

# Body Electrical System

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# GENERAL

## GENERAL TROUBLESHOOTING INFORMATION

### BEFORE TROUBLESHOOTING

1. Check applicable fuses in the appropriate fuse/relay box.
2. Check the battery for damage, state of charge, and clean and tight connections.

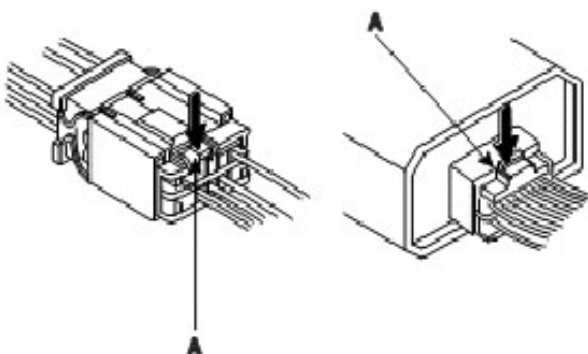
**NOTE**

- Do not quick-charge a battery unless the battery ground cable has been disconnected; otherwise you will damage the alternator diodes.
- Do not attempt to crank the engine with the battery ground cable loosely connected or you will severely damage the wiring.

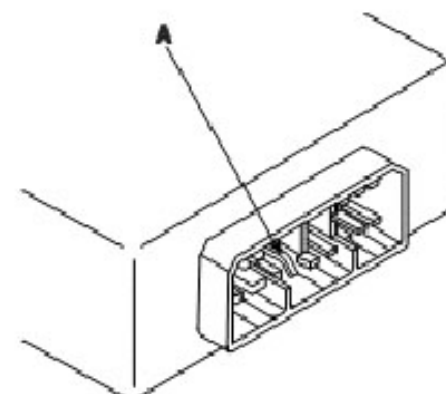
3. Check the alternator belt tension.

### HANDLING CONNECTORS

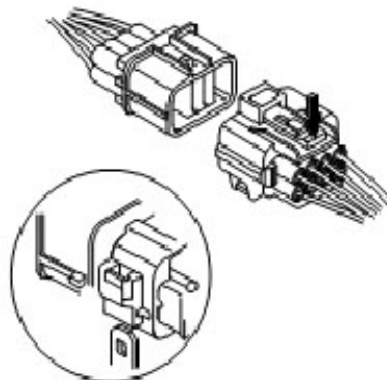
1. Make sure the connectors are clean and have no loose wire terminals.
2. Make sure multiple cavity connectors are packed with grease (except watertight connectors).
3. All connectors have push-down release type locks (A).



4. Some connectors have a clip on their side used to attach them to a mount bracket on the body or on another component. This clip has a pull type lock.

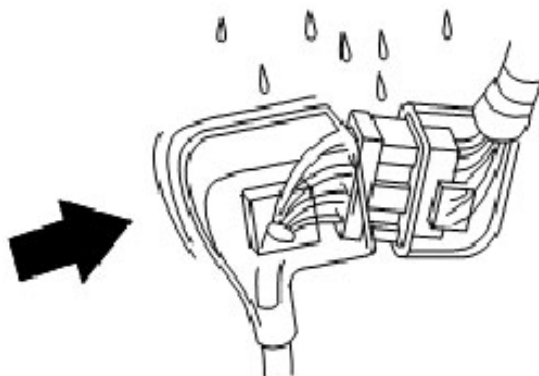


5. Some mounted connectors cannot be disconnected unless you first release the lock and remove the connector from its mount bracket.



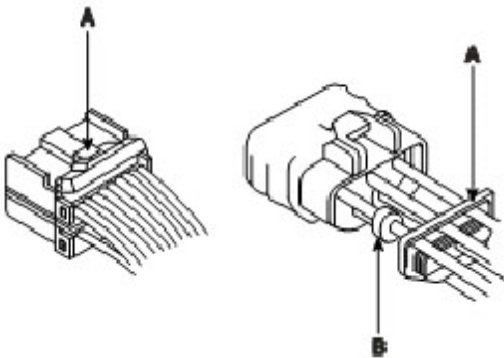
6. Never try to disconnect connectors by pulling on their wires; pull on the connector halves instead.

7. Always reinstall plastic covers.

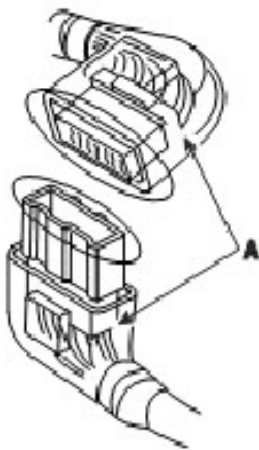


8. Before connecting connectors, make sure the terminals (A) are in place and not bent.

9. Check for loose retainer (A) and rubber seals (B).

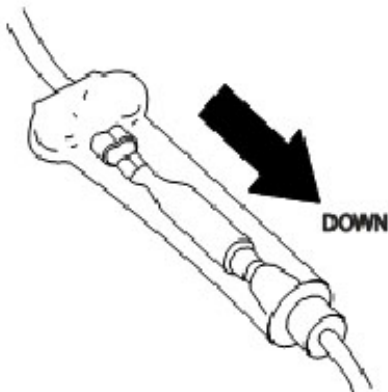


10. The backs of some connectors are packed with grease. Add grease if necessary. If the grease (A) is contaminated, replace it.



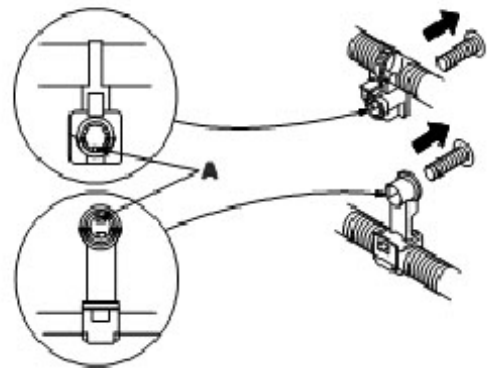
11. Insert the connector all the way and make sure it is securely locked.

12. Position wires so that the open end of the cover faces down.

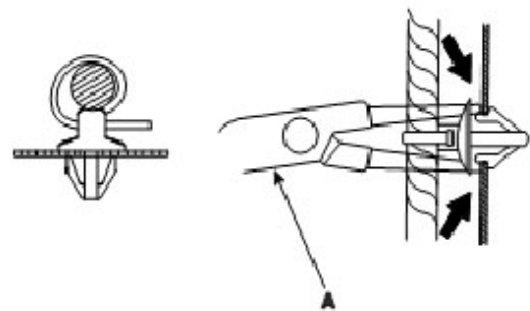


**HANDLING WIRES AND HARNESSSES**

1. Secure wires and wire harnesses to the frame with their respective wire ties at the designated locations.
2. Remove clips carefully; don't damage their locks (A).



