

BODY ELECTRICAL SYSTEM

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PRECAUTION

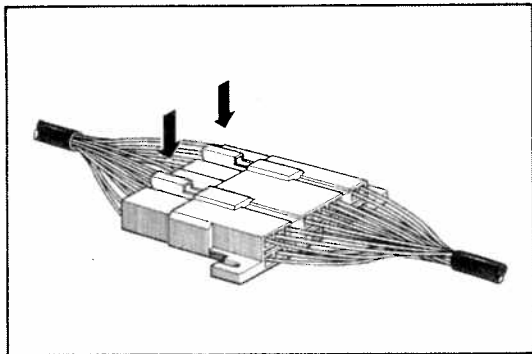
Wiring Color

WIRING COLOR CODE

Wire colors are indicated by an alphabetical code. The 1st letter indicates the basic wire color and the 2nd indicates the stripe color.

B = Black	Br = Brown
G = Green	Gr = Grey
L = Light Blue	Lg = Light Green
O = Orange	P = Pink
R = Red	V = Violet
W = White	Y = Yellow

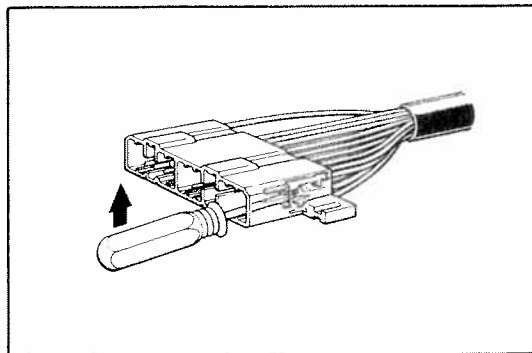
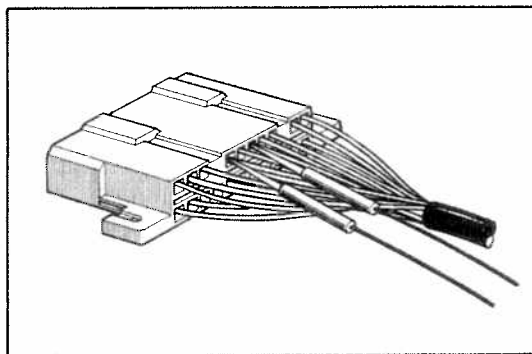
Example: RG indicates a Red wire with a Green stripe



Bulkhead Type Connector

BULKHEAD TYPE CONNECTOR HANDLING AND INSPECTION

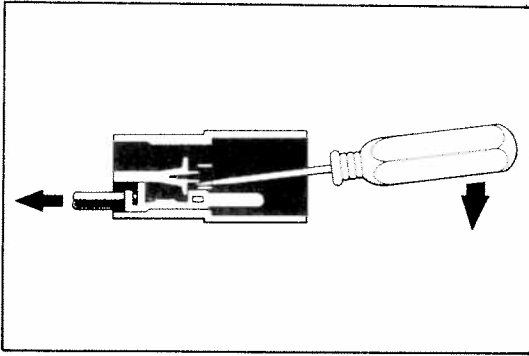
1. To remove the connector, push the lock levers, as shown in the figure and pull out.
2. When checking the continuity or voltage with a circuit tester, insertion of the test probe into the receptacle connector may open the fitting to the connector and result in poor contact. Therefore, ensure that the test probe is inserted only from the wire harness side as shown in figure.



Replacement of Terminal

1. REMOVE TERMINAL

- (a) From the open end, insert a miniature screwdriver between the locking lugs and terminal.



- (b) Pry up the locking lugs with the screwdriver and pull the terminal out from the rear.

2. INSTALL TERMINAL

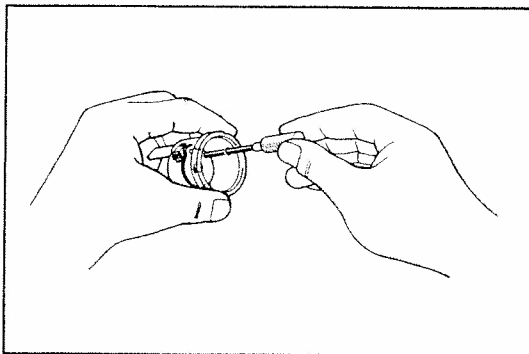
- (a) Using a screwdriver, raise both lugs on the terminal.
- (b) Push the terminal into the connector as shown.

Circuit Breaker

Reset of Circuit Breaker

1. REMOVE CIRCUIT BREAKER

- (a) Remove circuit breaker assembly.
- (b) Unlock the stopper and pull out the circuit breaker.



2. RESET CIRCUIT BREAKER

- (a) Insert the needle into the reset hole and push it.
- (b) Using an ohmmeter, check that there is a continuity between both terminals of the circuit breaker.

If no continuity, replace the circuit breaker.

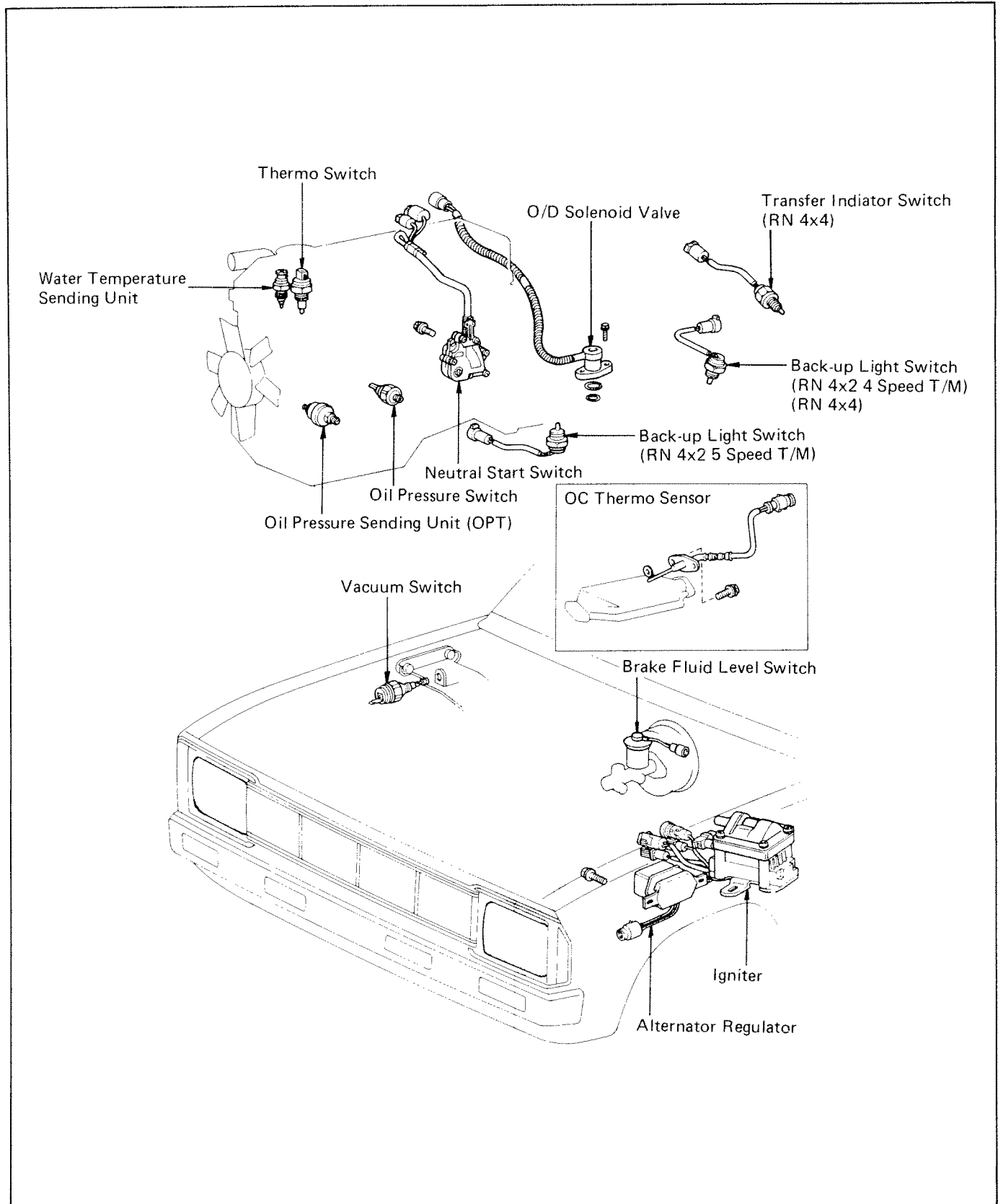
3. INSTALL CIRCUIT BREAKER

- (a) Assemble the circuit breaker into the case.
- (b) Install the circuit breaker assembly.

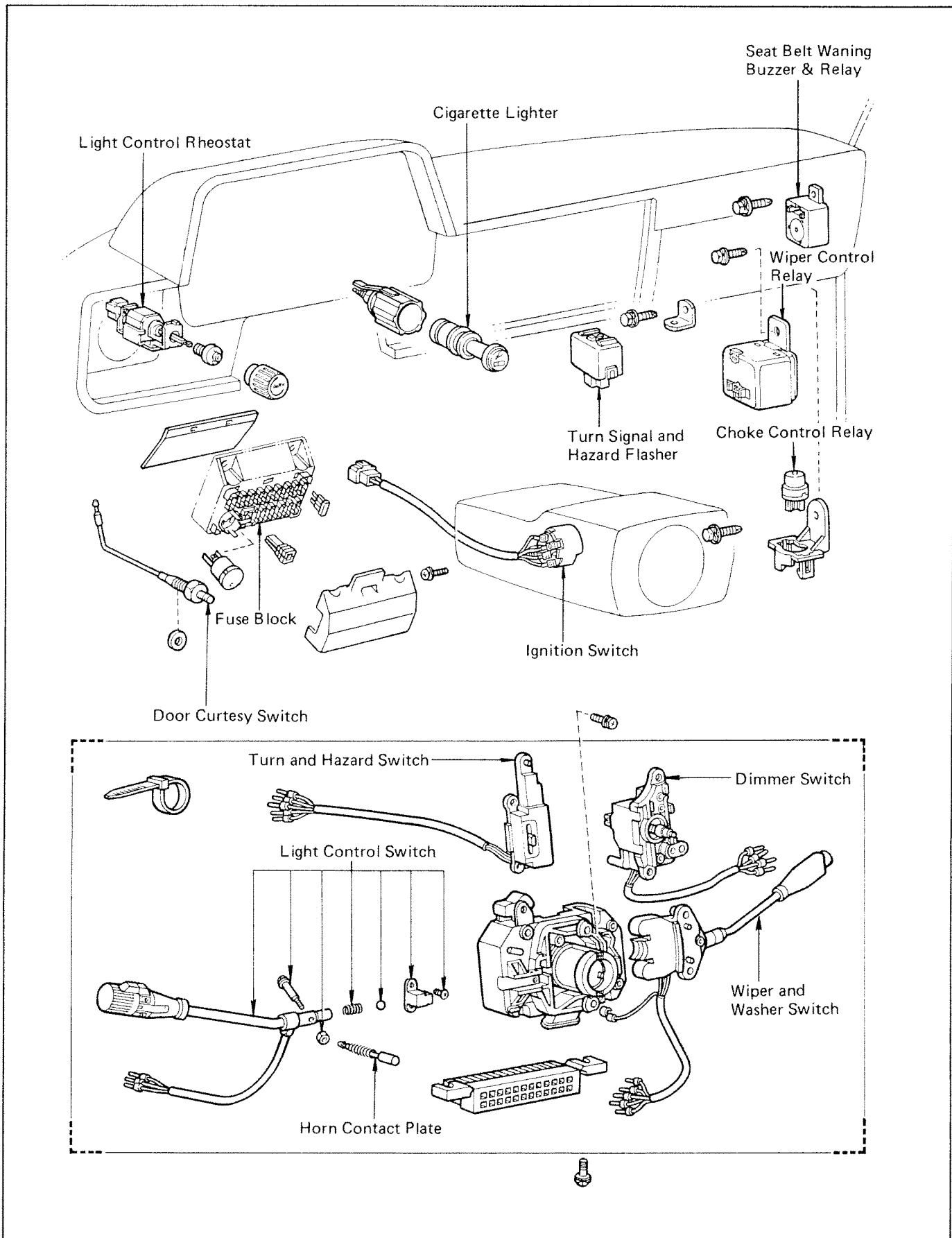
NOTE: If a circuit breaker continues to cut out, a short circuit is indicated and the system must be checked by a qualified technician.

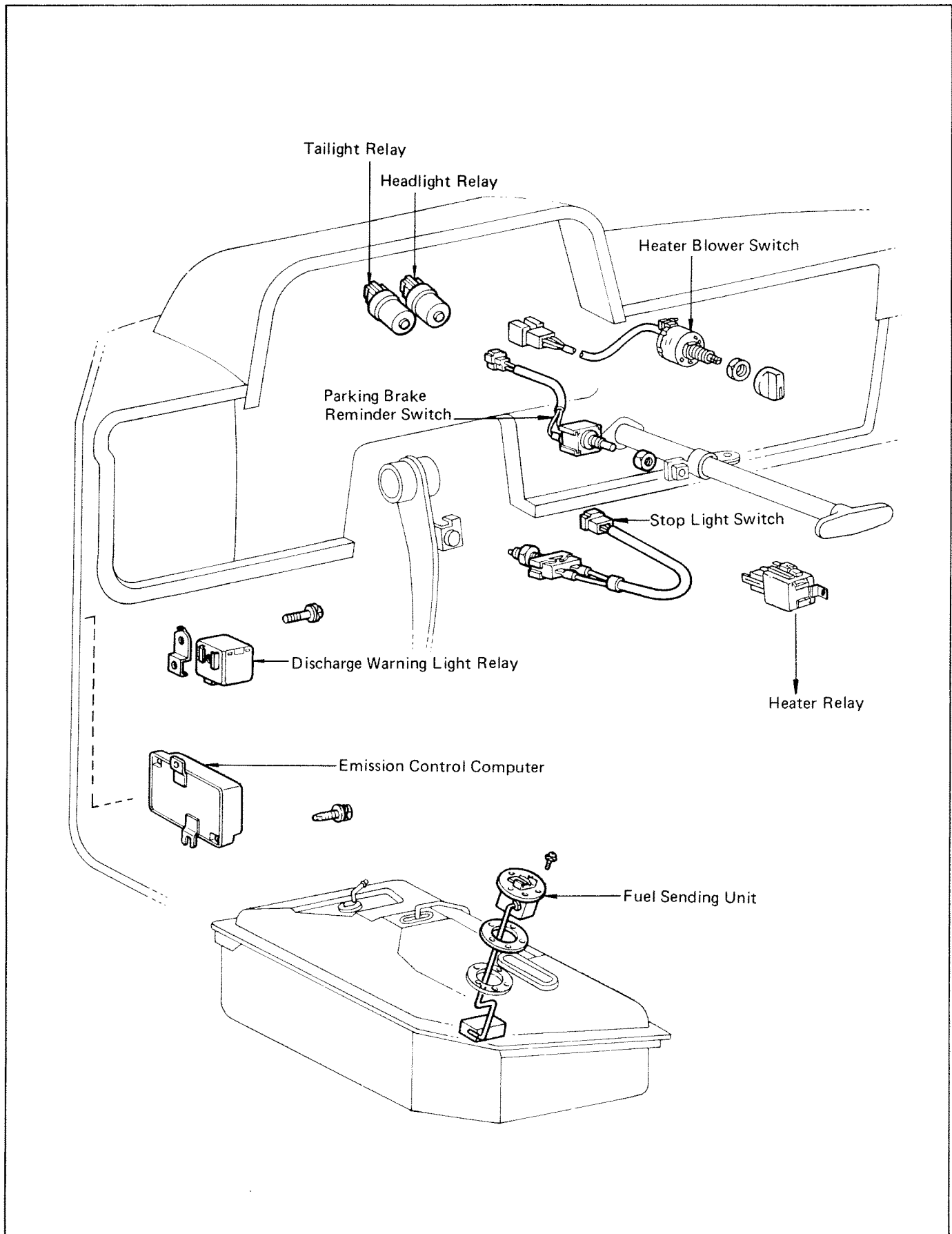
LOCATION OF SWITCHES AND RELAYS

ENGINE COMPARTMENT SWITCHES AND RELAYS



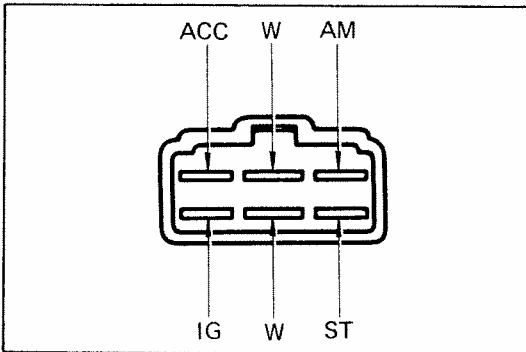
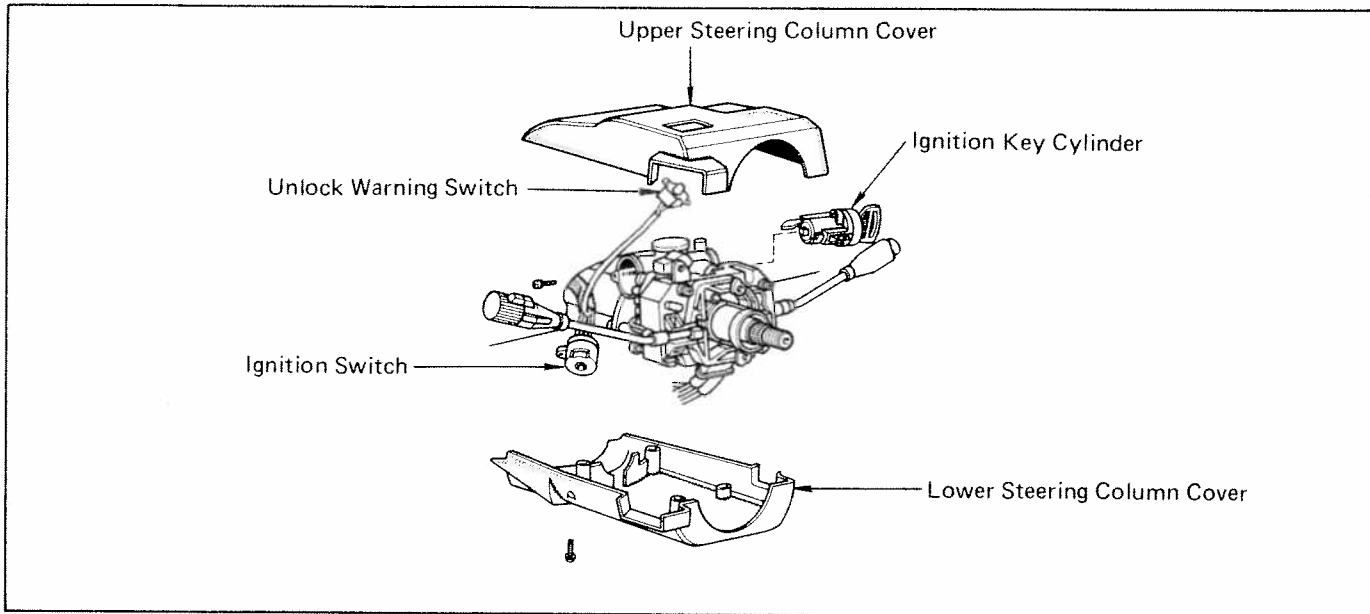
DASH AND STEERING COLUMN SWITCHES AND RELAYS



**DASH AND STEERING COLUMN SWITCHES
AND RELAYS (CONT'D)**

SWITCHES

Ignition Switch



INSPECTION OF IGNITION SWITCH

1. REMOVE NEGATIVE CABLE FROM BATTERY
2. REMOVE STEERING LOWER COVER AND UPPER COVER
3. DISCONNECT IGNITION SWITCH WIRING CONNECTOR

4. CHECK CONTINUITY BETWEEN TERMINALS

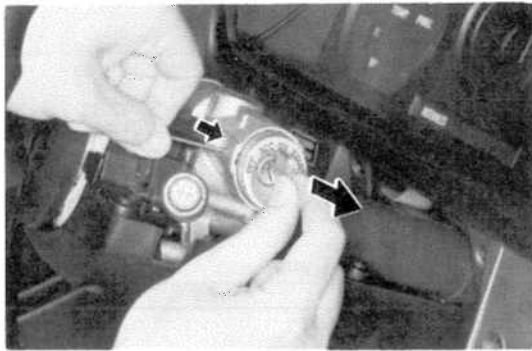
Using an ohmmeter, check the continuity of the terminals for each switch position shown in the table.

If there is no continuity, replace the ignition switch.

Terminal (Wire color)	AM (BR)	ACC (LR)	IG (BY)	ST (BW)	W (GW) W/TILT (B)	W (GW)
Switch position						
OFF or LOCK					○—○	○—○
ACC	○—○				○—○	
ON	○—○	○—○				
START	○—○	○—○	○—○			

REMOVAL OF IGNITION SWITCH

1. REMOVE NEGATIVE CABLE FROM BATTERY
2. REMOVE STEERING LOWER COVER AND UPPER COVER
3. DISCONNECT IGNITION SWITCH WIRING CONNECTOR

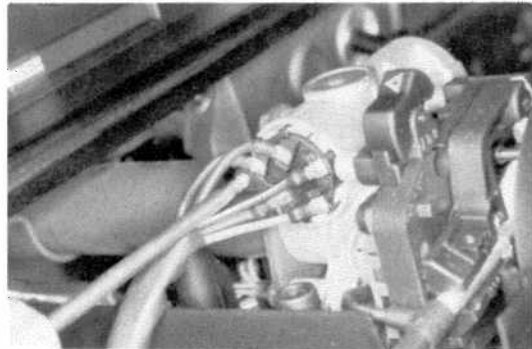


4. REMOVE IGNITION KEY CYLINDER

- (a) Turn the ignition key to ACC position.
- (b) Hold down the pin with a wire and pull out the ignition key and cylinder.

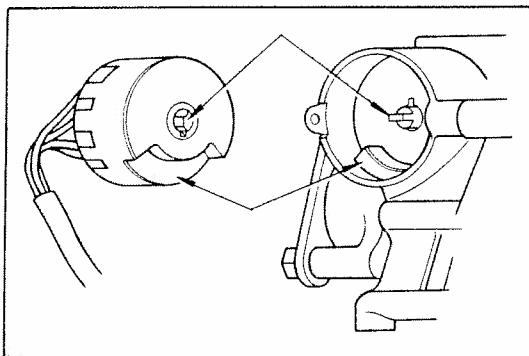
5. REMOVE UNLOCK WARNING SWITCH

Remove the two screws and unlock warning switch.



6. REMOVE IGNITION SWITCH

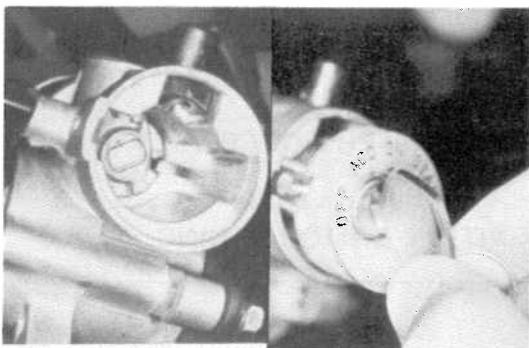
Remove the screw and switch.



INSTALLATION OF IGNITION SWITCH

1. INSTALL IGNITION SWITCH

- (a) Install the unlock warning switch.
- (b) Install the ignition switch with the switch recess and bracket tab positioned as shown.
- (c) Install the screw.



2. INSTALL IGNITION KEY CYLINDER

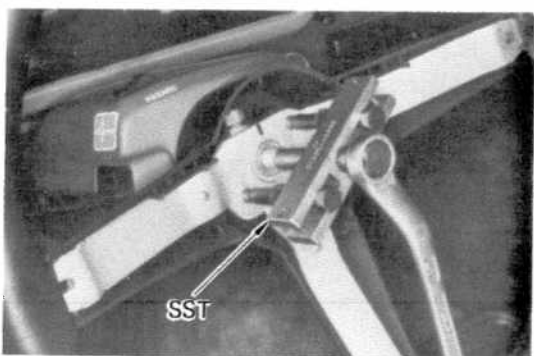
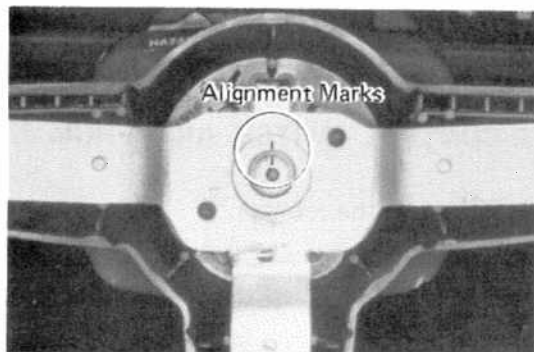
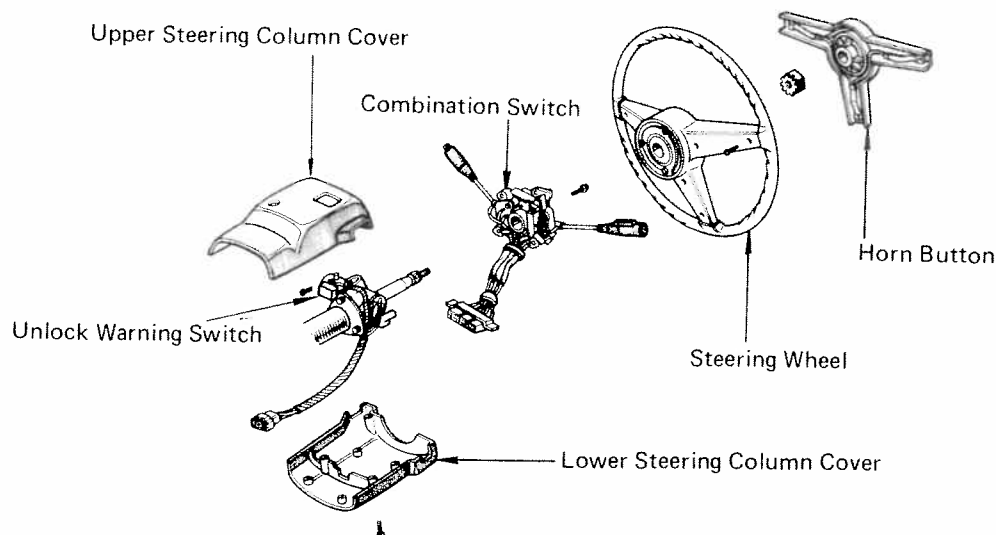
- (a) Position the bracket as shown.
- (b) With the key in ACC position, install the key cylinder.

3. CONNECT IGNITION SWITCH WIRING CONNECTOR

4. INSTALL STEERING UPPER COVER AND LOWER COVER

5. INSTALL NEGATIVE CABLE ON BATTERY

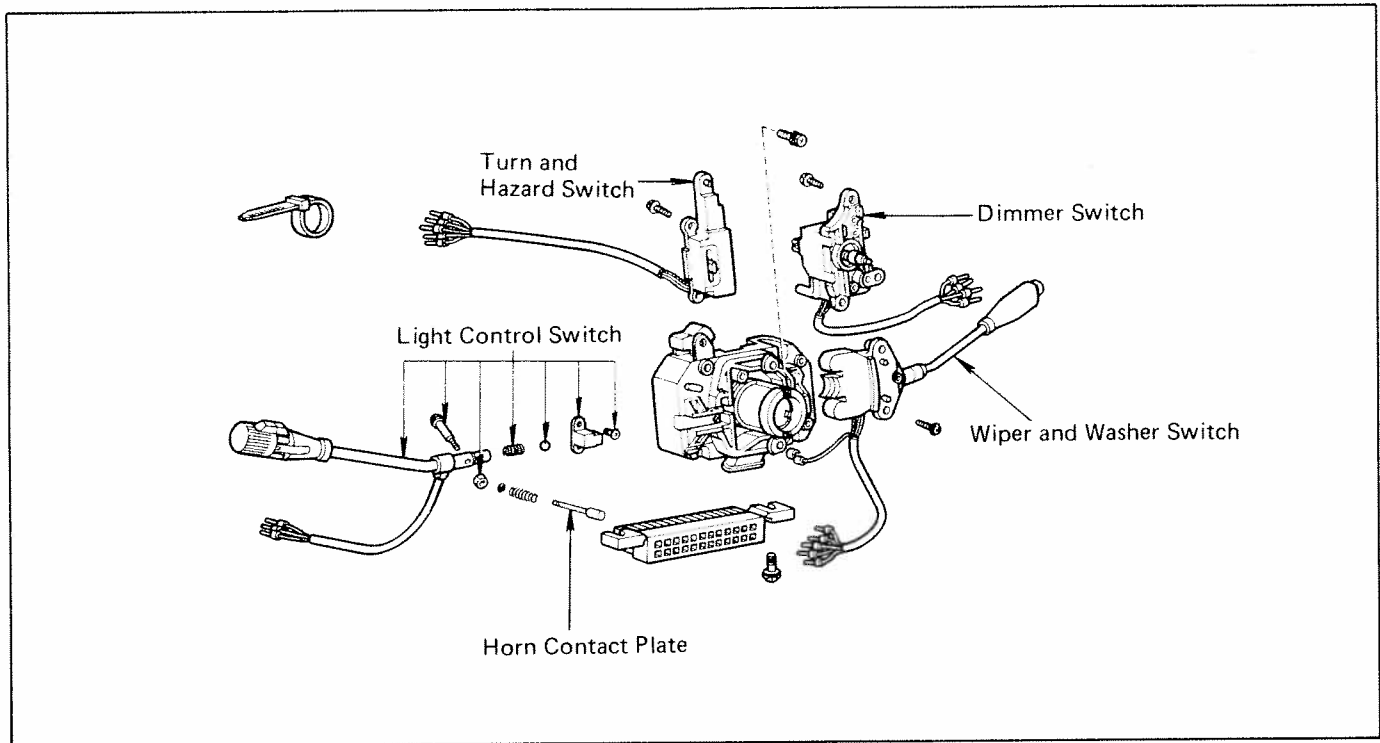
Combination Switch



REMOVAL OF COMBINATION SWITCH

1. REMOVE NEGATIVE CABLE FROM BATTERY
2. REMOVE STEERING WHEEL
 - (a) Remove horn button screws on the back of the steering wheel and pull off the button.
 - (b) Make alignment marks on the steering wheel and shaft to ensure correct reassembly.
 - (c) Remove the steering wheel nut.
 - (d) Using a steering wheel puller, remove the steering wheel.
3. REMOVE STEERING LOWER COVER AND UPPER COVER
4. REMOVE COMBINATION SWITCH

SST 09609-20010



DISASSEMBLY OF COMBINATION SWITCH

Removal of Light Control Switch

1. REMOVE LIGHT CONTROL SWITCH ARM FROM SWITCH BODY

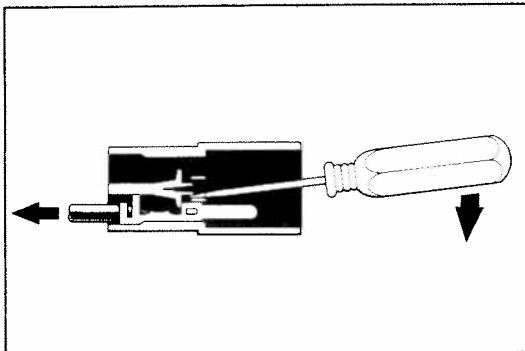
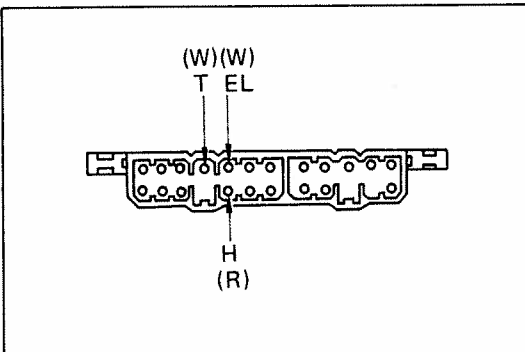
- (a) Remove two screws and the retainer.
- (b) Remove the nut and set screw.

NOTE: A steel ball will fall out when the arm is removed. Do not lose it.

2. REMOVE THREE TERMINALS FROM CONNECTOR

Remove terminals T, H and EL as follows:

- (a) From the open end, insert a miniature screwdriver between the locking lugs and terminal.
- (b) Pry up the locking lugs with the screwdriver and pull the terminal out from the rear.

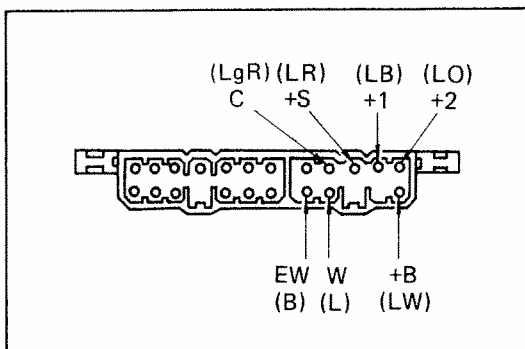


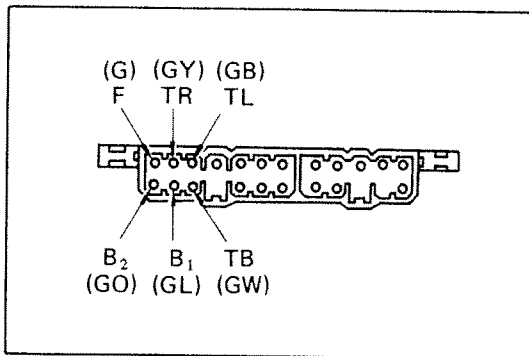
Removal of Wiper Switch

1. REMOVE WIPER SWITCH FROM SWITCH BODY

Remove two screws and the wiper switch.

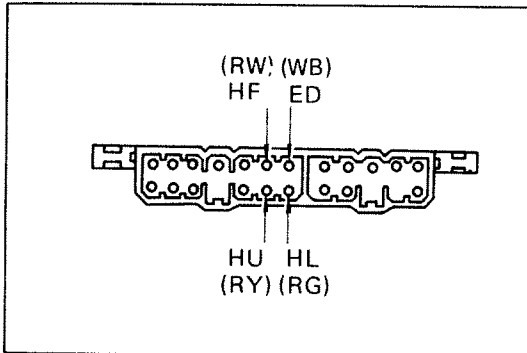
2. REMOVE SIX TERMINALS FROM CONNECTOR





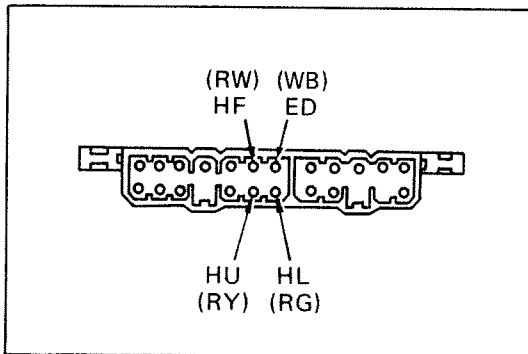
Removal of Hazard Switch

1. REMOVE HAZARD SWITCH FROM SWITCH BODY
Remove two screws, and the hazard switch.
2. REMOVE SIX TERMINALS FROM CONNECTOR



Removal of Dimmer Switch

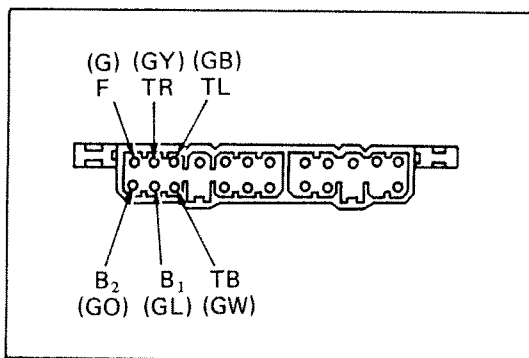
1. REMOVE DIMMER SWITCH FROM SWITCH BODY
Remove three screws, and the dimmer switch.
2. REMOVE FOUR TERMINALS FROM CONNECTOR



ASSEMBLY OF COMBINATION SWITCH

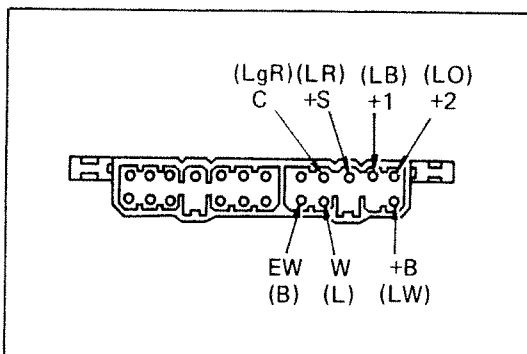
Installation of Dimmer Switch

1. INSTALL DIMMER SWITCH
2. INSTALL FOUR TERMINALS IN CONNECTOR



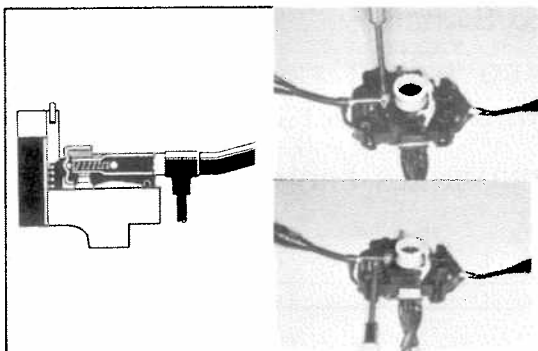
Installation of Hazard Switch

1. INSTALL HAZARD SWITCH
2. INSTALL SIX TERMINALS IN CONNECTOR



Installation of Wiper Switch

1. INSTALL WIPER SWITCH
2. INSTALL SIX TERMINALS IN CONNECTOR



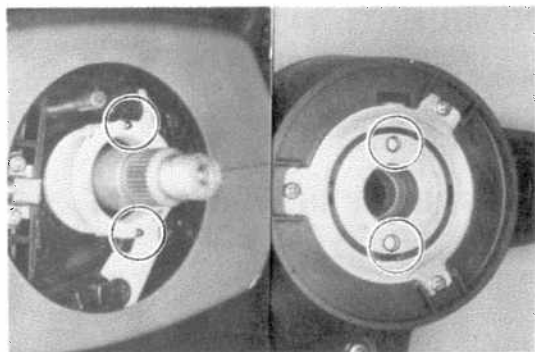
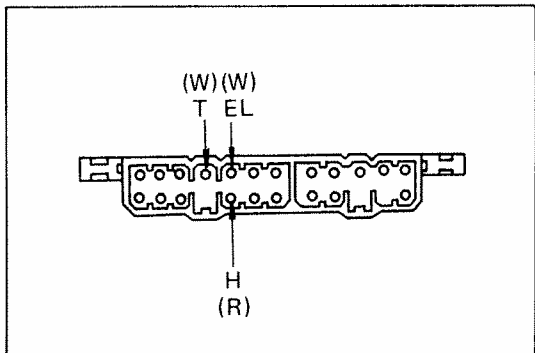
Installation of Light Control Switch

1. INSTALL LIGHT CONTROL SWITCH ARM

- (a) Insert the spring in the end of the arm. Place the switch arm in position on the switch body, and install the nut and screw.
- (b) Place the steel ball on the end of the switch arm and install the retainer as shown. Multipurpose grease may be used on the ball to hold it on the end of the arm.

