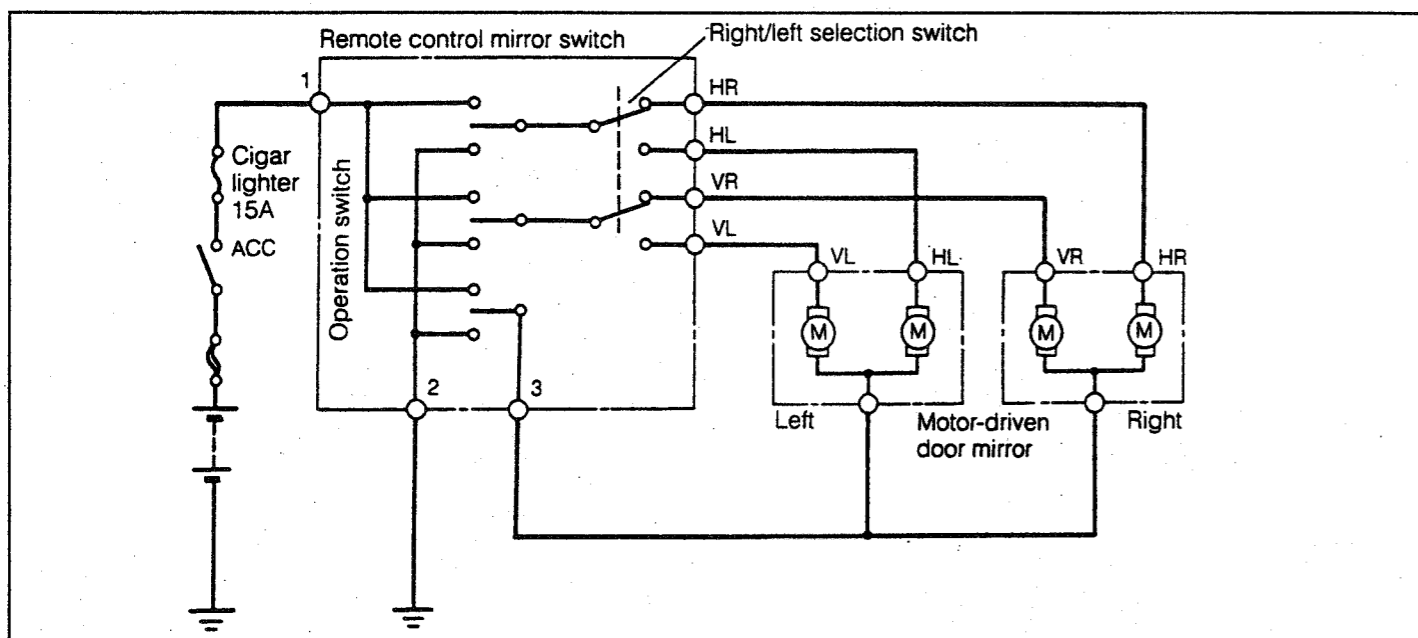
Right side motor

The motor rotates opposite direction of the left side motor.



GBE00197-99999

REMOTE CONTROL DOOR MIRROR CIRCUIT DIAGRAM



DOOR MIRROR SWITCH

REMOVAL

1. Remove the instrument panel finish lower panel.
2. Push the switch from back side.
3. Disconnect the connector of the door mirror switch.

GBE00198-99999

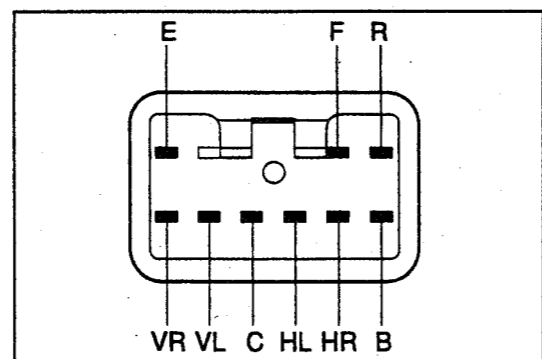
GBE00199-00000

INSPECTION

Ensure that continuity exists between the respective terminals as indicated in the continuity table.

Continuity table

Mirror Terminal	Left				Right					
	B	E	VL	C	HL	B	E	VR	C	HR
Switch position										
UP	○	○	○			○	○	○		
DOWN	○	○	○			○	○	○		
LEFT	○	○	○	○		○	○	○	○	
RIGHT	○	○	○	○	○		○	○	○	○