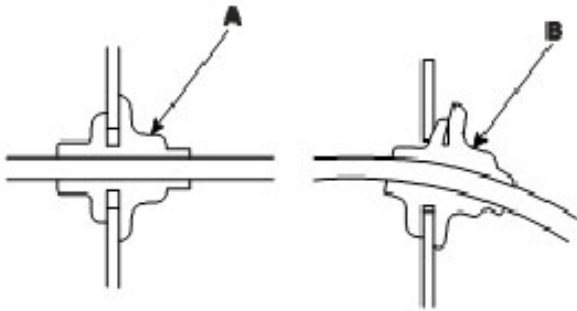
3. Slip pliers (A) under the clip base and through the hole at an angle, then squeeze the expansion tabs to release the clip.



4. After installing harness clips, make sure the harness doesn't interfere with any moving parts.

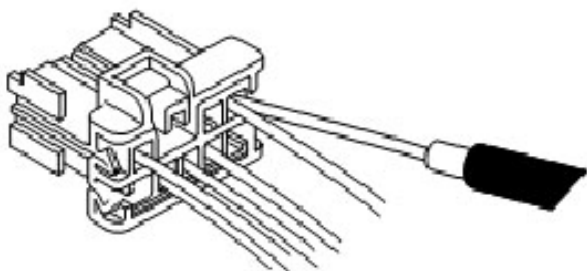
5. Keep wire harnesses away from exhaust pipes and other hot parts, from sharp edges of brackets and holes, and from exposed screws and bolts.

6. Seat grommets in their grooves properly (A). Do not leave grommets distorted (B).

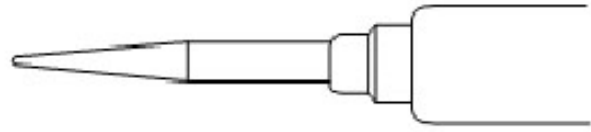


### TESTING AND REPAIRS

1. Do not use wires or harnesses with broken insulation. Replace them or repair them by wrapping the break with electrical tape.
2. After installing parts, make sure that no wires are pinched under them.
3. When using electrical test equipment, follow the manufacturer's instructions and those described in this manual.
4. If possible, insert the probe of the tester from the wire side (except waterproof connector).



5. Use a probe with a tapered tip.



### FIVE-STEP TROUBLESHOOTING

1. **Verify the complaint**  
Turn on all the components in the problem circuit to verify the customer complaint. Note the symptoms. Do not begin disassembly or testing until you have narrowed down the problem area.
2. **Analyze the schematic**  
Look up the schematic for the problem circuit. Determine how the circuit is supposed to work by tracing the current paths from the power feed through the circuit components to ground. If several circuits fail at the same time, the fuse or ground is a likely cause. Based on the symptoms and your understanding of the circuit operation, identify one or more possible causes of the problem.
3. **Isolate the problem by testing the circuit**  
Make circuit tests to check the diagnosis you made in Step 2. Keep in mind that a logical, simple procedure is the key to efficient troubleshooting. Test for the most likely cause of failure first. Try to make tests at points that are easily accessible.
4. **Fix the problem**  
Once the specific problem is identified, make the repair. Be sure to use proper tools and safe procedures.
5. **Make sure the circuit works**  
Turn on all components in the repaired circuit in all modes to make sure you've fixed the entire problem. If the problem was a blown fuse, be sure to test all of the circuits on the fuse. Make sure no new problems turn up and the original problem does not recur.

## TROUBLESHOOTING

## INSTRUMENTS AND WARNING SYSTEM

Symptom	Possible Cause	Remedy
Speedometer does not work	Cluster fuse (10A) blown	Check for short and replace fuse
	Speedometer faulty	Check speedometer
	Vehicle speed sensor faulty	Check vehicle speed sensor
	Wiring or ground faulty	Repair if necessary
Tachometer does not operate	Cluster fuse (10A) blown	Check for short and replace fuse
	Tachometer faulty	Check tachometer
	Wiring or ground faulty	Repair if necessary
Fuel gauge does not operate	Cluster fuse (10A) blown	Check for short and replace fuse
	Fuel gauge faulty	Check gauge
	Wiring or ground faulty	Repair if necessary
Low fuel warning lamp does not light up	Cluster fuse (10A) blown	Check for short and replace fuse
	Bulb burned out	Replace bulb
	Fuel sender faulty	Check fuel sender
	Wiring or ground faulty	Repair if necessary
Water temperature (high/low) lamp does not light up	Cluster fuse (10A) blown	Check for short and replace fuse
	Bulb burned out	Replace bulb
	Water temperature sender faulty	Check sender
	Wiring or ground faulty	Repair if necessary
Oil pressure warning lamp does not light up	Cluster fuse (10A) blown	Check for short and replace fuse
	Bulb burned out	Replace bulb
	Oil pressure switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary
Parking brake warning lamp does not light up	Cluster fuse (10A) blown	Check for short and replace fuse
	Bulb burned out	Replace bulb
	Brake fluid level warning switch faulty	Check switch
	Parking brake switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary

## LIGHTING SYSTEM

Symptom	Possible Cause	Remedy
One lamp does not light (all exterior)	Bulb burned out	Replace bulb
	Socket, wiring or ground faulty	Repair if necessary
Head lamps do not light	Bulb burned out	Replace bulb
	Ignition fuse (30A) blown	Check for short and replace fuse
	Head lamp fuse (10A) blown	Check for short and replace fuse
	Lighting switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary
Tail lamps and license plate lamps do not light	Bulb burned out	Replace bulb
	Tail lamp fuse (10A) blown	Check for short and replace fuse
	Battery fuse (30A) blown	Replace the fuse
	Tail lamp relay faulty	Check relay
	Lighting switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary
Stop lamps do not light	Bulb burned out	Replace bulb
	Stop lamp fuse (10A) blown	Check for short and replace fuse
	Stop lamp switch faulty	Adjust or replace switch
	Wiring or ground faulty	Repair if necessary
Stop lamps do not turn off	Stop lamp switch faulty	Repair or replace switch
Instrument lamps do not light (Tail lamps light)	Rheostat faulty	Check rheostat
	Wiring or ground faulty	Repair if necessary
Turn signal lamp does not flash on one side	Bulb burned out	Replace bulb
	Turn signal switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary
Turn signal lamp does not light	Bulb burned out	Replace bulb
	Turn signal fuse (10A) blown	Check for short and replace fuse
	Flasher unit faulty	Check flasher unit
	Turn signal switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary
Hazard warning lamps do not light	Bulb burned out	Replace bulb
	Hazard warning lamp fuse (15A) blown	Check for short and replace fuse
	Flasher unit faulty	Check flasher unit
	Hazard switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary
Flasher rate too slow or too fast	Lamp's wattages are smaller or larger than specified	Replace lamps
	Flasher unit faulty	Check flasher unit

<b>Symptom</b>	<b>Possible cause</b>	<b>Remedy</b>
Back up lamps do not light	Bulb burned out	Replace bulb
	Turn signal lamp fuse (10A) blown	Check for short and replace fuse
	Transaxle range switch (A/T) faulty	Check switch
Room lamp does not light	Bulb burned out	Replace bulb
	Room lamp fuse (15A) blown	Check for short and replace fuse
	Room lamp switch faulty	Check switch
	Wiring or ground faulty	Repair if necessary