2. CHECK THAT LIGHT CONTROL SWITCH OPERATES SMOOTHLY

3. INSTALL THREE TERMINALS IN CONNECTOR



INSTALLATION OF COMBINATION SWITCH (See illustration on page 17-9)

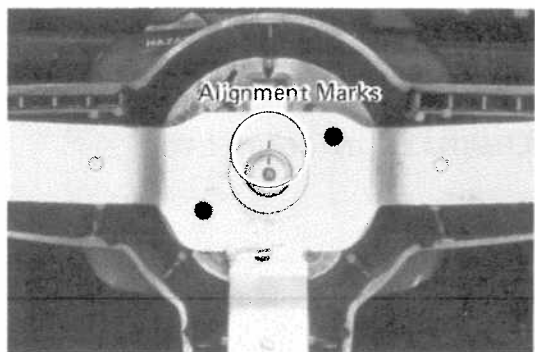
1. INSTALL COMBINATION SWITCH ON STEERING COLUMN SHAFT

- (a) Place the switch on the shaft and install four screws.
- (b) Coat the horn contact plate with rubber grease.
- (c) Connect the switch connector.

2. INSTALL STEERING LOWER COVER AND UPPER COVER

3. INSTALL STEERING WHEEL

- (a) Align the auto-cancel switch with holes on the steering wheel.
- (b) Install the steering wheel on the shaft, making sure to align the alignment marks.
- (c) Check that the auto cancel action is correct by operating the turn signal and turning the steering wheel until the turn signal switches off.

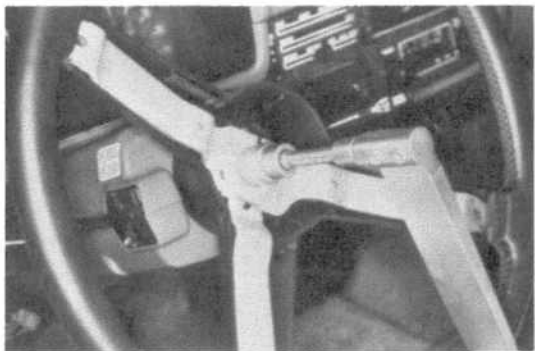


- (d) Install and torque the steering wheel nut.

Torque: 300 — 400 kg-cm (22 — 28 ft-lb)

- (e) Install the horn button.

4. CONNECT NEGATIVE CABLE TO BATTERY



LIGHTING

Troubleshooting

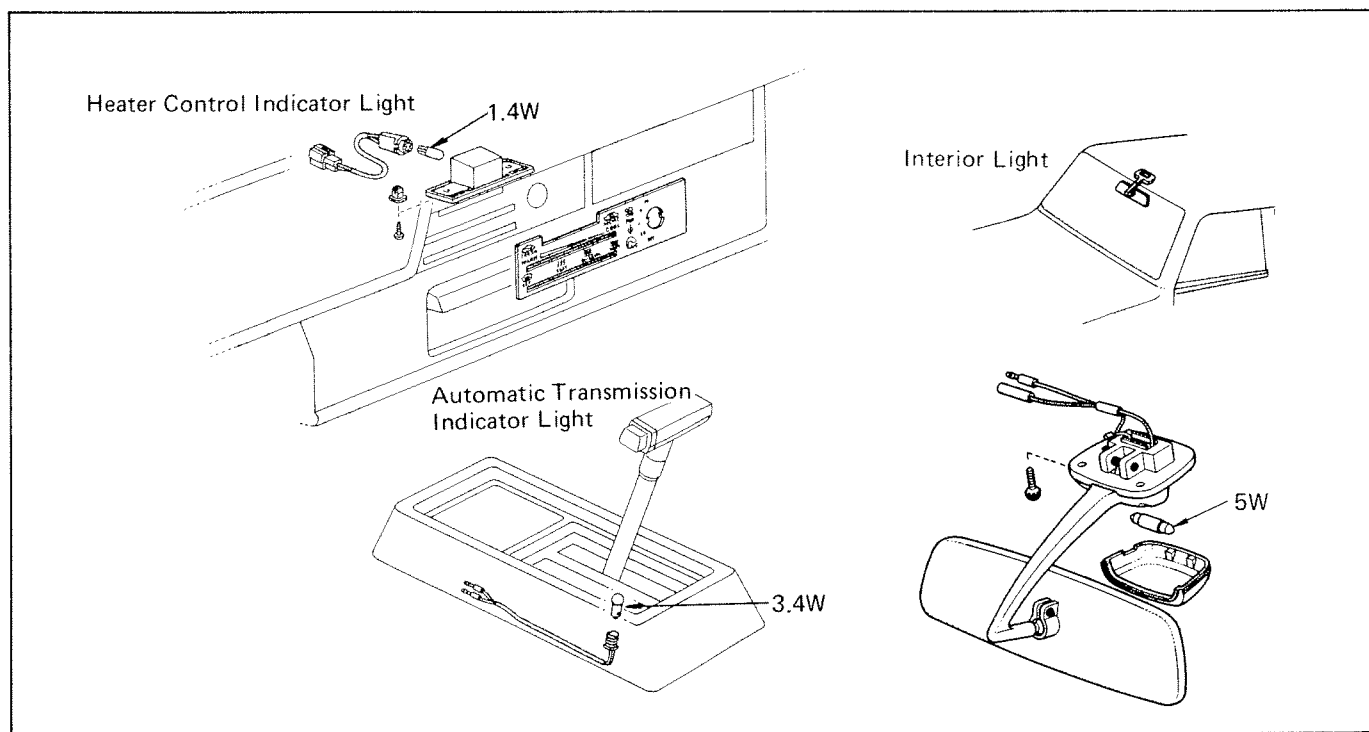
Problem	Possible cause	Remedy	Page
Only one light does not light (all exterior lights)	Light bulb burned out Socket, wire or ground faulty	Replace bulb Repair as necessary	17-14
No headlights light	Fusible link blown	Replace fusible link	17-16
	Headlight control relay faulty	Check relay	17-16
	Light control/dimmer switch faulty	Check switch	17-16
	Wiring or ground faulty	Repair as necessary	17-16
High beam headlights or headlight flasher do not operate	Light control/dimmer switch faulty Faulty wiring	Check switch Repair as necessary	17-16
Tail, parking and license light do not light	“TAIL” fuse blown Fusible link blown Tail light control relay faulty Light control switch faulty Wiring or ground faulty	Replace fuse and check for short Replace fusible link Check relay Check switch Repair as necessary	17-16
Stop lights do not light	“STOP” fuse blown Stop light switch faulty Wiring or ground faulty	Replace fuse and check for short Adjust or replace switch Repair as necessary	17-6
Stop lights stay on	Stop light switch faulty	Adjust or replace switch	17-6
Instrument light does not light (tail lights light)	Light control rheostat Wiring or ground faulty	Check rheostat Repair as necessary	17-17
Turn signal does not flash on one side	Turn signal switch faulty Wiring or ground faulty	Check switch Repair as necessary	17-17
Turn signal does not operate	“TURN” fuse blown	Replace fuse and check for short	17-18
	Turn signal flasher faulty	Check flasher	17-17
	Turn signal/hazard switch faulty	Check switch	17-17
	Wiring or ground faulty	Repair as necessary	17-17
Hazard warning lights do not operate	“HORN” fuse blown	Replace fuse and check for short	17-18
	Turn signal flasher faulty	Check flasher	17-18
	Turn signal/hazard switch faulty	Check switch	17-17
	Wiring or ground faulty	Repair as necessary	17-17

Light Bulbs

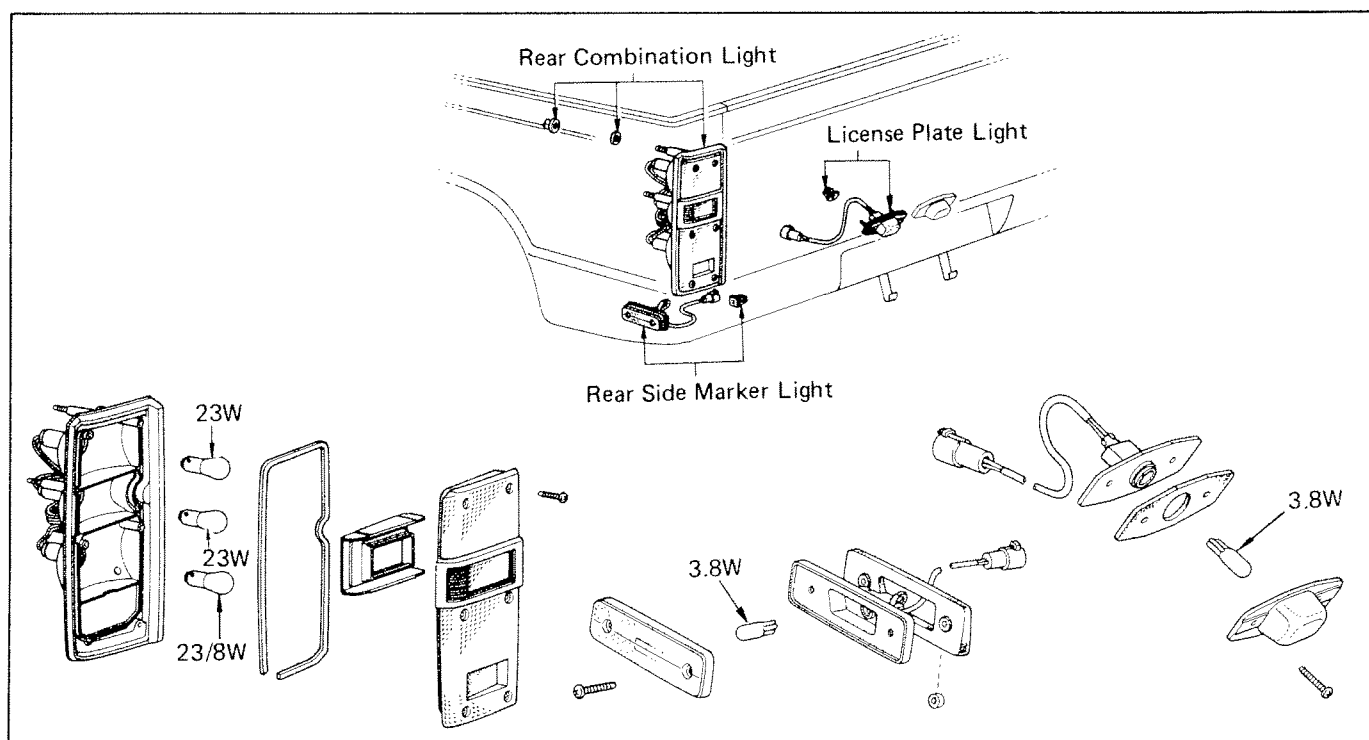
REPLACE LIGHT BULBS

Install new bulbs with the correct wattage rating.

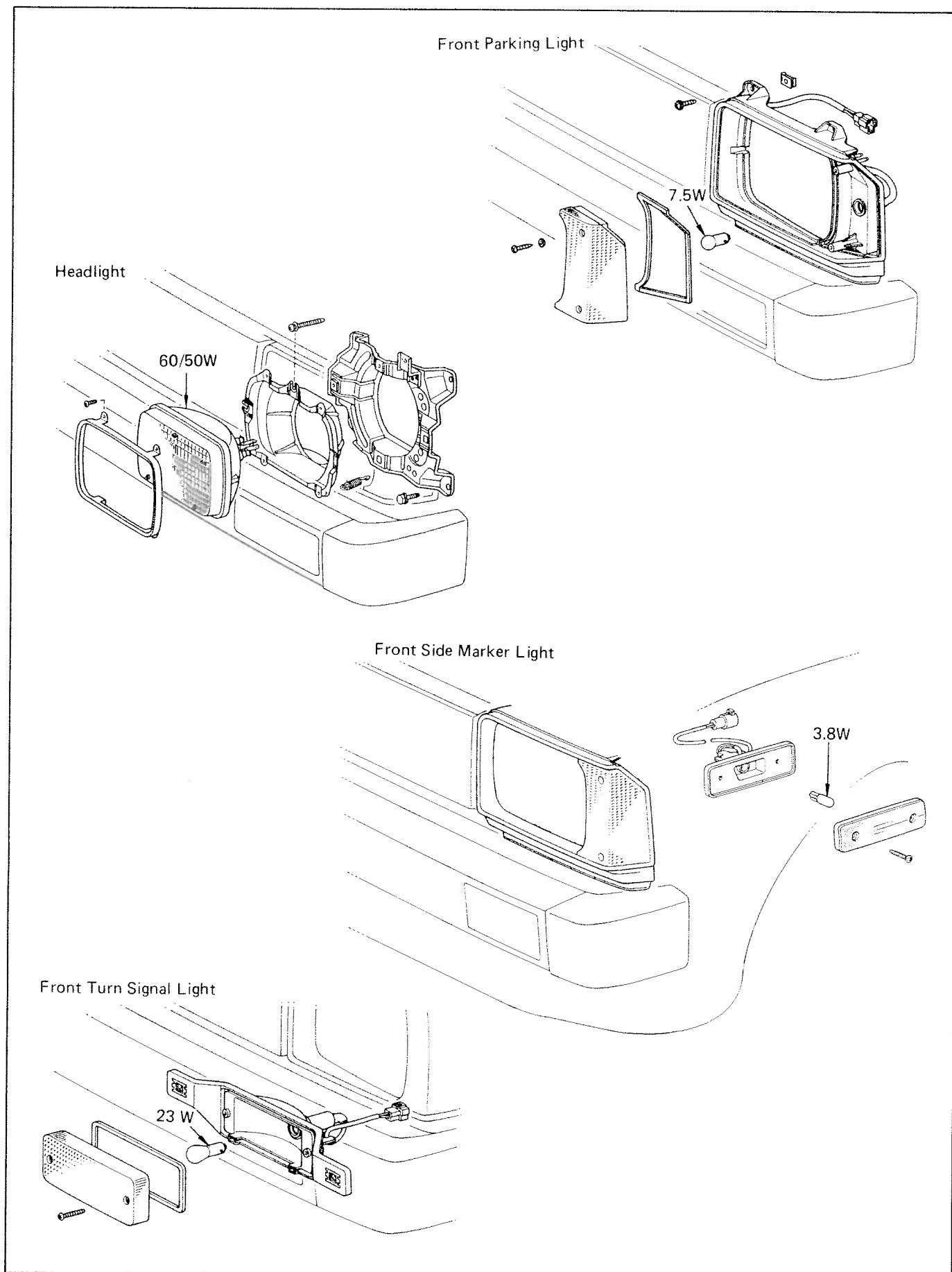
INTERIOR LIGHTS

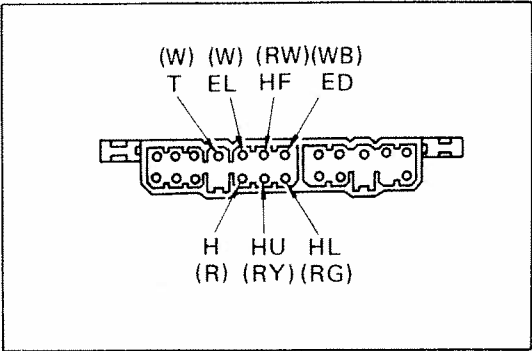


REAR LIGHTS



FRONT LIGHTS





Light Control Switch

INSPECTION OF LIGHT CONTROL SWITCH

1. REMOVE STEERING LOWER COVER AND UPPER COVER
2. DISCONNECT COMBINATION SWITCH CONNECTOR
3. CHECK CONTINUITY BETWEEN TERMINALS

Using an ohmmeter, check continuity of the terminals for each switch position shown in the table below.

If there is no continuity between the light control switch terminals, replace the light control switch.

If there is no continuity between the dimmer switch terminals, replace the dimmer switch.

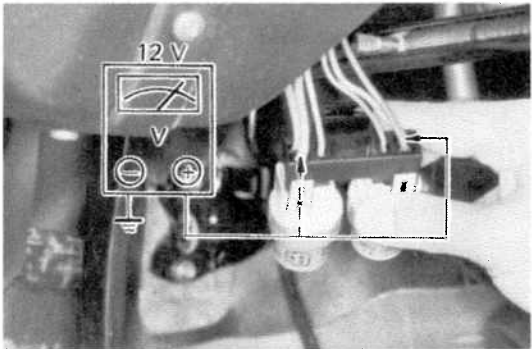
NOTE: Test probes should be inserted only from the wire harness side, as shown, to ensure proper contact.

Switch position \ Terminal (Wire color)	T (W)	H (R)	EL (W)	ED (WB)	HU (RY)	HL (RG)	HF (RW)
OFF							
ONE STEP	○	○	○				
TWO STEP	○	○	○				
Headlight High				○	○		
Headlight Low				○		○	
Headlight Flash				○	○		○

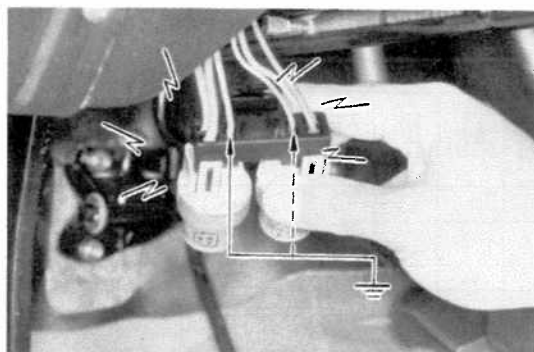
Light Control Relays (Headlight and Taillight)

INSPECTION OF LIGHT CONTROL RELAYS

NOTE: For the location of light control relays, see page 17-5.



1. CHECK BATTERY VOLTAGE TO RELAYS
- Using a voltmeter, check that there is 12 volts at the following terminals:
- Headlight relay – red/blue wire
 - Taillight relay – red/yellow wire
- If not 12 volts, check the TAIL fuse and/or wiring.



2. CHECK OPERATION OF RELAYS

When the following terminals are grounded, check that the relay click can be heard and the headlights and tail lights come on:

Headlight relay — red/white wire

Tail light relay — red/black wire

If the relay does not operate, replace the relay.

Light Control Rheostat

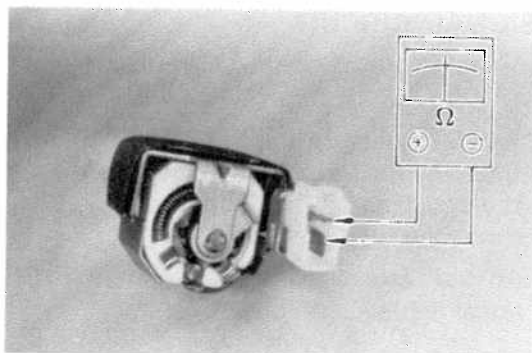
INSPECTION OF LIGHT CONTROL RHEOSTAT

NOTE: For the location of light control rheostat, see page 17-5.

CHECK RESISTANCE OF LIGHT CONTROL RHEOSTAT

Using an ohmmeter, measure the resistance at each point, while turning the DARK knob.

If resistance is not correct, replace the rheostat.



Point	Resistance (ohms)
Full counterclockwise	0
Midpoint	Approx. 4
Full clockwise	10

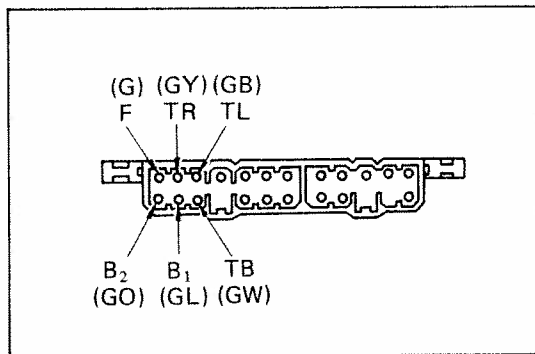
Turn Signal and Hazard Warning Light Switch

INSPECTION OF TURN SIGNAL AND HAZARD WARNING LIGHT SWITCH

1. REMOVE STEERING LOWER COVER AND UPPER COVER
2. DISCONNECT COMBINATION SWITCH CONNECTOR
3. CHECK CONTINUITY BETWEEN TERMINALS

Using an ohmmeter, check the continuity of the terminals for each switch position shown in the table on the next page.

If there is no continuity between the switch terminals, replace the hazard switch.



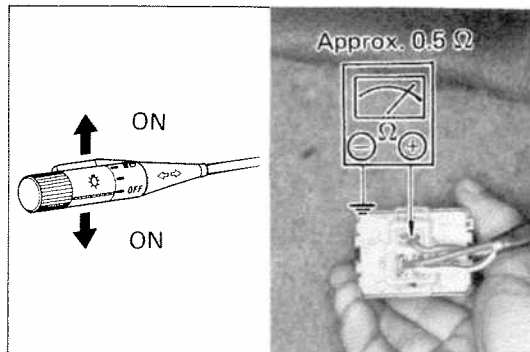
NOTE: Test probes should be inserted only from the wire harness side, as shown, to ensure proper contact.

Switch position	Terminal (Wire color)	TL (GB)	TB (GW)	TR (GY)	B1 (GL)	F (G)	B2 (GO)
Turn Signal	R		○—○		○—○		
	N				○—○		
	L	○—○			○—○		
Hazard		○—○	○—○	○—○		○—○	

Turn Signal Flasher

INSPECTION OF TURN SIGNAL FLASHER

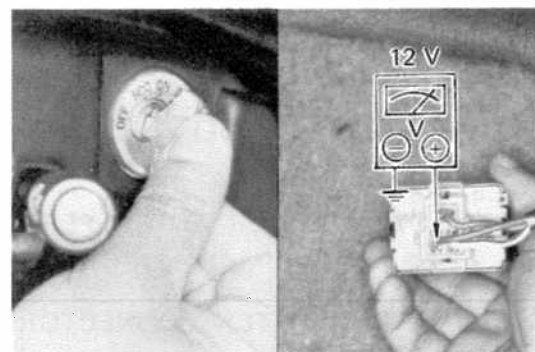
NOTE: For the location of the turn signal flasher, see page 17-5.



1. CHECK TURN SIGNAL CIRCUIT

- Move the turn signal switch to the right or left position.
- Using an ohmmeter, measure the resistance between terminal L (green/white wire) of the flasher and ground. If the resistance is not approximately 0.5 ohm, troubleshoot the turn signal circuit.

NOTE: If the turn indicator light stays lit, one of the front or rear turn signal lights has an open circuit.



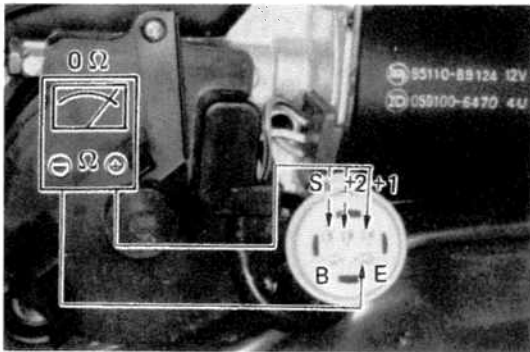
2. CHECK FLASHER OPERATION

- Turn the ignition key to ON.
- Using a voltmeter, measure the voltage between terminal B (green wire) of the flasher and ground. If the voltage is not 12 volts, replace the turn signal flasher.
- Check that the turn signal lights flash 70 to 100 times per minute. If not, replace the flasher.

WIPER AND WASHER

Troubleshooting

Problem	Possible cause	Remedy	Page
Wipers do not operate of return to off position	“WIPER” fuse blown	Replace fuse and check for short	17-19 17-20
	Wiper motor faulty	Check motor	
	Wiper control switch faulty	Check switch	
	Wiring or ground faulty	Repair as necessary	
Wipers do not operate in INT position	Wiper control relay faulty	Check relay	17-21 17-20 17-19
	Wiper control switch faulty	Check switch	
	Wiper motor faulty	Check motor	
	Wiring or ground faulty	Repair as necessary	
Washer does not operate	Washer hose or nozzle clogged	Repair as necessary	17-21 17-20
	Washer motor faulty	Replace motor	
	Wiper control switch faulty	Check switch	
	Wiring faulty	Repair as necessary	



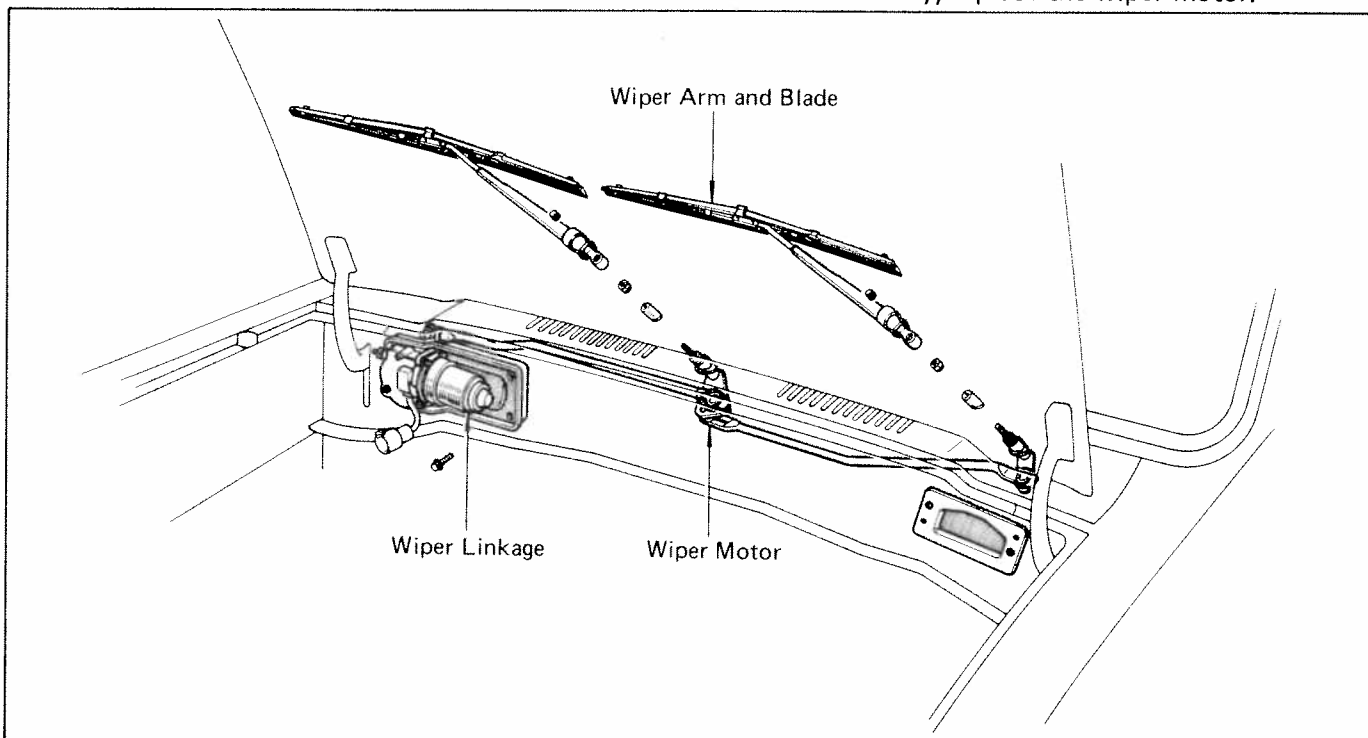
Wiper Motor and Linkage

INSPECTION OF WIPER MOTOR

1. PLACE WIPER SWITCH IN OFF POSITION
2. REMOVE CONNECTOR FROM WIPER MOTOR
3. CHECK MOTOR FOR CONTINUITY

Using an ohmmeter, check for continuity between terminal E and terminals +1, +2 and S.

If there is no continuity, replace the wiper motor.

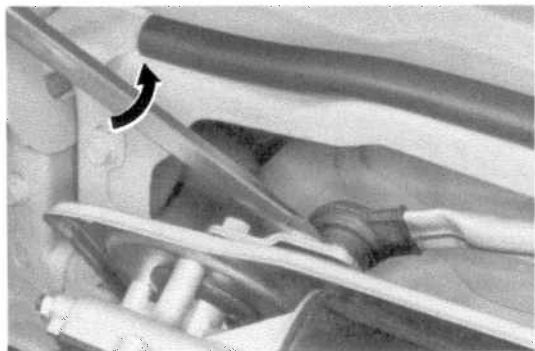




REMOVAL OF WIPER MOTOR AND LINKAGE

1. REMOVE WIPER ARMS AND BLADES

Remove the nut and wiper arm.



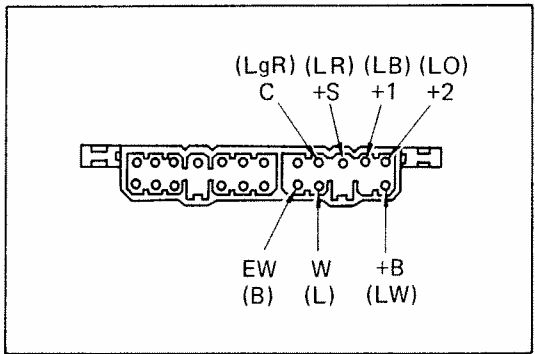
2. DISCONNECT LINKAGE FROM WIPER CRANK ARM

Insert a screwdriver between the link and arm, and pry the link from the arm.

3. DISCONNECT ELECTRICAL CONNECTOR AND REMOVE WIPER MOTOR

4. REMOVE WIPER LINKAGE

Remove nuts holding pivot arms, and remove the wiper linkage.



Wiper and Washer Switch

INSPECTION OF WIPER AND WASHER SWITCH

1. REMOVE STEERING LOWER COVER AND UPPER COVER

2. DISCONNECT COMBINATION SWITCH CONNECTOR

Push both lock levers in while pulling apart the connector.

3. CHECK CONTINUITY BETWEEN TERMINALS

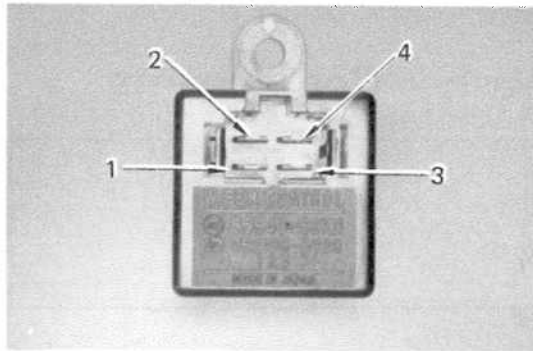
Using an ohmmeter, check the continuity of the terminals for each switch position shown in the table below.

If there is no continuity between the wiper switch terminals, replace the wiper switch.

If there is no continuity between the washer switch terminals, replace the wiper switch.

NOTE: Test probes should be inserted only from the wire harness side as shown, to ensure proper contact.

Switch position	Terminal (Wire color)	B (LW)	S (LR)	+1 (LB)	+2 (LO)	C (LgR)	EW (B)	W (L)
OFF			○ — ○					
INT			○ — ○			○ — ○		
LOW		○ — ○		○ — ○				
HI		○ — ○			○ — ○			
WASHER							○ — ○	



Wiper Control Relay

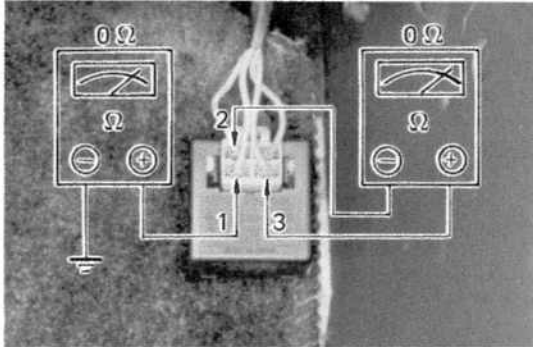
INSPECTION OF WIPER CONTROL RELAY

NOTE: Before inspecting, check that wipers other than the intermittent wiper operate properly.

1. CHECK RELAY FOR CONTINUITY

- Place the wiper switch lever in the INT position.
- Using an ohmmeter, check for continuity between terminals 2 and 3.
- Using an ohmmeter, check for continuity between terminals 1 and body ground.

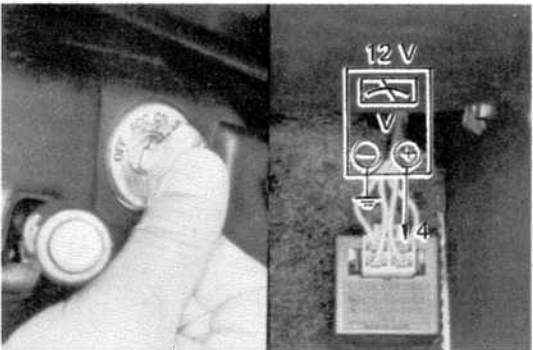
If there is no continuity in either of the checks above, replace the wiper control relay.



2. CHECK BATTERY VOLTAGE TO RELAY

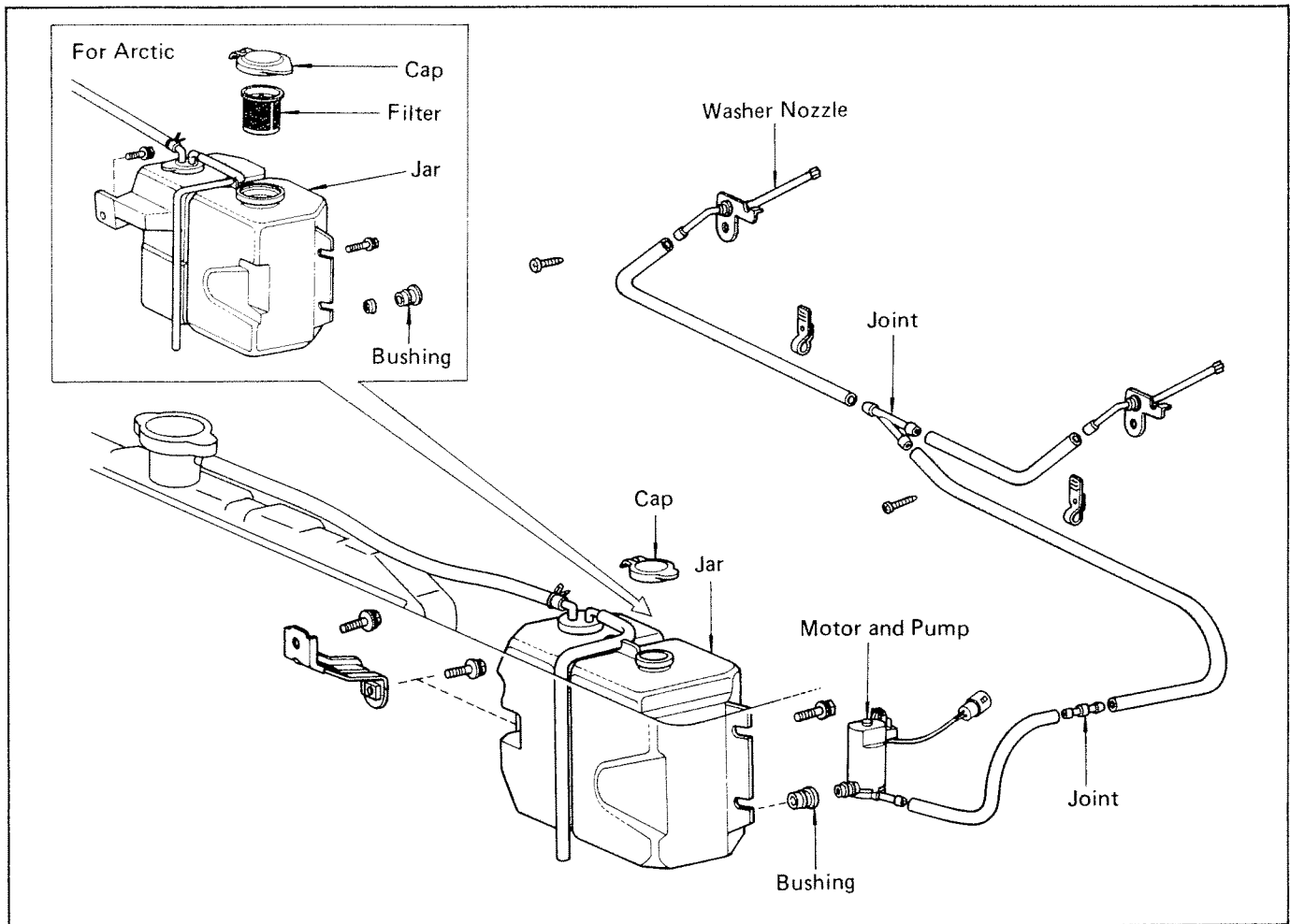
- Turn the ignition key and the wiper switch to ON.
- Using a voltmeter, measure the voltage between the terminal 4 and body ground.