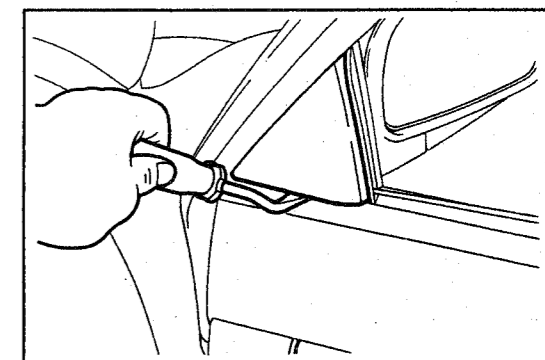


GBE00200-99999

DOOR MIRROR MOTOR

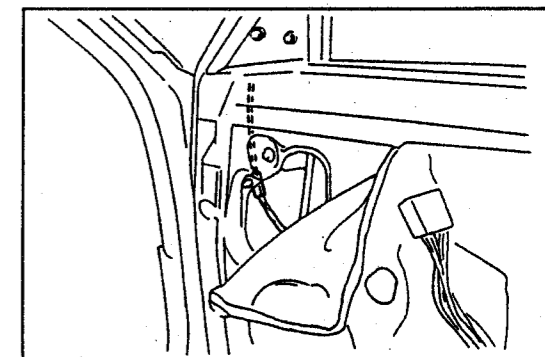
REMOVAL

1. Remove the front door trim assembly.
2. Remove the front door service hole cover.



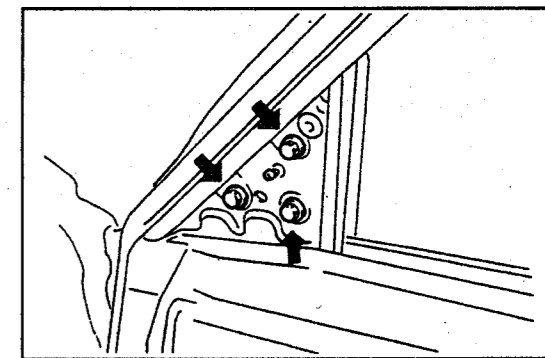
GBE00201-99999

3. Disconnect the door mirror connector from the clamp.
4. Disconnect the door mirror connector.



GBE00202-99999

5. Remove the outer rear view mirror assembly by removing the attaching bolts.

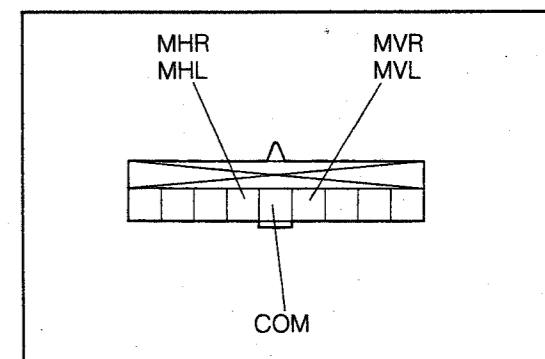


GBE00203-99999

INSPECTION

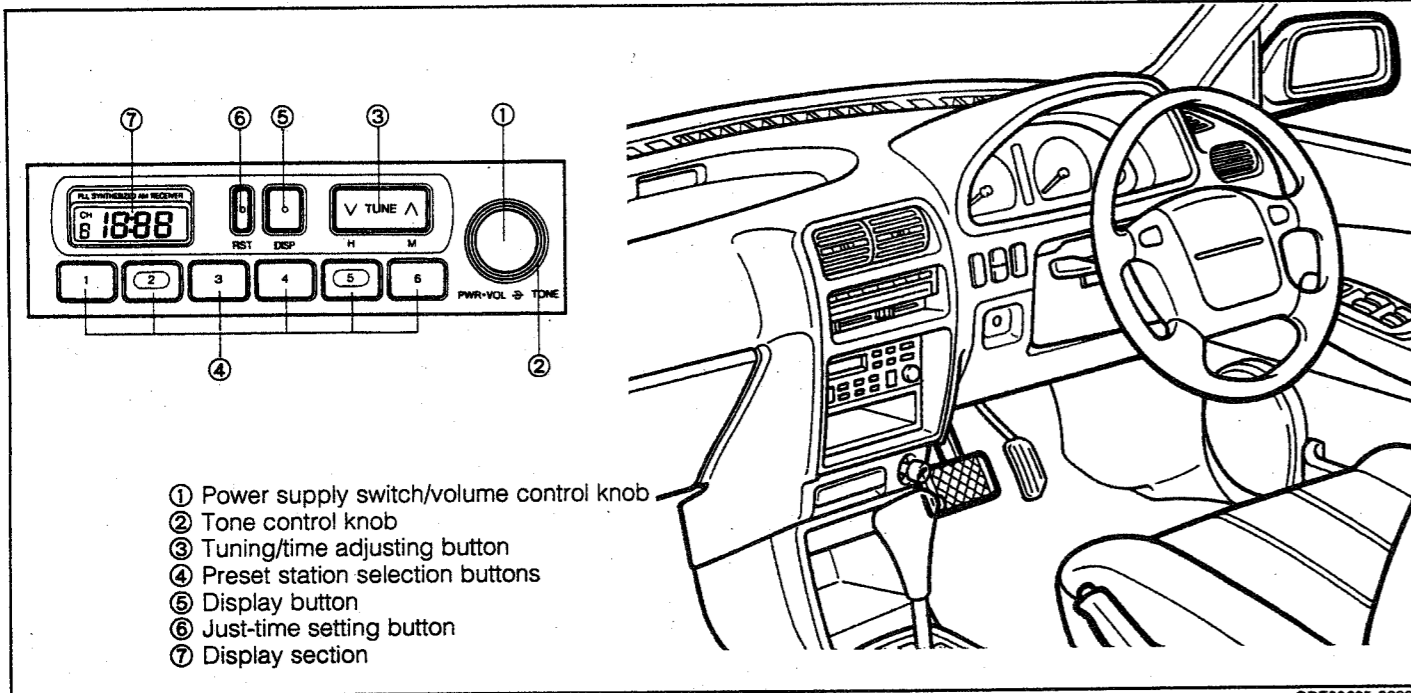
1. Apply the battery voltage to each terminal, as indicated in the table below. Ensure that the mirror operates properly.

Terminal	Right door mirror	COM	MVR	MHR	Operation direction
	Left door mirror	COM	MVL	MHL	
Connection		⊖	⊕		UP
		⊕	⊖		Down
		⊖		⊕	Left
		⊕		⊖	Right



GBE00204-99999

RADIO

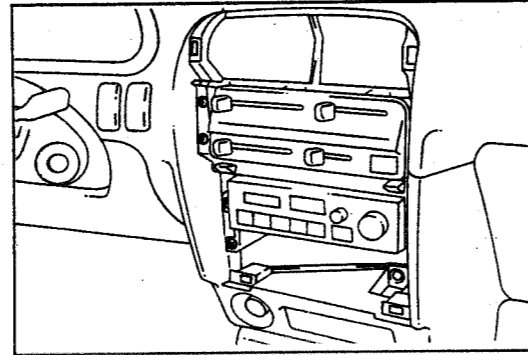


- ① Power supply switch/volume control knob
- ② Tone control knob
- ③ Tuning/time adjusting button
- ④ Preset station selection buttons
- ⑤ Display button
- ⑥ Just-time setting button
- ⑦ Display section