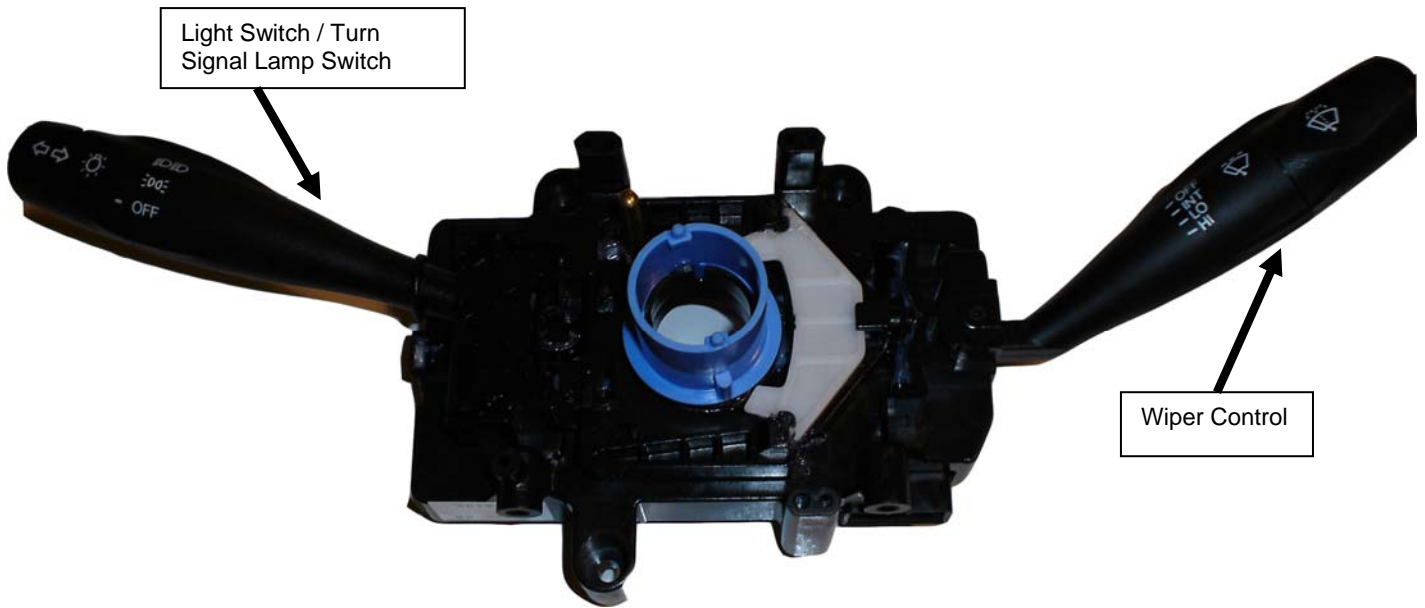
## MULTI FUNCTION SWITCH

### SPECIFICATIONS

Items	Specifications
Rated voltage	DC 12V
Operating temperature range	-30°C ~ +80°C (-22 ~ +176°F)
Rated load Dimmer & passing switch  Lighting switch Turn signal & lane change switch Wiper & mist switch  Washer switch	High: 230W (Lamp load) Low: 110W (Lamp load) Passing: 230W (Lamp load) Lighting: 21W (Lamp load) 69W (Lamp load) Low, High: 5.0A (Motor load) Intermittent: 7mA (Intermittent circuit load) Lock: Max. 25A (Motor load) Mist: 5.0A (Motor load) 5.0A (Motor load)



COMPONENTS



**INSPECTION**

**LIGHTING SWITCH INSPECTION**

With the multi function switch in each position, make sure that continuity exists between the terminals below. If continuity is not as specified, replace the multi-function switch.



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

**LIGHTING SWITCH**

Position	Terminal				
	1	2	3	4	5
OFF					
I	●	●			
II	●	●	●		●

**DIMMER AND PASSING SWITCH**

Position	Terminal		
	3	4	5
HU		●	●
HL	●	●	
Position		●	●

HU: Head lamp high beam  
 HL: Head lamp low beam  
 P : Head lamp passing switch

**TURN SIGNAL SWITCH**

Hazard Switch	Turn Signal Switch	Terminal		
		16	17	18
OFF	L		●	●
	N			
	R	●	●	

**WIPER AND WASHER SWITCH INSPECTION**



5	6	7	8	9	10

With the multi function switch in each position, make sure that continuity exists between the terminals below. If continuity is not as specified, replace the multi-function switch.

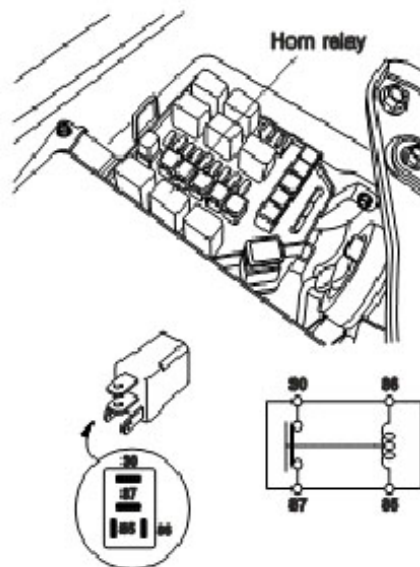
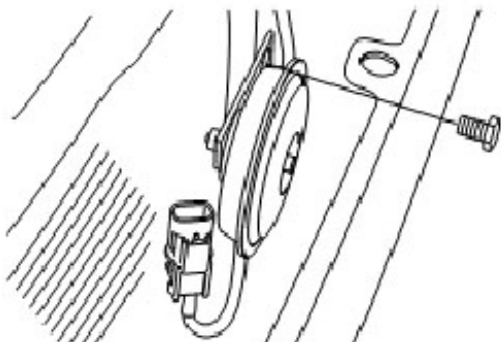
**WIPER SWITCH**

Position	Terminal					
	5	6	7	8	9	10
WASH				●	●	●
OFF			●	●		
INT				●	●	
LOW		●			●	
HI	●				●	

# HORN

## REPLACEMENT

1. Remove the windshield washer bottle mounting bracket after opening the hood.
2. Remove the bolt and disconnect the horn connector, then remove the horn.



3. Installation is the reverse of removal.

## INSPECTION

Test the horn by connecting battery voltage to the 1 terminal and ground the 2 terminal.

The horn should make a sound. If the horn fails to make a sound, replace it.

### HORN RELAY INSPECTION

1. Remove the horn relay from the relay box under the dash.
2. Check for continuity between the terminals.
3. There should be continuity between the No.87 and No.30 terminals when power and ground are connected to the No.86 and No.85 terminals.
4. There should be no continuity between the No.87 and No.30 terminals when power is disconnected.

Terminal	30	87	85	86
Power				
Disconnected			○—○	
Connected	○—○		○—○	⊕

## ADJUSTMENT

Operate the horn, and adjust the tone to a suitable level by turning the adjusting screw.