If the voltage is not 12 volts, replace the wiper control relay.



WASHER

Windshield Washer Components



REPLACEMENT OF WASHER COMPONENTS

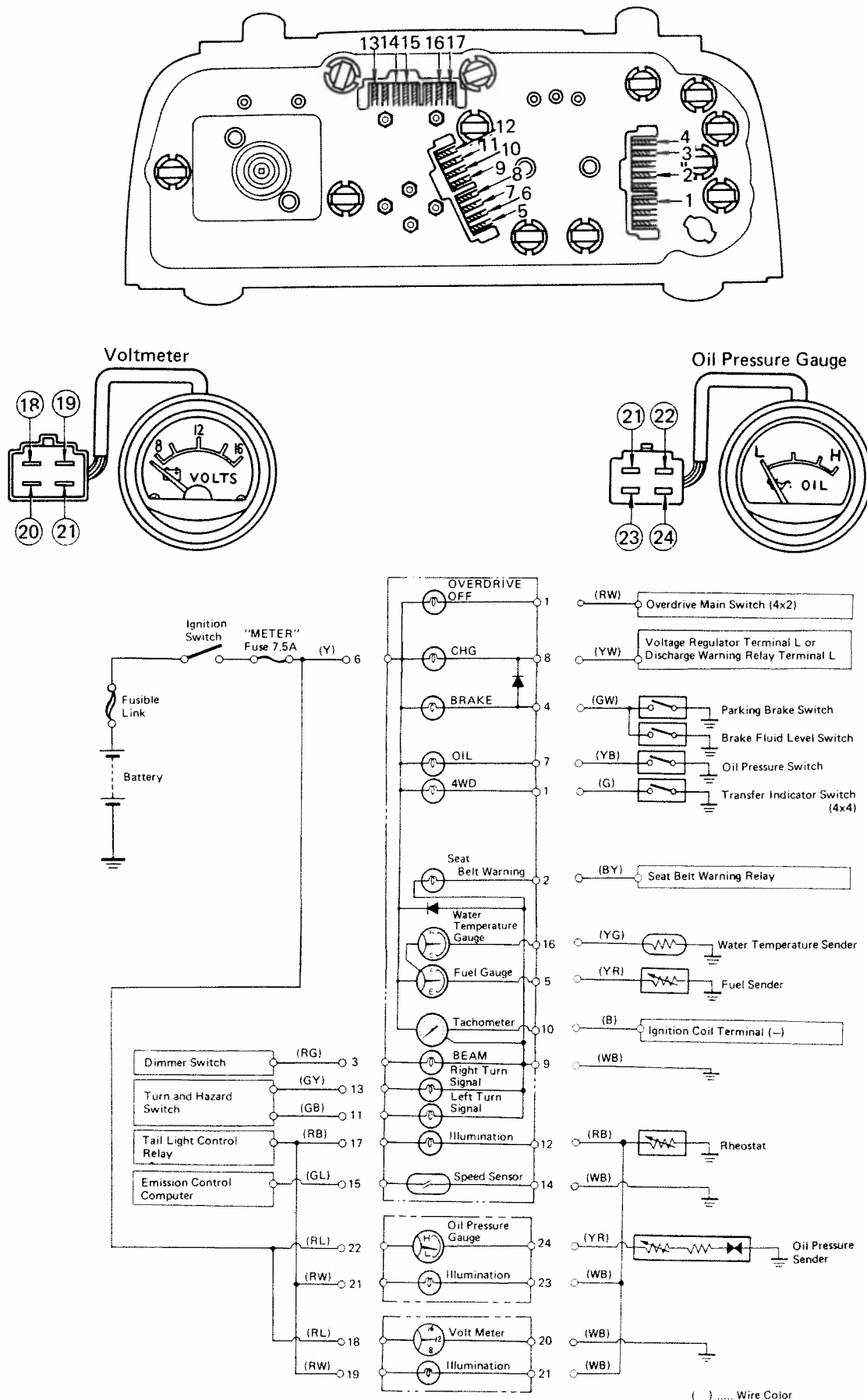
REPLACE WASHER COMPONENT AS NECESSARY TO REPAIR WASHER SYSTEM

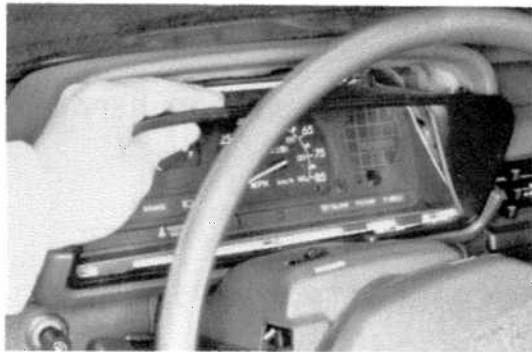
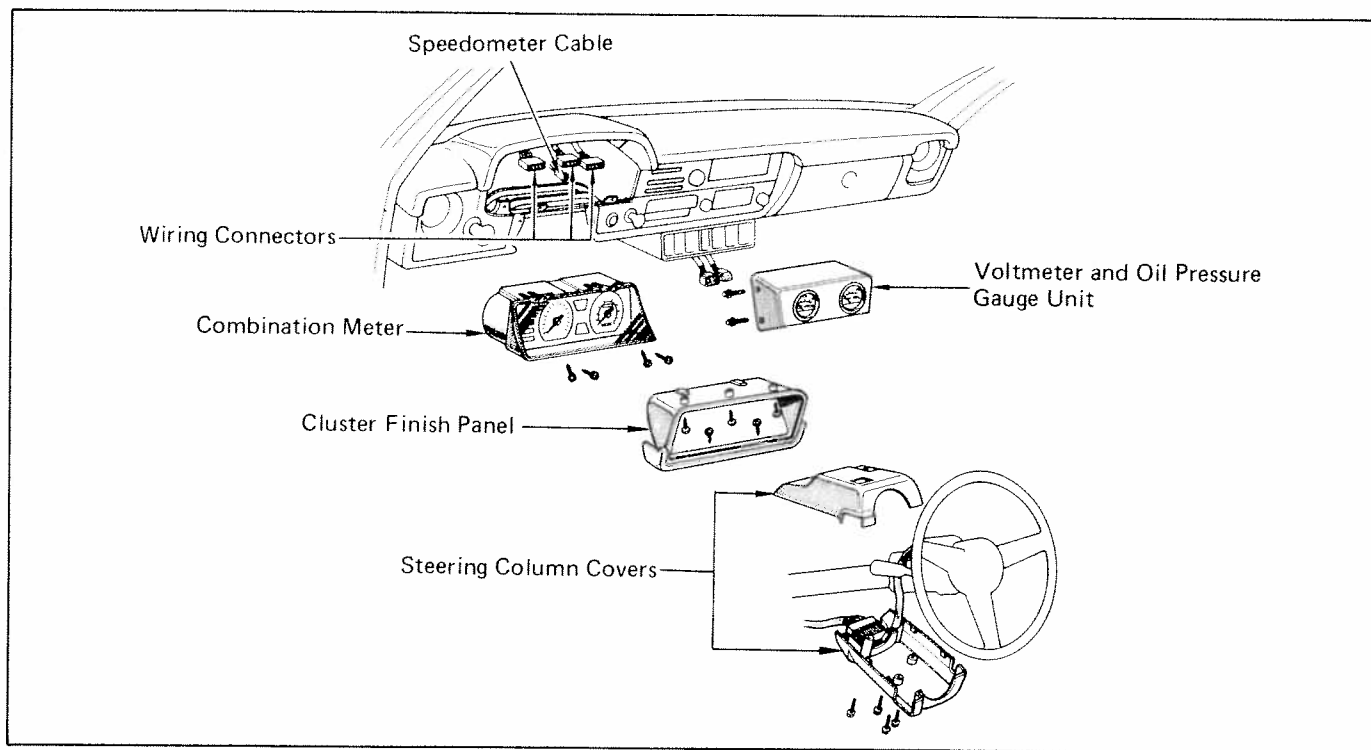
INSTRUMENTS AND SENDING UNITS

Troubleshooting

Problem	Possible cause	Remedy	Page
Fuel gauge does not work	"METER" fuse blown	Replace fuse and check for short	17-26 17-29
	Fuel gauge faulty	Check gauge	
	Sending unit faulty	Check sending unit	
	Wiring or ground faulty	Repair as necessary	
Water temperature gauge does not work	"METER" fuse blown	Replace fuse and check for short	17-26 17-29
	Water temperature gauge faulty	Check gauge	
	Water temperature sending unit faulty	Check sending unit	
	Wiring or ground faulty	Repair as necessary	
Low oil pressure warning light does not light	"METER" fuse blown	Replace fuse and check for short	17-30
	Bulb burned out	Replace bulb	
	Oil pressure switch faulty	Check switch	
	Wiring or ground faulty	Repair as necessary	
Discharge warning light does not light	"METER" fuse blown	Replace fuse and check for short	
	Bulb burned out	Replace bulb	
	Wiring faulty	Repair as necessary	
Parking brake warning light does not light	"METER" fuse blown	Replace fuse and check for short	17-24
	Bulb burned out	Replace bulb	
	Parking brake warning switch faulty	Check switch	
	Wiring or ground faulty	Repair as necessary	
Transfer indicator light does not light	"METER" fuse blown	Replace fuse and check for short	17-28
	Bulb burned out	Replace bulb	
	Indicator light switch faulty	Check switch	
	Wiring or ground faulty	Repair as necessary	
Voltmeter does not work	Fuses blown	Replace in-line fuse and check for short	17-29
	Voltmeter faulty	Check voltmeter	
	Wiring faulty	Repair as necessary	
Tachometer does not work	"METER" fuse blown	Replace fuse and check for short	17-26
	Tachometer faulty	Check tachometer	
	Wiring faulty	Repair as necessary	

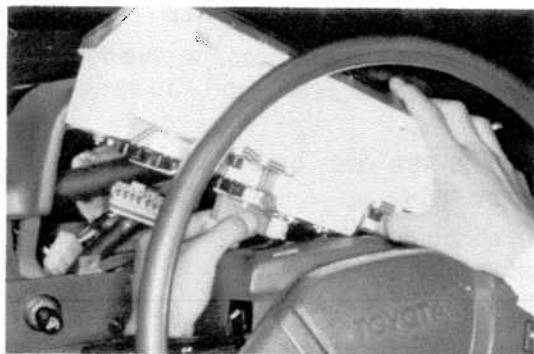
Meters and Gauges





REMOVAL OF COMBINATION METER

1. DISCONNECT NEGATIVE CABLE FROM BATTERY TERMINAL
2. REMOVE CLUSTER FINISH PANEL
Remove five screws.

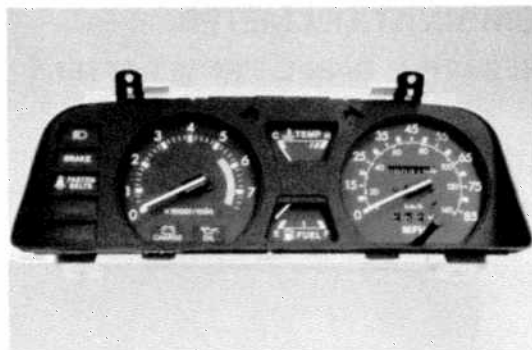
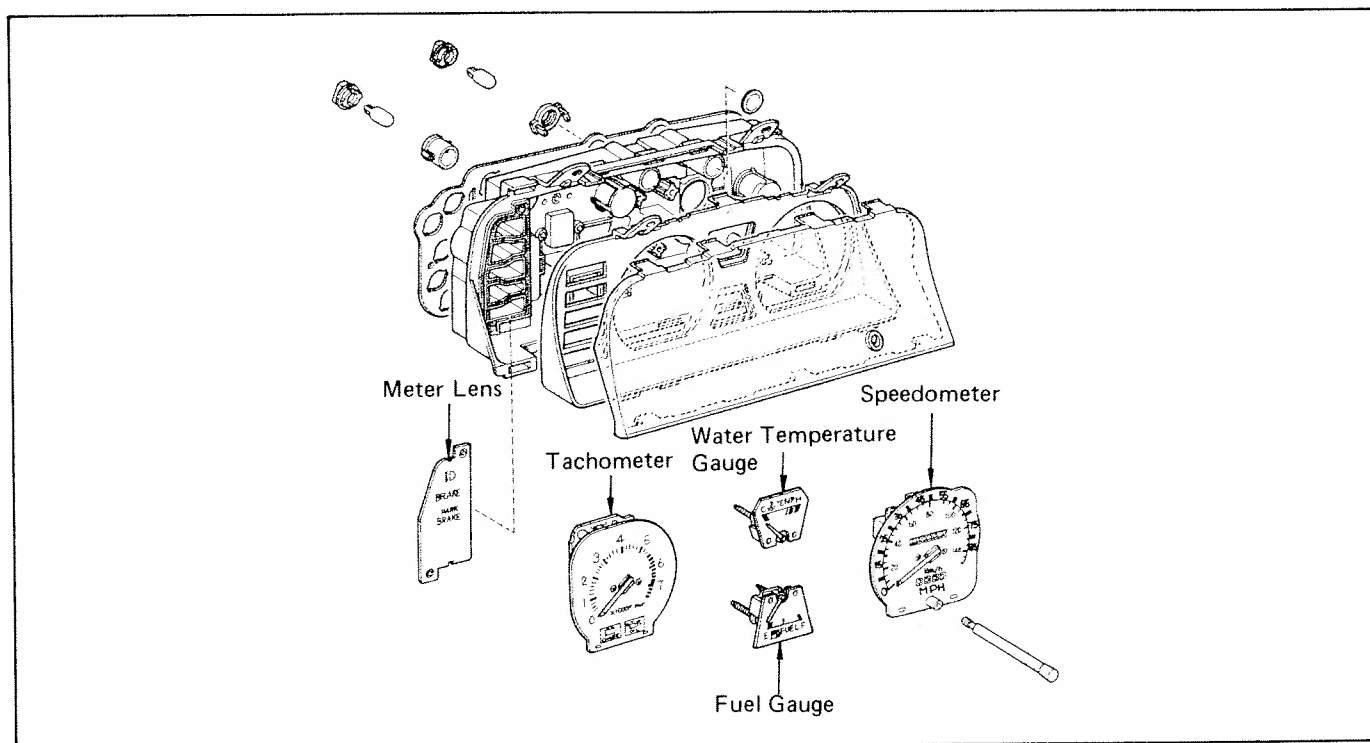


3. REMOVE COMBINATION METER
 - (a) While pushing the lock lever, pull out the speedometer cable.
 - (b) Remove four screws.
 - (c) Pull out the meter, and disconnect three wiring connectors.



REMOVAL OF VOLTMETER AND OIL PRESSURE GAUGE UNIT

1. DISCONNECT NEGATIVE CABLE FROM BATTERY TERMINAL
2. REMOVE VOLTMETER AND OIL PRESSURE GAUGE UNIT
 - (a) Remove four screws.
 - (b) Disconnect two wiring connectors, and take off the unit.



DISASSEMBLY AND ASSEMBLY OF COMBINATION METER

REPLACE COMPONENTS AS NECESSARY TO REPAIR COMBINATION METER

INSPECTION OF COMBINATION METER

Speedometer

ON-VEHICLE INSPECTION OF SPEEDOMETER

- (a) Using a speedometer tester, inspect the speedometer for allowable indicating error and operation of odometer.

NOTE: Tire wear and tire over or under inflation will increase the indicating error.

- (b) Check the speedometer for pointer vibration and abnormal noises.

NOTE: Pointer vibration can be caused by a loose speedometer cable.

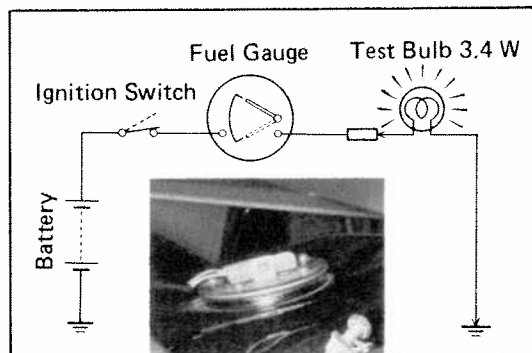
Standard Indicator (mph)	Allowable Error (mph)
20	18.5 – 21.5
40	38.5 – 41.5
55	53.5 – 56.5

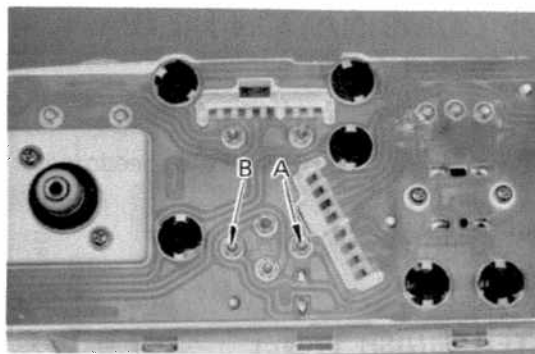
Fuel Gauge

1. ON-VEHICLE INSPECTION OF FUEL GAUGE

- (a) Disconnect the connector from the fuel sending unit. Ground the terminal through a 3.4 W bulb, as shown.
- (b) Turn the ignition switch to ON. Check that the bulb starts flashing after several seconds and the fuel gauge needle vibrates.

If indications are not correct, remove and test the fuel gauge.





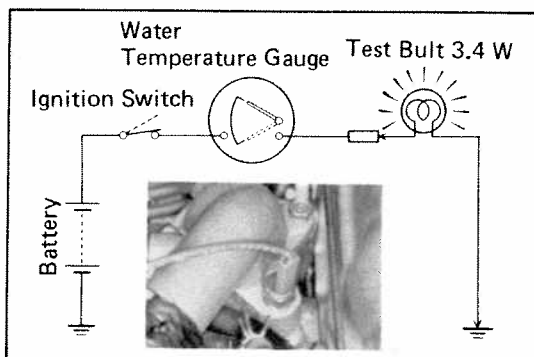
2. TEST OF FUEL GAUGE

- (a) Using an ohmmeter, measure the resistance between terminals A and B.

Resistance: $25\ \Omega$

- (b) Connect a connector to the combination meter. Turn the ignition switch to ON. Using a voltmeter, check that there is 2 — 7 volts at terminal A.

If not, replace the fuel gauge.



Water Temperature Gauge

1. ON-VEHICLE INSPECTION OF WATER TEMPERATURE GAUGE

- (a) Disconnect the connector from the water temperature sending unit. Ground the terminal through a 3.4 W bulb as shown.
- (b) Turn the ignition switch to ON. Check that the bulb starts flashing after several seconds and the water temperature gauge needle vibrates.

If indications are not correct, remove and test the water temperature gauge.

2. TEST OF WATER TEMPERATURE GAUGE

- (a) Using an ohmmeter, measure the resistance between terminals A and B.

Resistance: $25\ \Omega$

- (b) Connect the connector to the combination gauge. Turn the ignition switch to ON. Using a voltmeter, check that there is 2 — 7 volts at terminal A.

If the above checks are not correct, replace the water temperature gauge.

Tachometer

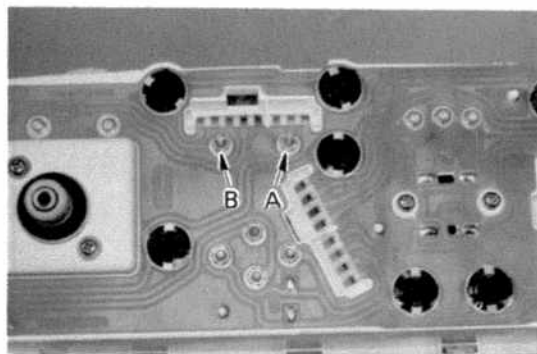
ON-VEHICLE INSPECTION OF TACHOMETER

- (a) Connect a tune-up test tachometer, and start the engine.
- (b) Compare the tester and tachometer indications.

If the error is excessive, replace the tachometer.

CAUTION:

- (a) Do not reverse the connection of the tachometer because transistors and diodes inside will be damaged.
- (b) When removing or installing the tachometer, be careful not to drop it or subject it to heavy shocks.



Engine tachometer allowable error

Temp. \ rpm	1,000	3,000	5,000	7,000
20°C DC13V	±100	±150	±150	±210
-20°C to +60°C 10.0 — 15.6V	±150	±200	±350	±420

Water temperature °C (°F)	Resistance (Ω)
50 (122)	154
80 (176)	52
100 (212)	27.5
120 (248)	16

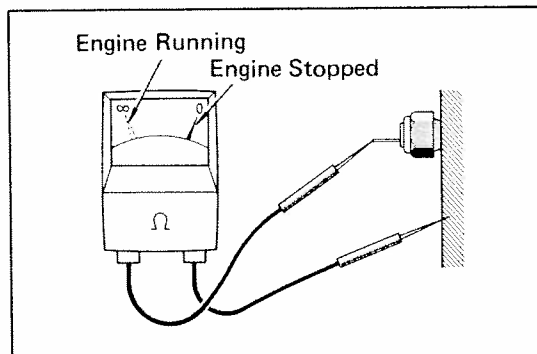
Water Temperature Sending Unit

(See page 17-4 for location)

MEASURE RESISTANCE OF WATER TEMPERATURE SENDING UNIT

Using an ohmmeter, measure the resistance between the terminal and ground for corresponding water temperatures.

If resistance is not correct, replace the water temperature sending unit.



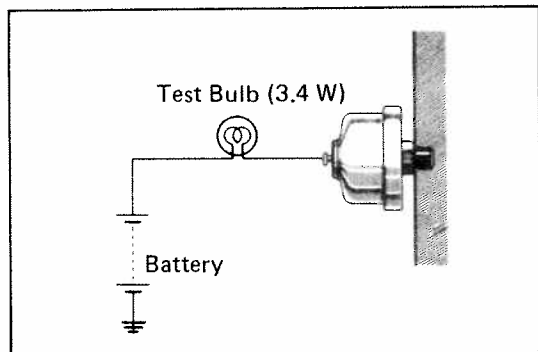
Oil Pressure Warning Switch

(See page 17-4 for location)

CHECK CONTINUITY OF WARNING SWITCH

- Disconnect the connector.
- Using an ohmmeter, check continuity between the terminal and ground with engine stopped (at 0 ohm) and with engine running (at infinity).

If not correct, replace the oil pressure warning switch.



Oil Pressure Sending Unit

(See page 17-4 for location)

CHECK OIL PRESSURE SENDING UNIT OPERATION

- Disconnect the connector from the sending unit.
- Connect a 12V battery to the sending unit terminal in series with a 3.4 W bulb. Check that the bulb does not light when the engine is stopped, and flashes when the engine is running. The number of flashes should vary with engine speed.

If checks are not correct, replace the oil pressure sending unit.

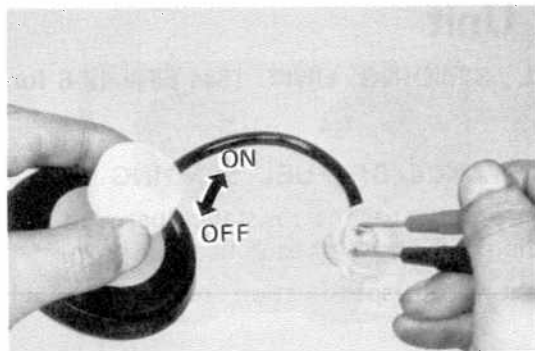
Brake Fluid Level Warning Switch

(See page 17-4 for location)

MEASURE RESISTANCE OF WARNING SWITCH

- Disconnect the connector.
- Using an ohmmeter, measure the resistance of the switch when the switch is OFF (float up) and when the switch is ON (float down).

If resistance is not correct, replace the brake fluid level warning switch.

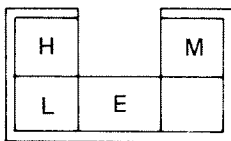


Switch	Float position	Resistance (Ω)
OFF	UP	∞
ON	DOWN	8.2 ± 1

HEATER

Troubleshooting

Problem	Possible cause	Remedy	Page
Blower does not work when fan switch is on	"METER" fuse blown	Replace fuse and check for shorts	
	Heater main relay faulty	Check relay	17-32
	Heater blower switch faulty	Check switch	17-31
	Heater blower resistor faulty	Check resistor	17-31
	Heater blower motor faulty	Replace motor	17-32
	Wiring or ground faulty	Repair as necessary	
Incorrect temperature output	Control cables broken or binding	Check cables	17-33
	Heater hoses leaking or clogged	Replace hose	17-35
	Water valve faulty	Replace valve	17-33
	Air dampers broken	Repair dampers	17-35
	Air ducts clogged	Repair ducts	17-35
	Heater radiator leaking or clogged	Replace radiator	17-35
	Heater control unit faulty	Repair control unit	



Heater Blower Switch

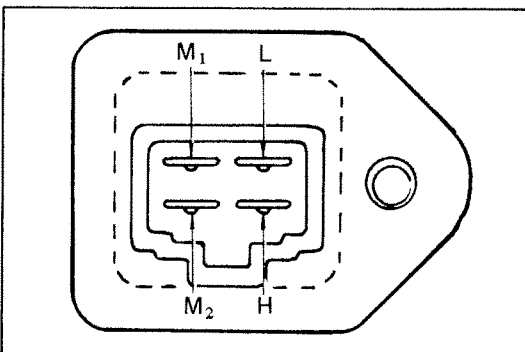
(See page 17-6 for location)

CHECK CONTINUITY OF HEATER BLOWER SWITCH

- Disconnect the connector.
- Using an ohmmeter, check the continuity of the terminals for each switch position.

If there is no continuity between the switch terminals, replace the heater blower switch.

Switch position \ Terminal (Wire color)	E (WB)	L (LW)	M (LY)	H (LB)
OFF				
•	○	○		
•	○	○	○	
HI	○	○		○



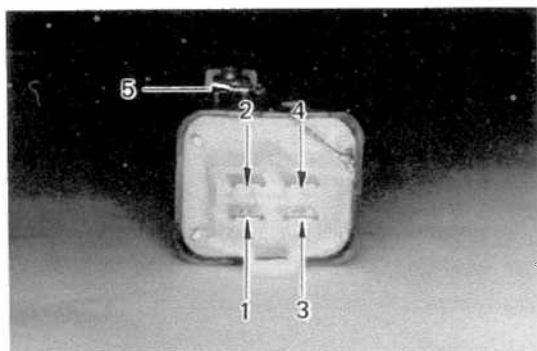
Heater Blower Resistor

(See page 17-6 for location)

CHECK RESISTANCE OF HEATER BLOWER RESISTOR

- Disconnect the wire and remove the blower resistor.
- Using an ohmmeter, check the continuity between terminals H and L.

If there is no continuity, replace the heater blower resistor.



Heater Main Relay

(See page 17-6 for location)

CHECK RESISTANCE OF HEATER MAIN RELAY

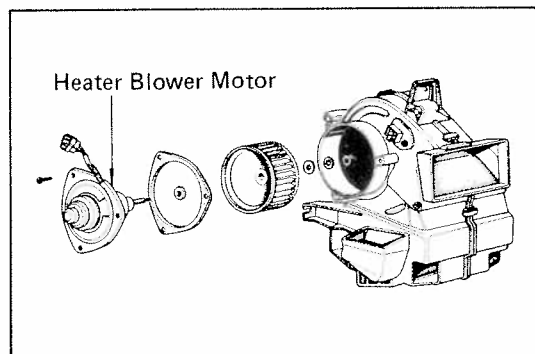
- (a) Remove the heater relay.
- (b) Using an ohmmeter, measure the resistance between terminals 1 and 2.

Resistance: 50 — 80 Ω

- (c) Using an ohmmeter, check the continuity between terminals 4 and 5.

Apply 12-volt battery voltage across terminals 1 and 2. Using an ohmmeter, check for continuity between terminals 3 and 4.

If any of the above checks are not correct, replace the heater relay.



Heater Blower Motor

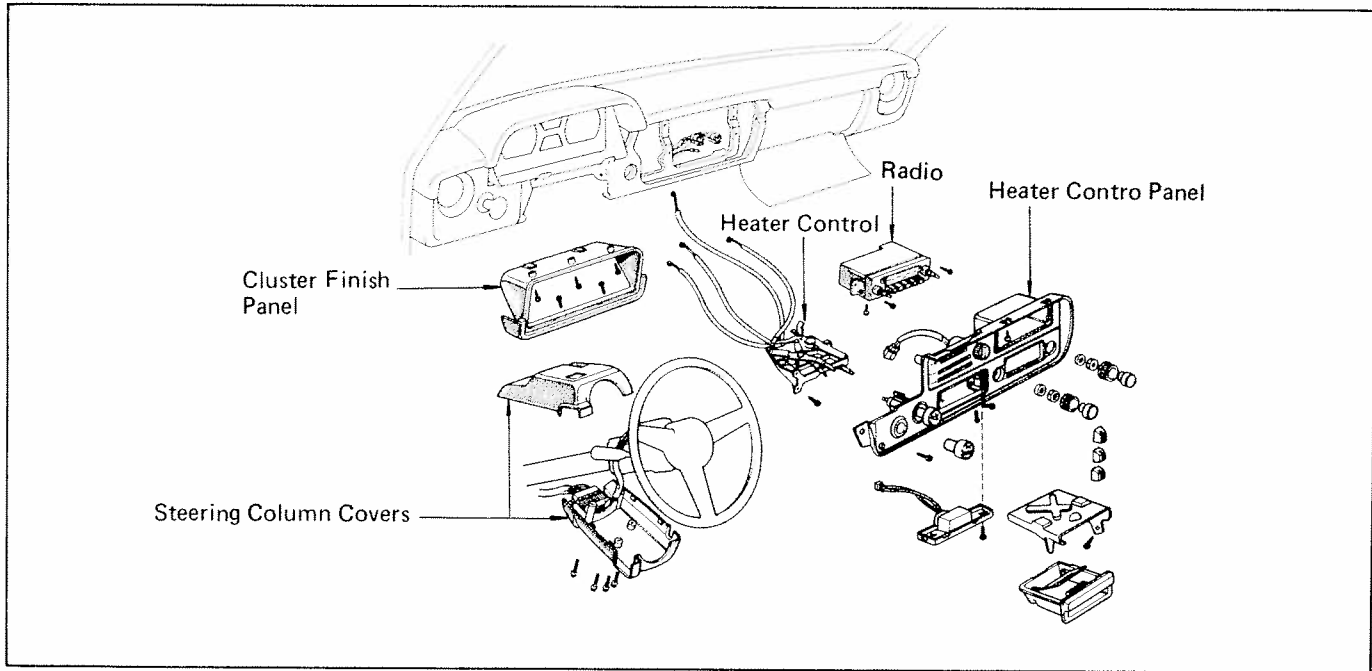
REMOVAL OF HEATER BLOWER MOTOR

1. DISCONNECT BLOWER MOTOR ELECTRICAL CONNECTOR
2. REMOVE BLOWER MOTOR ASSEMBLY
Remove three screws.

INSTALLATION OF HEATER BLOWER MOTOR ASSEMBLY

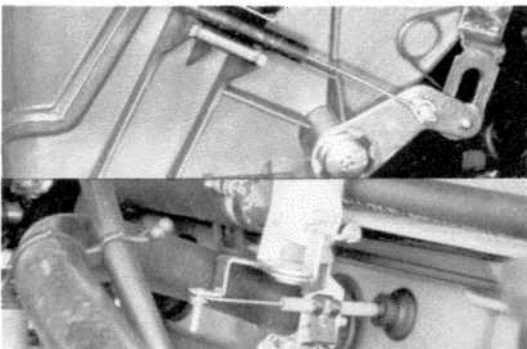
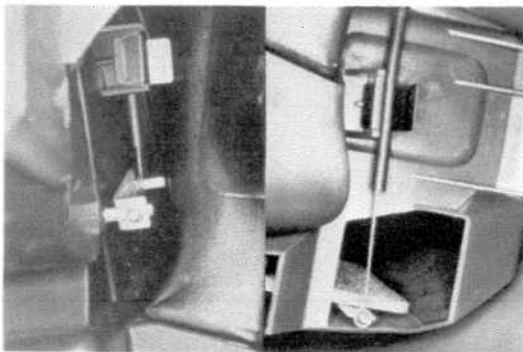
1. INSTALL BLOWER MOTOR ASSEMBLY
Install the blower motor assembly, with three screws.
2. CONNECT BLOWER MOTOR ELECTRICAL CONNECTOR

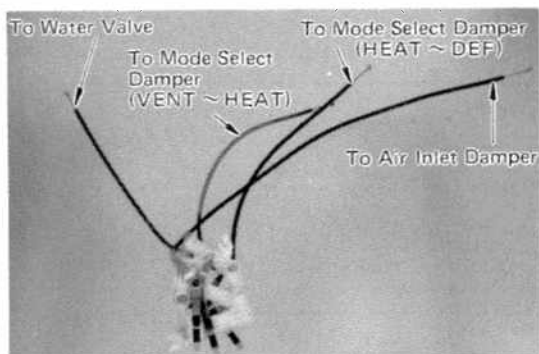
Heater Control



REMOVAL OF HEATER CONTROL

1. DISCONNECT NEGATIVE CABLE FROM BATTERY TERMINAL
2. REMOVE FOLLOWING PARTS:
 - (a) Instrument cluster finish panel
 - (b) Heater control panel
 - (c) Radio
3. DISCONNECT FOUR CONTROL CABLES FROM CLAMPS
4. REMOVE HEATER CONTROL ASSEMBLY
 - (a) Remove the control cables.
 - (b) Remove the two screws and heater control assembly.

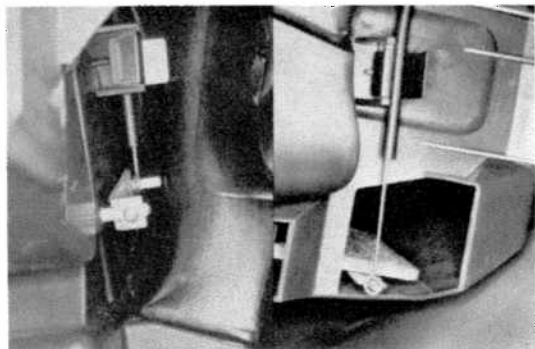




INSTALLATION OF HEATER COTROL

1. CONNECT FOUR CONTROL CABLES TO HEATER CONTROL ASSEMBLY, AS SHOWN

2. INSTALL HEATER CONTROL ASSEMBLY



3. CONNECT FOUR CABLES TO CLAMPS, AS SHOWN

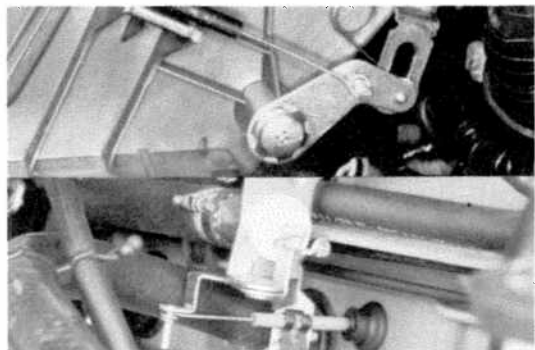
4. TEST CONTROL CABLE OPERATION

Move the control levers back and forth and check for stiffness, binding and operation through the levers' full range.

