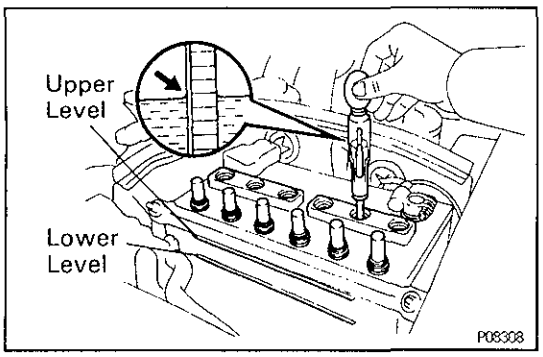


ON–VEHICLE INSPECTION

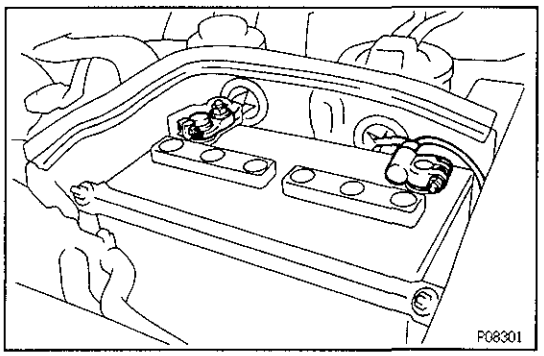
CH045–01

1. CHECK BATTERY SPECIFIC GRAVITY AND ELECTROLYTE LEVEL

(a) Check the electrolyte quantity of each cell.
If insufficient, refill with distilled (or purified) water.

(b) Check the specific gravity of each cell.
Standard specific gravity at 20°C (68°F):
1.27 – 1.29 105D31L Battery
1.25 – 1.27 others
If the gravity is less than specification, charge the battery.

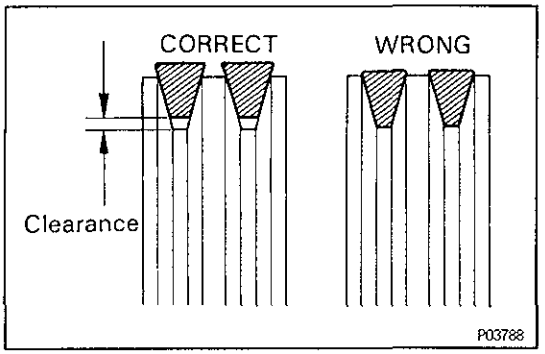
CH



2. CHECK BATTERY TERMINALS, FUSIBLE LINK AND FUSES

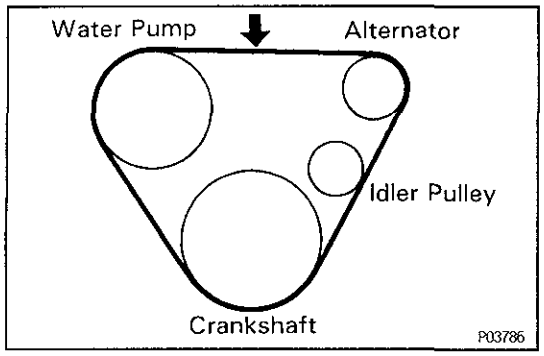
(a) Check that the battery terminals are not loose or corroded.

(b) Check the fusible link, H–fuses and fuses for continuity.
Fusible link:
MAIN 2.0 L
AM1 1.25 B
AM2 0.3 P
H–Fuse:
AM1 50A
Fuse:
IGN 7.5A
CHARGE 7.5A



3. INSPECT DRIVE BELTS

(a) Visually check the drive belt for cracks, oiliness or wear. Check that the belt does not touch the bottom of the pulley groove.
If necessary, replace the drive belts as a set.



(b) Check the drive belt deflection by pressing on the belt at the points indicated in the illustration with 98 N (10 kgf, 22 lbf) of pressure.

Drive belt deflection:

New belt

11 – 15 mm (0.43 – 0.59 in.)

Used belt

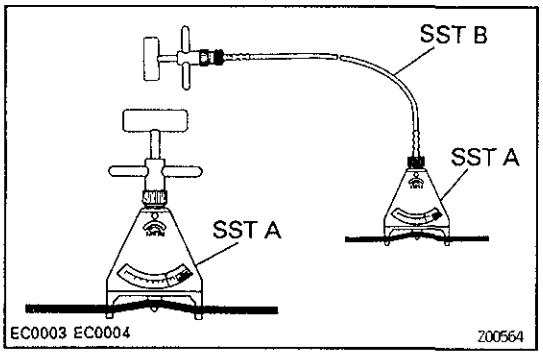
15 – 20 mm (0.59 – 0.79 in.)

If necessary, adjust the drive belt deflection.

HINT:

- "New belt" refers to a belt which has been used less than 5 minutes on a running engine.
- "Used belt" refers to a belt which has been used on a running engine for 5 minutes or more.
- After installing a new belt, run the engine for about 5 minutes and recheck the deflection.

CH



Reference

Using SST, check the drive belt tension.

SST A 09216–00020

SST B 09216–00030

Drive belt tension:

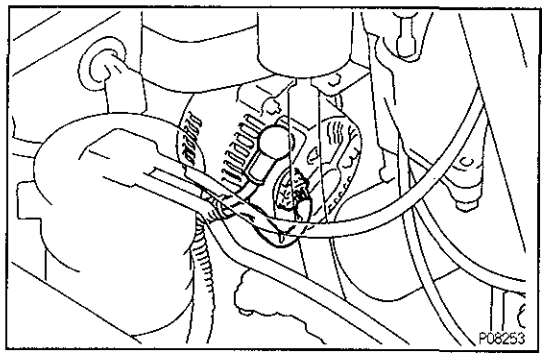
New belt

33 – 57 kgf

Used belt

15 – 35 kgf

If the belt tension is not as specified, adjust it.