### NOTE

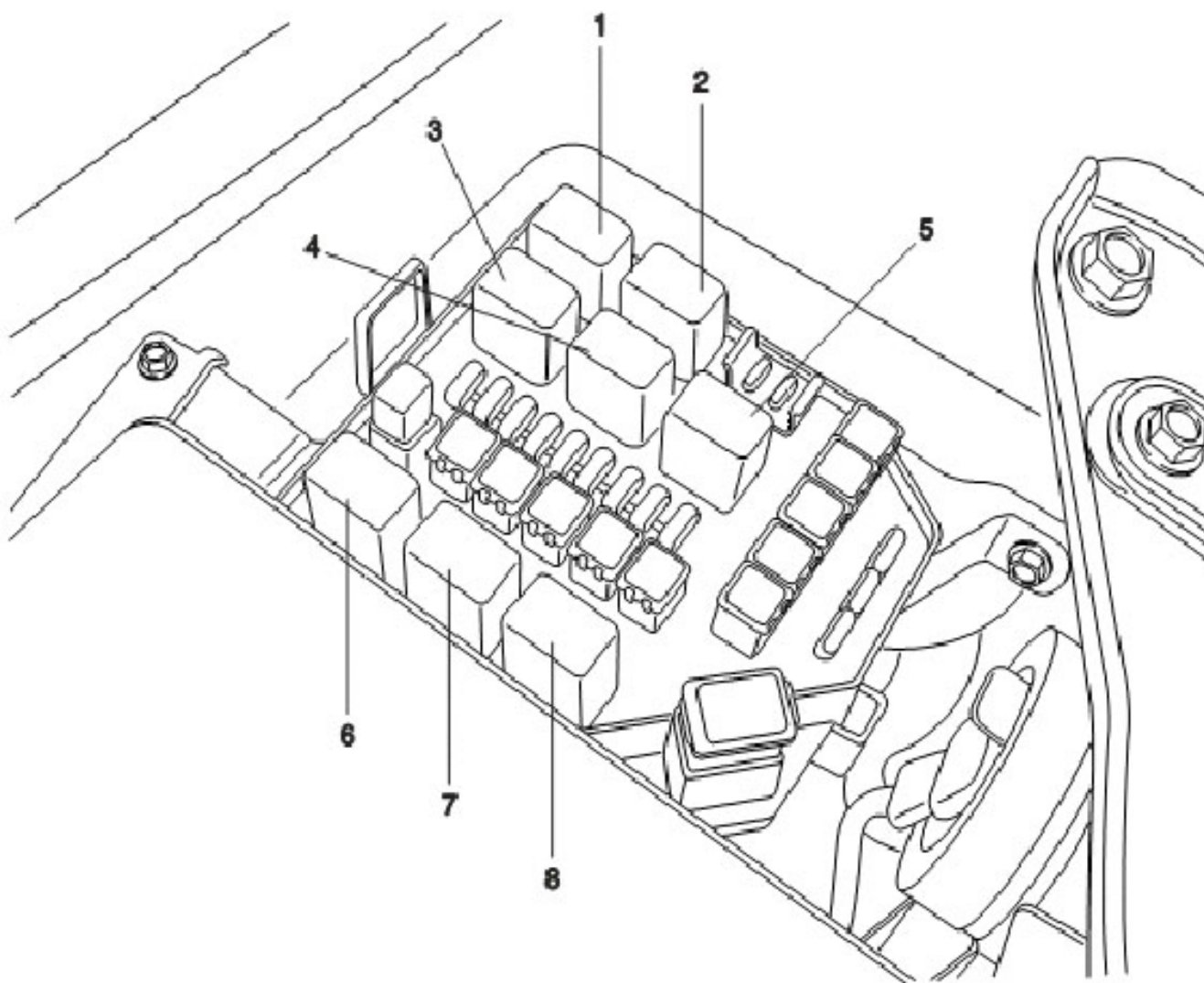
After adjustment, apply a small amount of paint around the screw head to keep it from loosening.



## FUSES AND RELAYS

### RELAY BOX (ENGINE COMPARTMENT)

#### COMPONENTS



1. Radiator fan 1 relay
2. Not Used
3. Air conditioner relay
4. Start relay

5. Tail lamp relay
6. Not Used
7. Horn relay
8. Not Used

## RELAY TYPE AND FUSE CAPACITY

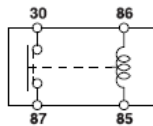
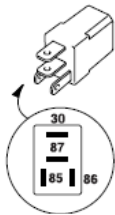
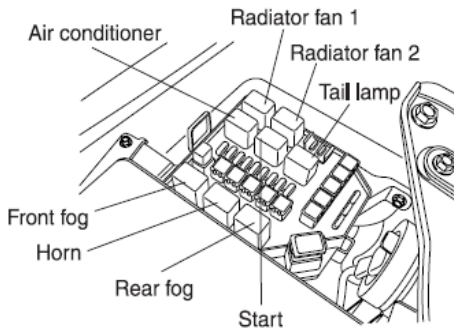
Description	Title	Type & Capacity
Relays	Radiator fan 1	B TYPE
	Air conditioner	B TYPE
	Start	B TYPE
	Tail lamp	B TYPE
	Horn	B TYPE
Fuses	ECU 1	20A
	ECU 2	10A
	Radiator	30A
	IG 1	30A
	IG 2	30A
	Battery 1	30A
	Battery 2	30A
	Tail lamp - left	10A
	Tail lamp - right	10A
	Stop lamp	10A
	Horn	10A
	DRL	10A
	Hazard lamp	15A
	Blower motor	30A
	Air conditioner	10A
Battery	100A	

**INSPECTION**

**POWER RELAY TEST (TYPE B)**

Check for continuity between the terminals.

1. There should be continuity between the No.30 and No.87 terminals when power and ground are connected to the No.85 and No.86 terminals.
2. There should be no continuity between the No.30 and No.87 terminals when power is disconnected.



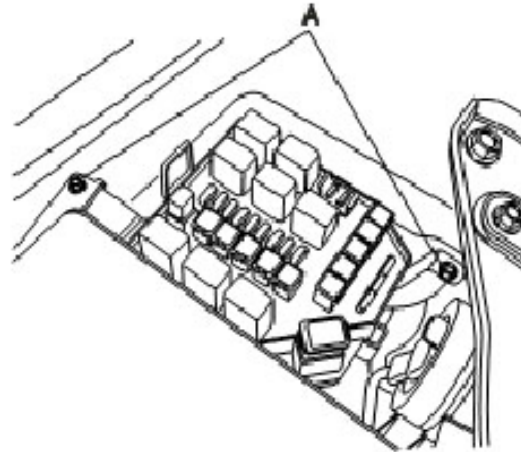
Terminal	30	87	85	86
Power				
Disconnected			○ — ○	
Connected	○ — ○		○ — ○	+

**FUSE INSPECTION**

1. Be sure there is no play in the fuse holders, and that the fuses are held securely.
2. Are the fuse capacities for each circuit correct?
3. Are there any blown fuses?  
If a fuse is to be replaced, be sure to use a new fuse of the same capacity. Always determine why the fuse blew first and completely eliminate the problem before installing a new fuse.