GBE00205-99999

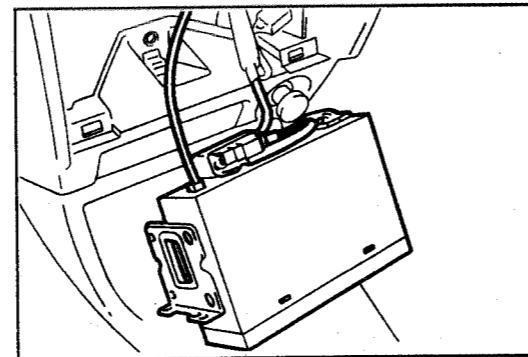
REMOVAL

1. Remove the instrument panel cluster finish center panel.
2. Remove the attaching screws of the radio assembly.



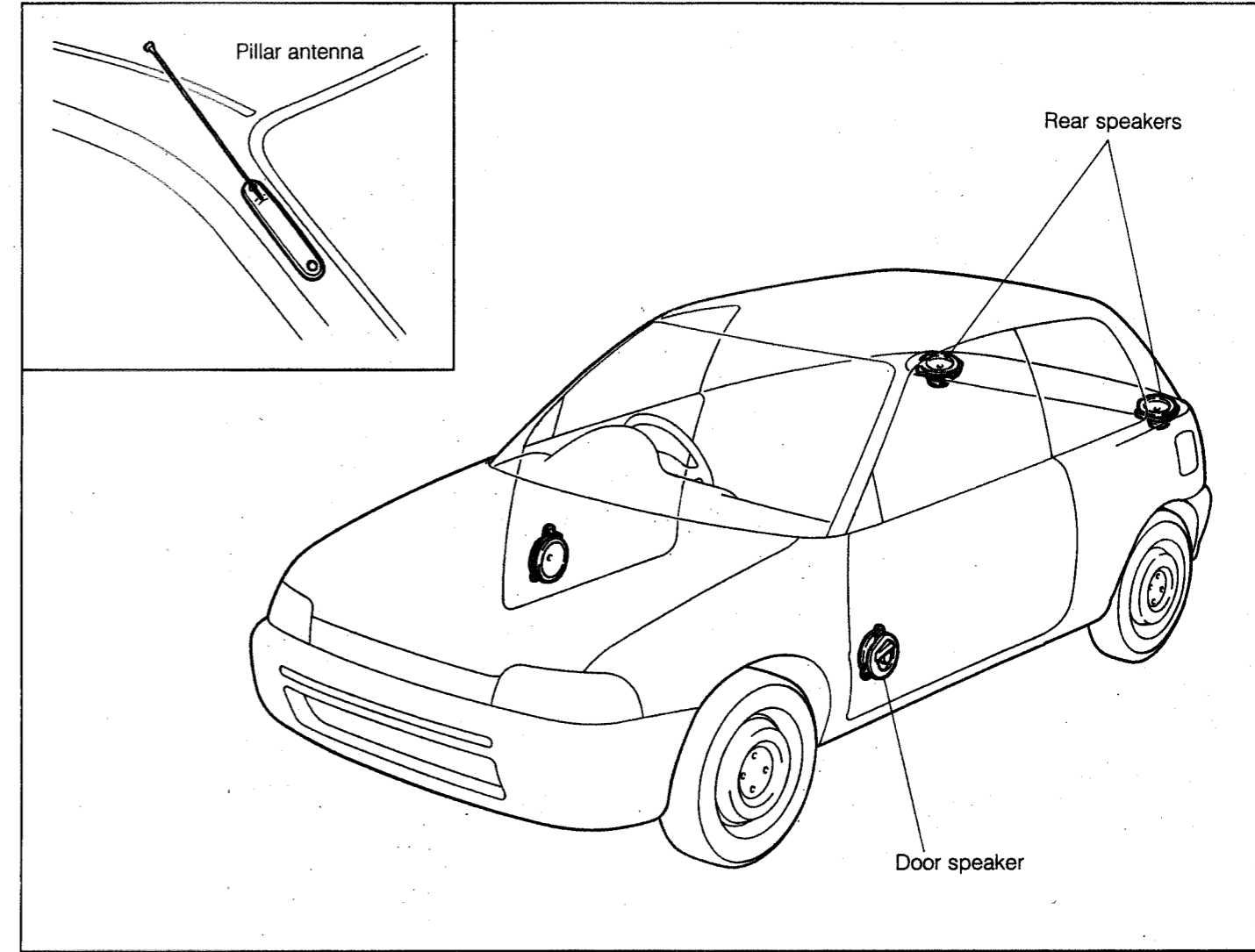
GBE00206-99999

3. Disconnect the connectors from the radio assembly.
4. Disconnect the antenna cable from the radio assembly.



GBE00207-99999

SPEAKER & ANTENNA ASSEMBLY



GBE00208-99999

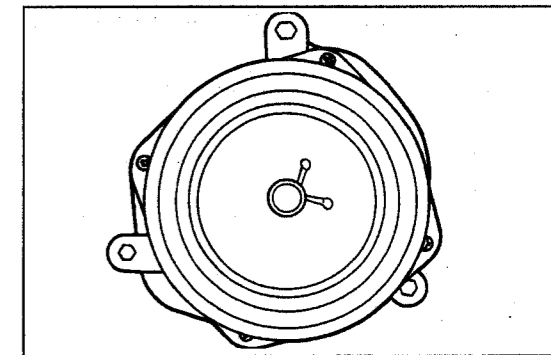
REMOVAL OF SPEAKER
[Instrument panel speaker]

1. Remove the instrument panel.
 - NOTE:
 - For the removal and installation of the instrument panel, see the clock removal at page BE-11.
2. Disconnect the connector from the speaker. Remove the speaker assembly.

GBE00209-00000

[Door speaker]

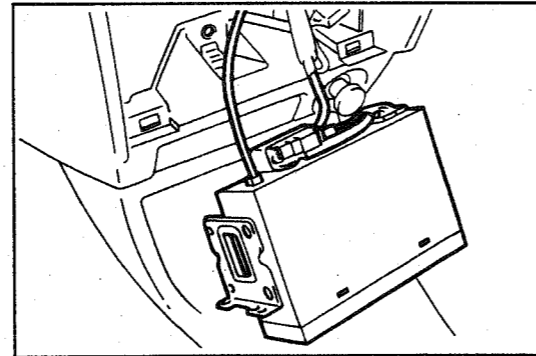
1. Remove the front door trim.
2. Disconnect the connector.
3. Remove the speaker.



GBE00210-99999

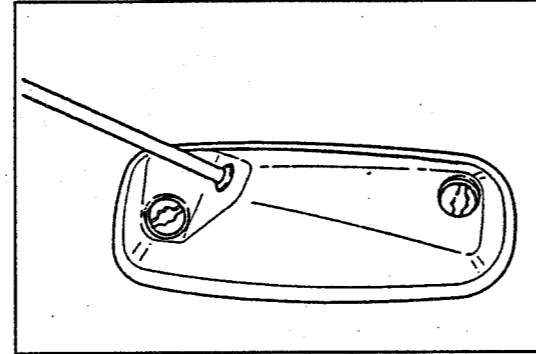
REMOVAL OF ANTENNA (Pillar antenna)

1. Remove the instrument cluster finish center panel.
2. Remove the radio assembly.
3. Remove the antenna coupler from the radio assembly.



GBE00211-99999

4. Remove the instrument panel finish lower panel.
5. Remove the antenna cable clumps (four clumps at the instrument panel reinforcement subassembly).
6. Remove the antenna base.



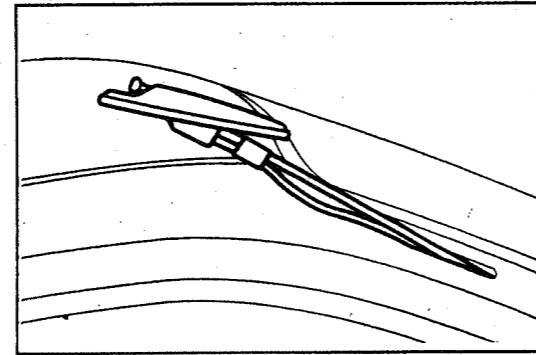
GBE00212-99999

INSTALLATION OF ANTENNA (Pillar antenna)

1. Insert the antenna guide tube and antenna cable into the pillar.

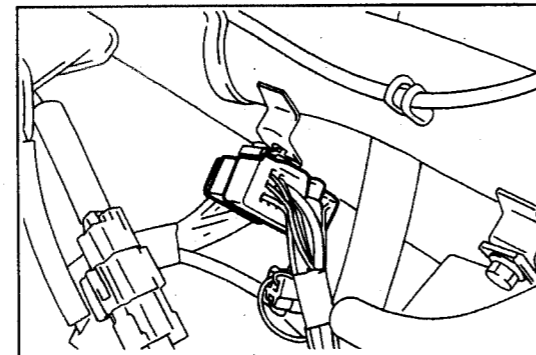
NOTE:

- Insert the guide tube in such a way that it comes to the vehicle front section.



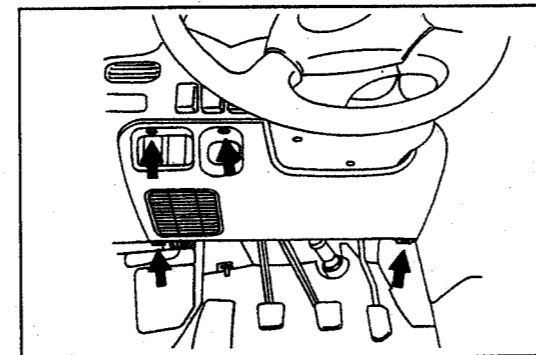
GBE00213-99999

2. Route the antenna cable, go side by side with the instrument panel reinforcement subassembly.
3. Clamp the antenna cable to the instrument panel reinforcement sub-assembly. (4 clumps)



GBE00214-99999

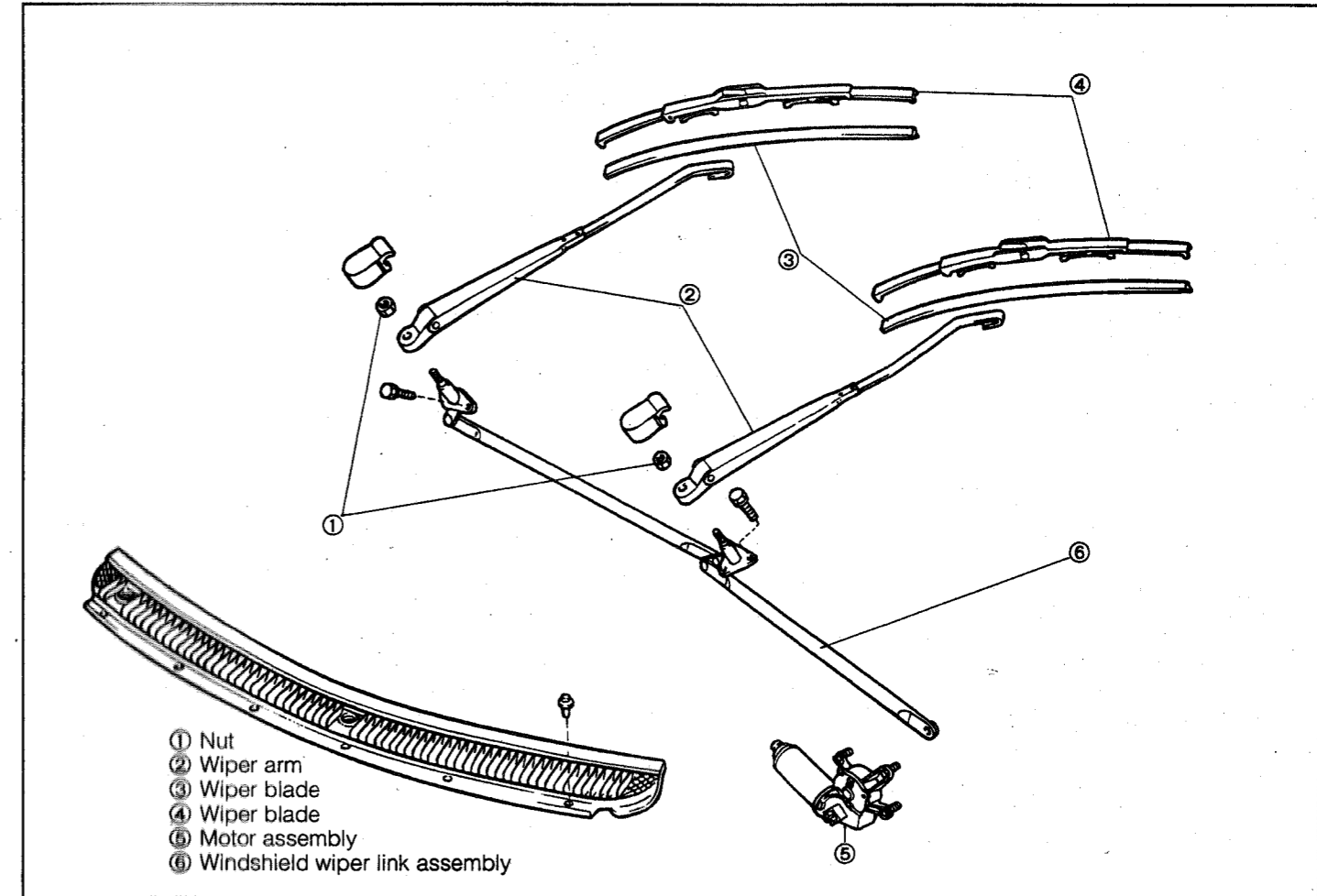
4. Connect the antenna cable end coupler to the radio assembly.
5. Install the radio assembly with the screws.
6. Install the instrument cluster finish center panel.
7. Install the instrument panel finish lower panel with the screws.



