

CHARGING SYSTEM

PRECAUTION

NOTICE:

When disconnecting the negative (-) battery terminal, initialize the following systems after the terminal is reconnected.

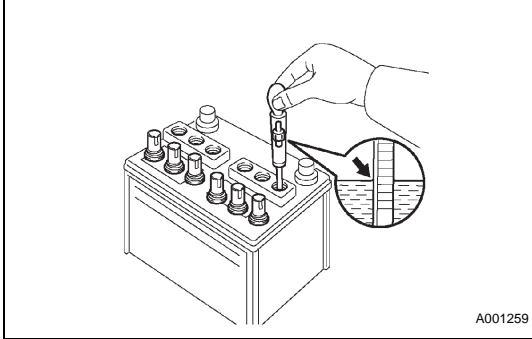
System Name	See procedure
Lighting System (Adaptive Front-Lighting System)	LI-17
Power Window Control System	WS-12
Power Back Door System	ED-33
Sliding Roof System	RF-4 and RF-22

1. Check that the battery cables are connected to the correct terminals.
2. Disconnect the battery cables when the battery is given a quick charge.
3. Do not perform tests with a high voltage insulation resistance tester.
4. Never disconnect the battery while the engine is running.
5. Check that the charging cable is tightened on terminal B of the generator and the fuse box.

ON-VEHICLE INSPECTION

1. CHECK BATTERY ELECTROLYTE LEVEL

- (a) Check the electrolyte quantity of each cell.
 (1) If the electrolyte is under the low level, replace the battery (or add distilled water if possible) and check the charging system.



2. CHECK BATTERY SPECIFIC GRAVITY

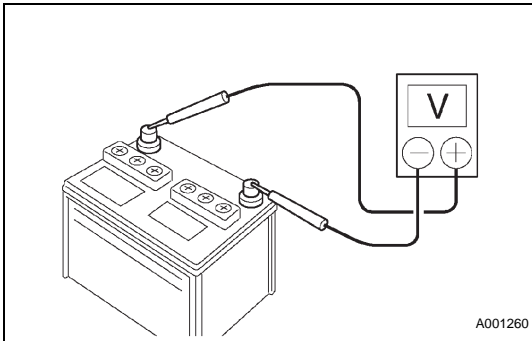
- (a) Check the specific gravity of each cell.

Standard specific gravity:

1.25 to 1.29 at 20°C (68°F)

HINT:

If the specific gravity is less than specification, charge the battery.



3. CHECK BATTERY VOLTAGE

- (a) If it has not been 20 minutes since you drove the vehicle or since the engine was stopped, turn the ignition switch and the electrical system (headlight, blower motor, rear defogger etc.) to the on position for 60 seconds. This will remove the surface charge on the battery.
 (b) Turn off the ignition switch and the electrical systems.
 (c) Measure the battery voltage between the negative (-) and positive (+) terminals of the battery.

Standard voltage:

12.6 to 12.8 V at 20°C (68°F)

HINT:

If the voltage is less than specification, charge the battery.

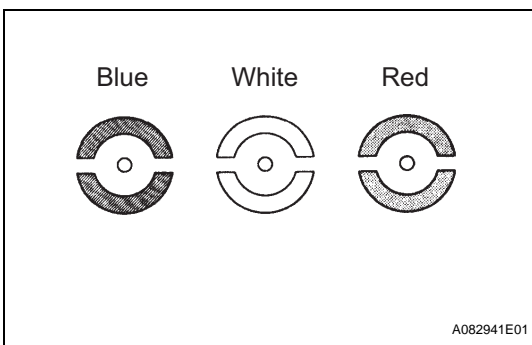
- (d) Check the indicator as shown in the illustration.