**REPLACEMENT**

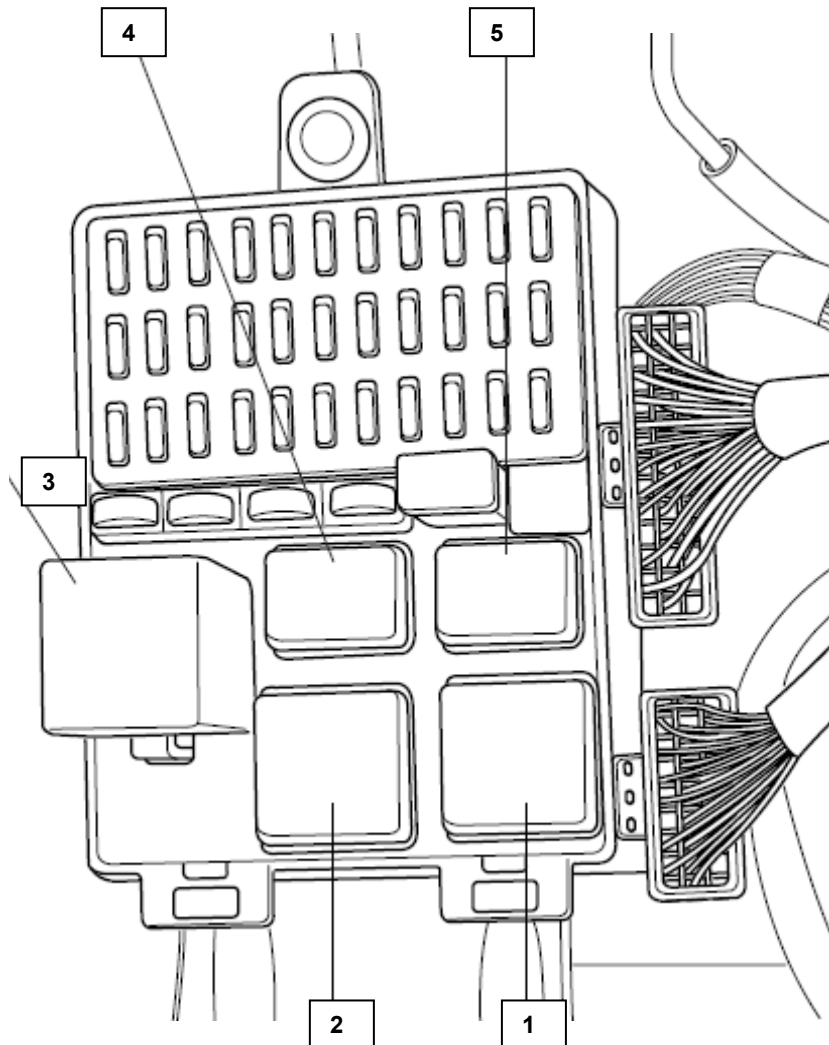
1. Remove the relay box cover.
2. Remove the positive (+) battery terminal.
3. Loosen the mounting bolts of relay box (A).



4. Remove the relay box after disconnecting connectors (A).
5. Installation is the reverse of removal.

## RELAY BOX

### COMPONENTS



1. Not Used

2. Blower Relay

3. Flasher Unit

4. Not Used

5. Fuel Pump Relay

## RELAY TYPE AND FUSE CAPACITY

Description	Title	Type & Capacity
Relays	Fuel pump	B TYPE
	Blower	A TYPE
Fuses	Cigar lighter	15A
	Start	10A
	Air conditioner	10A
	Front wiper	20A
	Fuel pump	10A
	Cluster	10A
	Turn signal lamp	10A
	Head lamp (Left)	10A
	Head lamp (Right)	10A
	TCU	15A
	Ignition coil	15A
	Sensor	10A
	Injector	15A

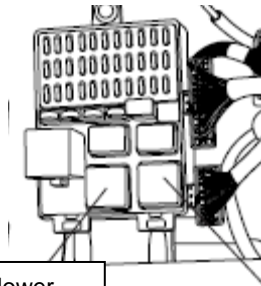


**INSPECTION**

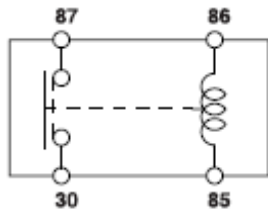
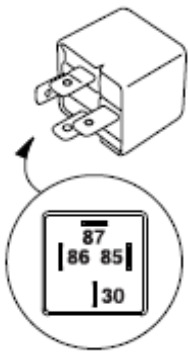
**POWER RELAY TEST (TYPE A)**

Check for continuity between the terminals.

1. There should be continuity between the No.30 and No.87 terminals when power and ground are connected to the No.85 and No.86 terminals.
2. There should be no continuity between the No.30 and No.87 terminals when power is disconnected.



Blower Relay

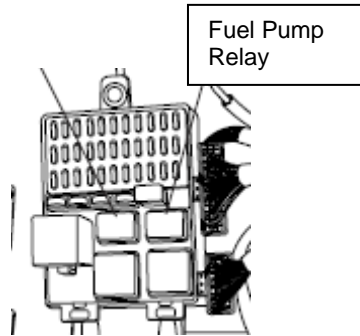


Terminal	30	87	85	86
Power				
Disconnected			○ — ○	
Connected	○ — ○		⊖ — ⊕	

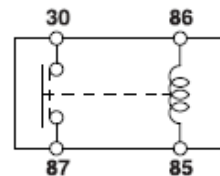
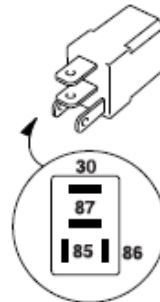
**POWER RELAY TEST (TYPE B)**

Check for continuity between the terminals.

1. There should be continuity between the No.30 and No.87 terminals when power and ground are connected to the No.85 and No.86 terminals.
2. There should be no continuity between the No.30 and No.87 terminals when power is disconnected.



Fuel Pump Relay



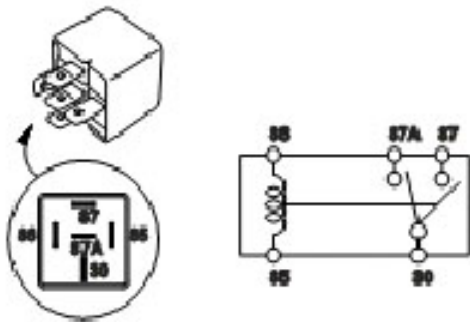
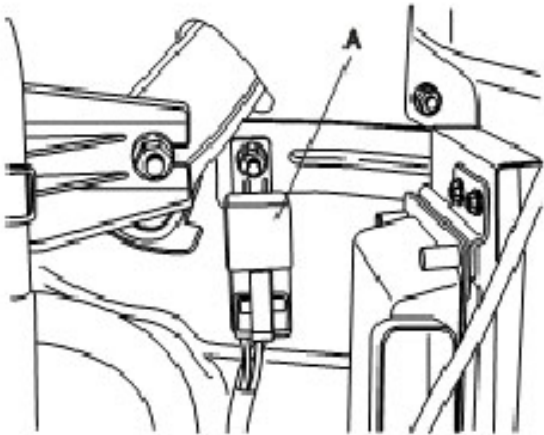
Terminal	30	87	85	86
Power				
Disconnected			○ — ○	
Connected	○ — ○		⊖ — ⊕	

**FUSE INSPECTION**

1. Be sure there is no play in the fuse holders, and that the fuses are held securely.
2. Are the fuse capacities for each circuit correct?
3. Are there any blown fuses?  
If a fuse is to be replaced, be sure to use a new fuse of the same capacity. Always determine why the fuse blew first and completely eliminate the problem before installing a new fuse.