GBE00215-99999

WIPER, WASHER & DEFOGGER

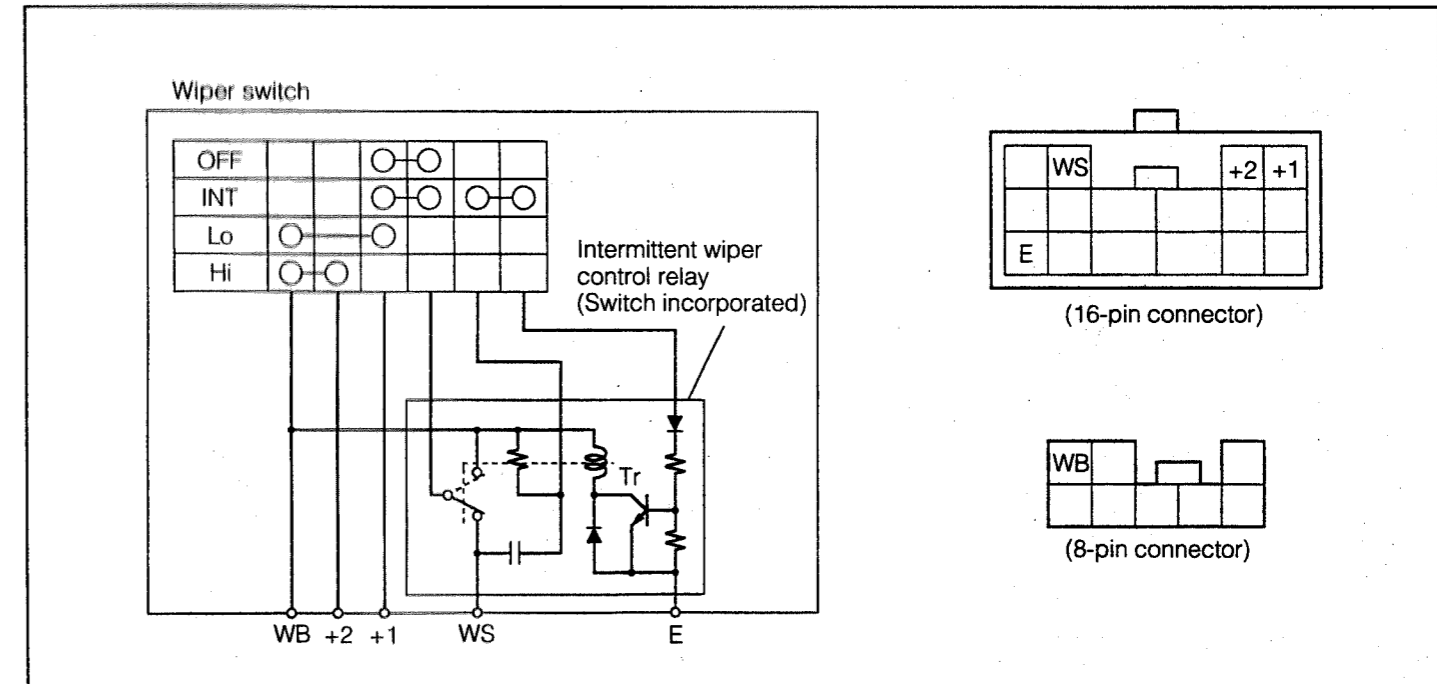
FRONT WIPER & BLADES COMPONENTS



- ① Nut
- ② Wiper arm
- ③ Wiper blade
- ④ Wiper blade
- ⑤ Motor assembly
- ⑥ Windshield wiper link assembly

GBE00216-99999

CIRCUIT DIAGRAM

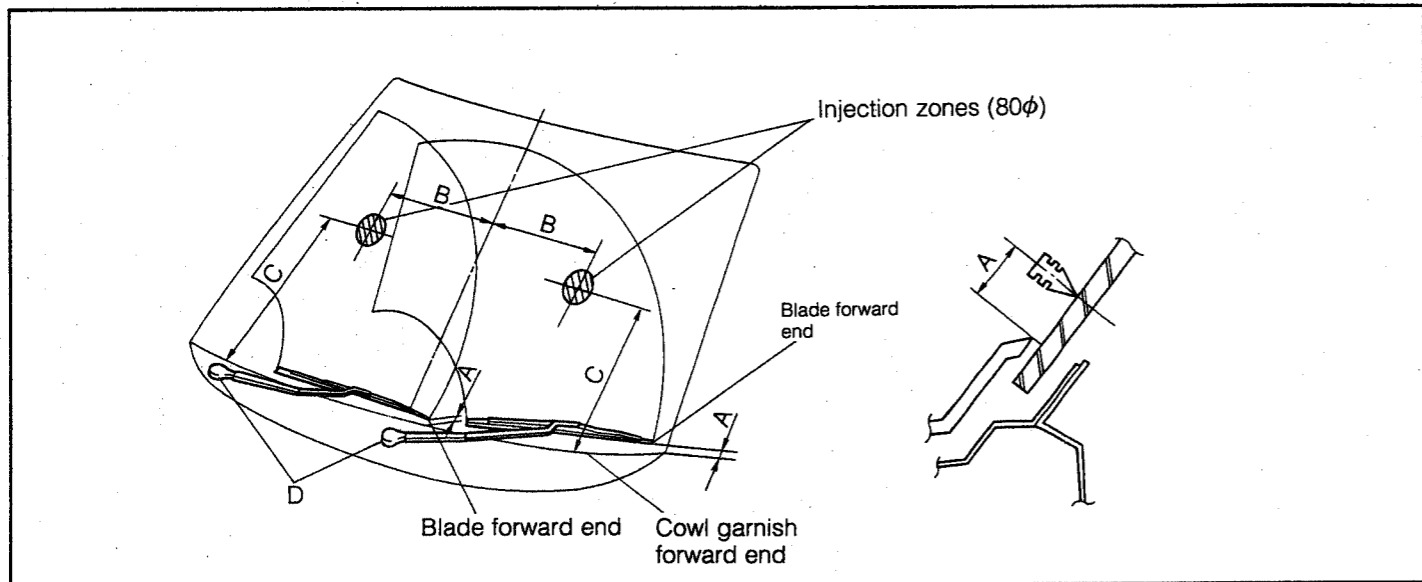


GBE00217-99999

IN-VEHICLE INSPECTION

1. Inspect the wiping area and stationary position of the wiper blade.
2. Inspect the blade for damage or deformation.

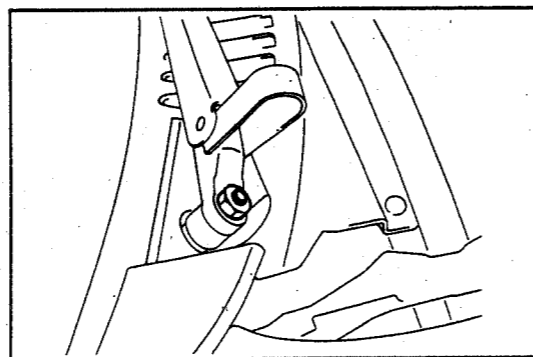
- A : 5 - 20 mm
 B : 300 mm
 C : 450 mm
 D : Tightening torque; 15 - 25 N·m