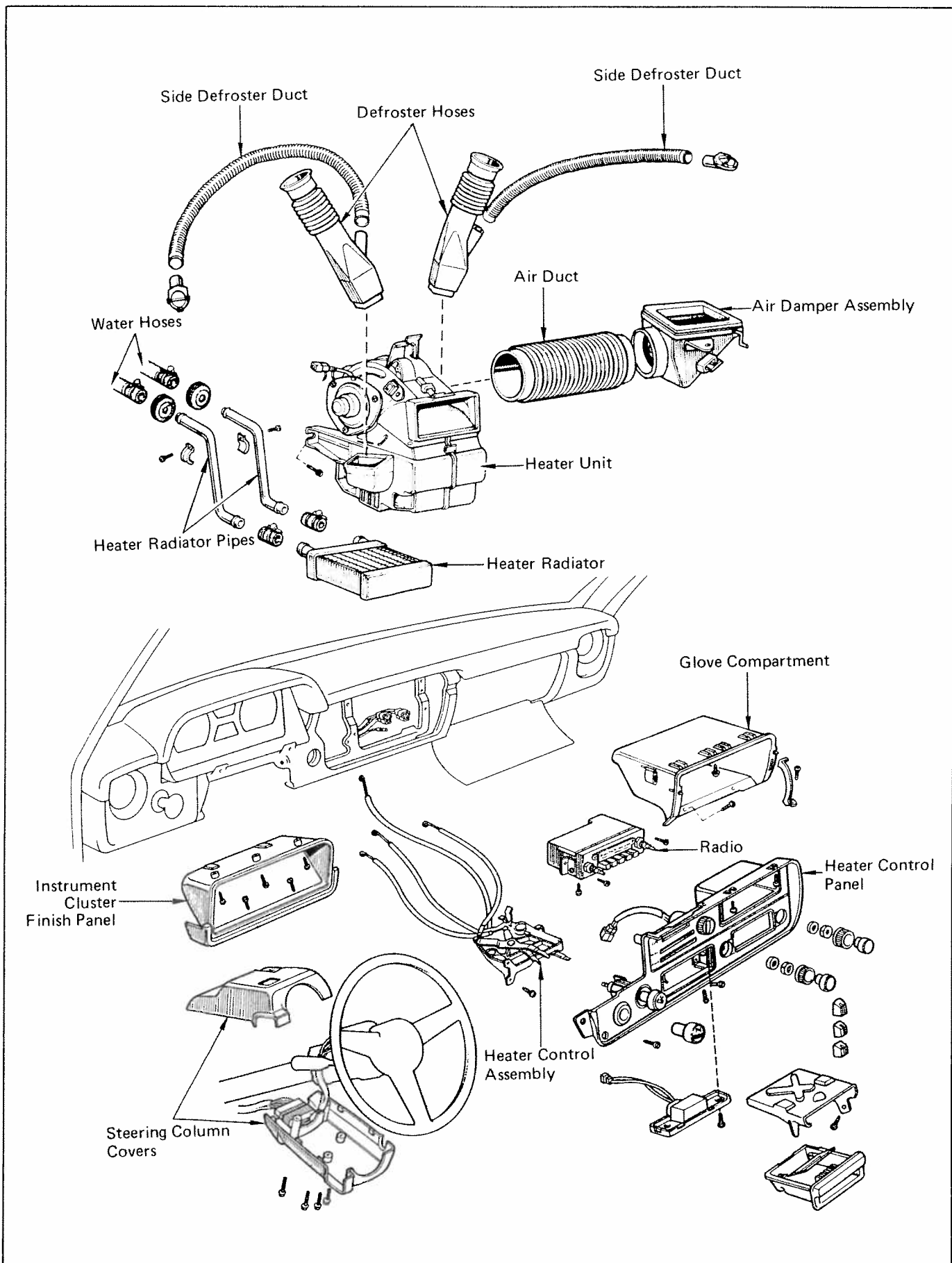
5. INSTALL FOLLOWING PARTS:

- (a) Radio
- (b) Heater control panel
- (c) Instrument cluster finish panel
- (d) Steering column covers

6. CONNECT NEGATIVE CABLE TO BATTERY TERMINAL

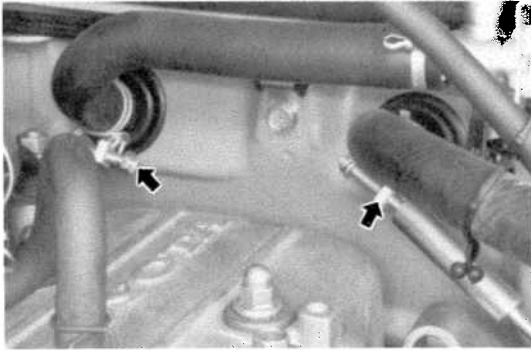


Heater Unit

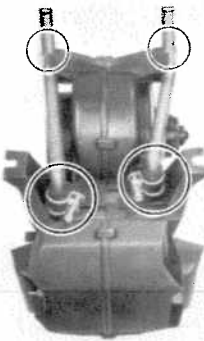
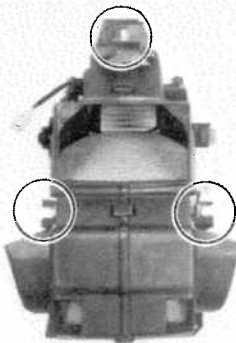


REMOVAL OF HEATER UNIT

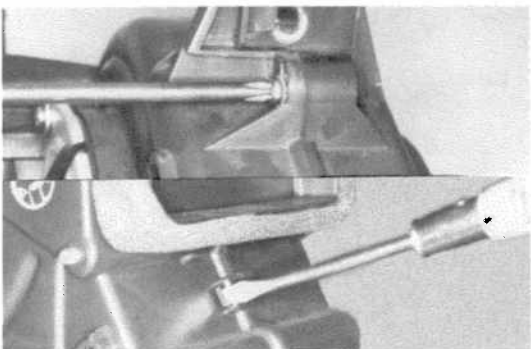
1. DISCONNECT NEGATIVE CABLE FROM BATTERY TERMINAL
2. OPEN RADIATOR DRAIN COCK AND DRAIN RADIATOR
3. REMOVE FOLLOWING PARTS:
 - (a) Glove compartment
 - (b) Two defroster hoses
 - (c) Air damper assembly
 - (d) Air duct
 - (e) Two side defroster ducts
4. REMOVE HEATER CONTROL ASSEMBLY (See steps 2 through 4(a), page 17-33)
5. DISCONNECT TWO WATER HOSES FROM HEATER RADIATOR PIPES



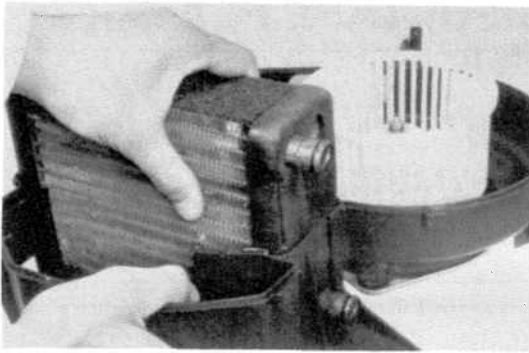
6. REMOVE HEATER UNIT
Remove three retaining bolts and the heater unit.



7. PULL OUT RADIATOR FROM HEATER UNIT
 - (a) Remove two pipes from the heater radiator.



- (b) Remove the set screw and six clips from the heater unit.



- (c) Pull out the heater radiator from the heater unit.

INSTALLATION OF HEATER UNIT (See illustration on page 17-35)

1. **PLACE RADIATOR IN HEATER UNIT**
 - (a) Install the set screw and six clips to the heater unit.
 - (b) Install two pipes to the heater unit radiator.
2. **INSTALL HEATER UNIT**

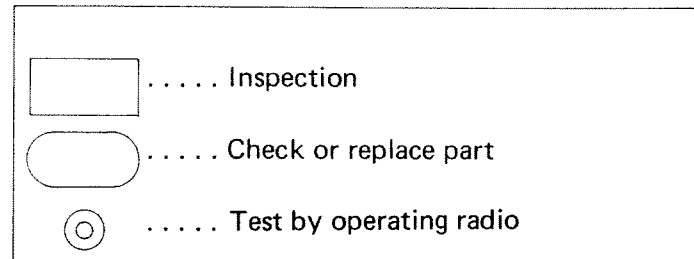
Install the heater unit with three retaining bolts.
3. **CONNECT TWO WATER HOSES TO HEATER RADIATOR PIPES**
4. **INSTALL HEATER CONTROL ASSEMBLY** (See steps 2 through 4, page 17-33)
5. **INSTALL FOLLOWING PARTS:**
 - (a) Two side defroster ducts
 - (b) Air duct
 - (c) Air damper assembly
 - (d) Two defroster hoses
 - (e) Glove compartment
6. **CLOSE RADIATOR DRAIN COCK**

Fill the radiator with specified coolant.
7. **CONNECT NEGATIVE CABLE TO BATTERY TERMINAL**

RADIO, STEREO, TAPE PLAYER AND ANTENNA

Troubleshooting

DESCRIPTION OF SYMBOLS



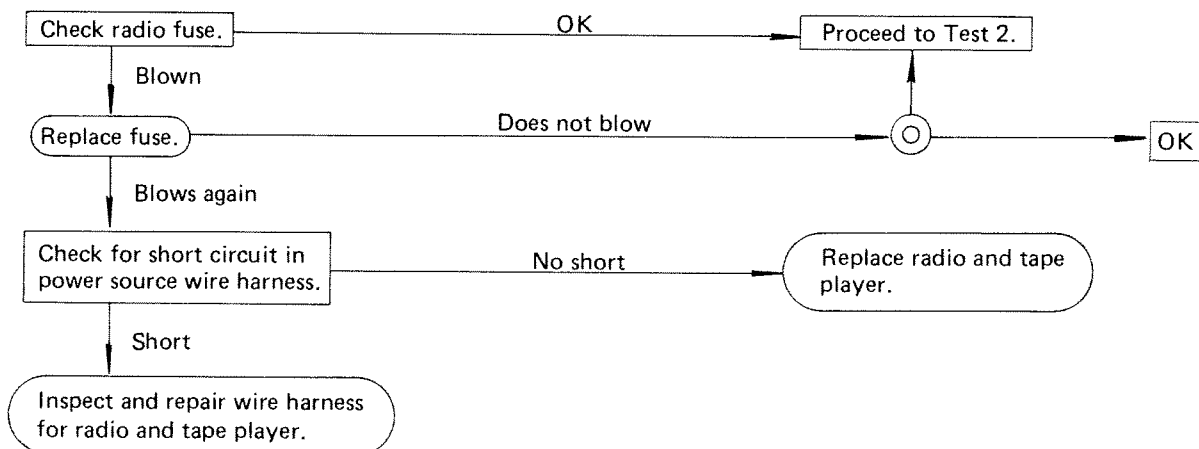
1. DEAD RADIO AND TAPE PLAYER

- (a) No power to radio or tape player or power but no sound.

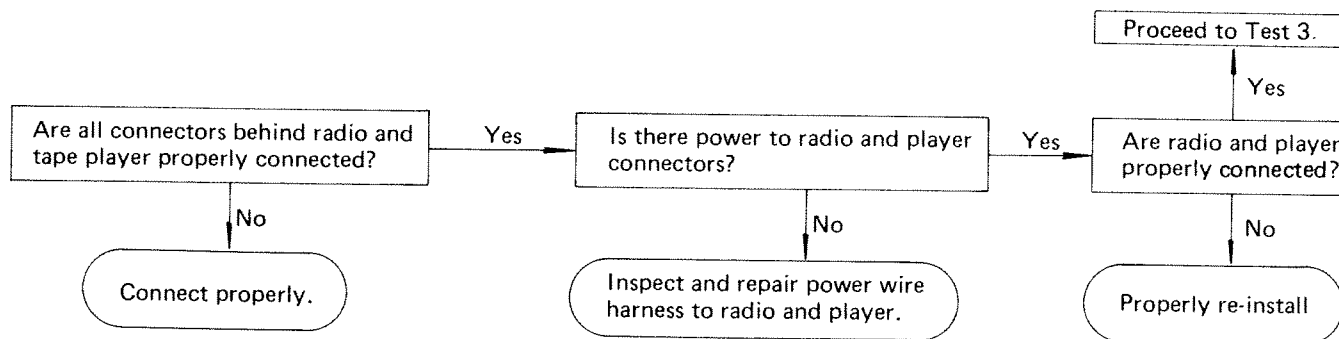
Possible causes:

- Blown radio fuse
- Short circuit or broken wire in power source wire harness
- Loose connectors behind radio and tape player
- Loose speaker connector
- Defective speaker
- Broken wire in speaker wire harness
- Improperly installed radio or tape player
- Defective radio or tape player

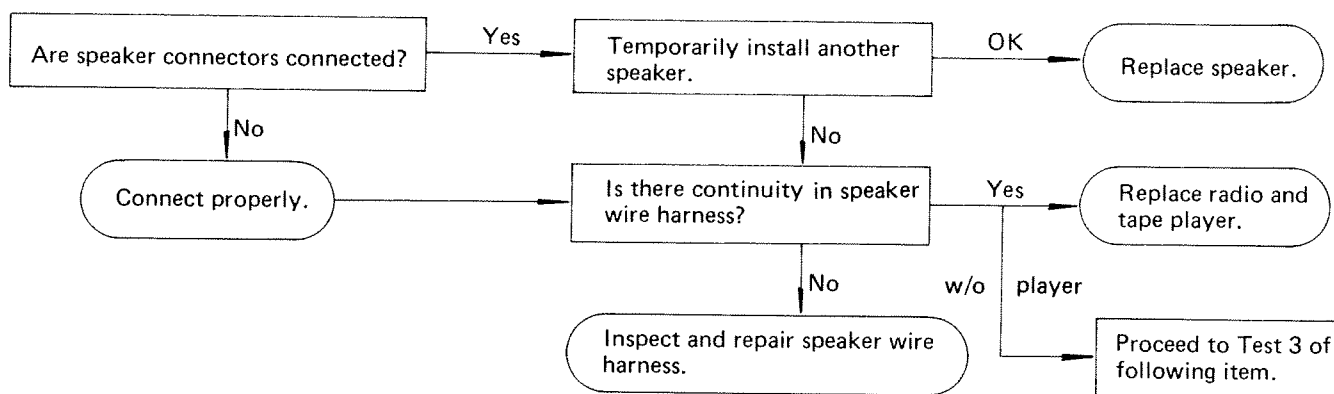
TEST 1



TEST 2



TEST 3

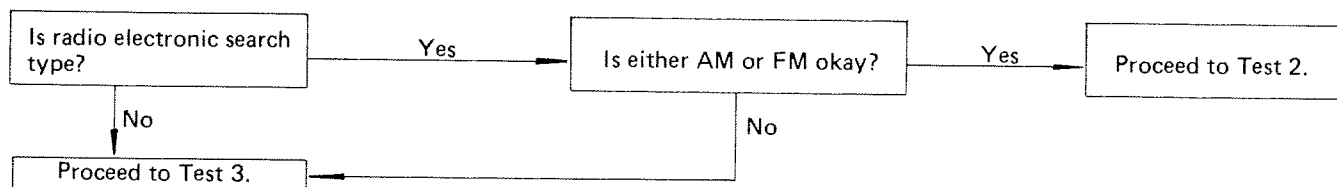


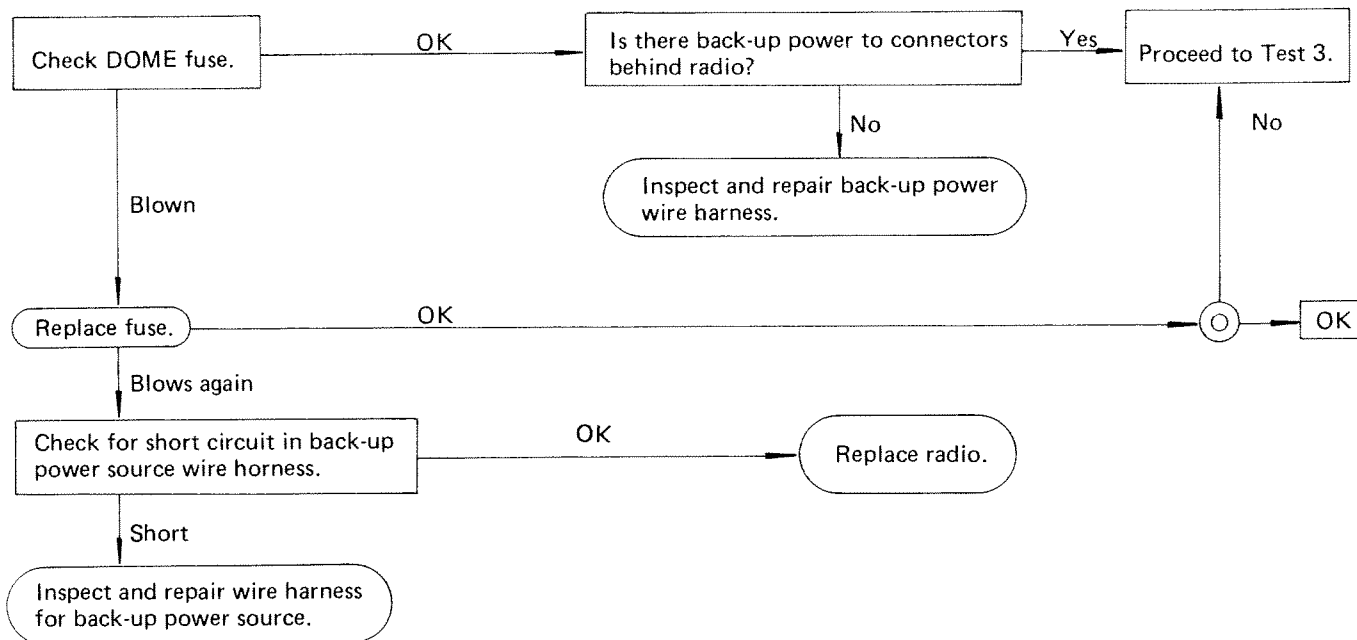
- (b) Tape player okay but no sound from AM and FM or either one.

Possible causes:

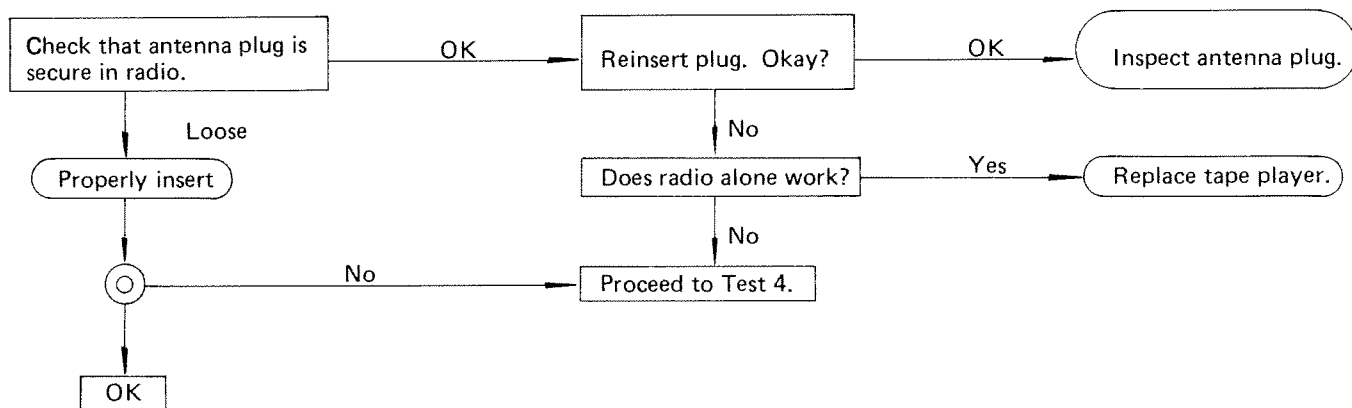
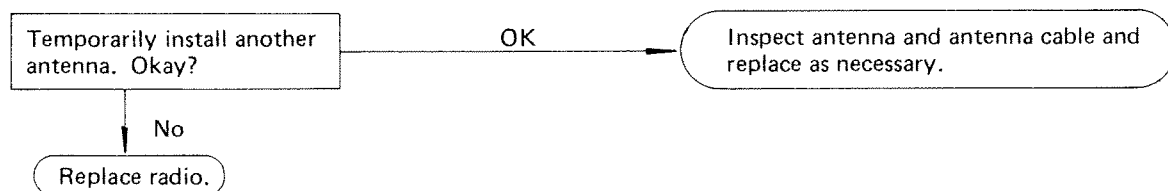
- Antenna disconnected
- Antenna plug not properly connected
- Defective antenna
- Defective antenna cable
- Defective radio or tape player
- Blown DOME fuse
- Short circuit or broken wire in wire harness for back-up power source

TEST 1



TEST 2

NOTE: Back-up power refers to the storage voltage for preset tuning. This is applied even when ignition switch is OFF.

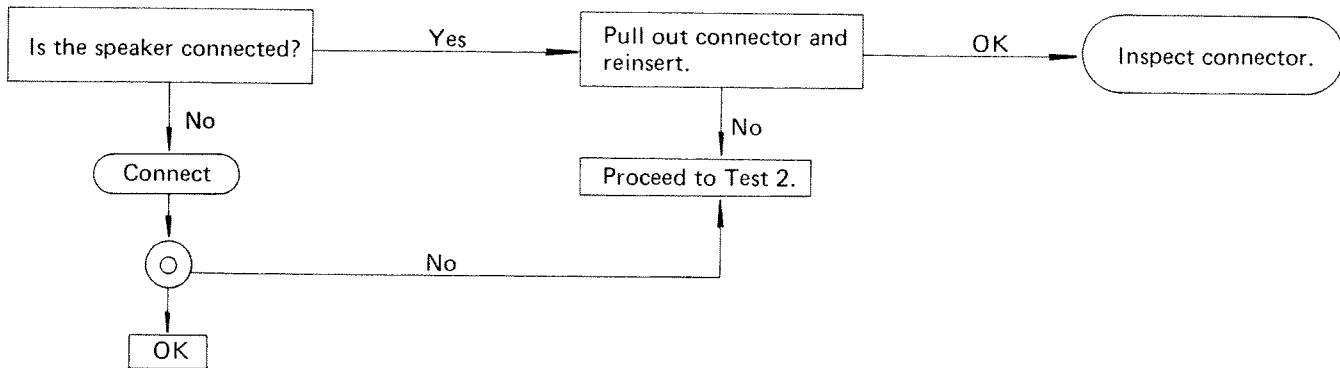
TEST 3TEST 4

(c) No sound from one speaker.

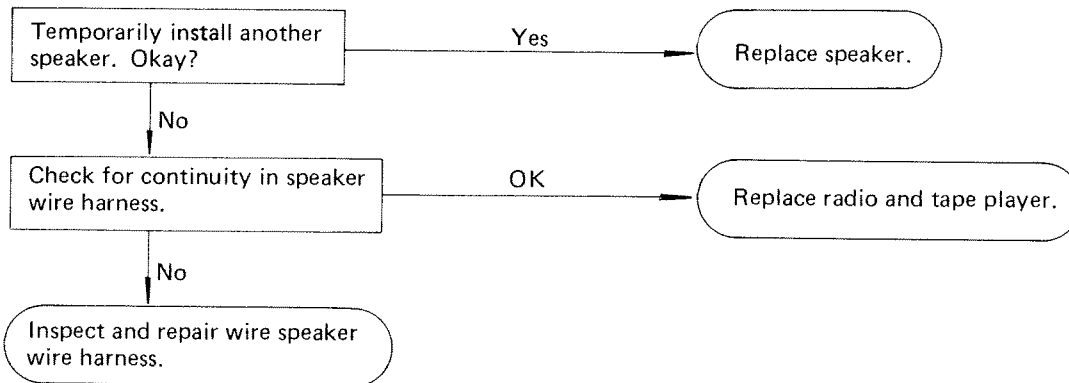
Possible causes:

- Loose speaker connector
- Broken wire in speaker wire harness
- Defective speaker
- Defective radio and tape player

TEST 1



TEST 2

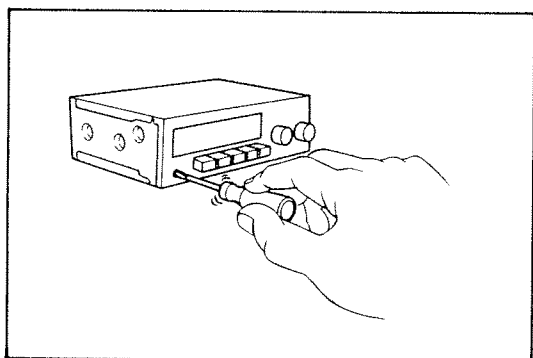
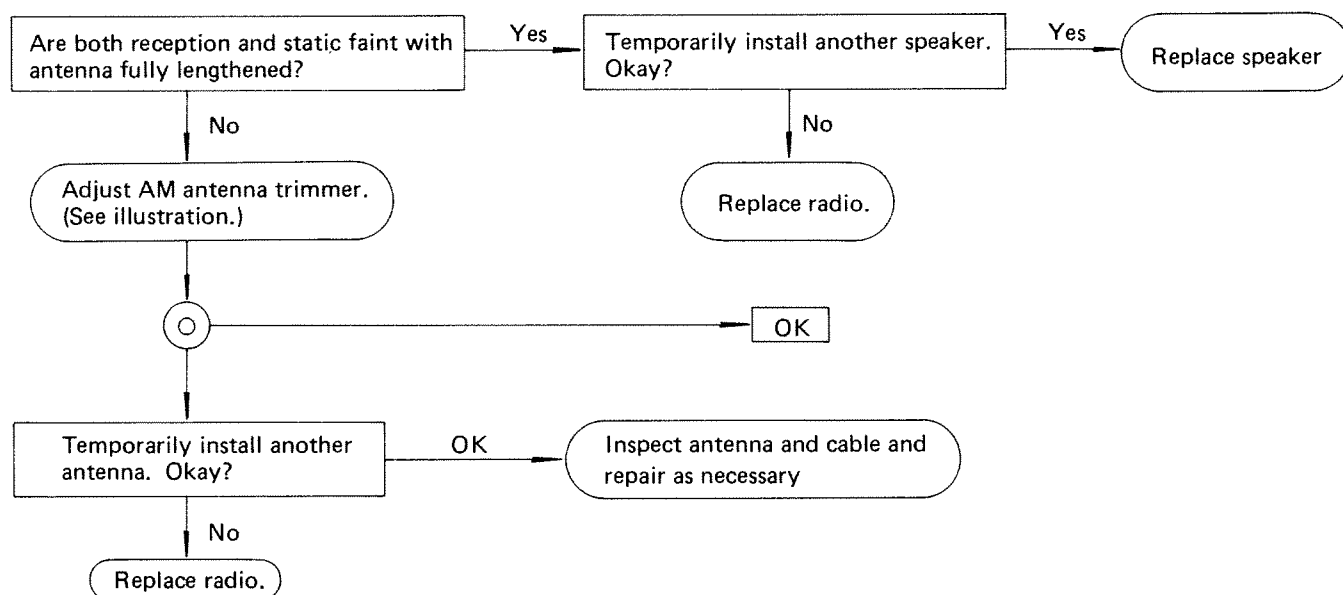


2. FAINT RECEPTION

Possible causes:

- Maladjusted antenna trimmer
- Defective antenna or cable
- Defective speaker
- Defective radio

TEST



NOTE: Adjustment of antenna trimmer.

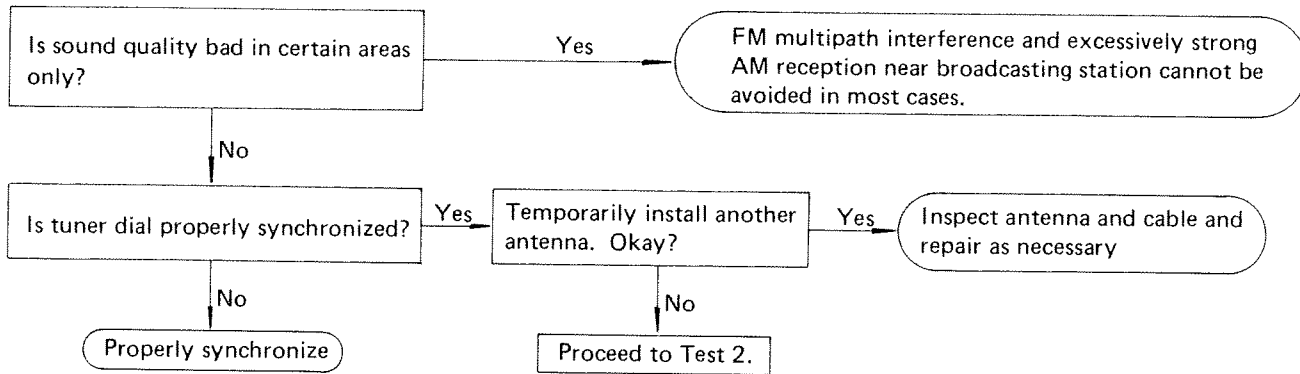
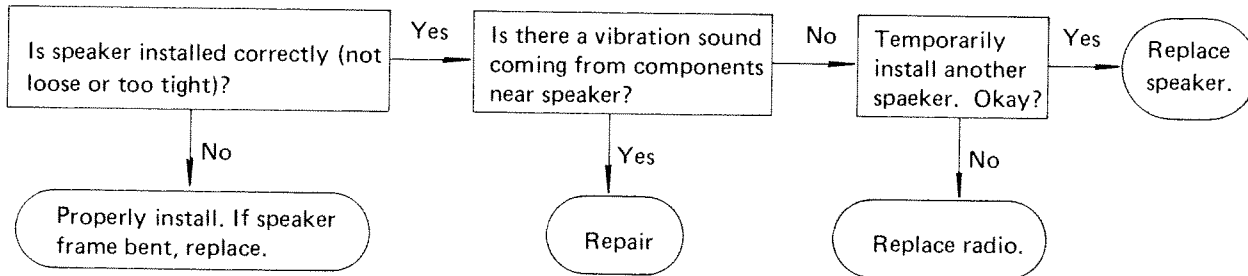
- (1) Fully lengthen antenna.
- (2) With volume and tone at maximum, turn dial to around 1400 kHz where there is no reception.
- (3) Adjust trimmer to where static is loudest.

3. BAD SOUND QUALITY

(a) Sound quality bad when radio played.

Possible causes:

- Multipath interference excessive interception
- Tuner dial not synchronized with station
- Defective antenna and cable
- Speaker improperly installed
- Vibration sound from components near speaker
- Defective speaker
- Defective radio

TEST 1TEST 2

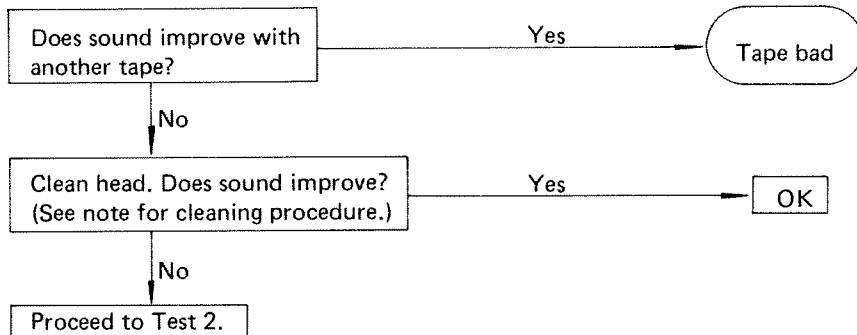
NOTE: FM distortion tends to increase sharply if tuner not synchronized.

(b) Sound quality bad when tape player played.

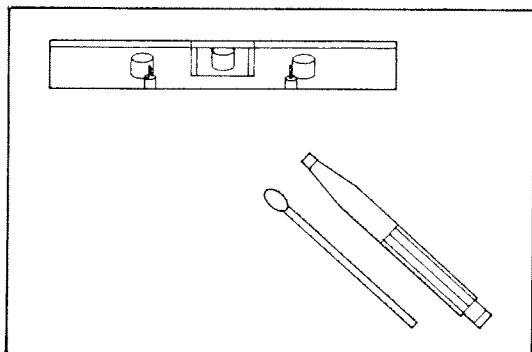
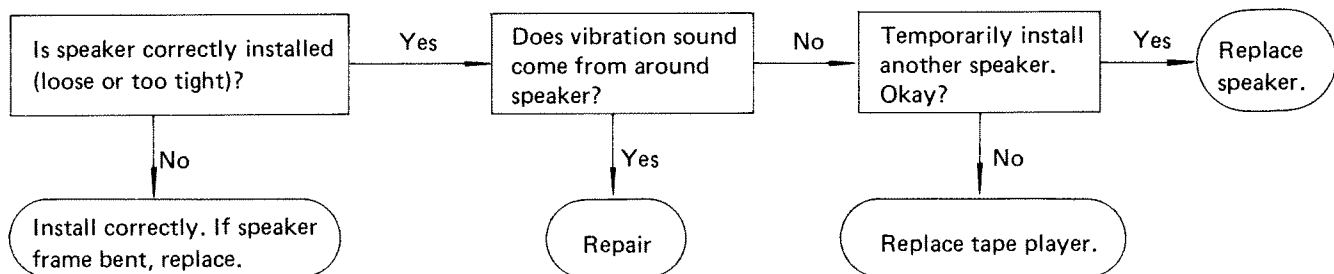
Possible causes:

- Bad tape
- Dirty head
- Incorrectly installed speaker
- Vibration noise from around speaker
- Defective speaker
- Defective tape player

TEST 1



TEST 2



NOTE: Head cleaning procedure.

- (1) Raise cassette door with finger. Next using a pencil or like object, push in the guide as shown.
- (2) Using a cleaning pen or cotton applicator soaked in alcohol, clean the head surface, pinch rollers and capstans.
- (3) Push in eject button.

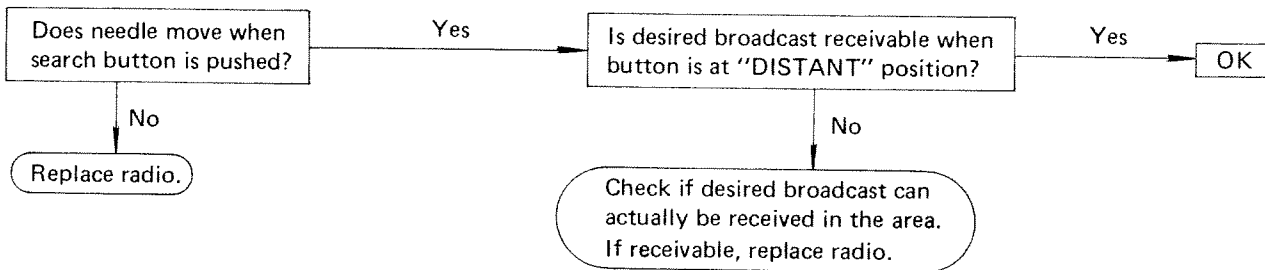
4. DEFECTIVE AUTO-SEARCH MECHANISM

Manual search possible but automatic search mechanism does not function or does not stop at all receivable stations.

Possible causes:

- Poor search sensitivity (SENS button)
- Defective radio

TEST



NOTE: The automatic station selector can be set pick-up only those stations having a wave intensity above a certain strength. Normally, the button should be set at the "LOCAL" position for selection of close-range broadcasts only. However, in mountain areas, etc. Where radio waves are rather weak, the button should be set (pushed in) at the "DISTANT" position.

If the "DISTANT" setting is used even where the radio wave conditions are normal, the search mechanism will stop at so many stations as to be annoying. Also, it would by-pass the closer relay broadcasts in favor of the distant ones and produce static.

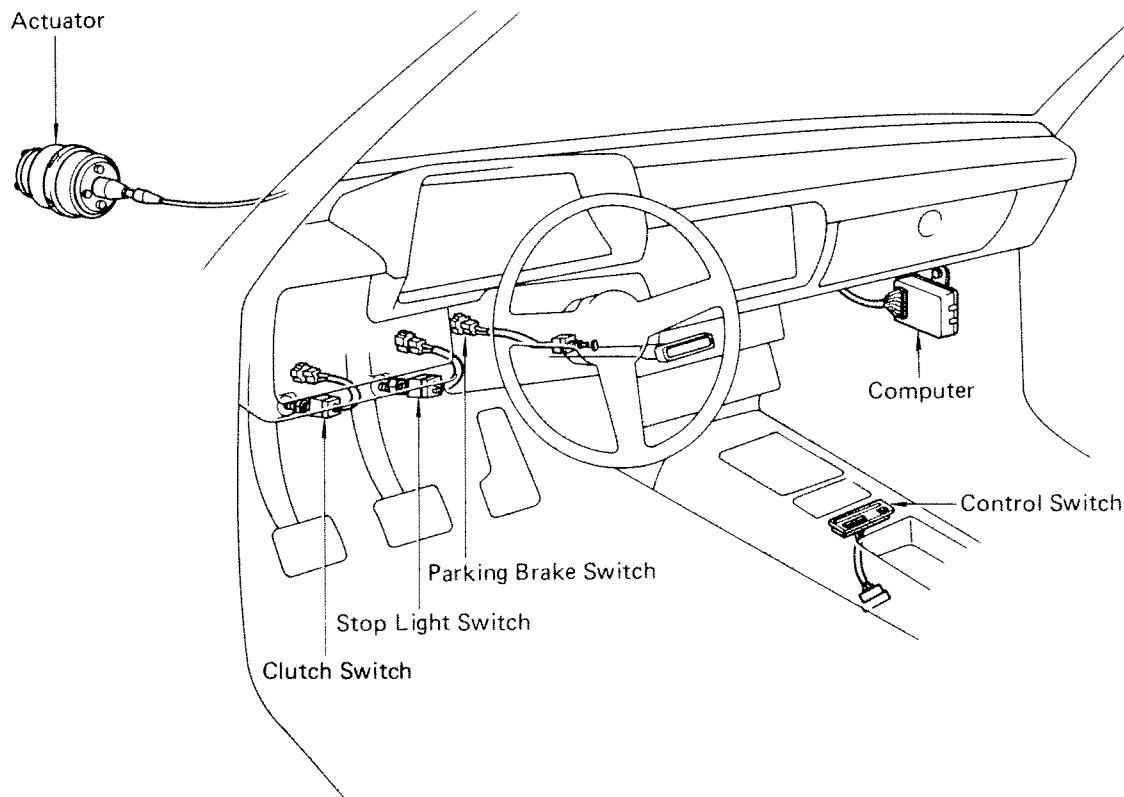
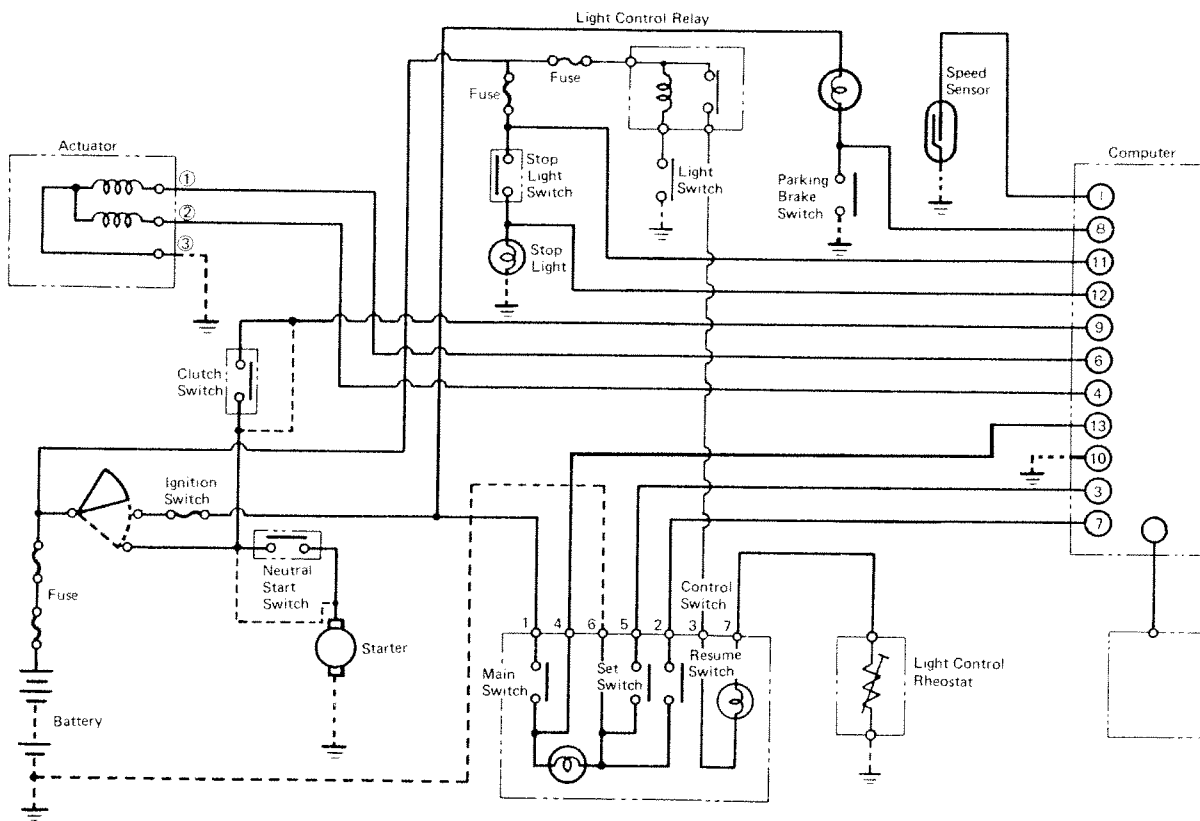
"LOCAL" position (search mechanism stops only at broadcasts with weak radio waves). "DISTANT" position (search mechanism stops only at broadcasts with strong radio waves).