**MAIN RELAY TEST**

1. Relay located in electrical box in engine compartment.



2. There should be continuity between the No.30, No.87 and No.87A terminals of main relay (A) when power and ground are connected to the No.85 and No.86 terminals.

3. There should be no continuity between the No.30, No.87 and No.87A terminals when power is disconnected.

Terminal	85	86	30	87	87A
Power					
Disconnected	○	○			
Connected	⊖	⊕	○	○	○

## INDICATORS AND GAUGES INSTRUMENT CLUSTER REPLACEMENT

1. Disconnect the (-) battery terminal.
2. Remove the complete dash cover to access cluster mounting hardware.



3. Installation is the reverse of removal.

## INSPECTION

### SPEEDOMETER

1. Adjust the pressure of the tires to the specified level.
2. Drive the vehicle onto a speedometer tester. Use wheel blocks as appropriate.
3. Check if the speedometer indicator range is within the standard values (shown below).

Velocity (km/h)	20	40	60	80
Tolerance (km/h)	+ 4.0 + 0.5	+ 5.0 + 1.0	+ 6.0 + 2.0	+ 7.0 + 3.0

Velocity (MPH)	10	20	40	60
Tolerance (MPH)	+ 3.0 + 0.5	+ 3.0 + 0.5	+ 3.6 + 0.7	+ 4.4 + 1.0

**CAUTION**

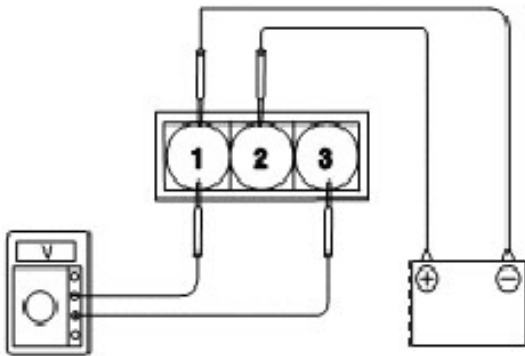
**Do not operate the clutch suddenly or increase/decrease speed rapidly while testing.**

**NOTE**

*Tire wears and tire over or under inflation will increase the indication error.*

**VEHICLE SPEED SENSOR**

1. Connect the positive (+) lead from battery to terminal 2 and negative (-) lead to terminal 1.
2. Connect the positive (+) lead from tester to terminal 3 and the negative (-) lead to terminal 1.
3. Rotate the shaft.
4. Check that there is voltage change from approx. 0V to 11V or more between terminals 1 and 3.
5. The voltage change should be 4 times for every revolution of the speed sensor shaft. If operation is not as specified, replace the sensor.

**TACHOMETER**

1. Connect the scan tool to the diagnostic link connector or install a tachometer.
2. With the engine started, compare the readings of the tester with that of the tachometer. Replace the tachometer if the tolerance is exceeded.

Revolution (RPM)	1,000	2,000	3,000	4,000
Tolerance (RPM)	± 100	± 125	± 150	± 150

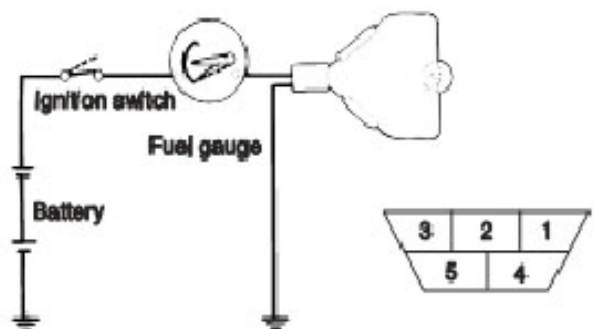
Revolution (RPM)	5,000	6,000	7,000	-
Tolerance (RPM)	± 150	± 150	± 150	-

**CAUTION**

- **Reversing the connections of the tachometer will damage the transistor and diodes inside.**
- **When removing or installing the tachometer, be careful not to drop it or subject it to severe shock.**

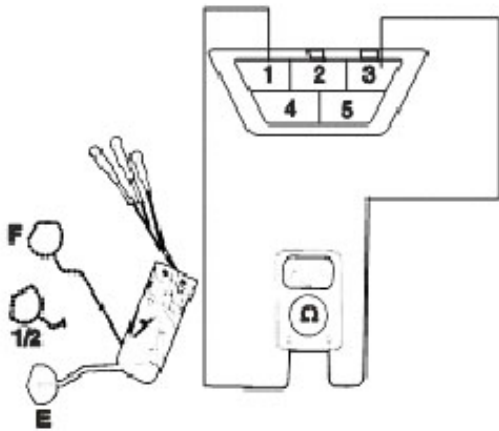
**FUEL GAUGE**

1. Disconnect the fuel sender connector from the fuel sender.
2. Connect a 3.4 wattages, 12V test bulb to terminals 1 and 3 on the wire harness side connector.
3. Turn the ignition switch to the ON, and then check that the bulb lights up and the fuel gauge needle moves to full.



**FUEL SENDER**

- Using an ohmmeter, measure the resistance between terminals 1 and 3 at each float level.



- Also check that the resistance changes smoothly when the float is moved from "E" to "F".

Position	Resistance ( $\Omega$ )
Empty	200.0 $\pm$ 2%
Warning lamp	175.0 $\pm$ 2%
1/2	99.0 $\pm$ 2%
Full	8.0 $\pm$ 2%

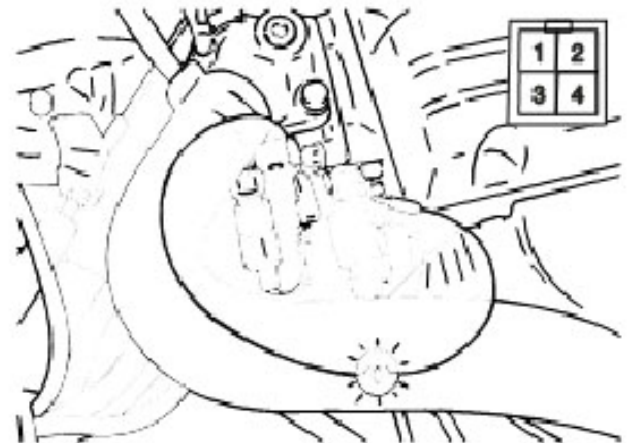
- If the height resistance is unsatisfied, replace the fuel sender as an assembly.