GBE00218-99999

REMOVAL OF WIPER MOTOR

1. Remove the nut cover and attaching nut of the wiper arm.
2. Remove the wiper arm with blade.

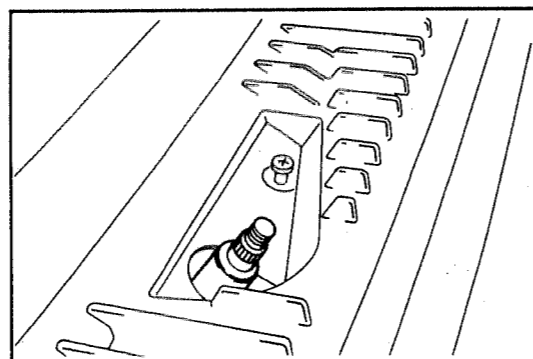


GBE00219-99999

3. Open the engine hood.
4. Removal of cowl top ventilator louver and hood-to-cowl top seal
 - (1) Push the central part of the clip slightly.
 - (2) Remove the clip.
 - (3) Remove the screws of the cowl top ventilator louver.

NOTE:

- Closing the engine hood about half way will facilitate the removal of the cowl top ventilator louver.

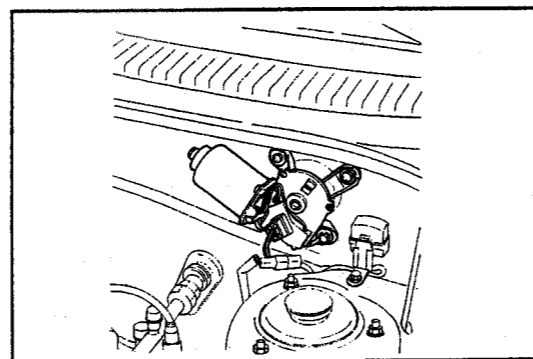


GBE00220-99999

5. Remove the attaching screws of the wiper motor.

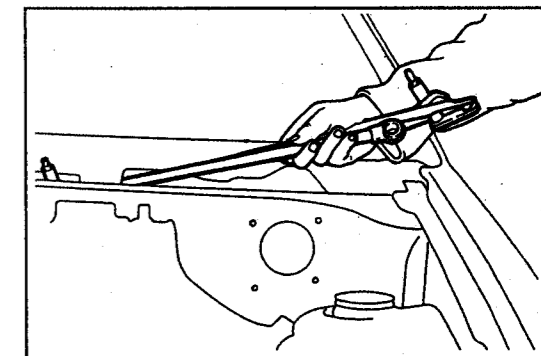
6. Removal of wiper motor assembly

- (1) Disconnect the connector of the wiper motor.
- (2) Remove the retaining bolts of the wiper motor.
- (3) Disconnect the wiper motor from the link.
- (4) Remove the motor.



GBE00221-99999

7. Removal of the wiper link.
 - (1) Remove the set bolt of the wiper link.
 - (2) Take out the wiper link assembly from the cowl louver hole.

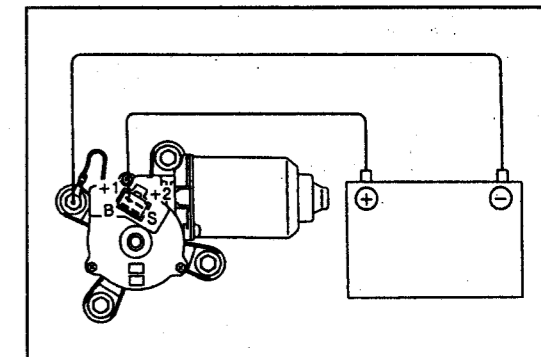


GBE00222-99999

INSPECTION OF MOTOR UNIT

1. Low speed operation check

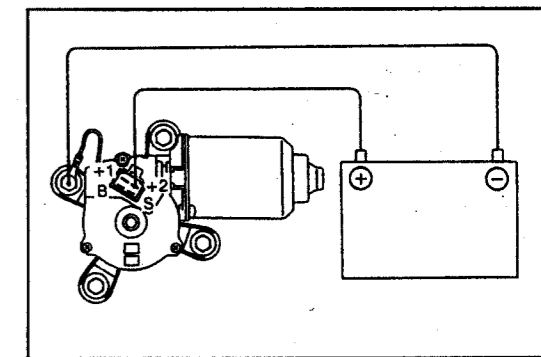
- (1) Connect the terminal +1 to the positive ⊕ terminal of the battery; the body to the negative ⊖ terminal of the battery. Ensure that the wiper operates at the low speed.



GBE00223-99999

2. High speed operation check

- (1) Connect the terminal +2 to the positive ⊕ terminal of the battery; the body to the negative ⊖ terminal of the battery. Ensure that the wiper operates at the high speed.

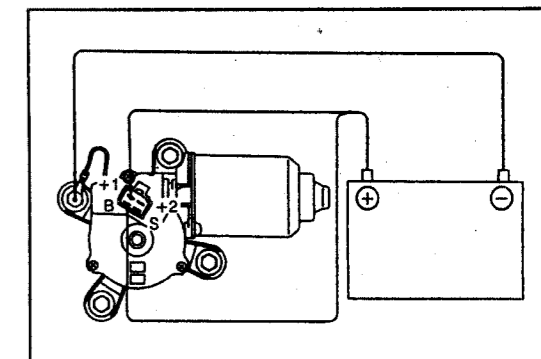


GBE00224-99999

3. OFF operation check

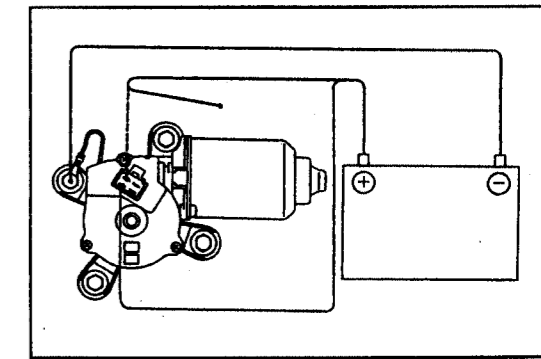
With the wiper motor body connected to the negative ⊖ terminal of the battery, perform the following checks.

- (1) Connect the terminal B to the positive ⊕ terminal of the battery.
- (2) Operate the wiper at the low speed by connecting the terminal +1 to the positive ⊕ terminal of the battery.



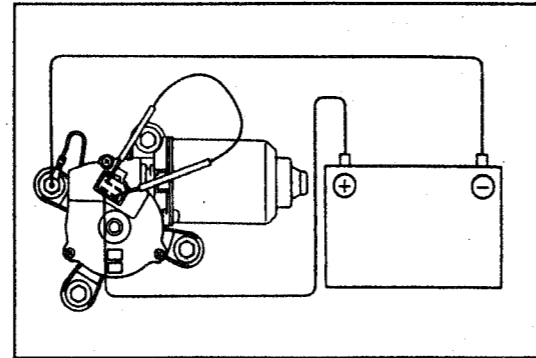
GBE00225-99999

- (3) Under the operating conditions in the step (2), disconnect the terminal +1 to as to interrupt the wiper motor operation.