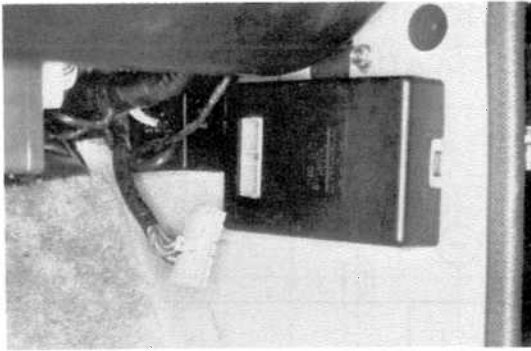
CRUISE CONTROL

Troubleshooting

Problem	Possible cause	Remedy	Page
Cruise control cannot be set	METER and STOP fuse blown	Replace fuse and check for short	
	Control Main switch faulty	Check control switch	17-46
Does not cancel even when cancel operation is performed	Parking switch faulty	Check parking switch	17-44
	Speed sensor faulty	Check speed sensor	17-45
	Stop light switch faulty	Check stop light switch	17-44
Cannot be restored with resume switch	Clutch switch faulty	Check clutch switch	17-44
	Actuator faulty	Check actuator	17-45
	Control set switch faulty	Check control switch	17-46
	Control resume switch faulty	Check control switch	17-46
	Computer faulty	Replace computer	17-42
	Wiring or ground faulty	Repair as necessary	
Warning light does not light	METER fuse blown	Replace fuse and check for short	
	Light bulb burned out	Replace bulb	17-46
	Main switch faulty	Check control switch	17-46
Cannot obtain desired speed	Actuator faulty	Check actuator	17-45
	Computer faulty	Replace computer	17-42
Hunting occurs between acceleration and deceleration when control is set	Carburetor Problem <ul style="list-style-type: none"> • Sticky throttle valve • Link does not move smoothly • Throttle return is defective • Wrong return spring 	Perform on-vehicle inspection of carburetor	
Speed is greatly reduced when ascending slopes	Actuator faulty	Check actuator	17-45
	Computer faulty	Replace computer	17-42

CRUISE CONTROL SYSTEM WIRING DIAGRAM & LOCATION



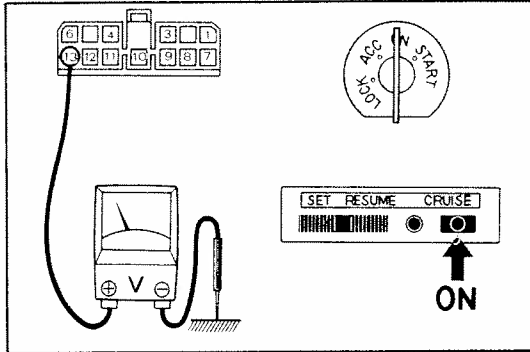


INSPECTION OF COMPUTER AND SENSOR

On-Vehicle Inspection

1. UNPLUG WIRING CONNECTOR FROM COMPUTER
2. INSPECT COMPUTER AT CONNECTOR ON WIRE HARNESS SIDE

(a) Ignition switch "ON".

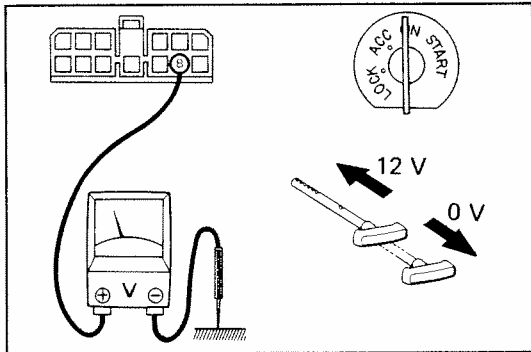


(b) Using voltmeter, measure the voltage between terminal 13 and body ground, with the main switch "ON".

Voltage: Battery voltage

If there is no voltage, check the control switch (see page 17-46).

(c) Start the engine.

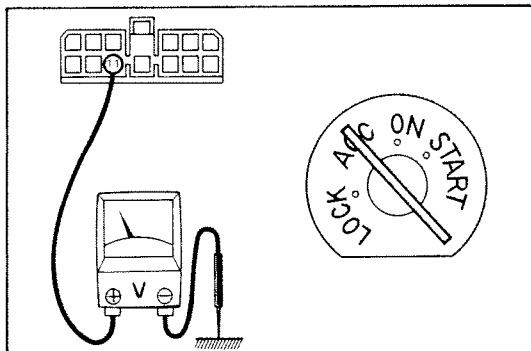


(d) Using a voltmeter, measure the voltage between terminal 8 and body ground.

When the parking brake lever is pulled: 0 V

When the parking brake lever is returned: 12 V

If the voltage is not correct, check the parking brake switch (see page 17-44).

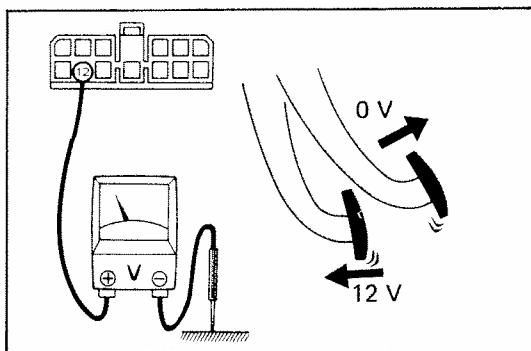


(e) Turn the ignition switch "OFF".

(f) Using a voltmeter, measure the voltage between terminal 11 and body ground.

Voltage: Battery voltage

If there is no voltage, check the stop light switch fuse.

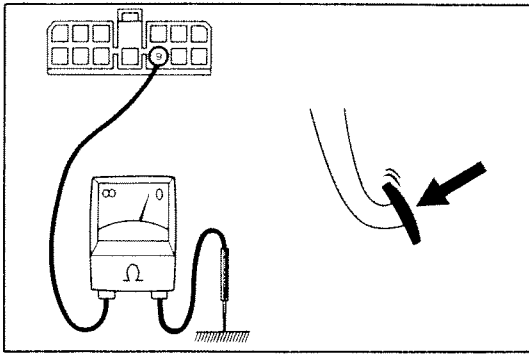


(g) Using a voltmeter, measure the voltage between terminal 12 and body ground.

When brake pedal is depressed: 12 V

When brake pedal is returned: 0 V

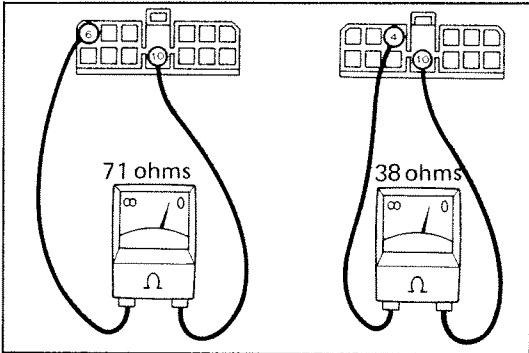
If the voltage is not correct, check the brake pedal switch (see page 17-44).



- (h) Using an ohmmeter, check the continuity between terminal 9 and body ground.

When clutch pedal depressed: 0Ω

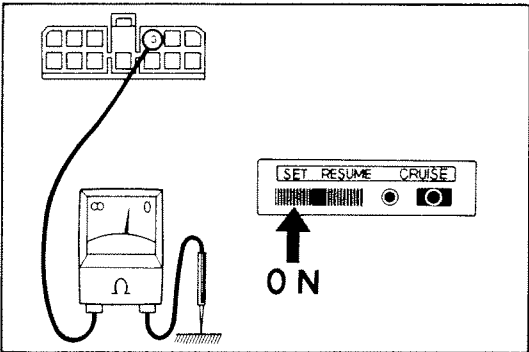
If there is no continuity between the terminals specified, check the clutch switch (see page 17-44).



- (i) Using an ohmmeter, measure the resistance between terminals:

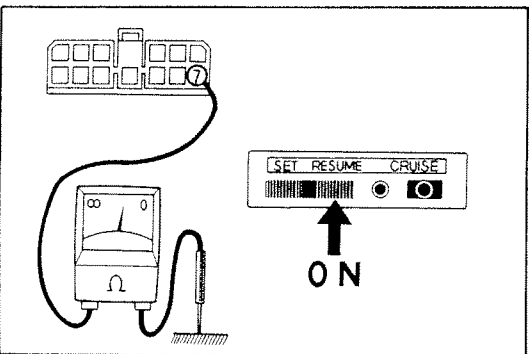
Resistance:	6 – 10	About 71 Ω
	4 – 10	About 38 Ω

If the ohms are not correct, check the actuator (see page 17-45).



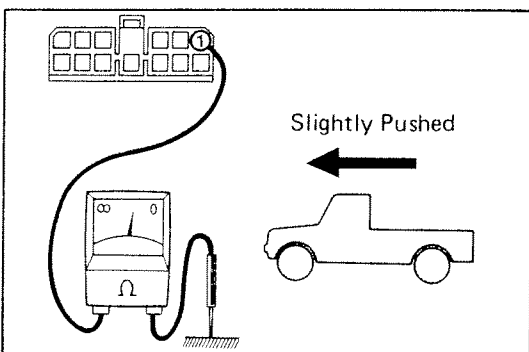
- (j) Using an ohmmeter, check the continuity between terminal 3 and body ground when the set switch is turned "ON".

If there is no continuity between the terminal specified, check the control switch (see page 17-46).



- (k) Using an ohmmeter, check the continuity between terminal 7 and body, ground when the set switch is turned "ON".

If there is no continuity between the terminals specified, check the control switch (see page 17-46).

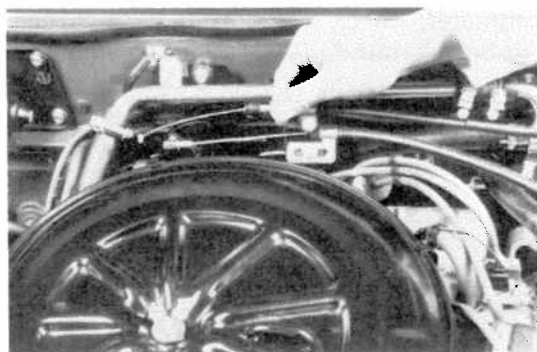


- (l) Using an ohmmeter, check the continuity between terminal 1 and body ground when the vehicle is slightly pushed.

At this time, the ohmmeter needle should repeatedly move from "ON" to "OFF".

If the ohmmeter needle does not deflect, check the speed sensor (see page 17-46).

3. IF ALL OF ABOVE CHECKS ARE CORRECT,
REPLACE COMPUTER



ADJUSTMENT OF CRUISE CONTROL WIRE

NOTE: Confirm that the engine is at normal operating temperature.

1. DISCONNECT CRUISE CONTROL WIRE BELL CRANK FROM BRACKET

2. CONFIRM CORRECT IDLE SPEED

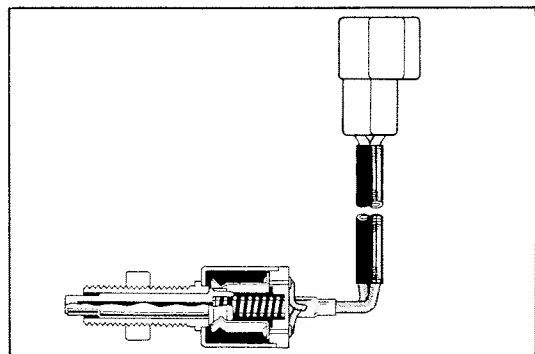
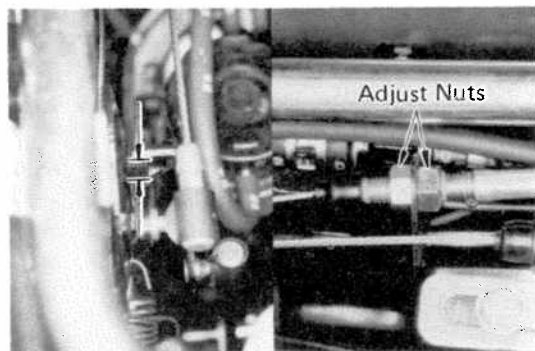
If the idle speed is not correct, adjust (see page 2-9).

3. CONNECT CRUISE CONTROL WIRE

(a) Check that engine rpm does not rise.

(b) Adjust as shown in the figure.

Clearance: About 5 mm (0.20 in.)



COMPONENT INSPECTION

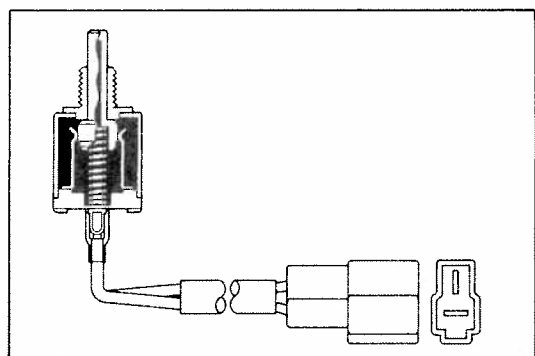
Stop Switch

1. DISCONNECT LEAD WIRES

2. CHECK STOP SWITCH

Using an ohmmeter, check the continuity between both terminals when the brake pedal is depressed.

If there is no continuity, replace stop switch.



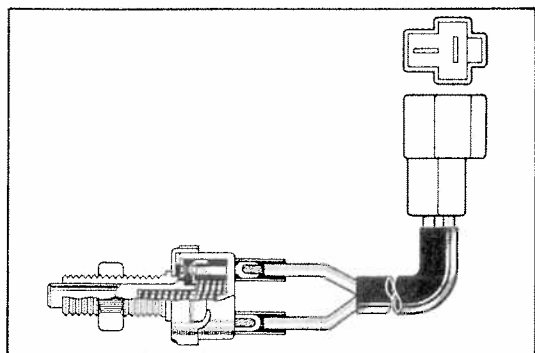
Parking Brake Switch

1. DISCONNECT LEAD WIRES

2. CHECK CLUTCH SWITCH

Using an ohmmeter, check the continuity between both terminals when the parking brake pedal is depressed.

If there is no continuity, replace parking brake switch.



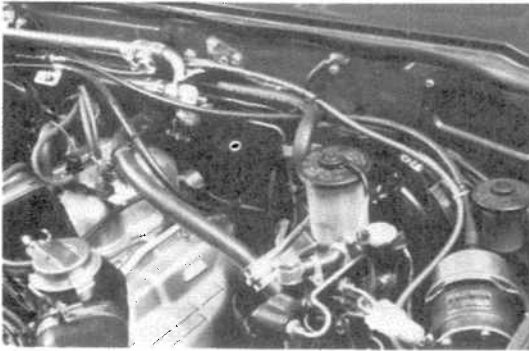
Clutch Switch

1. DISCONNECT LEAD WIRES

2. CHECK CLUTCH SWITCH

Using an ohmmeter, check the continuity between both terminals when the clutch pedal is depressed.

If there is no continuity, replace clutch switch.



ACTUATOR

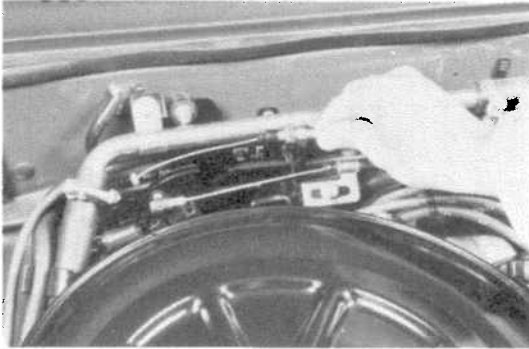
1. DISCONNECT CONNECTOR FROM ACTUATOR LEAD WIRE

2. CHECK ACTUATOR RESISTANCE

Using an ohmmeter, measure the resistance between the terminals for 1 – 3 and 2 – 3.

Resistance: 1 – 3 About 71 Ω
 2 – 3 About 38 Ω

If the resistance is not correct, replace the actuator.

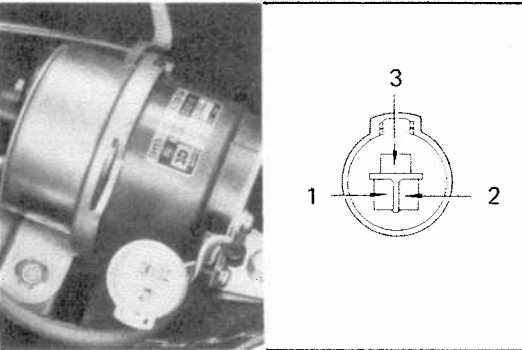


3. DISCONNECT CARBURETOR THROTTLE CABLE FROM BELL CRANK

4. START ENGINE

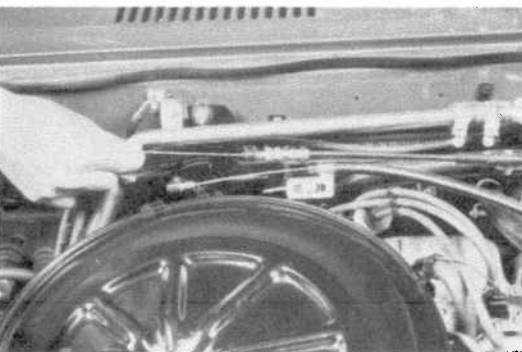
5. CHECK ACTUATOR OPERATION

- (a) Check that the diaphragm makes a smooth reciprocating motion when either power is applied to terminals 1 and 2 with actuator terminal 3 grounded to the body or, subsequently, power is removed from only terminal 2.



- (b) Confirm that the cable does not return easily when pulled with 2 – 3 kg (4 – 7 lb) of force.

If the operation is not correct, replace the actuator.



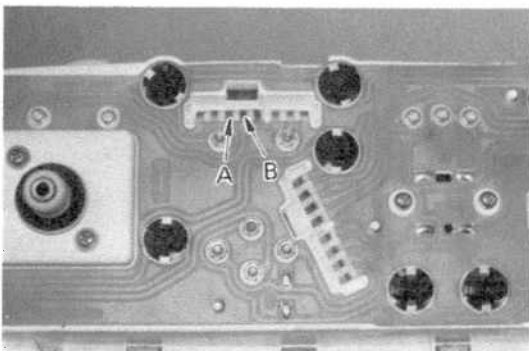
Speed Sensor

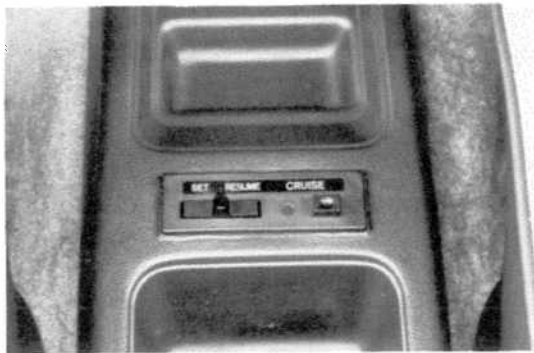
1. REMOVE COMBINATION METER ASSEMBLY

2. CHECK SPEED SENSOR

Using an ohmmeter, check to see that there is continuity between terminals A and B four times per each revolution of the magnet shaft.

If there is no continuity between the terminals specified, replace the speed sensor.



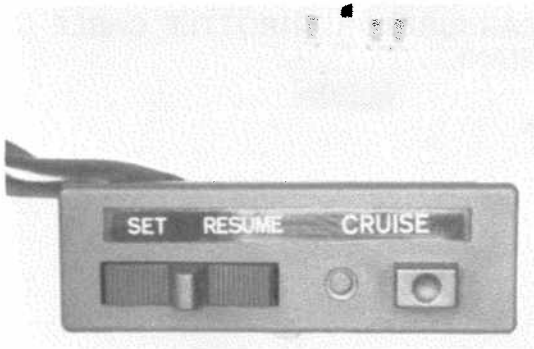


Control Switch

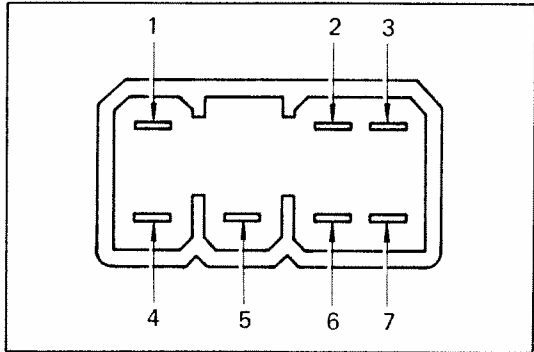
1. REMOVE SHIFT LEVER KNOB
2. REMOVE CONSOLE BOX
3. REMOVE CONTROL SWITCH
4. CHECK CONTROL SWITCH

Using an ohmmeter, check the continuity of the terminals for each switch position shown in the table below.

If there is no continuity between the terminals specified, replace the switch.



Switch position \ Terminal		1	4	6	5	2	3	7
Main switch	ON	○—○						
	OFF							
Control switch	SET			○—○				
	OFF							
	RESUME			○—○				



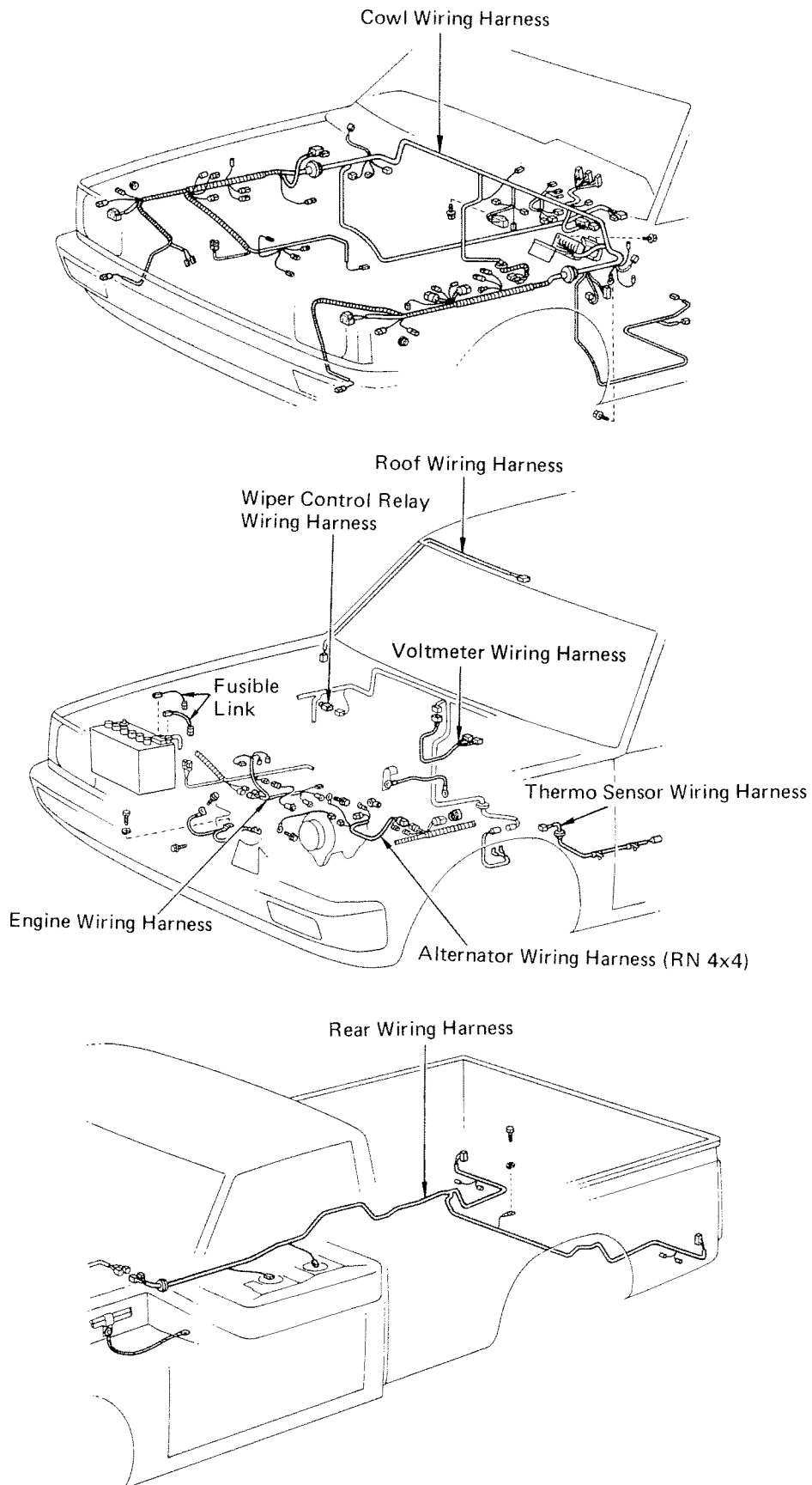
5. CHECK WARNING LIGHT AND SWITCH LIGHT

Using an ohmmeter, check the continuity of the terminals for each position shown in the table below.

If there is no continuity between the terminals specified, replace the bulb.

Terminal	1	4	6	5	2	3	7
Warning light		○—○					
Switch light						○—○	

WIRING HARNESS ROUTING

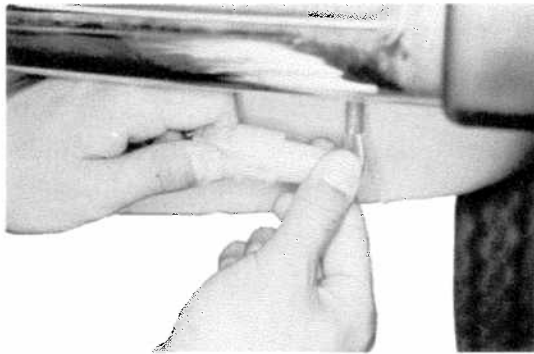
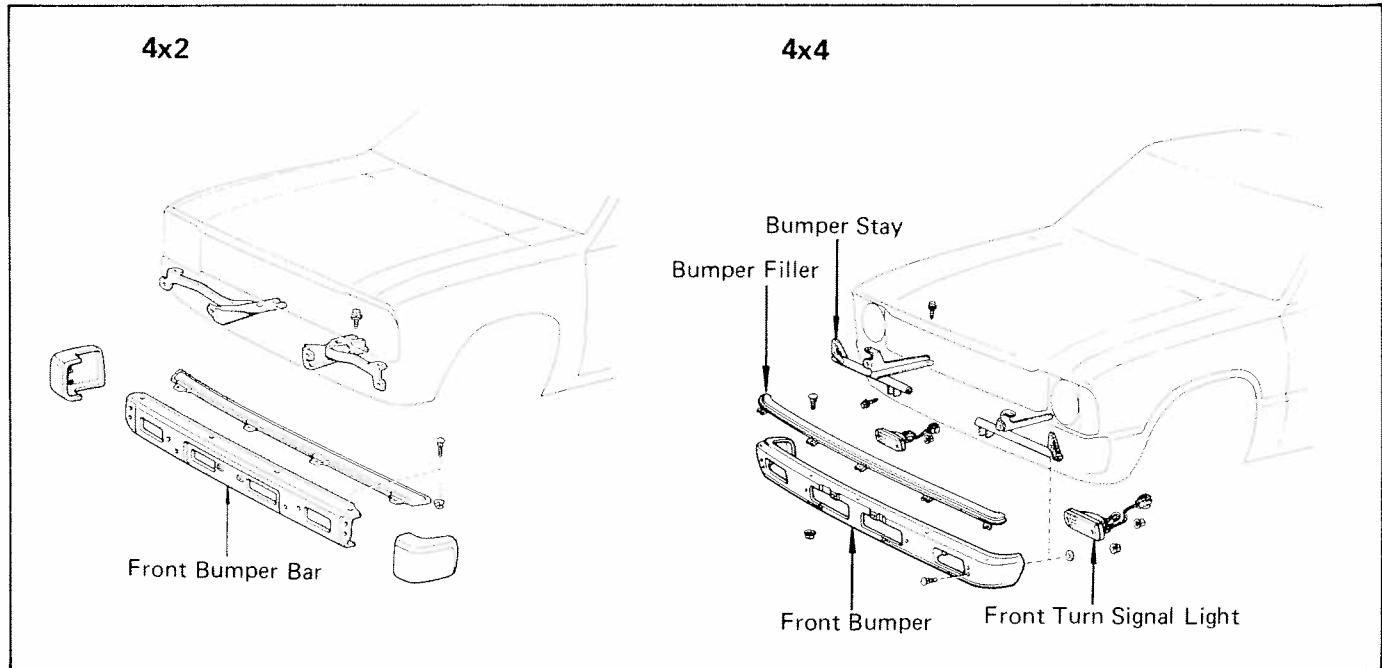


—MEMO—

BODY AND INTERIOR

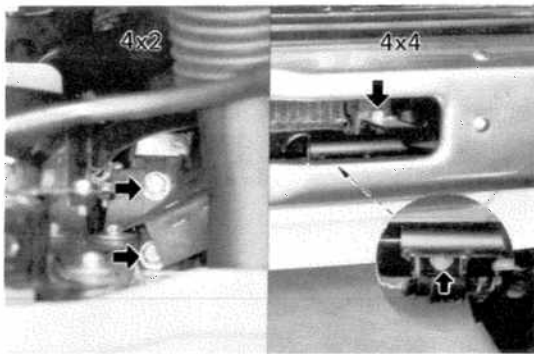
	Page
FRONT BUMPER	18-2
HOOD	18-2
FRONT FENDER	18-3
DOOR TRIM	18-4
DOOR GLASS (Without Ventilator Window)	18-6
DOOR GLASS (With Ventilator Window)	18-7
WINDOW REGULATOR	18-9
DOOR LOCK	18-10
DOOR	18-11
MOULDING	18-13
WINDSHIELD	18-14
BACK WINDOW	18-18
SAFETY PAD	18-21
INSTRUMENT PANEL	18-23
ROOF HEADLINER	18-25
SEAT (Separate Type)	18-28
SEAT (Bench Type)	18-29
ONE-TOUCH TAIL GATE	18-30
BODY DIMENSIONS (4x2)	18-32
BODY DIMENSIONS (4x4)	18-33

FRONT BUMPER



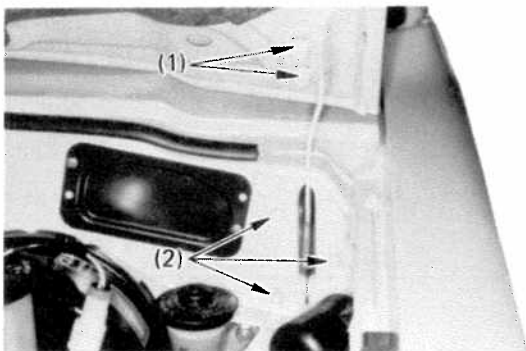
REMOVAL OF FRONT BUMPER

1. DISCONNECT TWO FRONT TURN SIGNAL LIGHT CONNECTORS
2. REMOVE FOLLOWING PARTS:
 - (a) Front bumper assembly
 - (b) Bumper stay
 - (c) Front turn signal light
 - (d) Bumper filler
 - (e) Bumper extension



INSTALLATION OF FRONT BUMPER

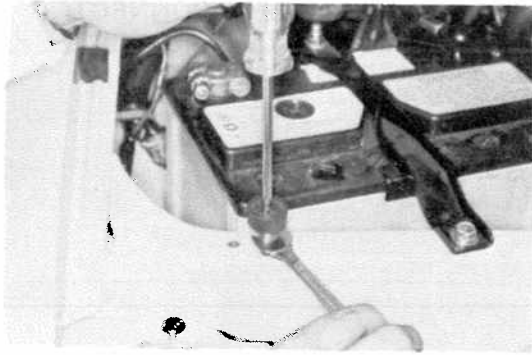
1. INSTALL FOLLOWING PARTS:
 - (a) Bumper extension
 - (b) Bumper filler
 - (c) Front turn signal light
 - (d) Bumper stay
 - (e) Front bumper assembly
2. CONNECT TWO FRONT TURN SIGNAL LIGHT CONNECTORS



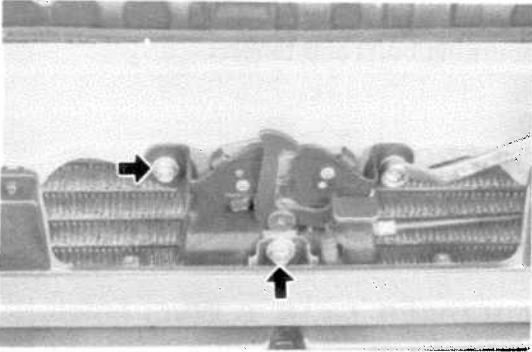
HOOD

ADJUSTMENT OF HOOD

- (a) For forward/rearward and left/right adjustment loosen bolts (1).
- (b) For vertical adjustment of rear edge of hood, loosen bolts (2).



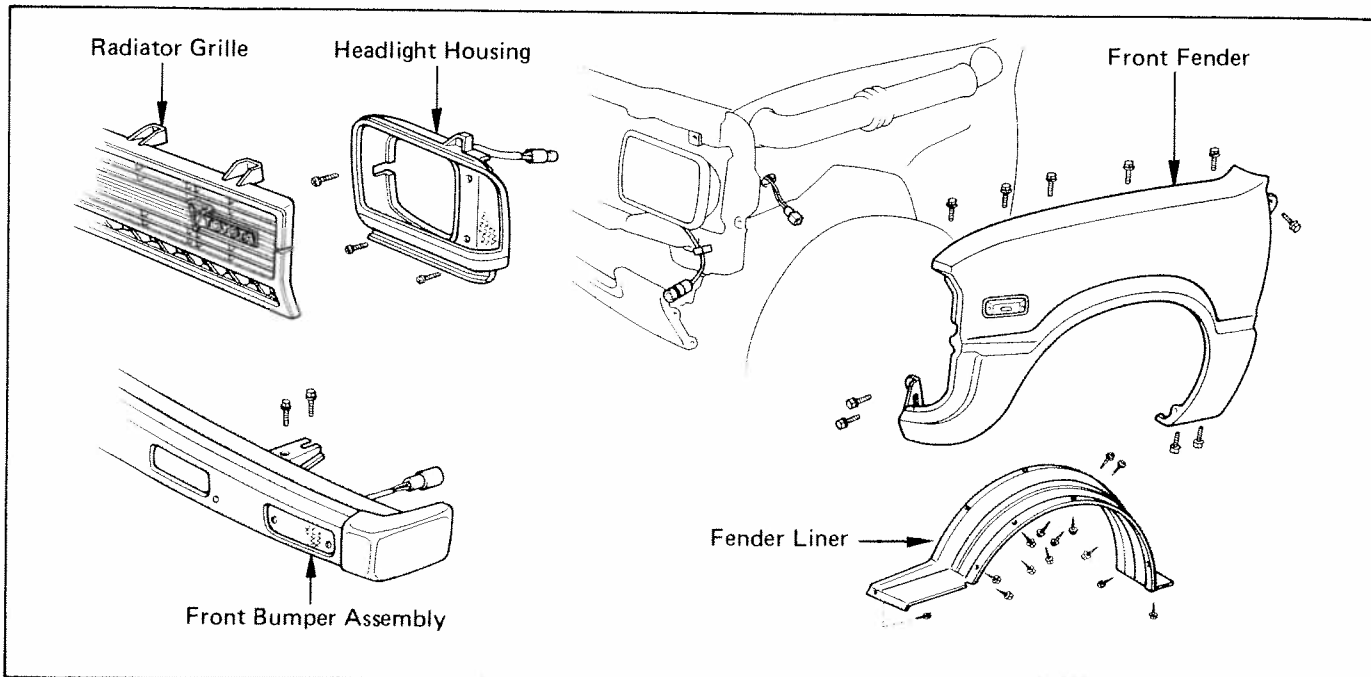
- (c) For vertical adjustment of front edge of hood, turn cushion.