**CAUTION**

***After completing this test, wipe the sender dry and reinstall it in the fuel tank.***

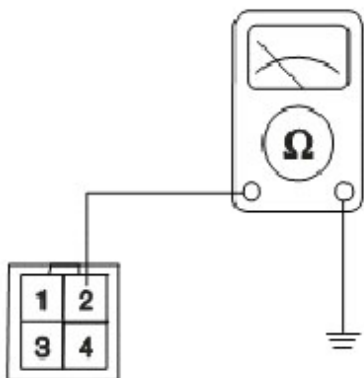
**ENGINE COOLANT TEMPERATURE GAUGE**

- Disconnect the wiring connector from the engine coolant temperature sender in the engine compartment.
- Turn the ignition switch ON. Check that the gauge needle indicates cool. Turn the ignition switch OFF.
- Connect a 12V, 3.4 wattages test bulb between the harness side connector and ground.
- Turn the ignition switch ON.
- Verify that the test bulb flashes and that the temperature high lamp turns on.  
If operation is not as specified, replace the engine coolant temperature gauge. Then recheck the system.



**ENGINE COOLANT TEMPERATURE SENDER**

1. Using an ohmmeter, measure the resistance between the terminal 2 and ground.



2. If the resistance value is not as shown in the table, replace the temperature sender.

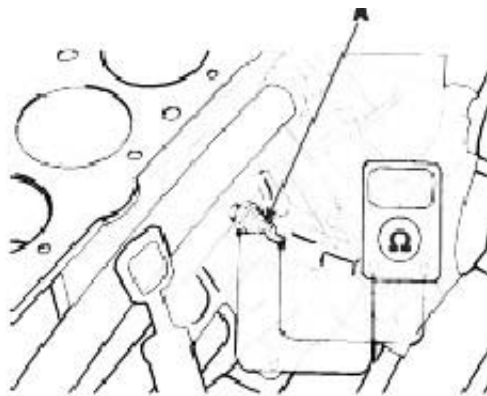
Temp. [°F (°C)]	Resistance (Ω)	Tolerance [°F (°C)]	Lamp
140 (60)	128	± 37.4 (3)	Turn the temp. low lamp off
243 (117)	21	± 37.4 (3)	Turn the temp. high lamp on

**OIL PRESSURE SWITCH**

1. Check that there is continuity between the oil pressure switch terminal (A) and ground with the engine off.

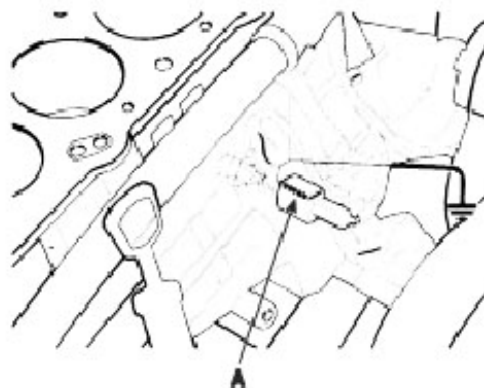
2. Check that there is no continuity between the terminal and ground with the engine running.

3. If operation is not as specified, replace the switch.

**OIL PRESSURE WARNING LAMP**

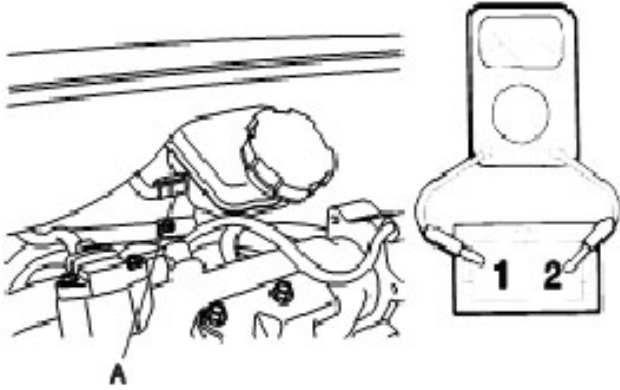
1. Disconnect the connector (A) from the warning switch and ground the terminal on the wire harness side connector.

2. Turn the ignition switch ON. Check that the warning lamp lights up. If the warning lamp doesn't light, test the bulb or inspect the wire harness.

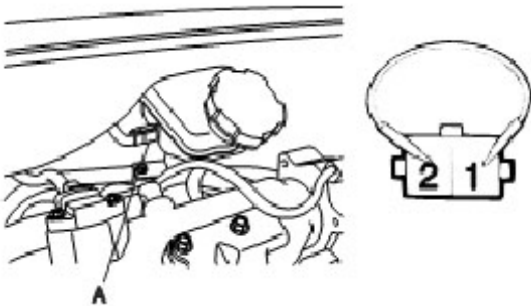


**BRAKE FLUID LEVEL WARNING SWITCH**

1. Remove the connector (A) from the switch located at the brake fluid reservoir.
2. Verify that continuity exists between the switch terminals 1 and 2 while pressing the switch (float) down with a rod.

**BRAKE FLUID LEVEL WARNING LAMP**

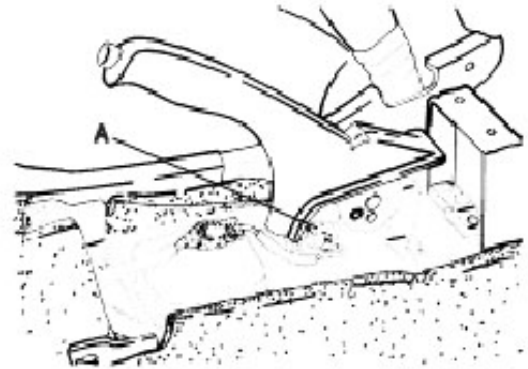
1. Start the engine.
2. Release the parking brake.
3. Remove the connector from the brake fluid level warning switch (A).
4. Ground the connector at the harness side.
5. Verify that the warning lamp lights.

**PARKING BRAKE SWITCH**

The parking brake switch (A) is a push type located under the parking brake lever. To adjust, move the switch mount up and down with the parking brake lever released all the way.

1. Check that there is continuity between the terminal and switch body with the switch ON (Lever is pulled).
2. Check that there is no continuity between the terminal and switch body with the switch OFF (Lever is released).

If continuity is not as specified, replace the switch or inspect its ground connection.



## LIGHTING SYSTEM

### SPECIFICATION

Items	Bulb Wattage (W)
Head lamp (High/Low)	60/55
Front turn signal lamp	21/5
Front position lamp	27/5
Rear combination lamps	
Tail lamp	21/5
Stop lamp	27/8
Back up lamp	21 (Europe), 27 (General)
Turn signal lamp	21 (Europe), 27 (General)
License plate lamp	5
Side repeater lamp	5
Rear fog lamp	21
Room lamp	10
High mounted stop lamp	17
Luggage lamp	5

## HEAD LAMPS

### REPLACEMENT

1. Disconnect the negative (-) battery terminal.
2. Remove the headlamp assembly after loosening the mounting bolts (A) and disconnecting the lamp connector.