GBE00226-99999

- (4) Connect the terminal +1 to the terminal S. Ensure that the wiper operates and stops at the automatic stopping position.



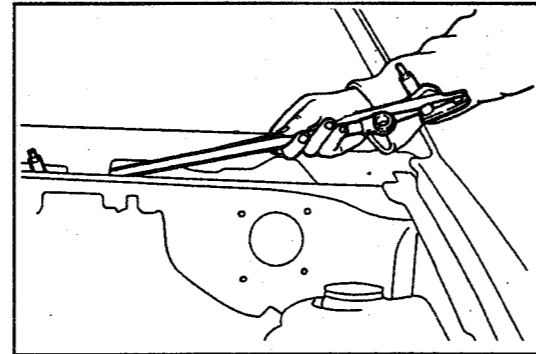
GBE00227-99999

INSTALLATION

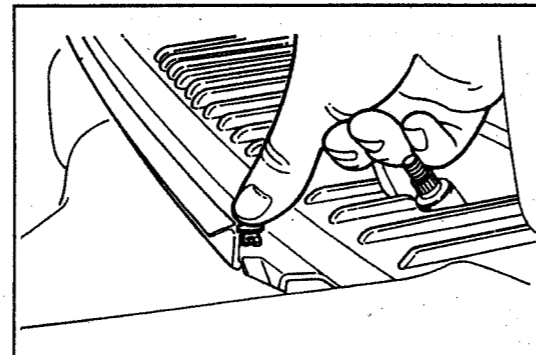
1. Install the wiper link assembly.

2. Installation of wiper motor
 - (1) Connect the wiper link to the wiper motor.
 - (2) Install the wiper motor to the dash panel.
 - (3) Connect the connector.
3. Install the cowl top ventilator louver and hood-to-cowl top seal.

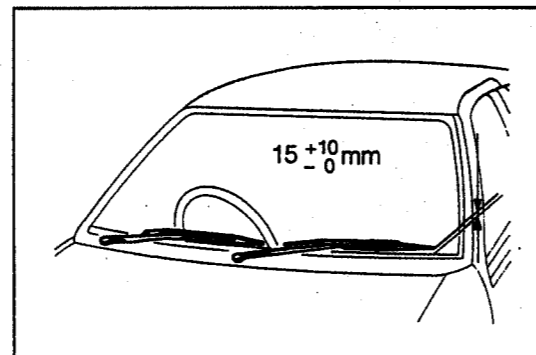
4. Installation of wiper arm
 - (1) Operate the wiper motor and set it to the automatic stopping position.
 - (2) Set the wiper arm to the position, as indicated in the right figure.
 - (3) Tighten the set screw.



GBE00228-99999



GBE00229-99999

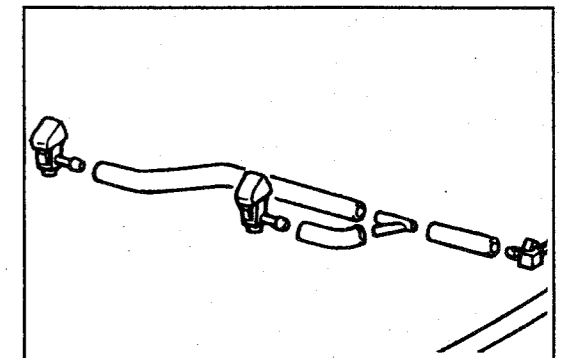


GBE00230-99999

FRONT WASHER NOZZLE & TANK

Adjustment of nozzle

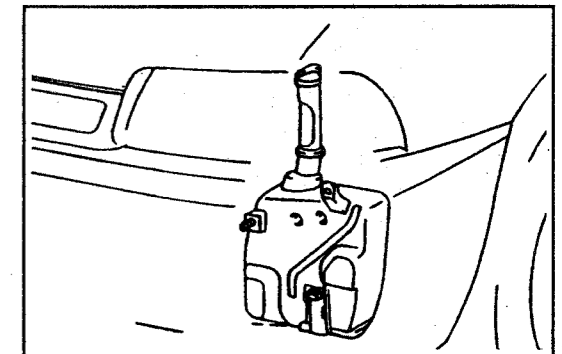
Adjust the nozzle direction in such a way that the squirting position of the window washer may conform to the specification indicated in the illustration.



GBE00231-99999

Removal of 2.5-liter tank

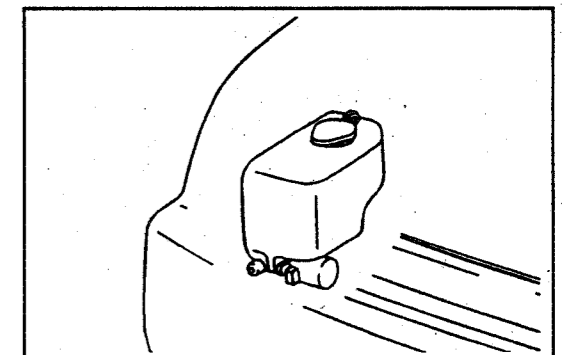
1. Remove the left front fender liner.
2. Disconnect the connector of the washer pump.
3. Remove the washer tank by removing the bolt and nut.



GBE00232-99999

Installation

1. Install the washer tank with the bolt and nut.
2. Connect the connector of the washer pump.
3. Connect the washer hose to the pump.
4. Install the fender liner.

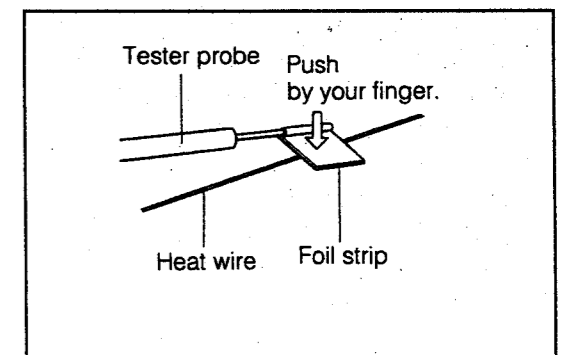


GBE00233-99999

DEFOGGER WIRE

NOTE:

- (1) When wiping the glass surface, use a soft, dry cloth. Move the cloth along the wire. Be careful not to damage the wire.
- (2) Never use washing agent or glass cleaner which contains abrasive compound.
- (3) Wrap the tip end of the tester probe with foil strip so that the tester probe causes no damage on the heat wire during the voltage measurement.
- (4) Check the voltage by pushing the foil strip against the heat wire with your finger, as indicated in the figure.



GBE00234-99999

Open wire check

- (1) Turn ON the ignition key switch.
- (2) Turn ON the defogger switch so as to energize defogger wire.
- (3) Check the voltage at the center section of each heat wire.