ADJUSTMENT OF HOOD LOCK

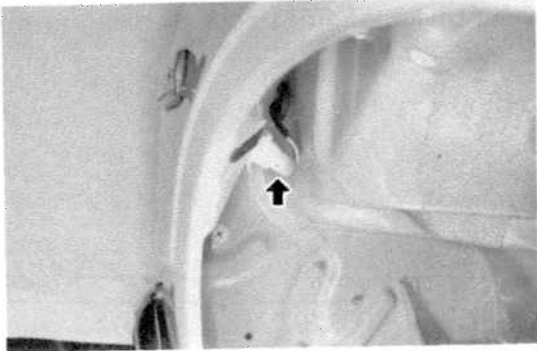
ADJUST HOOD LOCK BY LOOSENING MOUNTING BOLTS

FRONT FENDER

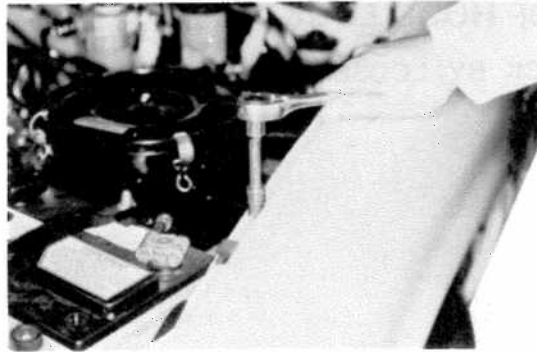


REMOVAL OF FRONT FENDER

1. REMOVE FOLLOWING PARTS:
 - (a) Front bumper assembly (See page 18-2)
 - (b) Headlight housing
 - (c) Fender liner



2. DISCONNECT SIDE MARKER LIGHT CONNECTOR



3. REMOVE FRONT FENDER

Remove fender mounting bolts and fender.

INSTALLATION OF FRONT FENDER

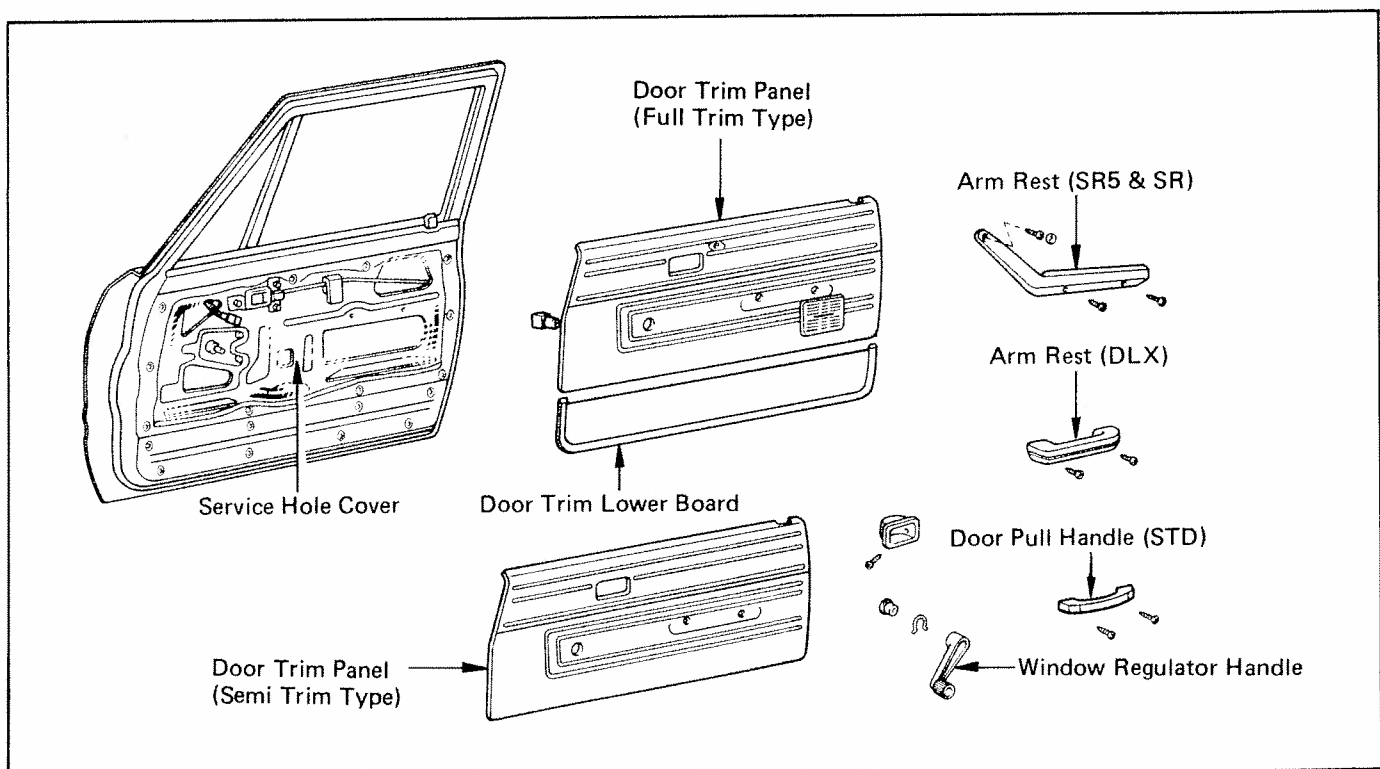
1. INSTALL FRONT FENDER WITH MOUNTING BOLTS

2. CONNECT SIDE MARKER LIGHT CONNECTOR

3. INSTALL FOLLOWING PARTS:

- (a) Fender liner
- (b) Headlight housing
- (c) Radiator grille
- (d) Front bumper assembly (See page 18-2)

DOOR TRIM



REMOVAL OF DOOR TRIM

1. REMOVE FOLLOWING PARTS:

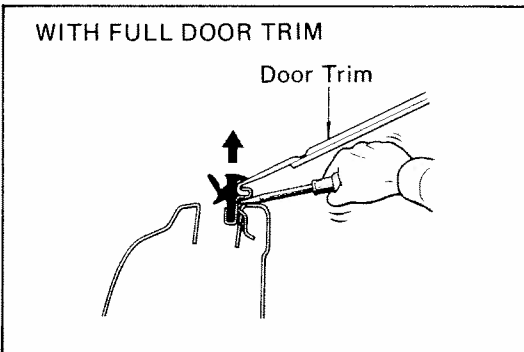
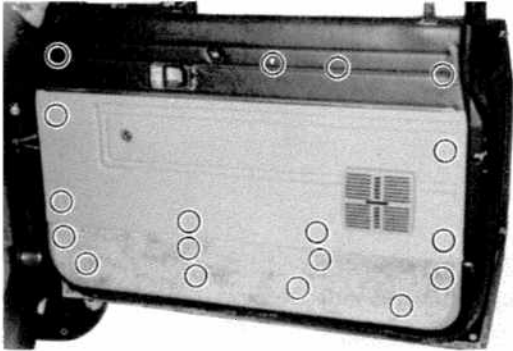
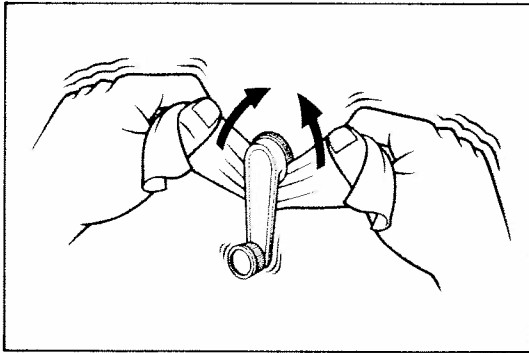
- (a) Door inside handle bezel
- (b) Arm rest

2. REMOVE WINDOW REGULATOR HANDLE

Remove the snap ring with a cloth.

3. REMOVE DOOR TRIM

- (a) Insert a screwdriver between the retainers and the door panel to pry it loose.



- (b) With full door trim — Pull up the trim and, using a screwdriver, remove it from the weatherstrip clips beginning from the front and working toward the rear.

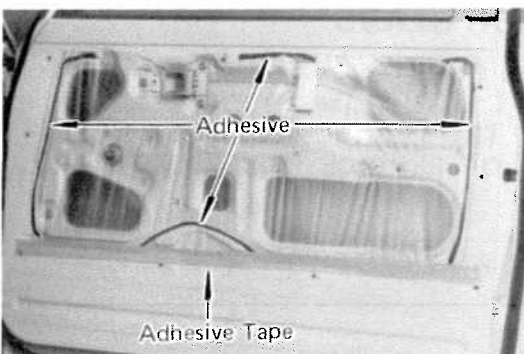
NOTE: Be careful not to scratch the door panel.

- (c) Peel off the outer ridges of the service hole cover.

INSTALLATION OF DOOR TRIM

1. INSTALL SERVICE HOLE COVER

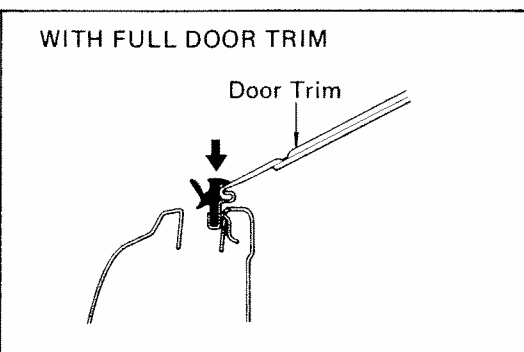
Insert the lower end of the service hole cover into the slot. Apply adhesive and tape as shown.

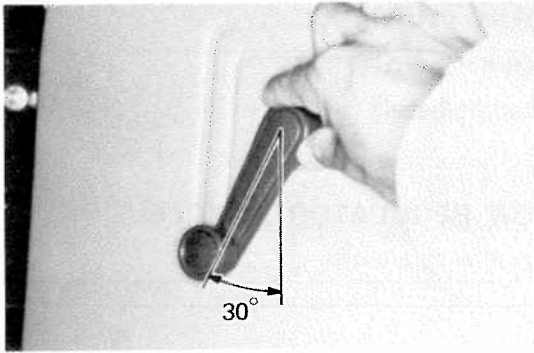


2. INSTALL DOOR TRIM

With full door trim —

- (a) Observing from above, securely insert the weatherstrip clips into the door inner panel holes, beginning from the front and working toward the rear.
- (b) Install the door trim retainers so that there are no wrinkles in the upper portion of the door trim.





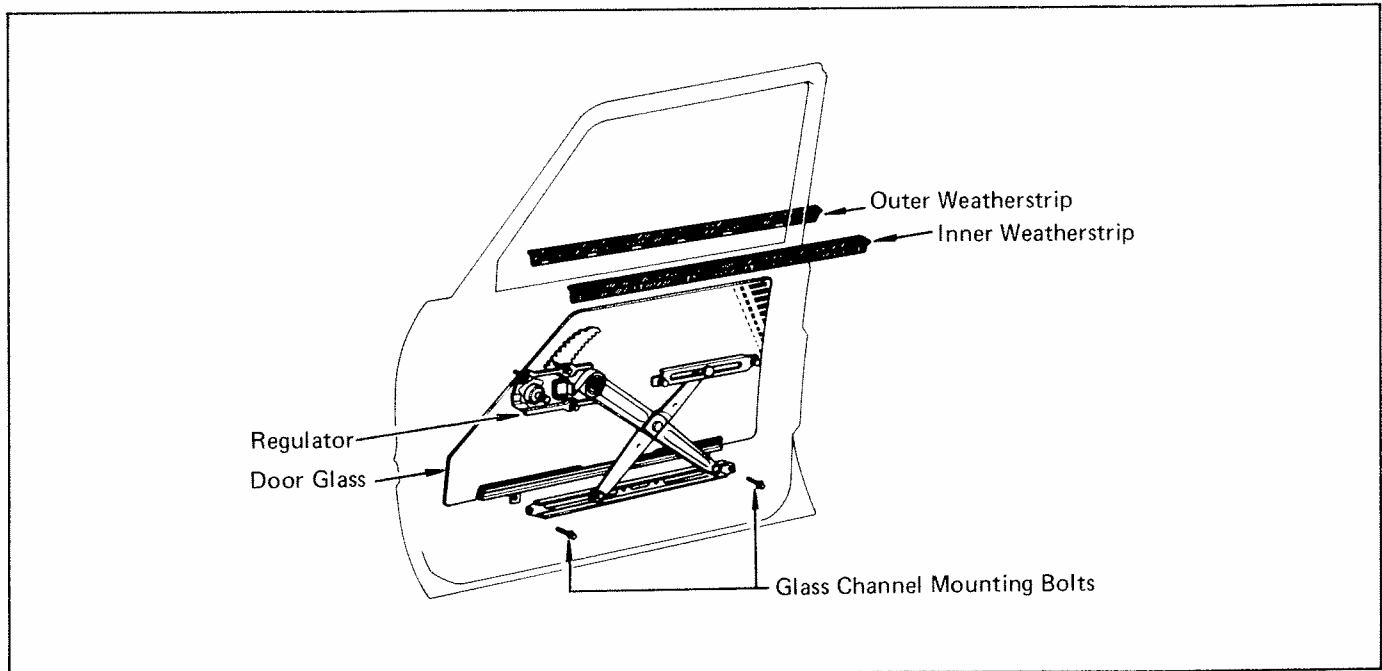
3. INSTALL WINDOW REGULATOR HANDLE

With door window fully closed, install window regulator handle as shown with snap ring.

4. INSTALL FOLLOWING PARTS:

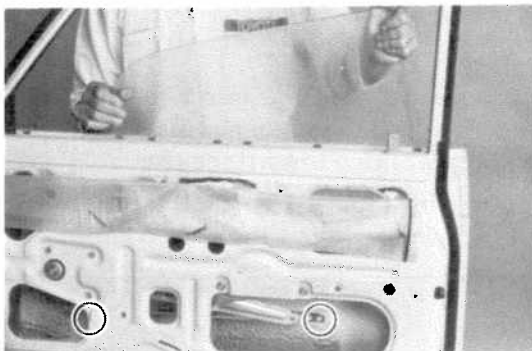
- (a) Arm rest
- (b) Door inside handle bezel

DOOR GLASS (Without Ventilator Window)



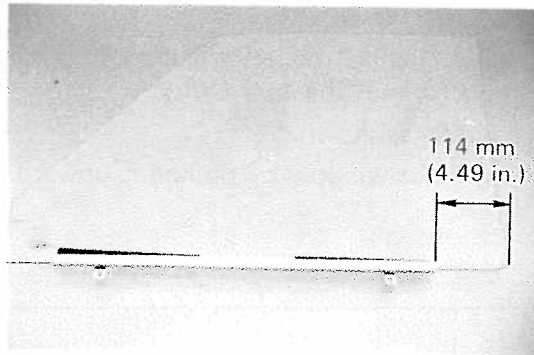
REMOVAL OF DOOR GLASS

1. LOWER WINDOW FULLY
2. REMOVE DOOR TRIM PANEL AND PEEL OFF OUTER RIDGES OF SERVICE HOLE COVER
(See page 18-5)
3. REMOVE INNER AND OUTER WEATHERSTRIPS



4. REMOVE DOOR GLASS

- (a) Remove two glass channel mounting bolts.
- (b) Remove the door glass by pulling it upward.
- (c) Remove the glass channel from glass with screwdriver or such.



INSTALLATION OF DOOR GLASS

1. INSTALL GLASS CHANNEL ON GLASS

- (a) Apply soapy water to the inside of the weatherstrip.
- (b) Tap the glass channel with plastic hammer.

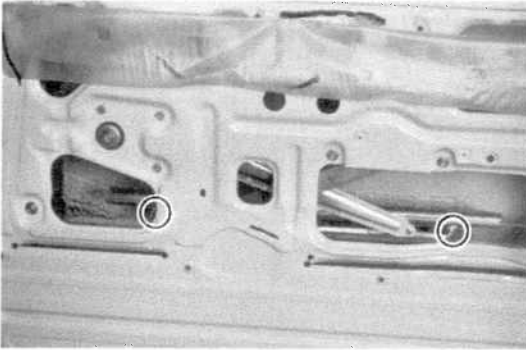
2. PLACE DOOR GLASS IN DOOR

Insert the door glass in the door cavity.

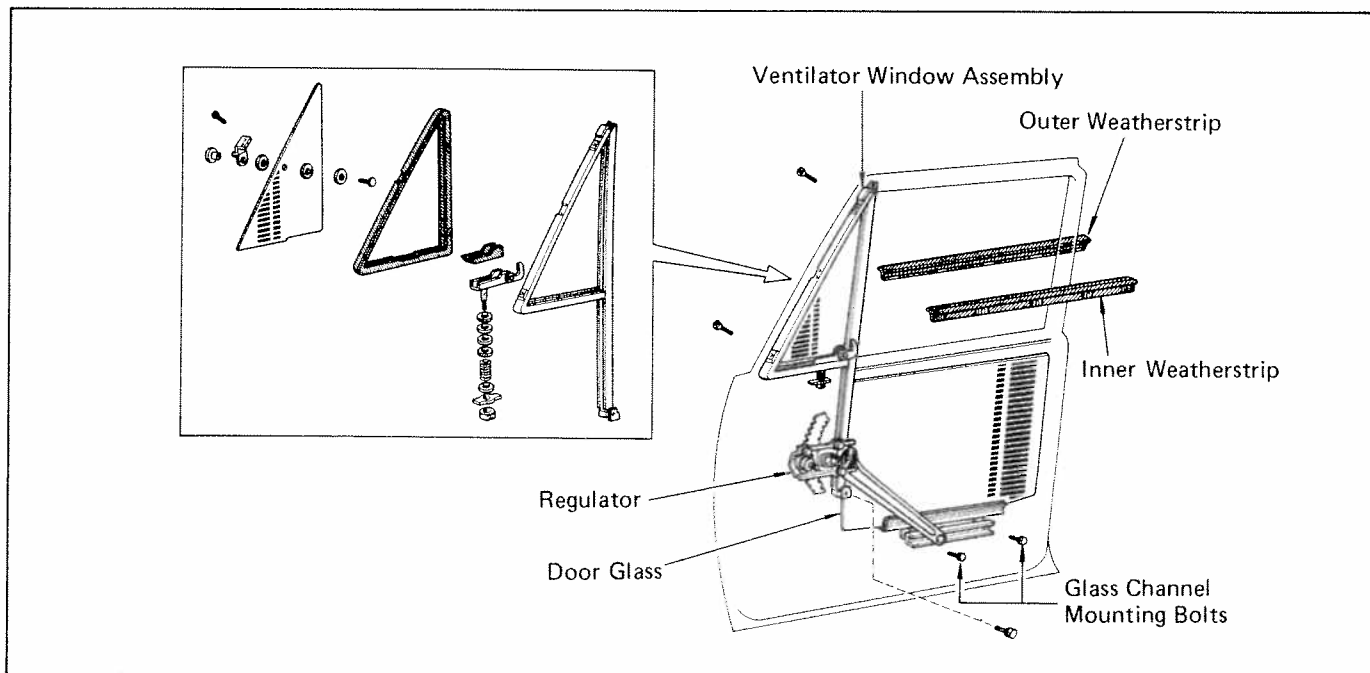
3. INSTALL DOOR GLASS TO WINDOW REGULATOR WITH TWO MOUNTING BOLTS

4. INSTALL INNER AND OUTER WEATHERSTRIPS

5. INSTALL SERVICE HOLE COVER AND DOOR TRIM PANEL (See page 18-5)



DOOR GLASS (With Ventilator Window)

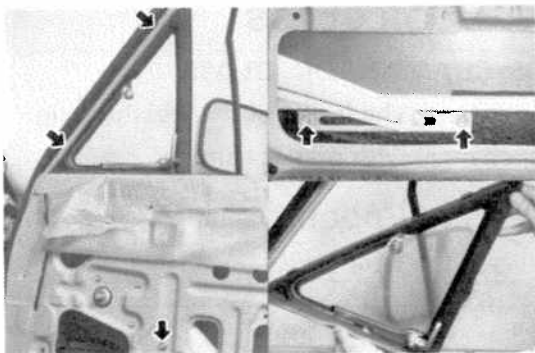


REMOVAL OF DOOR GLASS

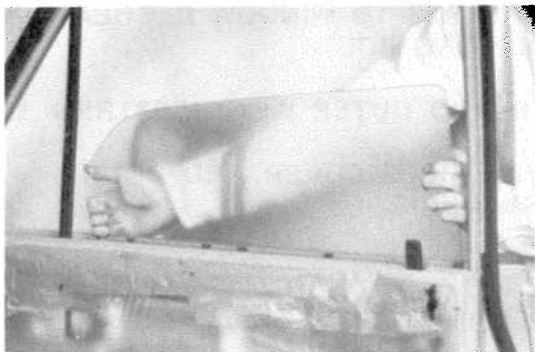
1. LOWER WINDOW FULLY

2. REMOVE DOOR TRIM PANEL AND PEEL OFF OUTER RIDGES OF SERVICE HOLE COVER (See page 18-5)

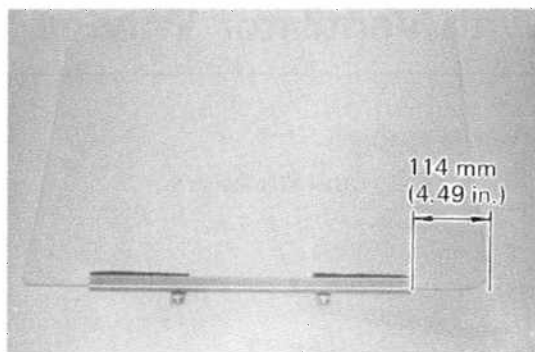
3. REMOVE INNER AND OUTER WEATHERSTRIPS

**4. REMOVE VENTILATOR WINDOW**

- (a) Remove two glass channel mounting bolts and place the glass on the bottom of the door cavity.
- (b) Remove three screws as shown.
- (c) Remove the ventilator window by pulling it upward.

**5. REMOVE DOOR GLASS**

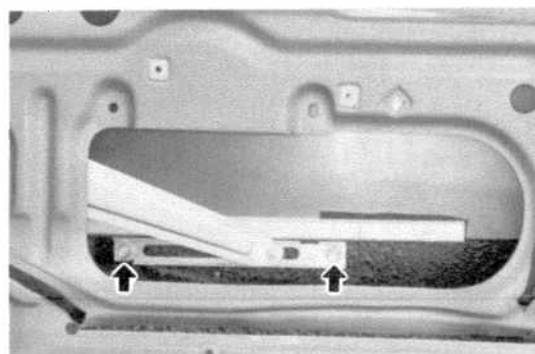
- (a) Remove the door glass by pulling it upward.
- (b) Remove the glass channel from glass with screwdriver or such.

**INSTALLATION OF DOOR GLASS****1. INSTALL GLASS CHANNEL ON GLASS**

- (a) Apply soapy water to the inside of the weatherstrip.
- (b) Tap the glass channel with plastic hammer.

2. PLACE DOOR GLASS IN DOOR

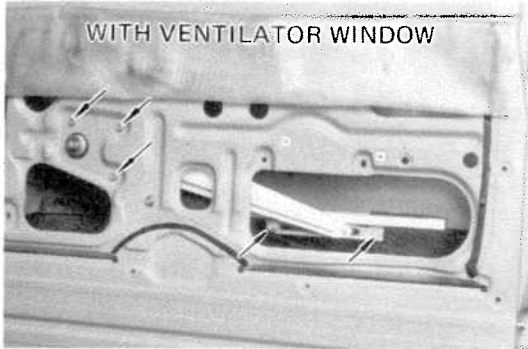
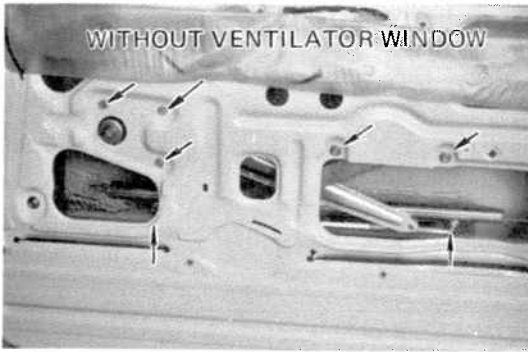
Insert the door glass in the door cavity.

**3. INSTALL VENTILATOR WINDOW WITH THREE SCREWS****4. INSTALL DOOR GLASS TO WINDOW REGULATOR WITH TWO MOUNTING BOLTS****5. INSTALL INNER AND OUTER WEATHERSTRIPS****6. INSTALL SERVICE HOLE COVER AND DOOR TRIM PANEL (See page 18-5)**

WINDOW REGULATOR

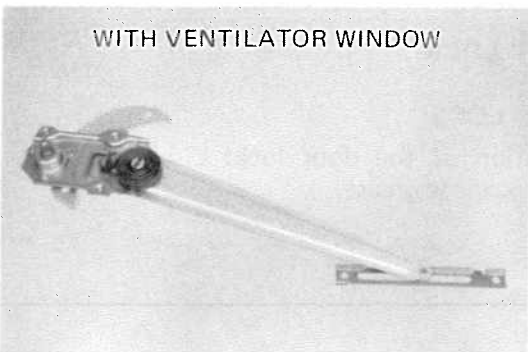
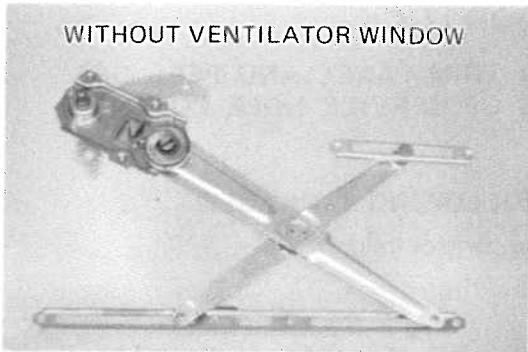
REMOVAL OF WINDOW REGULATOR

1. REMOVE DOOR TRIM PANEL AND PEEL OFF OUTER RIDGES OF SERVICE HOLE COVER
(See page 18-5)
2. REMOVE REGULATOR
 - (a) Remove two glass channel mounting bolts and support the glass with one hand while removing the regulator mounting bolts with the other hand.
 - (b) Remove the regulator through the service hole.



INSPECTION OF WINDOW REGULATOR

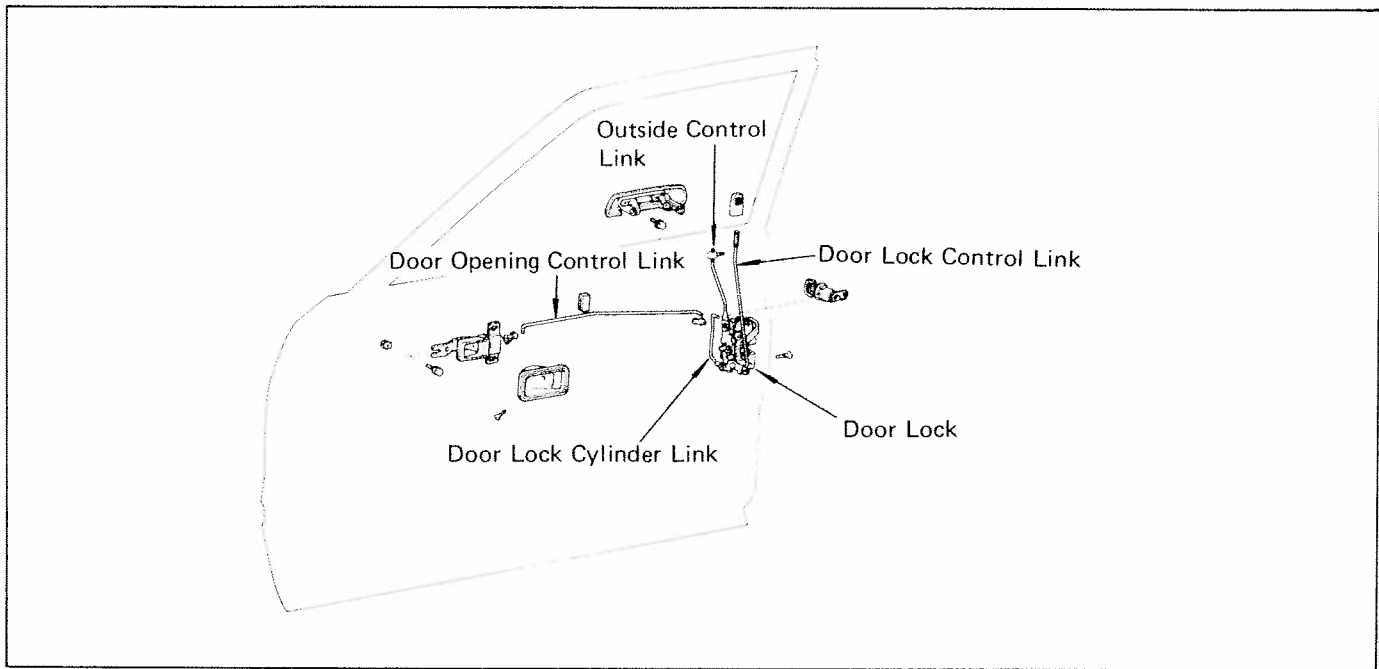
- (a) Check gears for wear.
- (b) Check spring for weakness and good condition.
- (c) Lubricate sliding parts.



INSTALLATION OF WINDOW REGULATOR

1. INSTALL REGULATOR WITH MOUNTING BOLTS
Install the regulator in the door through the service hole.
2. INSTALL DOOR GLASS
Without ventilator window (See steps 2 through 4, page 18-6)
With ventilator window (See steps 2 through 5, page 18-7)
3. INSTALL SERVICE HOLE COVER AND DOOR TRIM PANEL (See page 18-5)

DOOR LOCK



REMOVAL OF DOOR LOCK

1. REMOVE DOOR TRIM PANEL AND PEEL OFF OUTER RIDGES OF SERVICE HOLE COVER (See page 18-5)

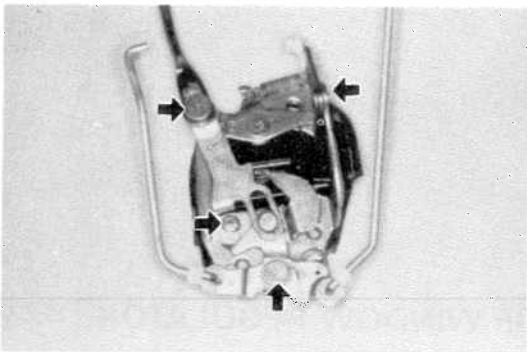
2. DISCONNECT FOLLOWING LINKAGES:

- (a) Door opening control link
- (b) Outside control link
- (c) Door lock control link
- (d) Door lock cylinder link

3. REMOVE DOOR LOCK

4. INSPECT DOOR LOCK

Check the operation of the door lock. Lubricate as required with multipurpose grease.

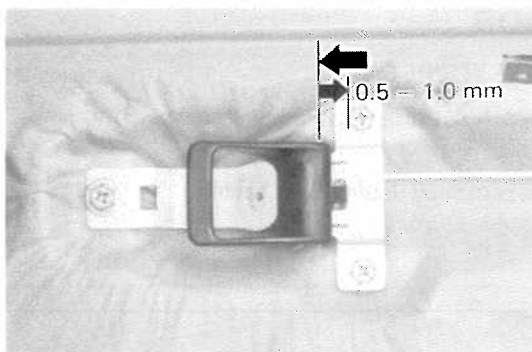


INSTALLATION OF DOOR LOCK

1. INSTALL DOOR LOCK WITH MOUNTING SCREWS

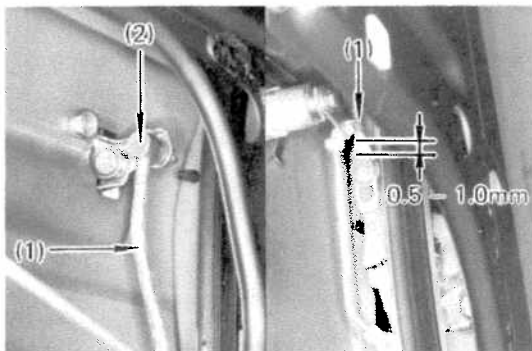
2. CONNECT FOLLOWING LINKAGES:

- (a) Door lock cylinder link
- (b) Door lock control link
- (c) Outside control link
- (d) Door opening control link



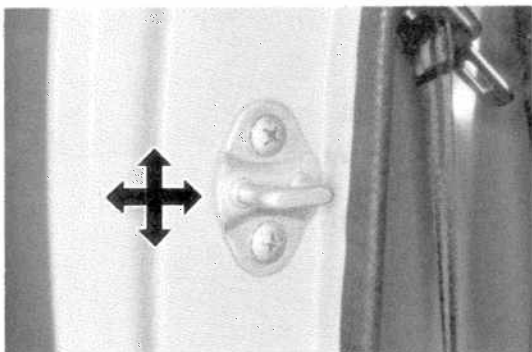
3. ADJUST DOOR INSIDE HANDLE

- (a) Loosen screws.
- (b) Push door handle forward until light resistance is felt. Move handle back 0.5 – 1.0 mm (0.020 – 0.039 in.) and tighten mounting bolts.



4. ADJUST DOOR OUTSIDE HANDLE

- (a) Disconnect control link (1).
- (b) Raise handle 0.5 – 1.0 mm (0.020 – 0.039 in.) from the rest position.
- (c) Fit the pin into the hole by turning adjuster (2).

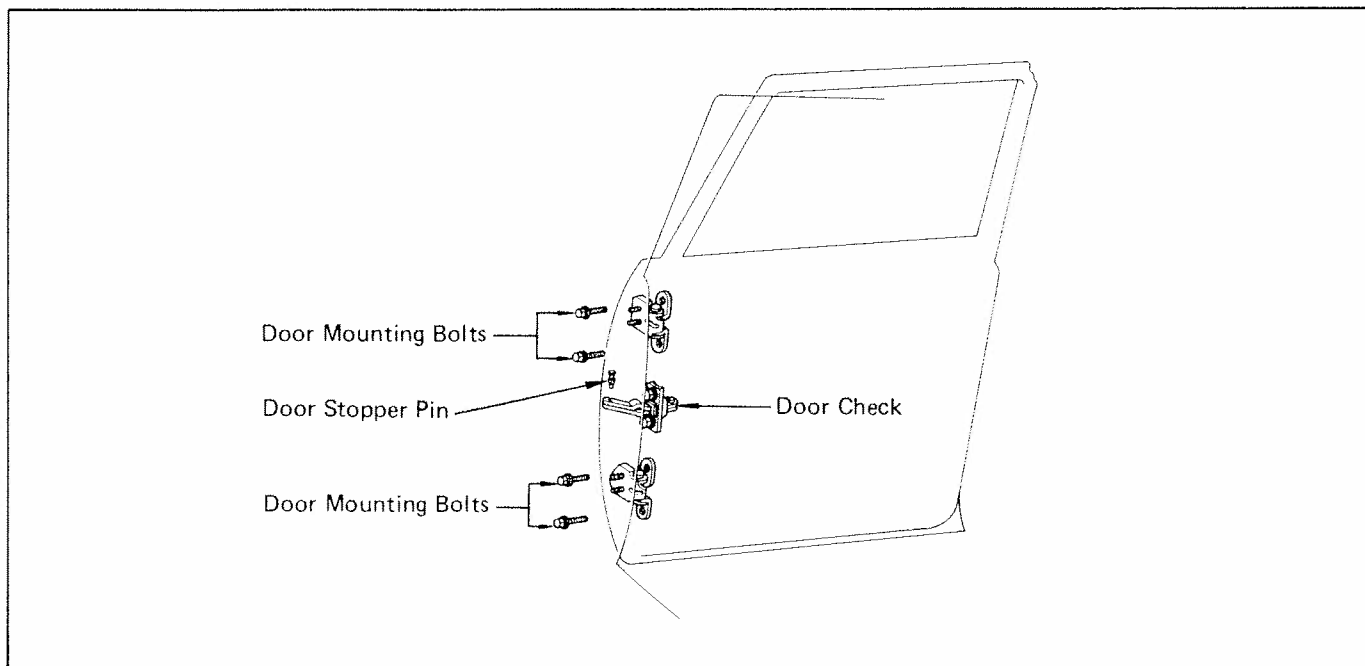


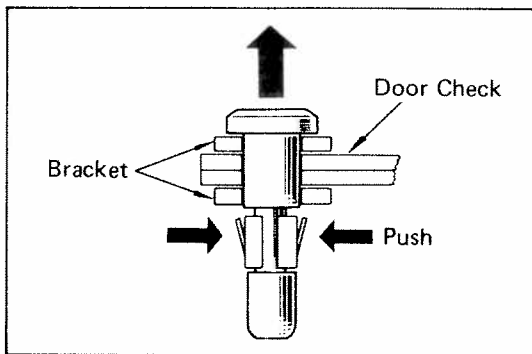
5. ADJUST DOOR LOCK STRIKER

- (a) Check that door fit and door lock linkages are adjusted correctly.
- (b) Adjust striker by loosening striker mounting screws.

6. INSTALL SERVICE HOLE COVER AND DOOR TRIM PANEL (See page 18-5)

DOOR



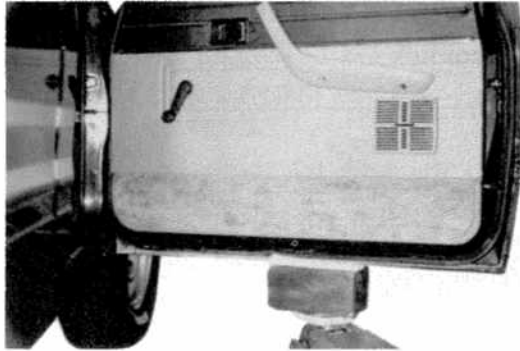


REMOVAL OF DOOR

1. REMOVE DOOR STOPPER PIN

Pull door stopper pin retainer upward while pushing in on the claw.

CAUTION: After removal, leave claw raised.



2. REMOVE MOUNTING BOLTS AND DOOR

(a) Support the door panel with a jack with a piece of wood between jack and panel.

(b) Remove the door mounting bolts and door.

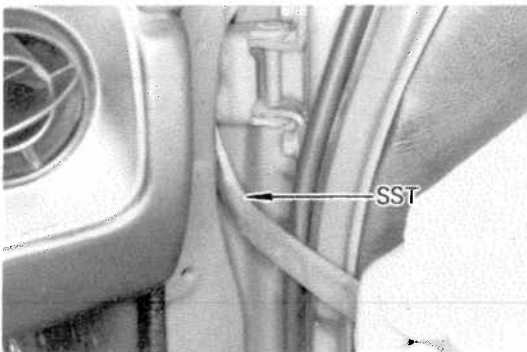
INSTALLATION OF DOOR

1. INSTALL DOOR

(a) Place door on wooden block and jack.