3. Installation is the reverse of removal.

### NOTE

Head lamp bulb is replaceable. Unplug wire connector & remove bulb from rear of head lamp assembly.

## HEAD LAMP AIMING INSTRUCTIONS

The headlamps should be aimed with the proper beamsetting equipment, and in accordance with the equipment manufacturer's instructions.

### NOTE

*If there are any regulations pertinent to the aiming of headlamps in the area where the vehicle is to be used, adjust so as to meet those requirements.*

Alternately turn the adjusting gear to adjust the headlamp aiming. If beam-setting equipment is not available, proceed as follows :

1. Inflate the tires to the specified pressure and remove any loads from the vehicle except the driver, spare tire, and tools.
2. The vehicle should be placed on a flat floor.
3. Draw vertical lines (Vertical lines passing through respective head lamp centers) and a horizontal line (Horizontal line passing through center of head lamps) on the screen.
4. With the head lamp and battery in normal condition, aim the headlamps so the brightest portion falls on the horizontal and vertical lines. Make vertical and horizontal adjustments to the lower beam using the adjusting wheel.



## TURN SIGNAL LAMP

### REPLACEMENT

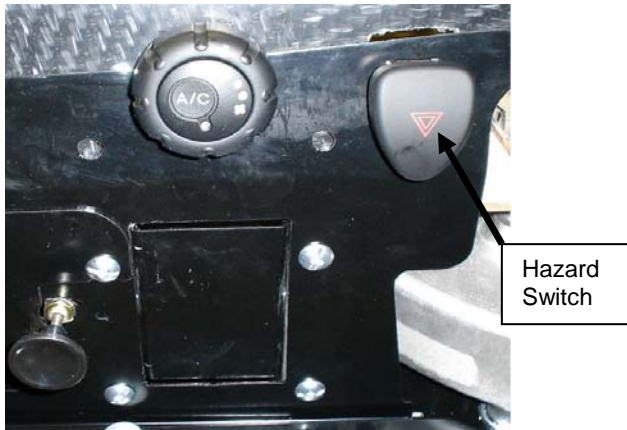
1. Disconnect the negative (-) battery terminal.
2. Remove the nuts holding the rear combination lamp then disconnect the 6P connector.
3. Remove the rear combination lamp and replace the bulbs; stop & tail lamp, turn signal lamp, back up lamp.
4. Installation is the reverse of removal.

# TURN / HAZARD LAMPS

## INSPECTION

### HAZARD LAMP SWITCH

1. Disconnect the negative (-) battery terminal.
2. Loosen dash top and raise to gain access to hazard switch.



3. Operate the switch and check for continuity between terminals with an ohmmeter.

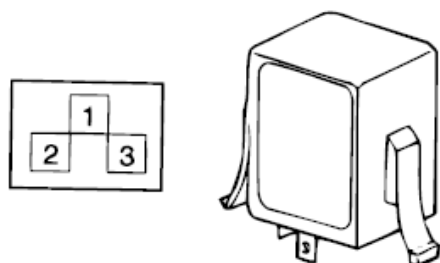
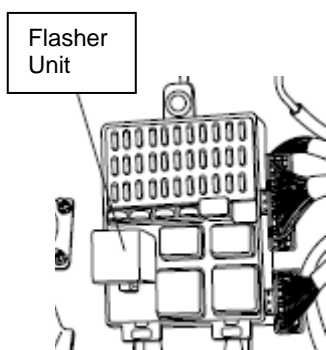
Terminal Position	6	7	9	10	1	3	4
OFF	○	○					
ON	○	○	○	○	○	○	○

Illumination

## FLASHER UNIT

### INSPECTION

1. Disconnect the negative (-) battery terminal.
2. Remove the flasher unit from the passenger compartment relay box.
3. Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 3.
4. Connect the two turn signal lamps in parallel to terminals 1 and 3. Check that the bulbs turn on and off.



### NOTE

*The turn signal lamps should flash 60 to 120 times per minute. If one of the front or rear turn signal lamps has an open circuit, the number of flashes will be more than 120 per minute. If operation is not as specified, replace the flasher unit.*

## LICENSE LAMPS

### REPLACEMENT

1. Disconnect the negative (-) battery terminal.
2. Disconnect the connectors and then replace the bulb.
3. Installation is the reverse of removal.

## **STOP LAMPS**

### **REPLACEMENT**

#### **HIGH MOUNTED STOP LAMP**

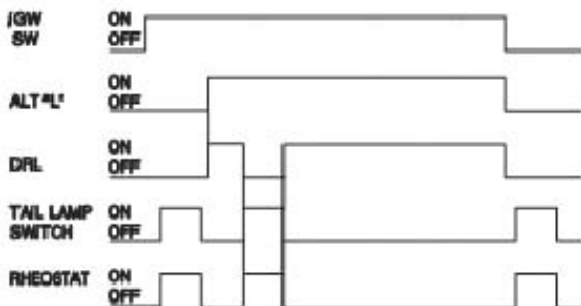
1. Disconnect the negative (-) battery terminal.
2. Remove light cover lens and replace bulb.
3. Installation is the reverse of removal.

# DAYTIME RUNNING LIGHTS

## DRL CONTROL MODULE

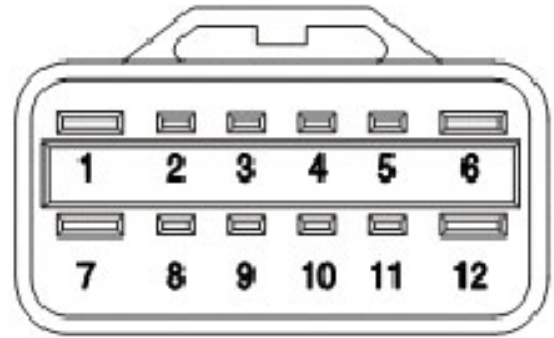
### INSPECTION

1. Daytime running unit is installed at the below of battery.
2. Check that the light operate according to the following timing chart.



3. Remove the left headlamp and then disconnect the connector from the daytime running lights control unit.
4. Inspect the connector and terminals to be sure they are all making good contact. If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system. If the terminals look OK, go to step 5.

5. Make these input tests at the connector. If any test indicates a problem, find and correct the cause, then recheck the system. If all the input tests prove OK, the control unit must be faulty; replace it.



<D.R.L unit>

Wire Clr	Term	Test Condition	Test: Desired result
Br	1	Headlamp ON	Check for voltage to ground: There should be battery voltage.
-	2	Blank	-
Ylw	3	Engine running	Check for voltage to ground: There should be battery voltage.
-	4	Blank	-
-	5	Blank	-
Blk	6	Under all conditions	Check for voltage to ground: There should be continuity.
Br/O	7	Under all conditions	Check for voltage to ground: There should be voltage.
-	8	Blank	-
R/O	9	Tail lamp ON	Check for voltage to ground: There should be battery voltage.
-	10	Blank	-
G/O	11	Under all conditions	Check for voltage to ground: There should be battery voltage.
-	12	Blank	-