4. VISUALLY CHECK ALTERNATOR WIRING AND LISTEN FOR ABNORMAL NOISES

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

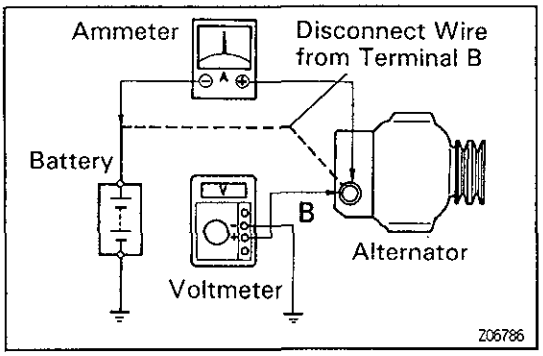
(b) Check that there is no abnormal noise from the alternator while the engine is running.

5. INSPECT DISCHARGE WARNING LIGHT CIRCUIT

(a) Turn the ignition switch "ON". Check that the discharge warning light comes on.

(b) Start the engine. Check that the light goes off.

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

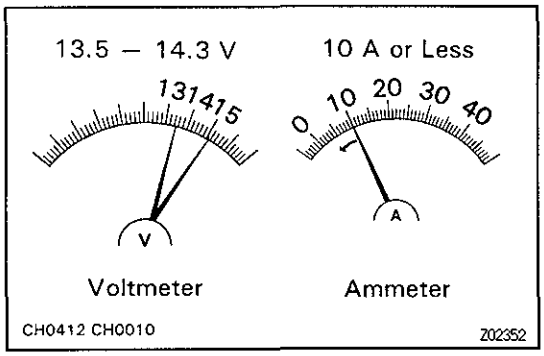


6. INSPECT CHARGING CIRCUIT WITHOUT LOAD

HINT: If a battery / alternator tester is available, connect the tester to the charging circuit as per the manufacturer's instructions.

(a) If a tester is not available, connect a voltmeter and ammeter to the charging circuit as follows:

- Disconnect the wire from terminal B of the alternator and connect it to the negative (–) lead of the ammeter.
- Connect the positive (+) lead of the ammeter to terminal B of the alternator.
- Connect the positive (+) lead of the voltmeter to terminal B of the alternator.
- Ground the negative (–) lead of the voltmeter.



(b) Check the charging circuit as follows:
With the engine running from idle to 2,000 rpm, check the reading on the ammeter and voltmeter.

Standard amperage:

10 A or less

Standard voltage:

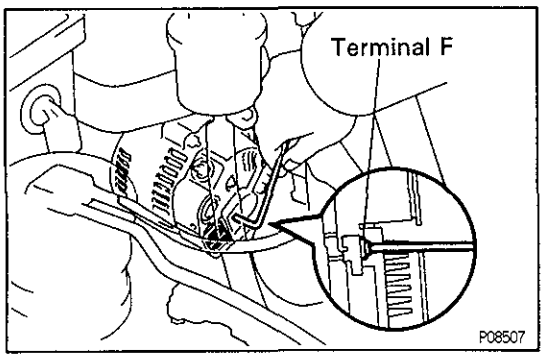
14.0 – 15.0 V at 25°C (77°F)

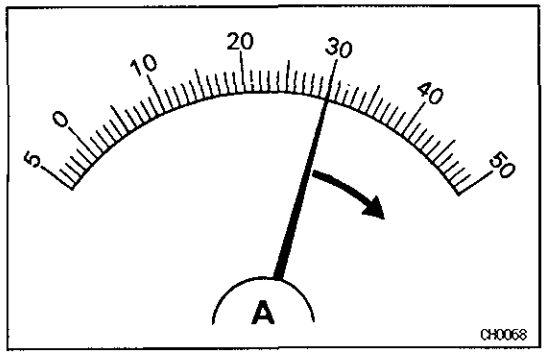
13.5 – 14.3 V at 115°C (239°F)

If the voltmeter reading is more than standard voltage, replace the IC regulator.

If the voltmeter reading is less than the standard voltage, check the IC regulator and alternator as follows:

- With terminal F grounded, start the engine and check the voltmeter reading of terminal B.
- If the voltmeter reading is more than standard voltage, replace the IC regulator.
- If the voltmeter reading is less than standard voltage, check the alternator.





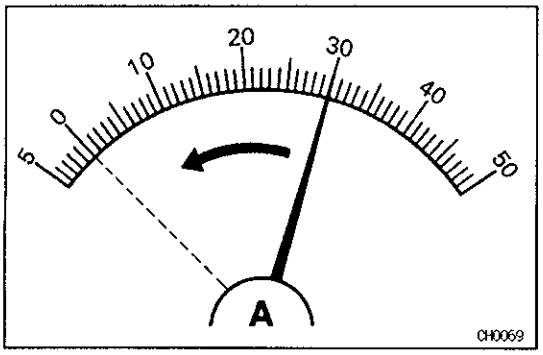
7. INSPECT CHARGING CIRCUIT WITH LOAD

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

(b) Check the reading on the ammeter.

Standard amperage:

30 A or more



If the ammeter reading is less than standard amperage, repair the alternator.

HINT: If the battery is fully charged, the indication will sometimes be less than standard amperage.