(b) Install door with door mounting bolts.

2. INSTALL DOOR STOPPER PIN

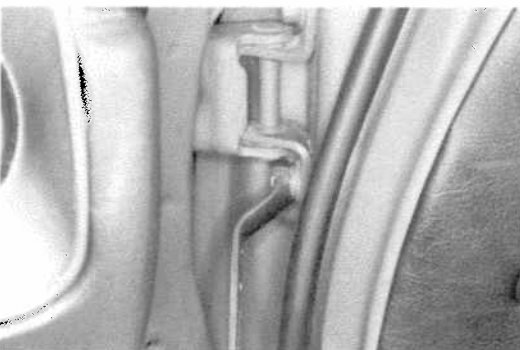


ADJUSTMENT OF DOOR

1. ADJUST DOOR IN FORWARD/REARWARD AND VERTICAL DIRECTIONS

Using a wrench*, loosen the body side hinge bolts.

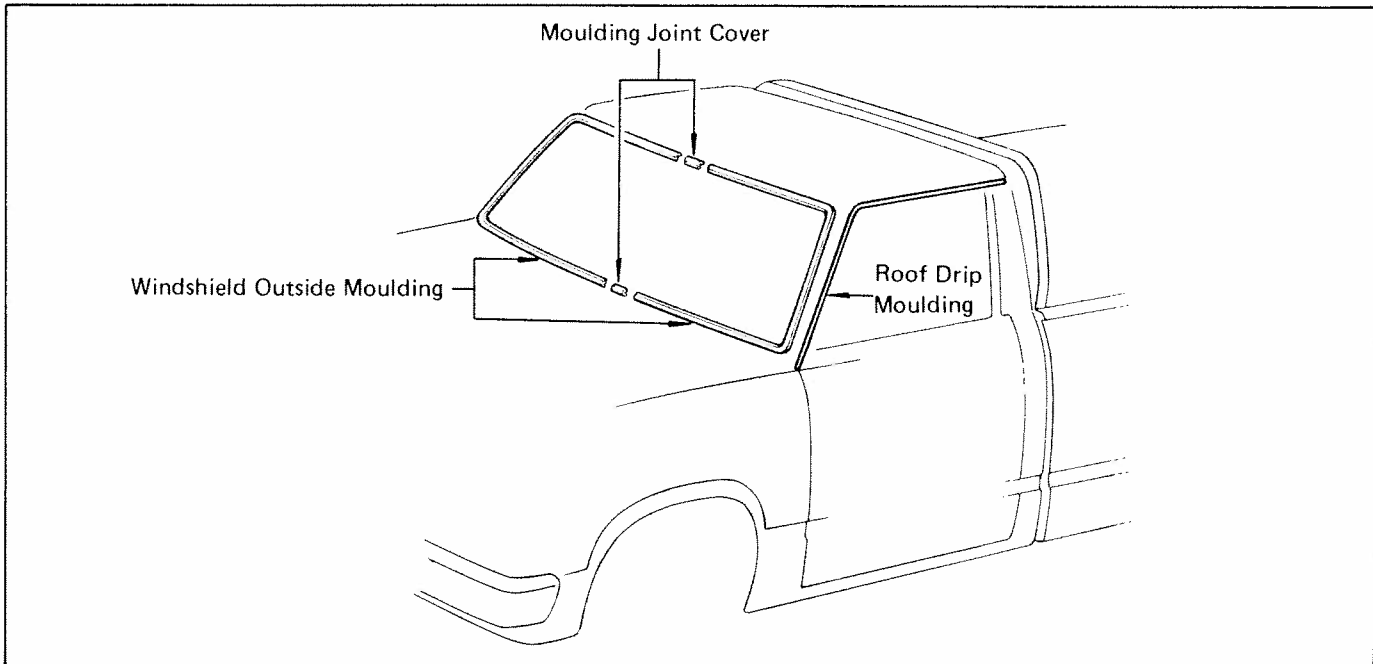
*SST 09812-30011 or Commercial wrench



2. ADJUST DOOR IN LEFT/RIGHT AND VERTICAL DIRECTIONS

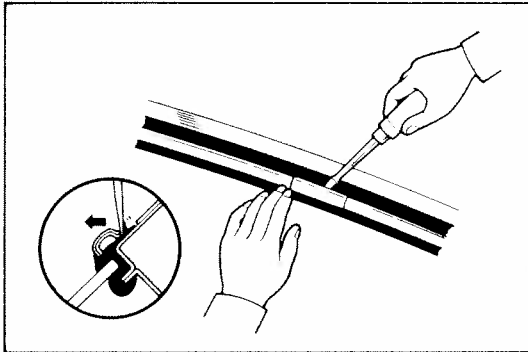
Using a wrench, loosen the door side hinge bolts.

MOULDING



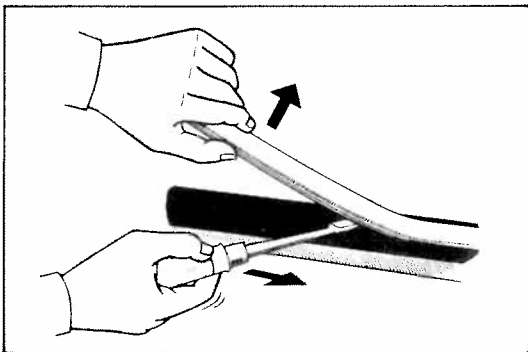
REMOVAL OF WINDSHIELD OUTSIDE MOULDING

1. REMOVE MOULDING JOINT COVER



2. REMOVE MOULDING

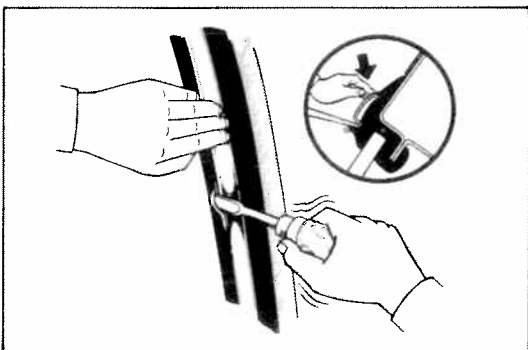
Use flat screwdriver to remove moulding.

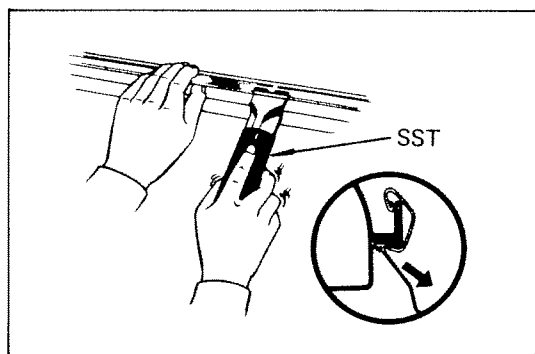


INSTALLATION OF WINDSHIELD OUTSIDE MOULDING

INSTALL MOULDING AND JOINT COVER

- Apply soapy water to the weatherstrip and moulding.
- Put one side of the moulding lip into the weatherstrip and fold over the other side with flat screwdriver.



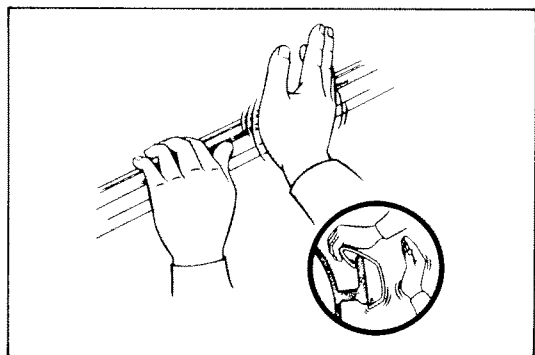


REMOVAL OF ROOF DRIP MOULDING

PULL OFF ROOF DRIP MOULDING

Use a moulding remover* to remove moulding.

*SST 09806-30010 or Commercial moulding remover

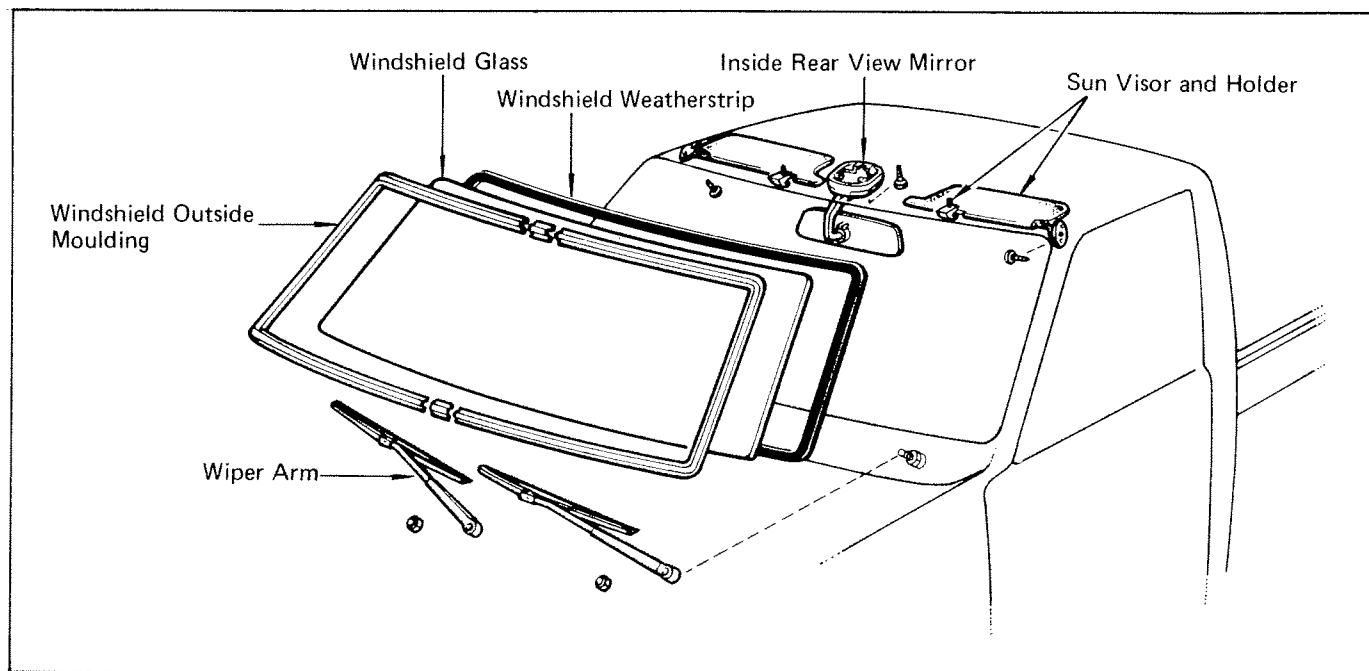


INSTALLATION OF ROOF DRIP MOULDING

INSTALL DRIP MOULDING BY HAND

Attach upper edge of moulding to body flange. Fit moulding by tapping with hand.

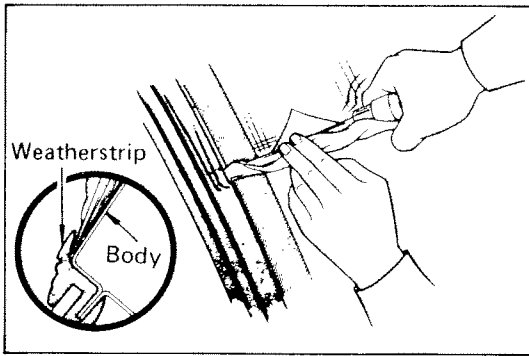
WINDSHIELD



REMOVAL OF WINDSHIELD

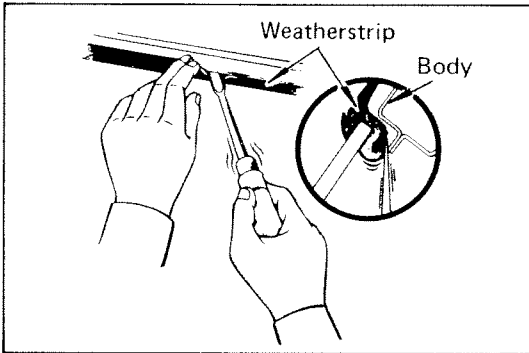
1. REMOVE FOLLOWING PARTS:

- (a) Sun visor and holder
- (b) Inside rear view mirror
- (c) Wiper arm
- (d) Windshield outside moulding (See page 18-13)



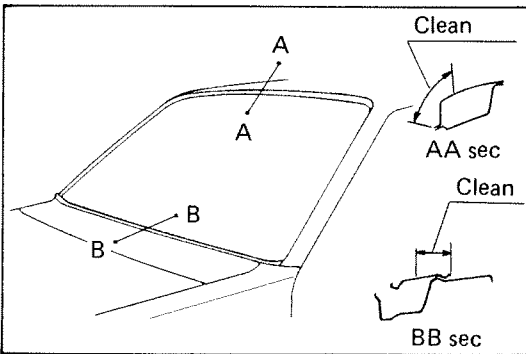
2. LOOSEN WEATHERSTRIP FROM BODY

Use screwdriver to loosen.



3. REMOVE WINDSHIELD GLASS

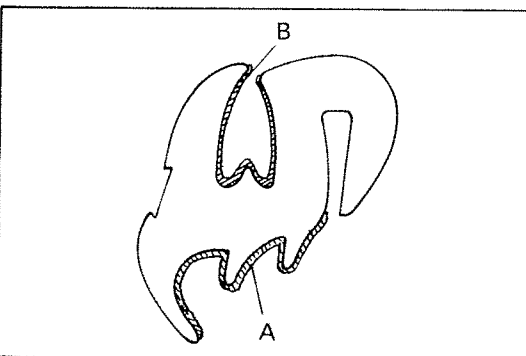
Force the weatherstrip lip from the interior to the body flange outside. Pull the glass outward and remove with the weatherstrip.



INSTALLATION OF WINDSHIELD

1. CLEAN BODY AND GLASS

Using white gasoline, clean the weatherstrip contacting surface of the body and glass.



2. CLEAN WEATHERSTRIP

(a) Clean the weatherstrip surface with a piece of cloth saturated with white gasoline.

(b) With another rag saturated in white gasoline, clean portions A and B all the way to the bottom of the lip as indicated in the figure.

NOTE: Do not use white gasoline that appears to be dirty.

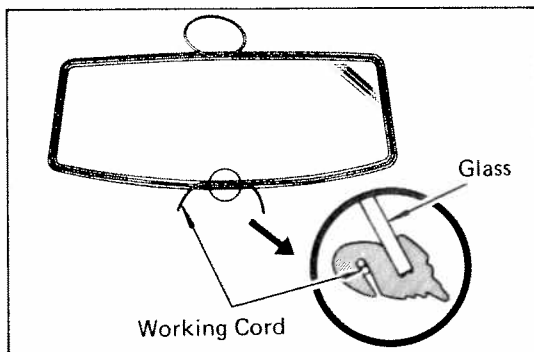
(c) Apply primer to portions A and B after the white gasoline has dried at least 3 minutes.

NOTE: Use UCC AP131 grade primer. The primer is volatile and will form deposits under humid conditions. Therefore, always store primer in a cool, dry place away from direct sunlight.

Use toluene to dilute the primer.

(d) Allow the primer to dry for at least 15 minutes.

NOTE: Be careful not to touch portions A and B of the weatherstrip after applying the primer, and attach the weatherstrip within 3 days.

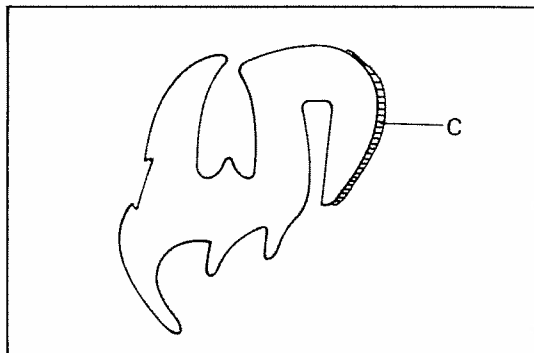


3. INSTALL WEATHERSTRIP ON GLASS

- (a) Attach the weatherstrip to the glass.

CAUTION: If the weatherstrip has become hard, it may develop water leaks. Use a new one if possible.

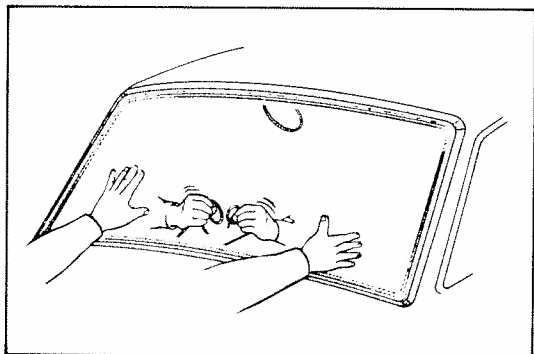
- (b) Apply a working cord along the weatherstrip groove as shown.



4. INSTALL GLASS

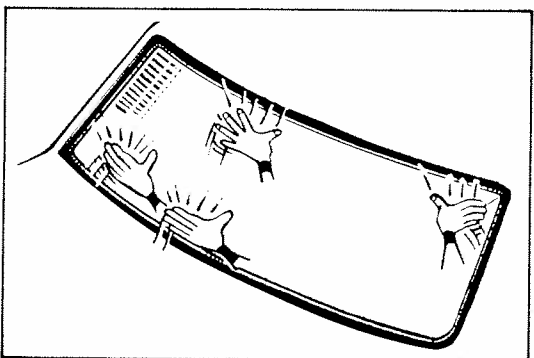
- (a) Coat portion C of the weatherstrip with white kerosine. Do not coat portions A and B or the body.

NOTE: Do not use soap.

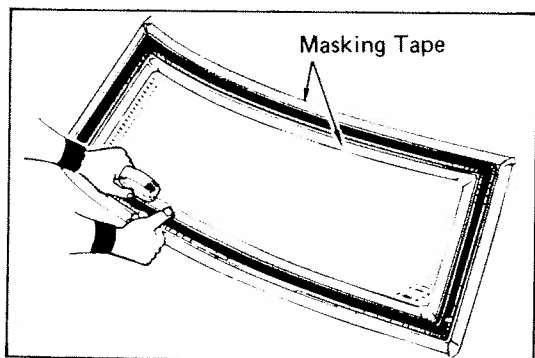


NOTE: Begin installation in the middle of the lower part of the glass.

- (b) Hold the glass in position on the body.
 (c) Install the glass by pulling cord from the interior, while pushing the outside of the weatherstrip with your open hand.

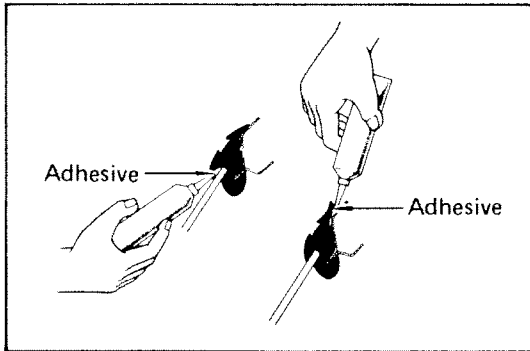


- (d) To settle the glass in place, tap from outside with your open hand.



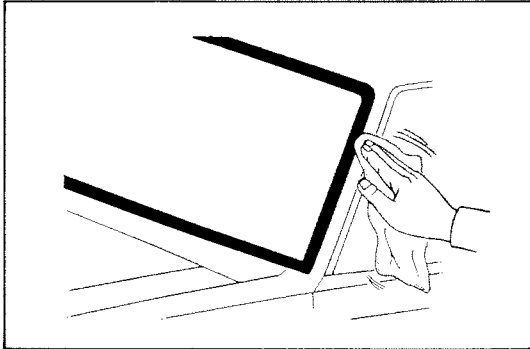
5. APPLY ADHESIVE

- (a) Put masking tape around the weatherstrip to protect the paint and glass.



- (b) Apply adhesive to the weatherstrip lip and glass lip until it oozes out.

NOTE: Use a cemedine adhesive 366ET or IMRON SEALANT.



6. CLEAN ADHESIVE SURFACE

- (a) When adhesive is dry, remove the masking tape.

NOTE: The adhesive will harden in about 15 hours.

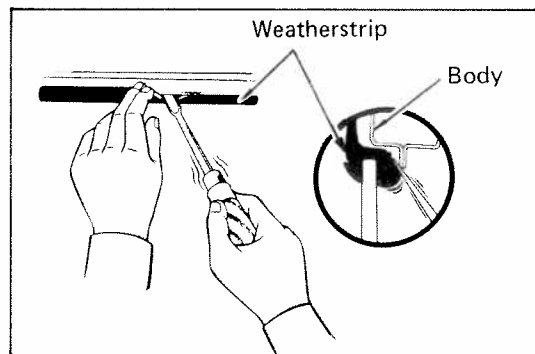
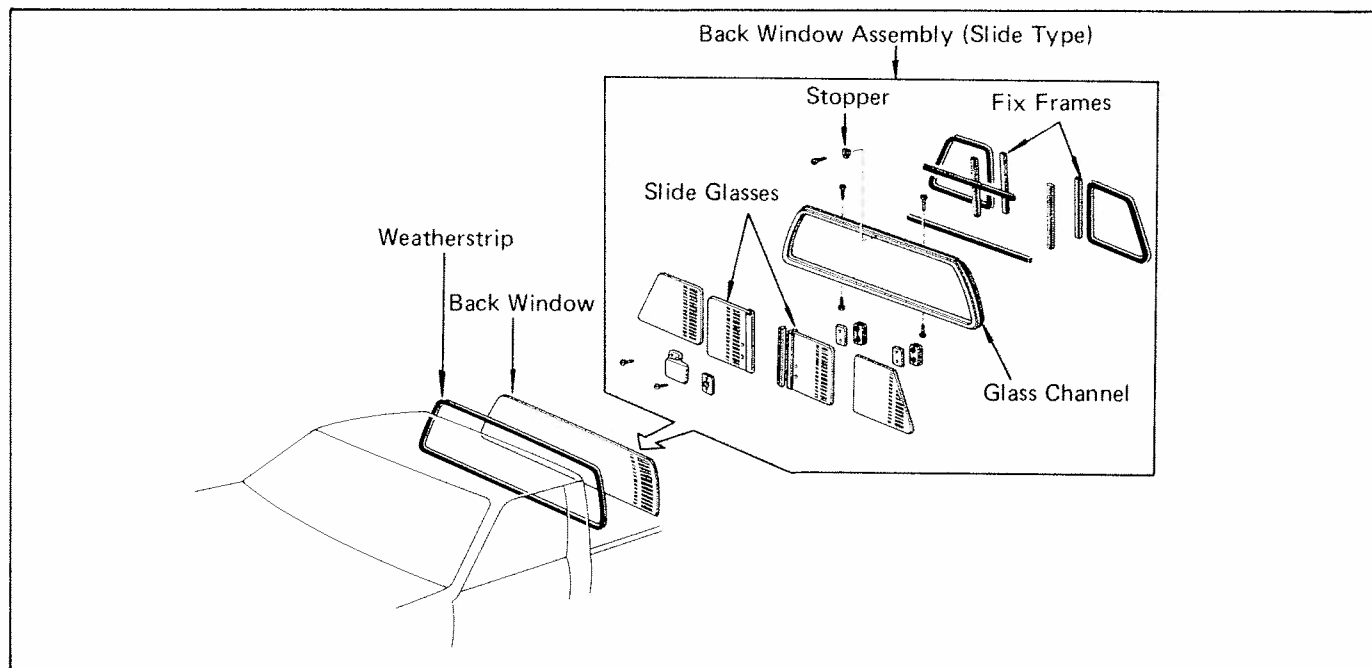
- (b) Clean of the adhesive oozing out from the masking tape with a clean rag saturated in white gasoline.

CAUTION: Handle with care as it takes adhesive of the weatherstrip about a month to completely dry.

7. INSTALL FOLLOWING PARTS:

- (a) Windshield outside moulding (See page 18-13)
- (b) Wiper arm
- (c) Inside rear view mirror
- (d) Sun visor and holder

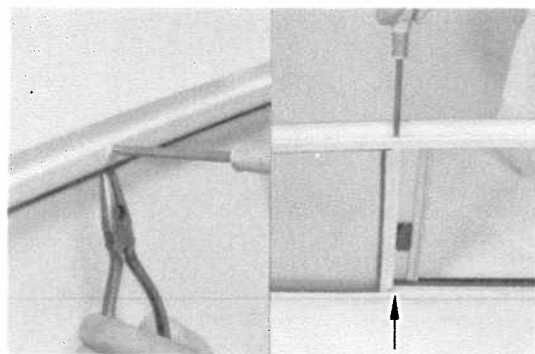
BACK WINDOW



REMOVAL OF BACK WINDOW

REMOVE BACK WINDOW

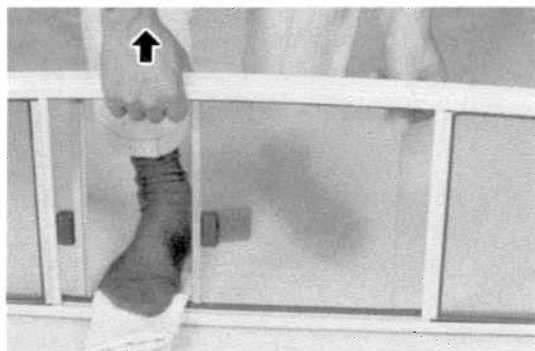
Force the weatherstrip lip from the interior to the body flange outside. Pull the back window outward and remove with the weatherstrip.



DISASSEMBLY OF BACK WINDOW ASSEMBLY (SLIDE GLASS TYPE)

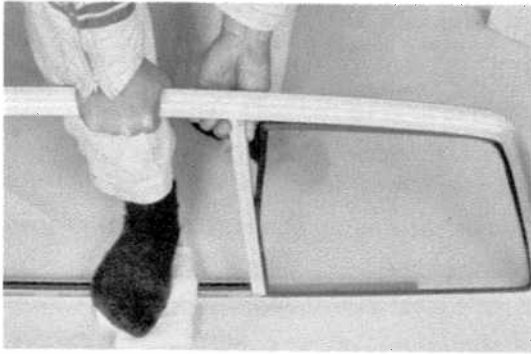
1. REMOVE FOLLOWING PARTS:

- (a) Back window slide glass stopper
- (b) Four screws holding the two fix frames

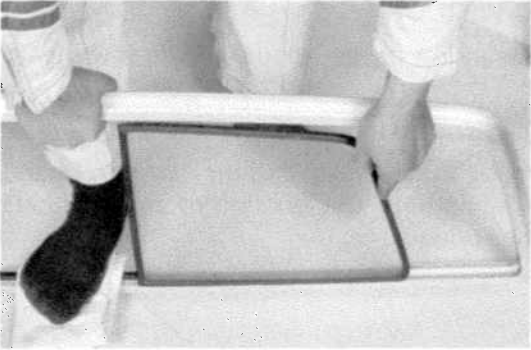


2. REMOVE SLIDE GLASS

Pull apart the channels and remove the two slide glasses at the center area of the glass channel.

**3. REMOVE NON-SLIDE GLASS**

- (a) Pull apart the channels and remove the two fix frames as shown.



- (b) Pull apart the channels and remove the two non-slide glasses as shown.

ASSEMBLY OF BACK WINDOW ASSEMBLY**1. INSTALL NON-SLIDE GLASS**

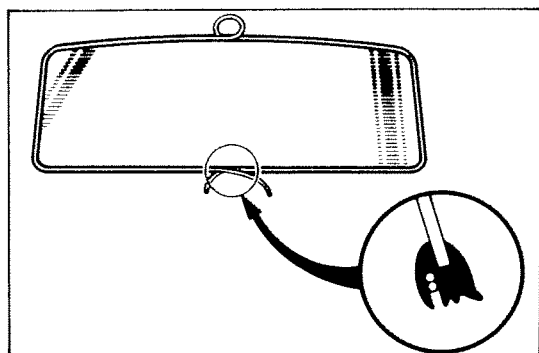
- (a) Apply soapy water to the contact face of the weather-strip and to the glass channel flange.
- (b) Install the two non-slide glasses.
- (c) Install the two fix frames.

2. INSTALL SLIDE GLASS

Install the two slide glasses at the center area of the glass channel.

3. INSTALL FOLLOWING PARTS:

- (a) Four screws holding the two fix frames
- (b) Back window slide glass channel stopper



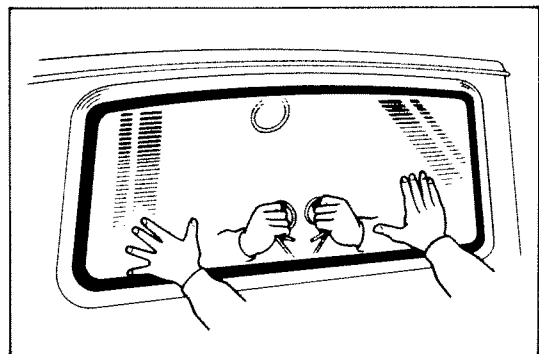
INSTALLATION OF BACK WINDOW

1. INSTALL WEATHERSTRIP ON BACK WINDOW

- (a) Attach the weatherstrip to the back window.

CAUTION: If the weatherstrip has become hard, it may develop water leaks. Use a new one if possible.

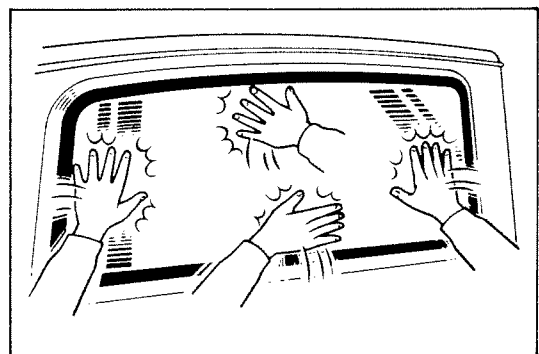
- (b) Apply a working cord along the weatherstrip groove as shown.



2. INSTALL BACK WINDOW

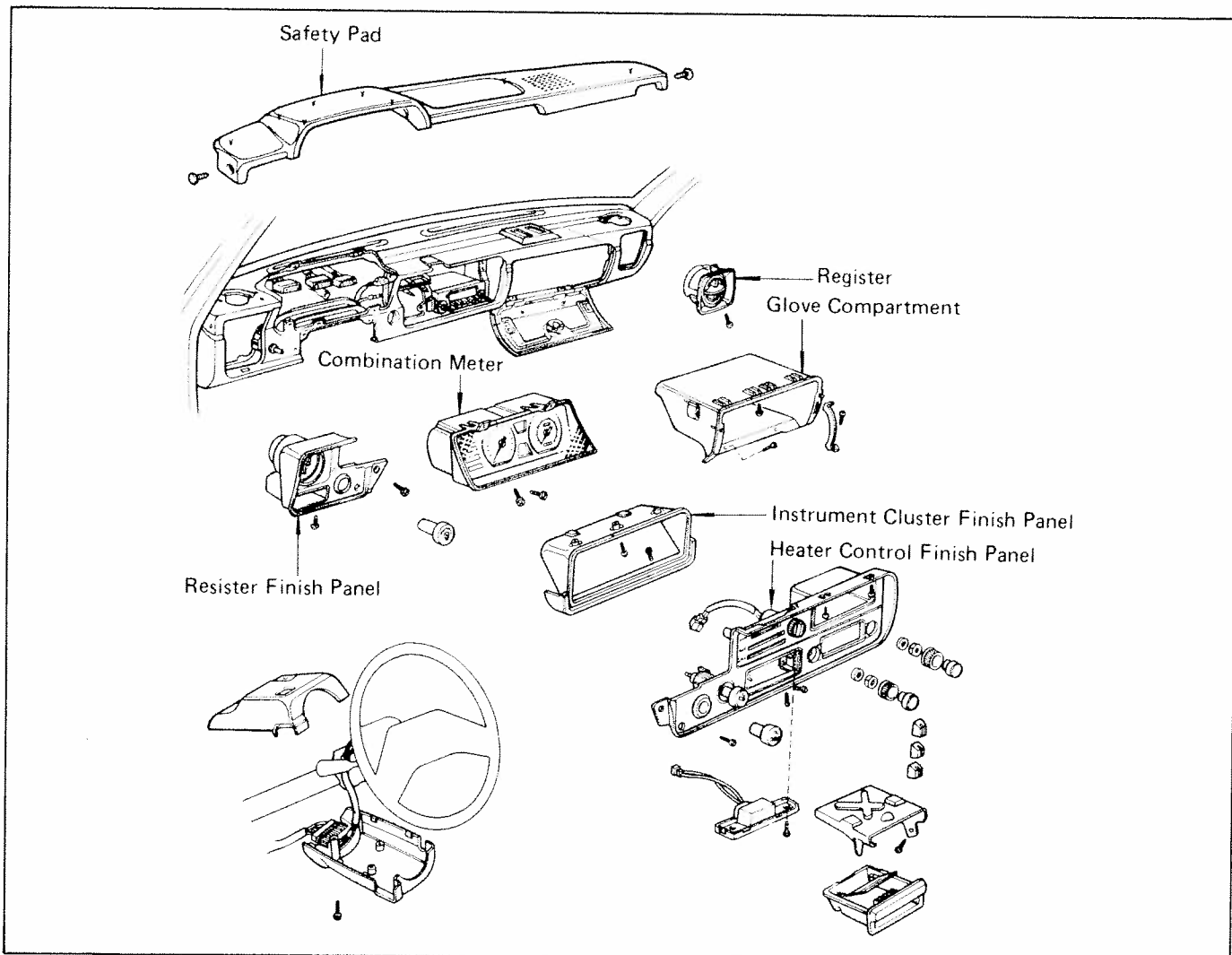
NOTE: Begin installation in the middle of the lower part of the glass.

- (a) Hold the back window in position on the body.
- (b) Install the back window by pulling cord from the interior, while pushing the outside of the weatherstrip with your open hand.



- (c) To settle the back window in place, tap from outside with your open hand.

SAFETY PAD

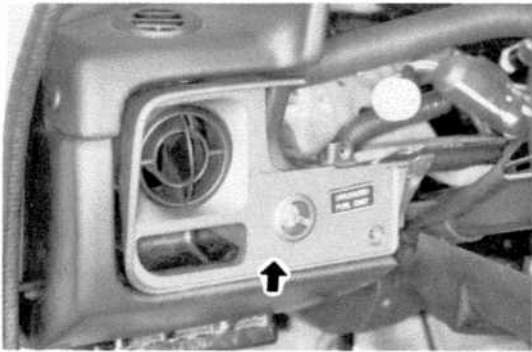


REMOVAL OF SAFETY PAD

1. DISCONNECT NEGATIVE CABLE FROM BATTERY TERMINAL
2. REMOVE COMBINATION METER (See page 17-25)



3. REMOVE HEATER CONTROL FINISH PANEL
 - (a) Remove the knobs from the radio and the heater control.
 - (b) Remove screws holding the panel.
 - (c) Disconnect four wiring connectors and remove the panel.

**4. REMOVE FOLLOWING PARTS:**

- (a) Register finish panel
- (b) Glove compartment
- (c) Register
- (d) Safety pad

INSTALLATION OF SAFETY PAD**1. INSTALL FOLLOWING PARTS:**

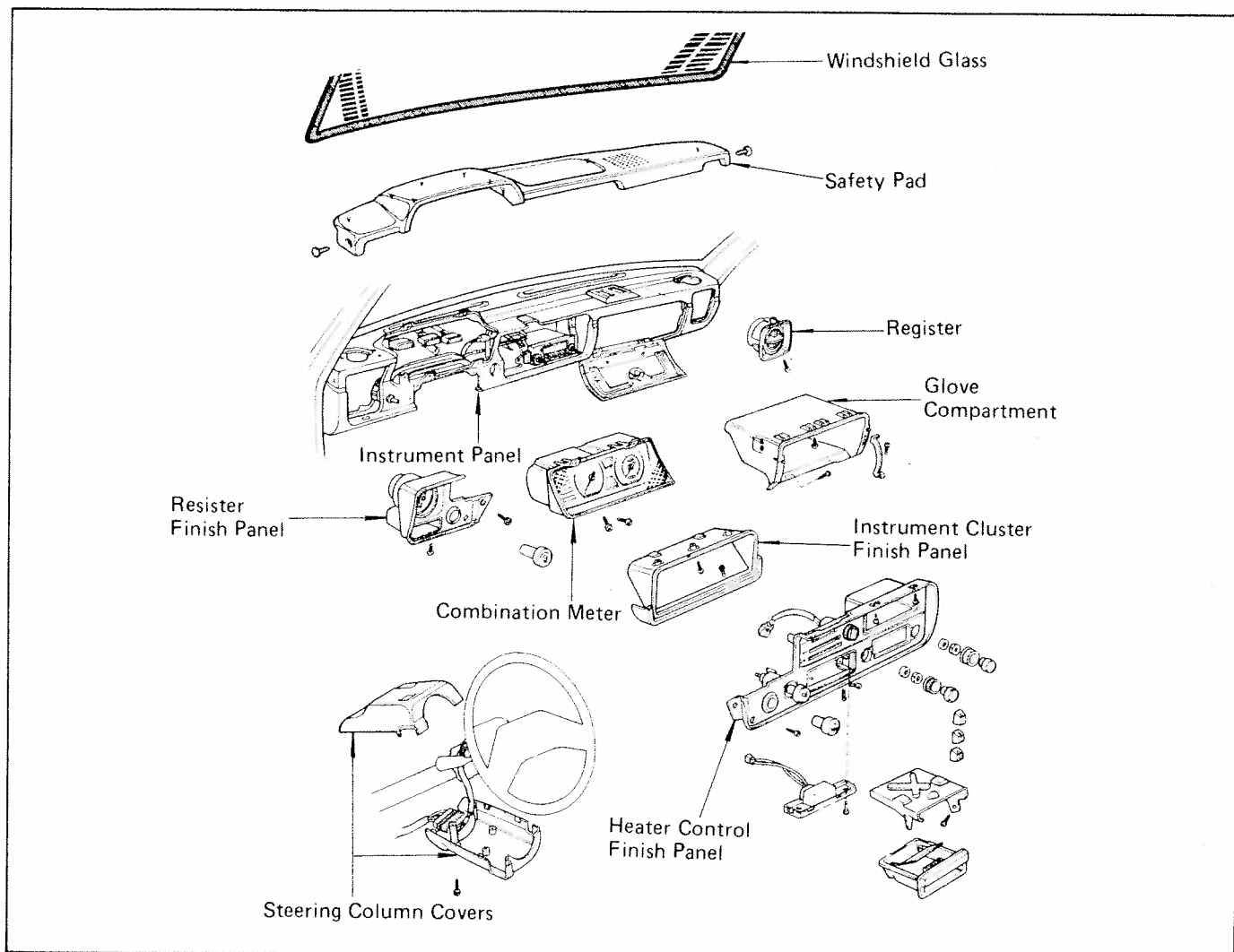
- (a) Safety pad
- (b) Register
- (c) Glove compartment
- (d) Register finish panel

2. INSTALL HEATER CONTROL FINISH PANEL

- (a) Connect four wiring connectors.
- (b) Install the panel with screws.
- (c) Install the knobs on the radio and the heater control.

