190W7–01

ON–VEHICLE INSPECTION

1. CHECK BATTERY ELECTROLYTE LEVEL

(a) Check the electrolyte quantity of each cell.

Maintenance–free battery:

If the electrolyte quantity is below the recommended amount, replace the battery.

Except Maintenance–free battery:

If the electrolyte quantity is below the recommended amount, add distilled water.

2. Except Maintenance–free battery:
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)

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

3. Maintenance–free Battery:
CHECK BATTERY VOLTAGE

(a) After the vehicle has run for 20 minutes, stop the engine.

(b) Turn the ignition switch ON, and turn on the headlight, blower fan and defogger for 1 minute.

(c) Turn the ignition switch OFF.

(d) Measure the battery voltage.

Standard voltage: 12.5 to 12.9 V at 20˚C (68˚F)

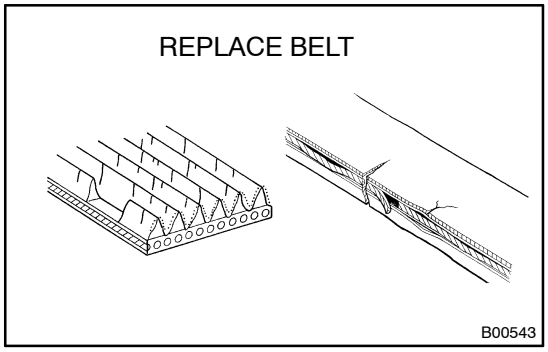
If the voltage is less than the specification, charge the battery.

4. CHECK BATTERY TERMINAL, FUSIBLE LINK AND FUSE

(a) Check that the battery terminals are not loose or corroded.

If the terminals are corroded, clean the terminals.

(b) Check the fusible link and fuse for resistance of below 1 Ω.



5. INSPECT DRIVE BELT

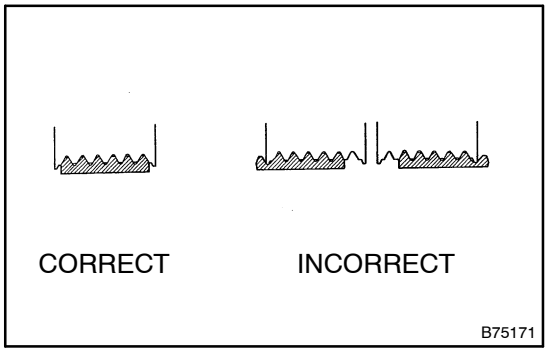
(a) Check the belt for wear, cracks and other signs of damage.

If any defect is found, replace the drive belt.

HINT:

Replace the drive belt if the following defects are found:

- If the belt has worn out until the wire can be seen.
- If the cracks reach the wire more than one place.
- If the belt has chunks missing from the ribs.



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

HINT:

With your hand, confirm that the belt has not slipped out of the groove on the bottom of the pulley.

6. VISUALLY CHECK GENERATOR WIRING

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

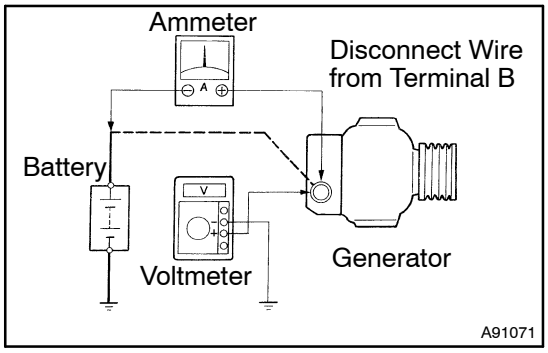
7. LISTEN FOR ABNORMAL NOISES FROM GENERATOR

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

8. INSPECT CHARGE WARNING LAMP CIRCUIT

(a) Turn the ignition switch ON. Check that the charge warning lamp turns on.
(b) Start the engine and check that the lamp turns off.

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



9. INSPECT CHARGING CIRCUIT WITHOUT LOAD

HINT:

If a battery/generator tester is available, connect the tester to the charging circuit according to the manufacturer's instructions.

(a) If a tester is not available, connect an ammeter and 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 ammeter's positive (+) lead to terminal B of the generator.
  (3) Connect the voltmeter's positive (+) lead to terminal B of the generator.
  (4) Ground the voltmeter's negative (–) lead.
(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

If the result is not as specified, replace the generator.

10. INSPECT CHARGING CIRCUIT WITH LOAD

(a) With the engine running at 2,000 rpm, turn on the high–beam headlamps 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 the standard amperage, repair the generator.
- If the battery is fully charged, the indication will sometimes be less than the standard amperage.