Voltage	Judgment criteria
Approx. 5 V	Good (No open wire)
Approx. 10 V or 0 V	Open wire

REFERENCE:

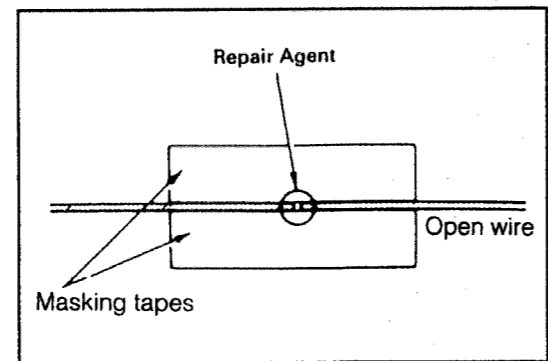
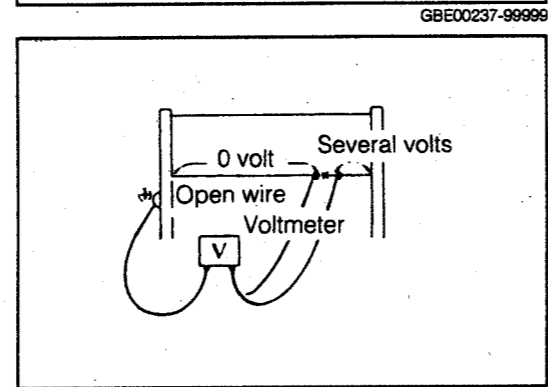
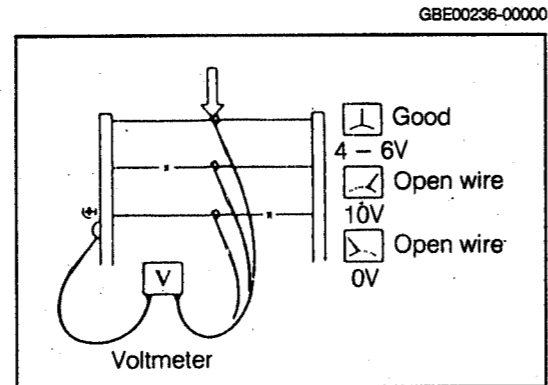
- If the voltage is 10 V, it means that open wire exists between the center of the wire and the end of the positive ⊕ side. If the voltage is 0 V, it means that open wire exists between the center of the wire and the end of the earth side.

Locating point of open wire

- (1) Connect the positive ⊕ terminal of the voltmeter to the positive ⊕ side of the defogger wire.
- (2) Slide the voltmeter's negative ⊖ terminal wrapped with foil strip on the defogger wire from its positive ⊕ side to its negative ⊖ side.
- (3) The voltmeter reading changes from 0 V to several volts at the point where open wire exists.

Repairing point of open wire

- (1) Clean the point of open wire with white gasoline.
- (2) Affix masking tapes to both upper and lower portions of the point to be repaired.
- (3) Stir repair agent (Du Pont Paste No. 4817) thoroughly. Apply a small amount of the repair agent to the repairing point, using a fine brush.
- (4) Two to three minutes later, peel off the masking tapes.
- (5) Do not energize the defogger wire within 24 hours after the repair.

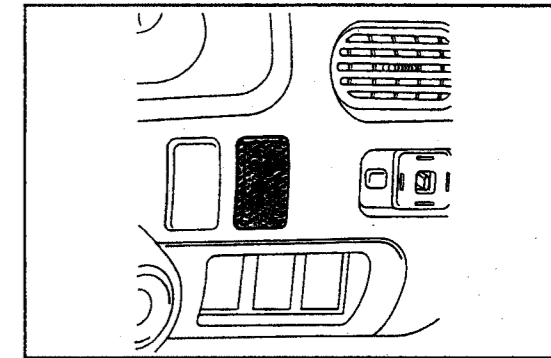


GBE00239-99999

DEFOGGER SWITCH

Removal

1. Remove the instrument panel finish lower panel.
2. Remove the defogger switch by pushing it with your fingers at the back side of the instrument panel.



GBE00240-99999

3. Disconnect the connector of the defogger switch.
4. Remove the defogger switch from the instrument panel.

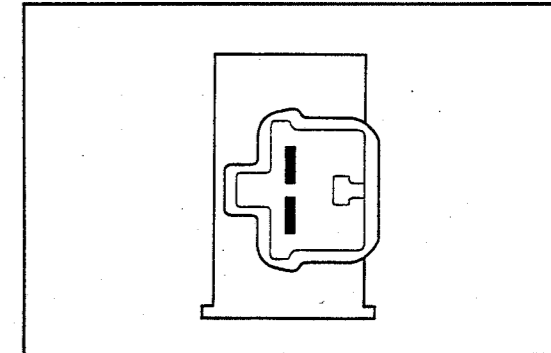
NOTE:

- The indicator of the defogger in the combination meter will glow when the rear window defogger switch is turned on.

GBE00241-00000

Inspection

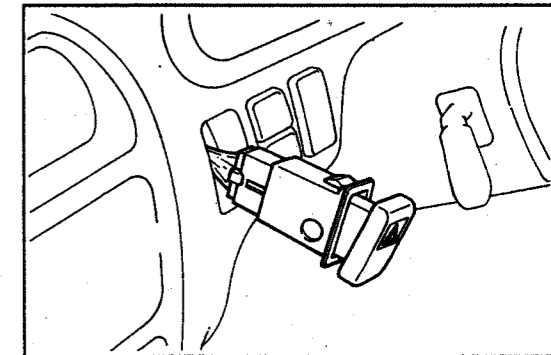
1. Ensure that no continuity exists between the terminal B and the terminal E when the switch is turned OFF. If not, replace the switch.
2. Ensure that continuity exists between the terminal B and the terminal L when the switch is turned ON. If not, replace the switch.



GBE00242-99999

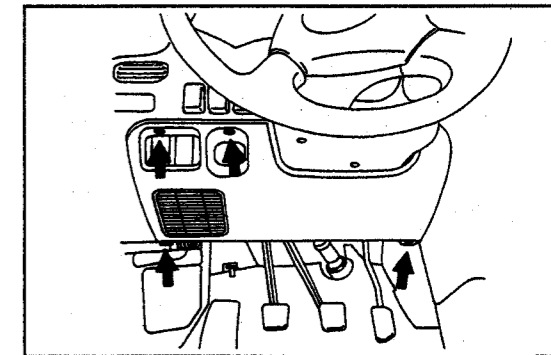
Installation

1. Connect the connector of the defogger switch.
2. Insert the switch to the instrument panel, until the switch is locked.



GBE00243-99999

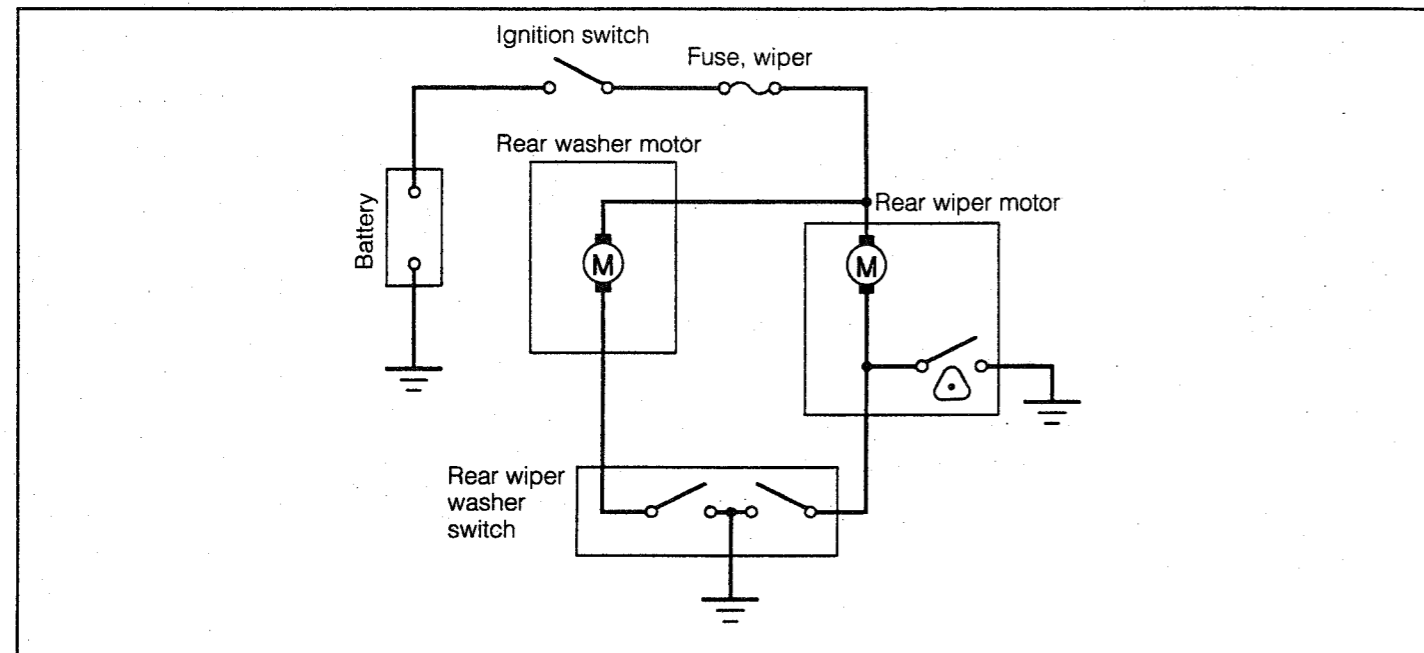
3. Install the instrument cluster finish panel to the instrument panel with the attaching screws.