3. INSTALL COMBINATION METER (See page 17-28)**4. INSTALL NEGATIVE CABLE TO BATTERY TERMINAL**

INSTRUMENT PANEL



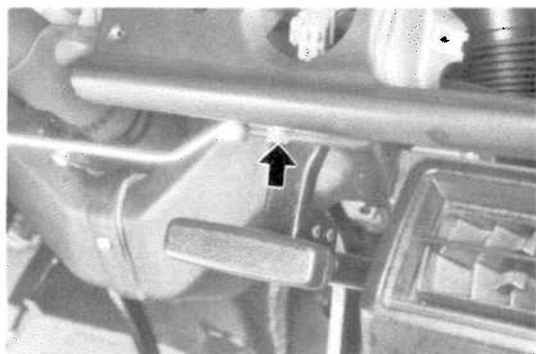
REMOVAL OF INSTRUMENT PANEL

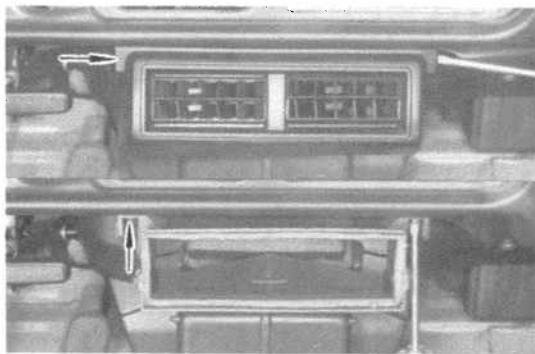
1. REMOVE FOLLOWING PARTS:

- Windshield glass (See page 18-14)
- Safety pad (See page 18-21)
- Heater control (See page 17-33)
- Fuse box

2. REMOVE PARKING BRAKE LEVER MOUNTING BOLTS AS SHOWN

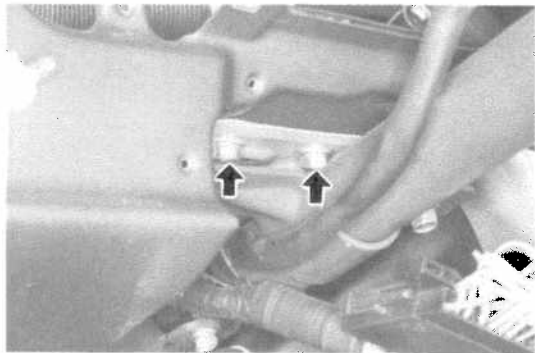
Remove two bolts.





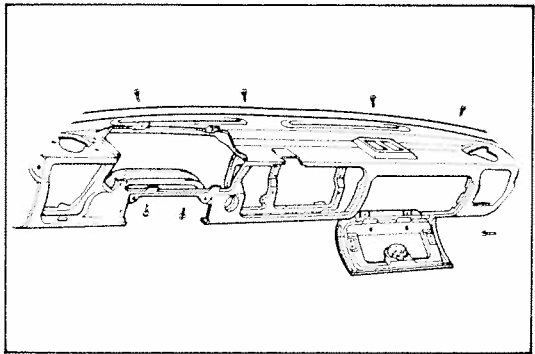
3. REMOVE HEATER UNIT MOUNTING SCREWS AS SHOWN

- (a) Remove two screws from the heater grille.
- (b) Remove two screws from the heater unit.



4. REMOVE BRAKE PEDAL SUPPORT MOUNTING BOLTS AS SHOWN

- (a) Remove two bolts from the steering column tube bracket.
- (b) Remove two bolts from the pedal support.



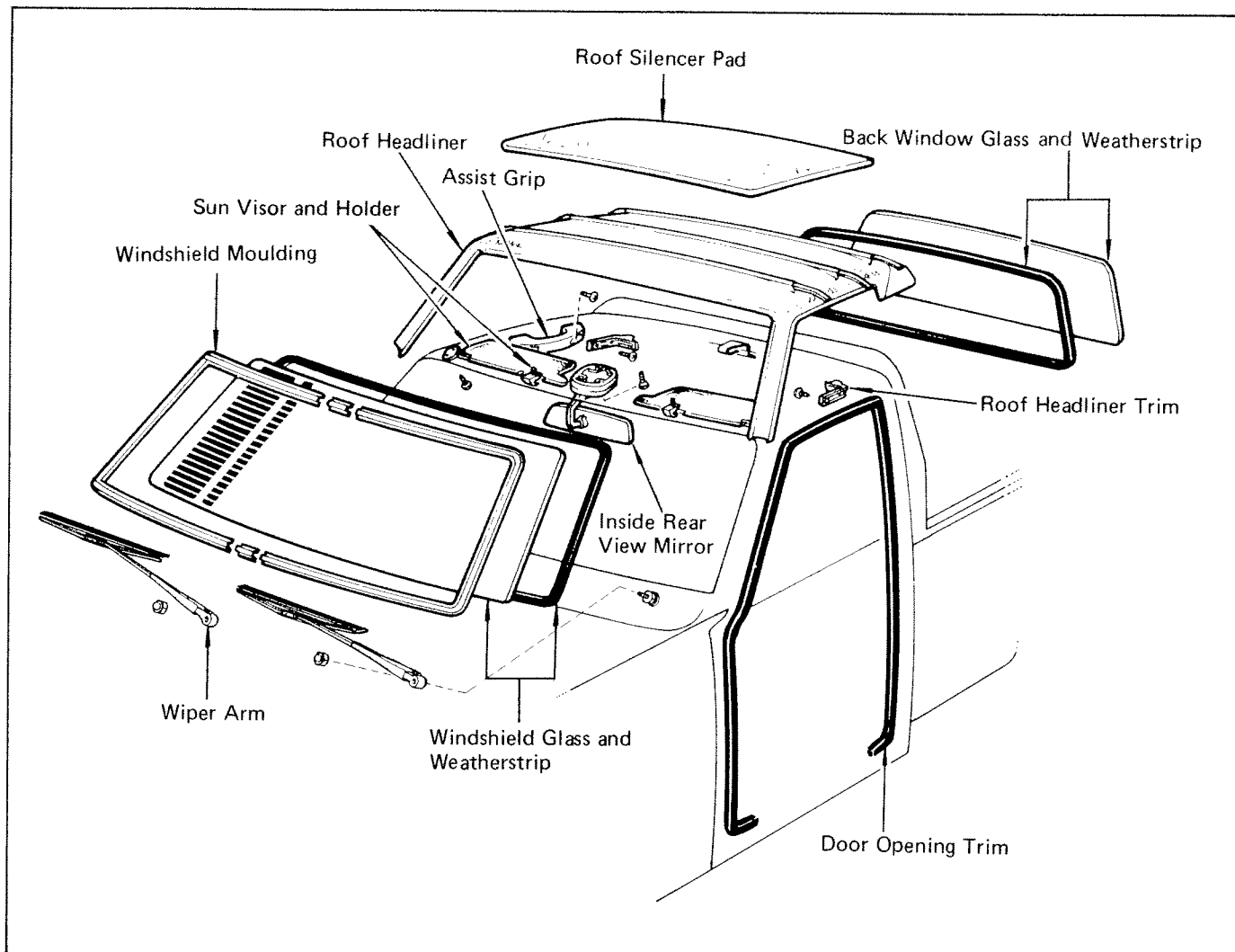
5. REMOVE INSTRUMENT PANEL

- (a) Remove screws holding the instrument panel.
- (b) Pull out the instrument panel.

INSTALLATION OF INSTRUMENT PANEL

INSTALL PARTS OF INSTRUMENT PANEL IN REVERSE ORDER OF REMOVAL

ROOF HEADLINER



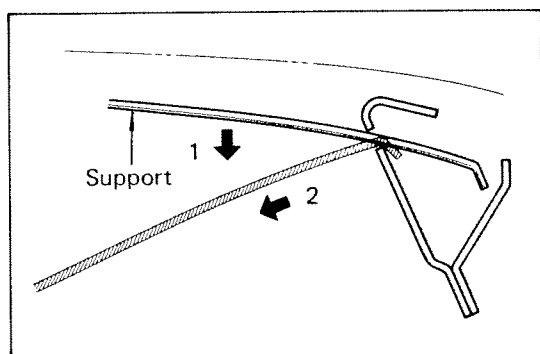
REMOVAL OF ROOF HEADLINER

1. REMOVE FOLLOWING PARTS:

- (a) Door opening trim
- (b) Windshield glass (See page 18-14)
- (c) Back window glass (See page 18-18)
- (d) Assist grip
- (e) Roof headliner trim

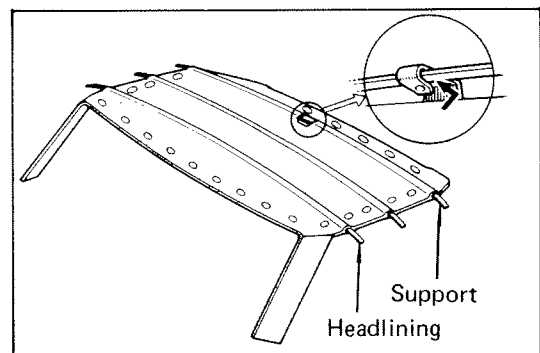
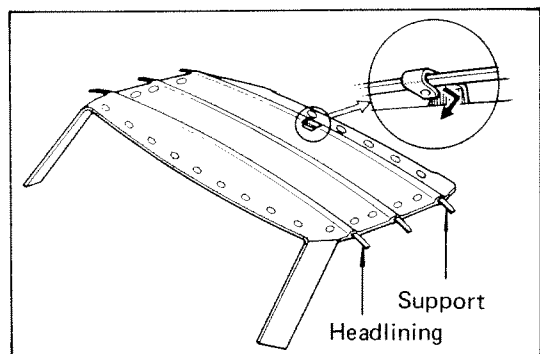
2. REMOVE HEADLINER

- (a) Tear off glued parts of the headliner.



NOTE: Begin with the front support and remove the supports in turn.

- (b) Tilt each support downward. Unhook the support hook on the rear.
- (c) Pull out the support downward from hole in the body retainer.
- (d) Remove support from the headliner.



INSTALLATION OF ROOF HEADLINER

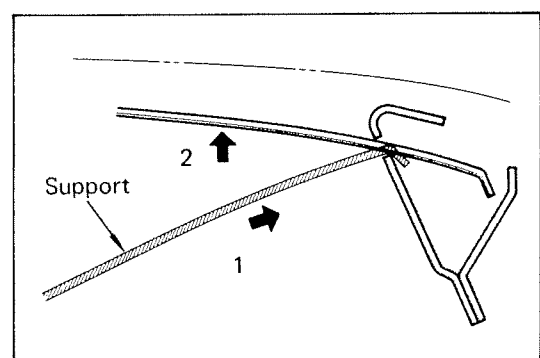
1. WIPE OLD ADHESIVE AND DIRT OFF BODY

2. INSTALL HEADLINER SUPPORTS

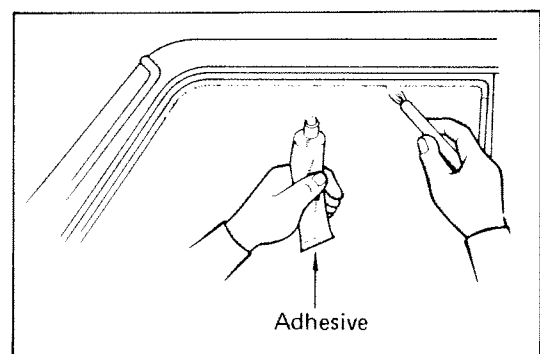
- (a) Insert the headliner supports through the headliner.
- (b) Install the support hook as shown.

- (c) Insert both support ends in holes in the body.

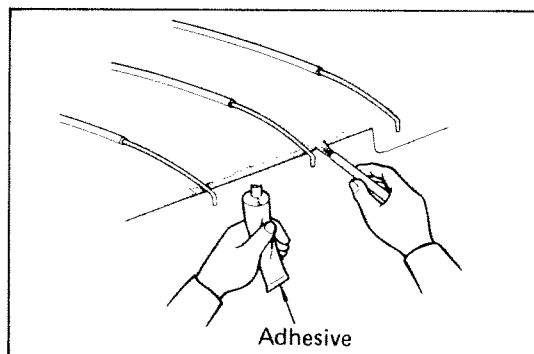
- (d) Pull supports up toward the roof to tighten the headliner.



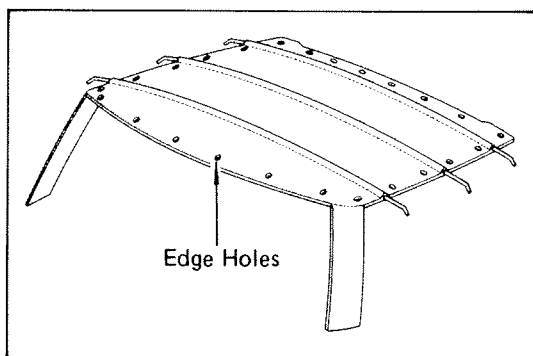
3. APPLY ADHESIVE



Roof headliner	Part No.	Part name
Vinyl leather	08704-00010	Weatherstrip adhesive super



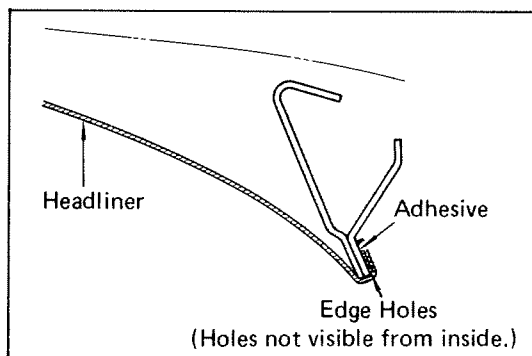
Apply a coat of adhesive to the edge of the headliner and the body surface where the headliner attaches.



4. INSTALL HEADLINER

NOTE: Allow the adhesive to dry 3 to 5 minutes before installing.

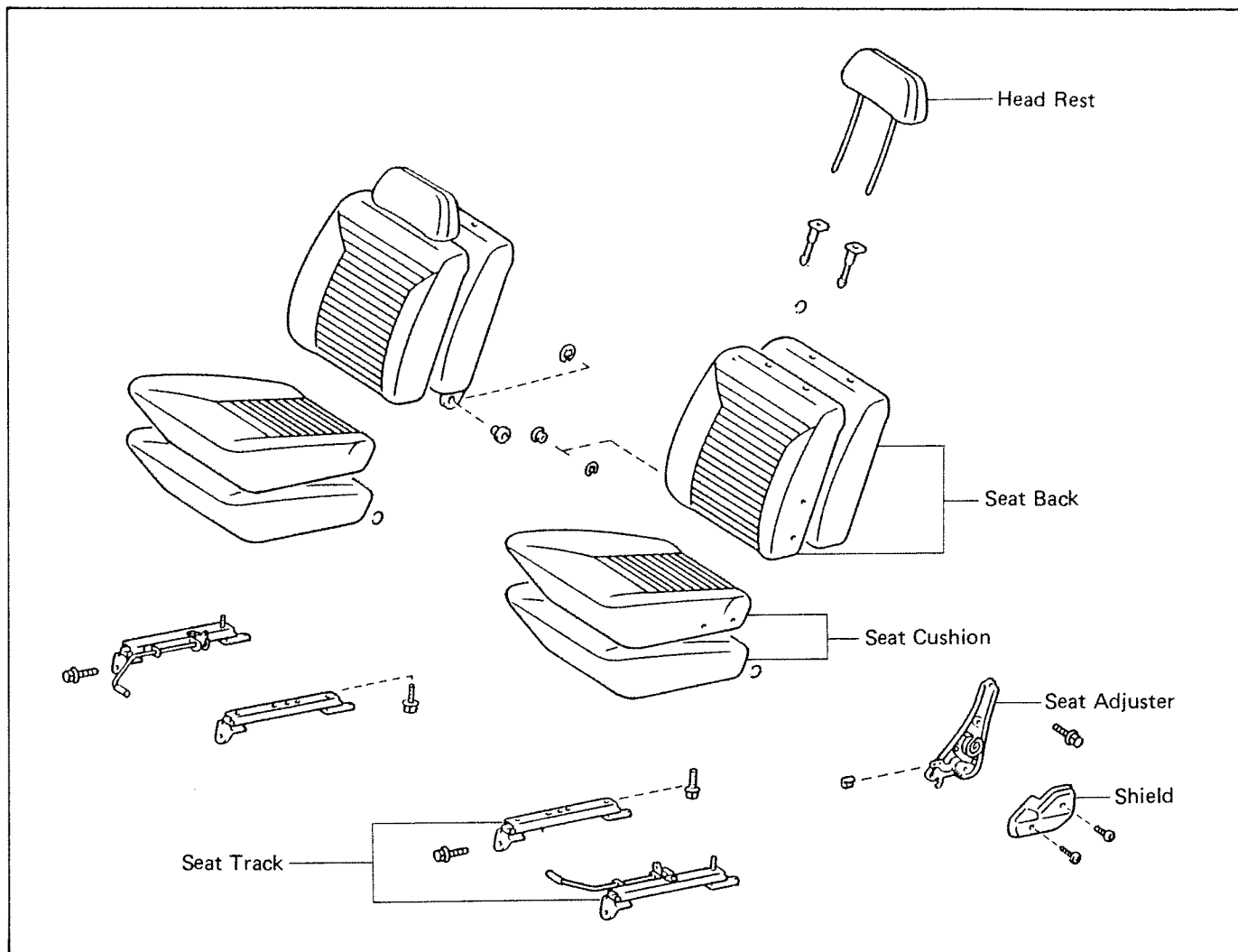
- (a) Position the headliner edge holes at the body surface where the headliner attaches.
- (b) Pull on the headliner until the edge holes cannot be seen from the inside and attach it so as to avoid wrinkling.



5. INSTALL FOLLOWING PARTS:

- (a) Roof headliner trim
- (b) Assist grip
- (c) Back window glass (See page 18-20)
- (d) Windshield glass (See page 18-15)
- (e) Door opening trim

SEAT (Separate Type)



REMOVAL OF SEAT

1. REMOVE SEAT

Remove four mounting bolts holding seat track and remove seat.

2. DISASSEMBLE AND REPAIR SEAT AS NECESSARY

INSTALLATION OF SEAT

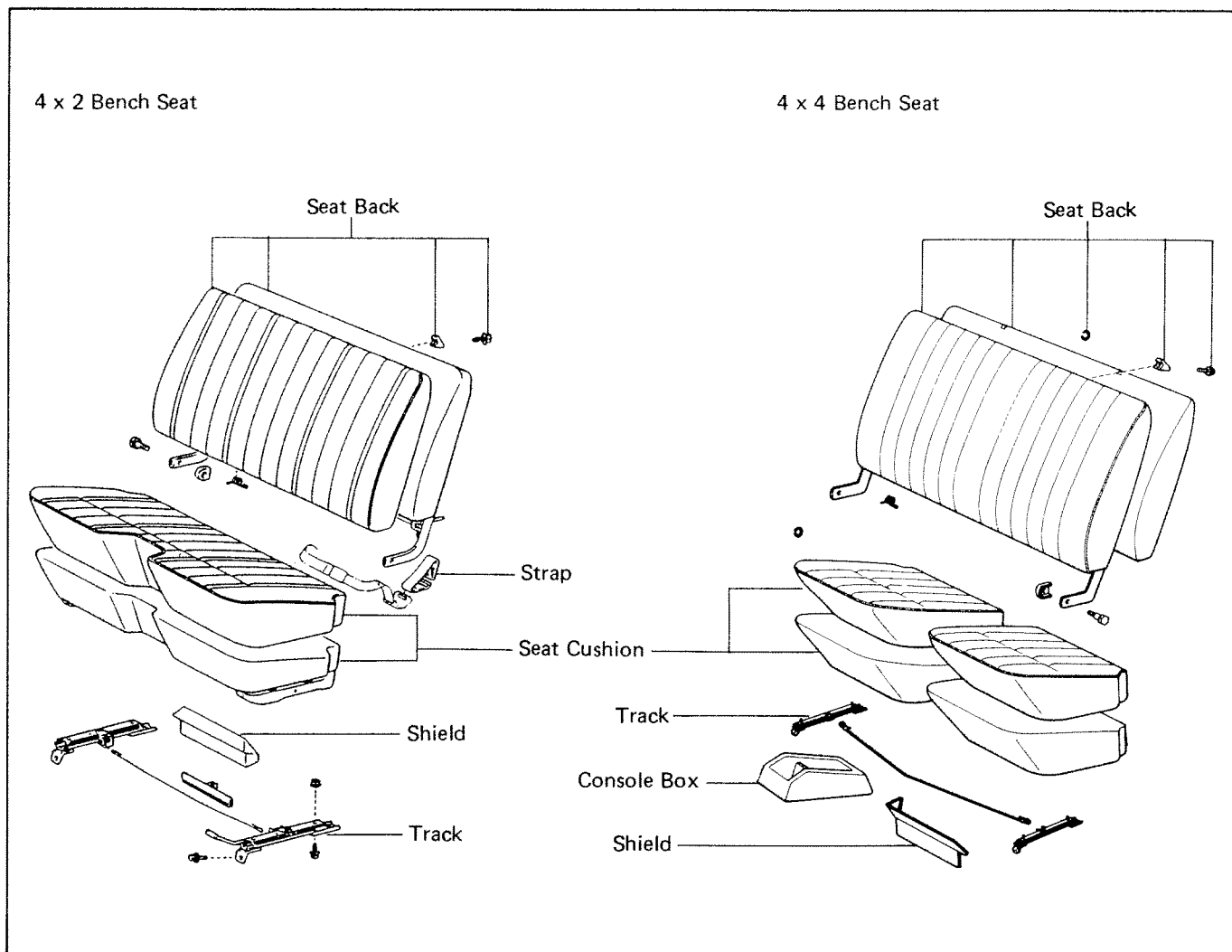
1. ASSEMBLE SEAT AS NECESSARY

2. INSTALL SEAT

Install four mounting bolts in the seat track. Torque bolts.

Torque: 200 – 300 kg-cm (15 – 22 ft-lb)

SEAT (Bench Type)



REMOVAL OF SEAT

1. REMOVE SEAT

Remove four mounting bolts holding seat track and remove seat.

2. DISASSEMBLE AND REPAIR SEAT AS NECESSARY

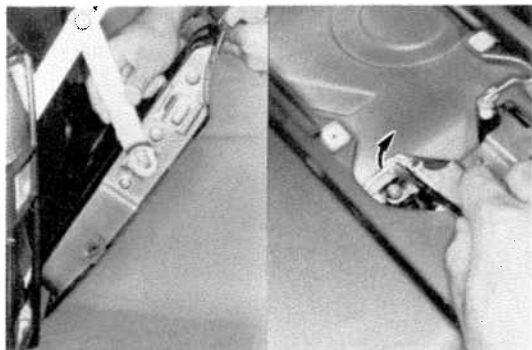
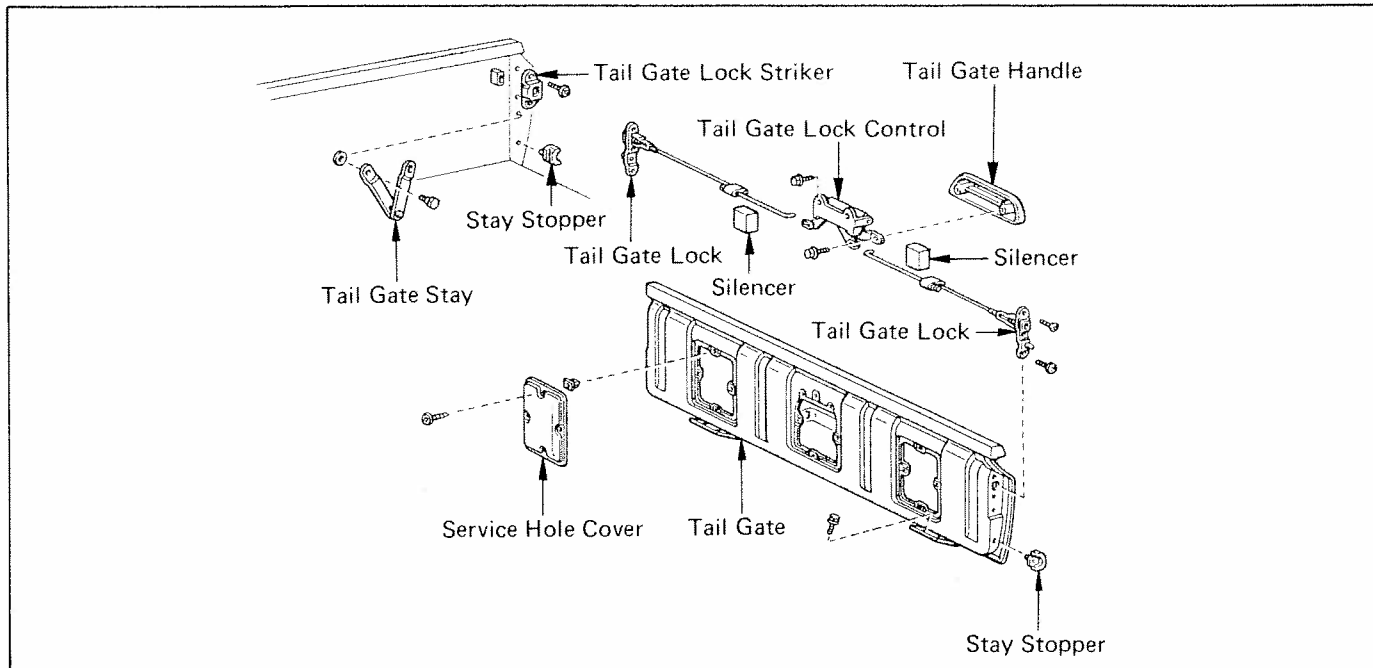
INSTALLATION OF SEAT

1. ASSEMBLE SEAT AS NECESSARY

2. INSTALL SEAT

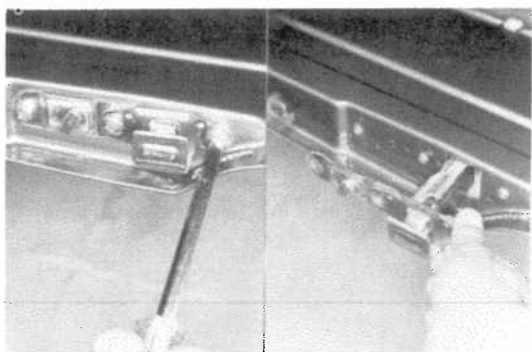
Install four mounting bolts in the seat track. Torque bolts.
Torque: 200 – 300 kg-cm (15 – 22 ft-lb)

ONE-TOUCH TAIL GATE



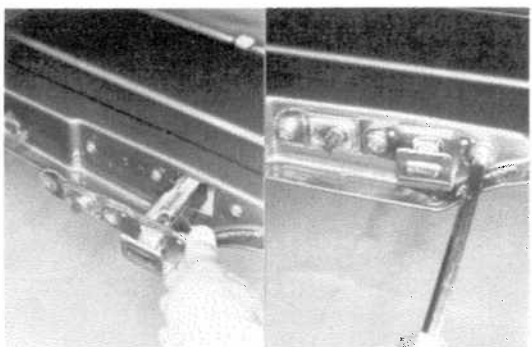
REMOVAL OF TAIL GATE LOCK

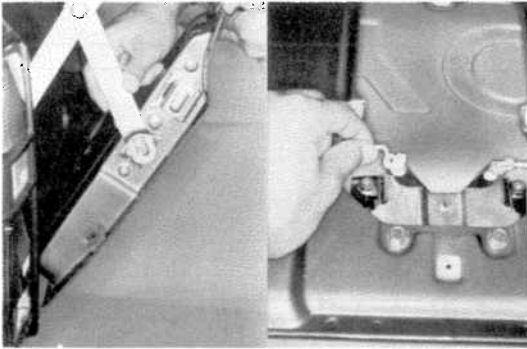
1. DISCONNECT TAIL GATE STAY FROM TAIL GATE LOCK
2. REMOVE SERVICE HOLE COVER
3. DISCONNECT TAIL GATE LOCK LINK FROM TAIL GATE LOCK CONTROL
4. REMOVE THREE SET SCREW FROM TAIL GATE LOCK
5. PULL OUT TAIL GATE LOCK FROM TAIL GATE



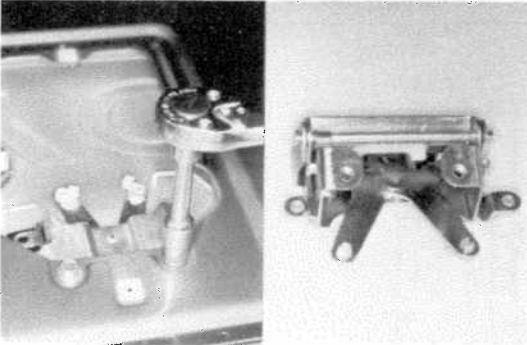
INSTALLATION OF TAIL GATE LOCK

1. PUT IN TAIL GATE LOCK TO TAIL GATE
2. INSTALL THREE SET SCREWS





3. CONNECT TAIL GATE STAY TO TAIL GATE LOCK
4. CONNECT TAIL GATE LOCK LINK TO TAIL GATE LOCK CONTROL
5. INSTALL SERVICE HOLE COVER

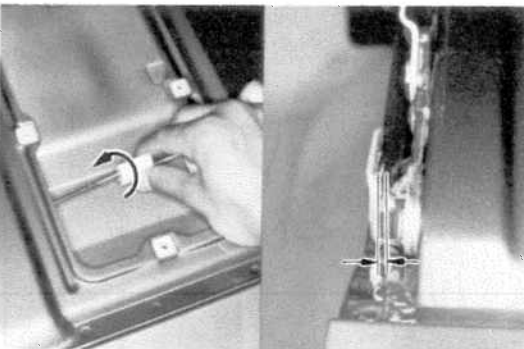


REMOVAL OF TAIL GATE LOCK CONTROL

1. REMOVE SERVICE HOLE COVER
2. DISCONNECT TWO TAIL GATE LOCK LINKS
3. REMOVE TAIL GATE LOCK HANDLE
4. REMOVE TAIL GATE LOCK CONTROL

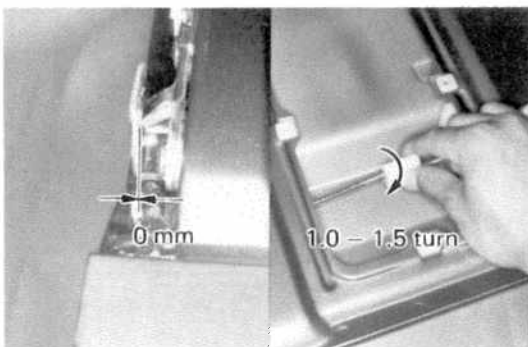
INSTALLATION OF TAIL GATE LOCK CONTROL

INSTALL TAIL GATE LOCK CONTROL IN REVERSE ORDER OF REMOVAL



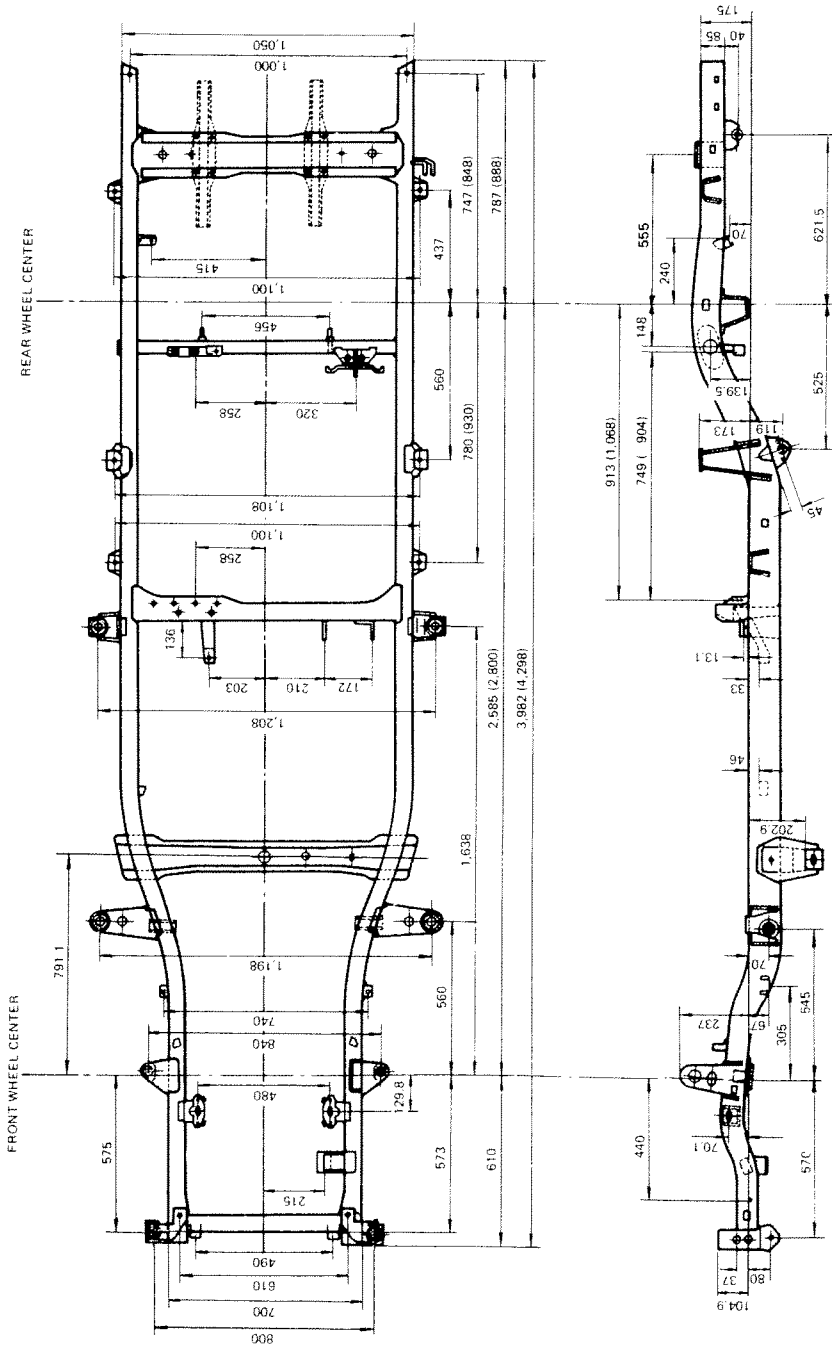
ADJUSTMENT OF TAIL GATE LOCK

1. REMOVE SERVICE HOLE COVER
2. ADJUST TAIL GATE LOCK
 - (a) Turn the snap until the bar separates from the plate.
 - (b) Turn the snap until the bar makes contact with the plate and then turn it one half to one turn further.
3. INSTALL SERVICE HOLE COVER



BODY DIMENSIONS (4 × 4)

Conversion table			
mm	in.	mm	in.
13.1	0.52	545	21.46
33	1.30	555	21.85
37	1.46	560	22.05
40	1.58	570	22.44
45	1.77	573	22.56
46	1.81	575	22.64
67	2.64	610	24.02
70	2.76	621.5	24.47
70.1	2.76	700	27.56
80	3.15	740	29.13
85	3.35	747	29.41
104.9	4.13	749	29.49
119	4.69	780	30.71
129.8	5.11	787	30.98
136	5.35	791.1	31.15
139.5	5.49	800	31.50
148	5.83	840	33.07
172	6.77	848	33.39
173	6.81	888	34.96
175	6.89	904	35.59
202.9	7.99	913	35.94
203	7.99	930	36.61
210	8.27	1,000	39.37
215	8.47	1,050	41.34
237	9.33	1,068	42.05
240	9.45	1,100	43.41
258	10.16	1,108	43.62
305	12.01	1,198	47.17
320	12.60	1,208	47.56
415	16.34	1,638	64.49
437	17.20	2,585	101.77
440	17.32	2,595	102.17
456	17.95	2,800	110.24
480	18.90	2,810	110.63
490	19.29	3,982	156.77
525	20.67	4,298	169.21



NOTE: The figures in parenthesis are for Long Wheel Base Vehicles.

RN 38 series	SHORT WHEEL BASE
RN 48 series	LONG WHEEL BASE

— MEMO —