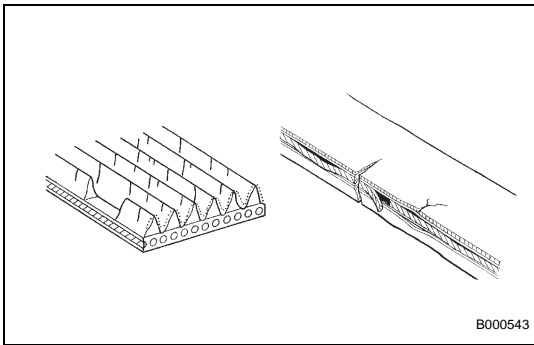
HINT:

- Blue: OK
- White: Charging Necessary
- Red: Insufficient Water

4. CHECK BATTERY TERMINAL, FUSIBLE LINK AND FUSES

- (a) Check that the battery terminals are not loosened or corroded.
 (b) Check the fusible links, high-current fuses and regular fuses.





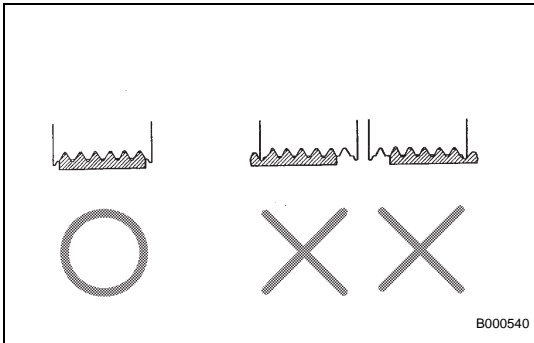
5. INSPECT DRIVE BELT

- (a) Visually check the belt for excessive wear, frayed cords etc.

HINT:

- If any defect found, replace the drive belt.
- Cracks on the rib side of a belt are considered acceptable.

If the belt has chunks missing from the ribs, it should be replaced.



- (b) Check that it fits properly in the ribbed grooves.

HINT:

Confirm that the belt has not slipped out of the groove on the bottom of the pulley by hand.

6. VISUALLY CHECK GENERATOR WIRING

- (a) Check that the wiring is in good condition.

7. LISTEN FOR ABNORMAL NOISES FROM GENERATOR

- (a) Check that there is no abnormal noise from the generator while the engine is running.

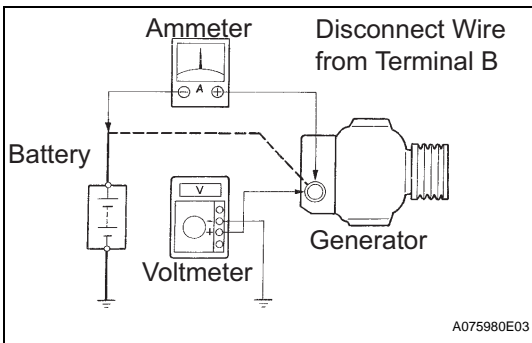
8. INSPECT CHARGE WARNING LIGHT CIRCUIT

- (a) Turn the ignition switch ON. Check that the charge warning light comes on.

- (b) Start the engine and check that the light goes off.

HINT:

If the light does not operate as specified, troubleshoot the charge warning light circuit.



9. INSPECT CHARGING CIRCUIT WITHOUT LOAD

- (a) If a tester is not available, connect a voltmeter to the charging circuit as follows.

- (1) Disconnect the wire from terminal B of the generator and connect it to the negative (-) lead of the ammeter.
- (2) Connect the positive (+) lead of the ammeter to terminal B of the generator.
- (3) Connect the positive (+) lead of the voltmeter to terminal B of the generator.
- (4) Ground the negative (-) lead of the voltmeter.

- (b) Check the charging circuit.

- (1) Keep the engine speed at 2,000 rpm, check the reading on the ammeter and voltmeter.

Standard amperage:

10 A or less

Standard voltage:

13.2 to 14.8 V

10. INSPECT CHARGING CIRCUIT WITH LOAD

- (a) With the engine running at 2,000 rpm, turn on the high beam headlights and turn the heater blower switch to the "HI" position.

(b) Check the reading on the ammeter.

Standard amperage:

30 A or more

HINT:

- If the ammeter reading is less than standard amperage, repair the generator.
- If the battery is fully charged, the indication will sometimes be less than standard amperage.