GBE00244-99999

REAR WIPER & BLADES

CIRCUIT DIAGRAM



GBE00245-99999

REMOVAL

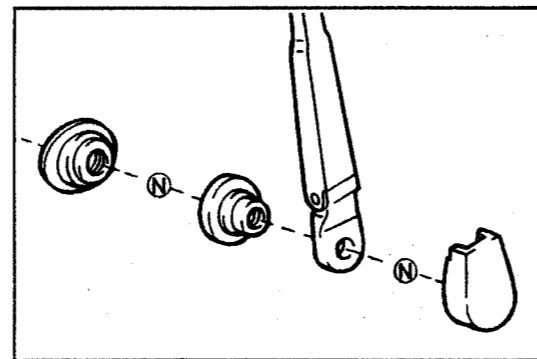
1. Remove the lock nut cover and the wiper arm by removing the nut.

GBE00246-00000

2. Remove the wiper link packing by removing the hexagon nut.

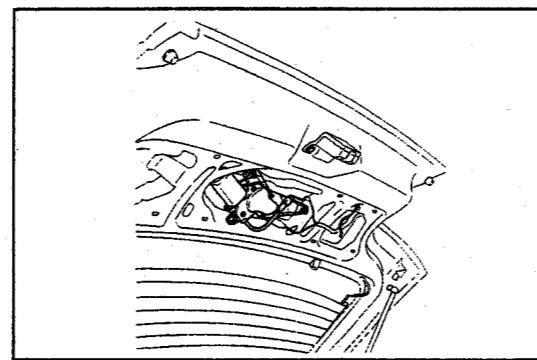
NOTE:

- Be very careful not scratch the painted surface.



GBE00247-99999

3. Remove the back door trim.
4. Disconnect the wiper motor connector and detach the wire from the clamp.
5. Remove the rear wiper motor assembly.



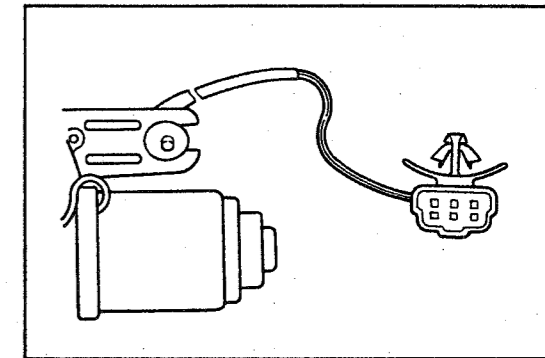
GBE00248-99999

INSPECTION

1. Connect the battery negative terminal (-) to the wiper motor body. Also connect the battery negative terminal to the motor connector (-)/blue-white wire and battery positive terminal (+) to the motor connector (+)/blue wire, as indicated in the right figure. Ensure that the wiper motor functions.

If not, replace the wiper motor.

2. Ensure that the wiper motor stops at the automatic stopping position when the battery negative (-) terminal is disconnected from the wiper motor negative (-) connector.



GBE00249-99999

GBE00250-00000

INSTALLATION

1. Install the rear wiper motor to the back door panel with the set bolt.

Tightening Torque: 7 - 9 N-m (0.7 - 1.0 kgf-m)

NOTE:

- Make sure that the body ground is provided properly.

2. Connect the connector.
3. Connect the wire to the wire clamp.

4. Install the back door trim.
5. Install the wiper link packing. Tighten the hexagon nut.

Tightening Torque: 4 - 5 N-m (0.4 - 0.5 kgf-m)

NOTE:

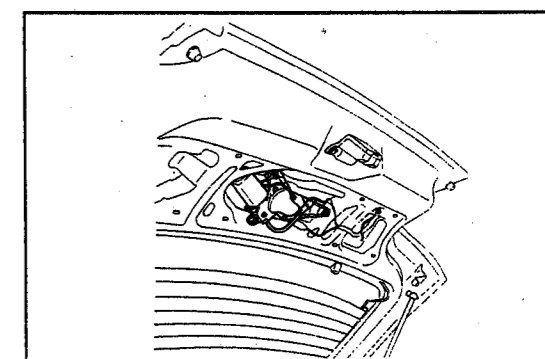
- Be very careful not scratch the paint surface.

6. Installation of wiper arm

- (1) Operate the wiper motor once.
- (2) Install the wiper arm in such a way that the wiper blade may come at the specified marking position on the defogger wire, as indicated in the right figure. Tighten the nut.

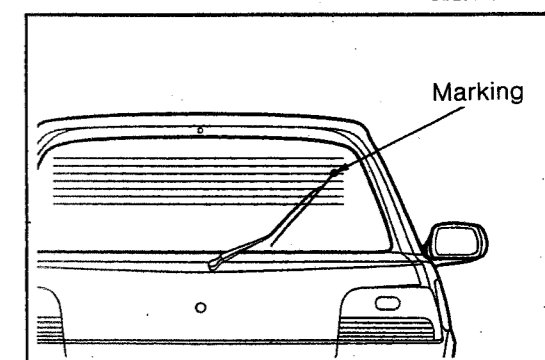
Tightening Torque: 4 - 7 N-m (0.4 - 0.7 kgf-m)

- (3) Fit the cap.



GBE00251-00000

GBE00252-99999



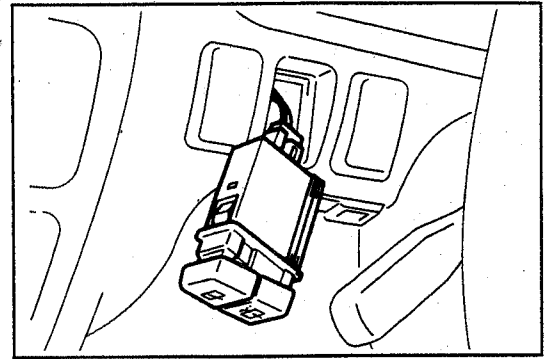
GBE00253-99999

BE-64

REAR WIPER & WASHER SWITCH

REMOVAL

1. Remove the instrument cluster finish panel.
2. Disconnect the connector.
3. Push the switch from back side while releasing the lock of the switch, remove the switch toward your side.

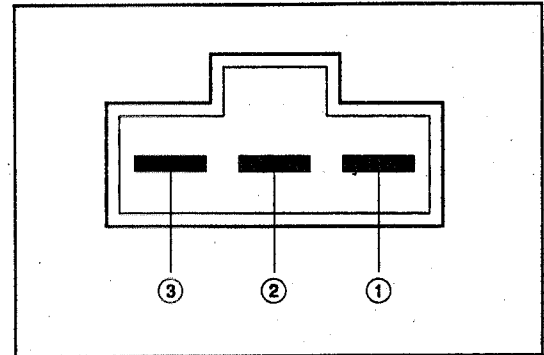


GBE00254-99999

Inspection

Ensure that continuity exists between the respective terminals, as shown the table.

	①	②	③
OFF			
Wiper ON	○	○	
Washer ON	○	○	○



GBE00255-99999

INSTALLATION

1. Connect the connector to the switch.
2. Insert the switch into the instrument panel until the switch is locked.
3. Install the instrument cluster finish panel to the instrument panel with the attaching screws.

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