

## ON-VEHICLE INSPECTION

### 1. INSPECT BATTERY SPECIFIC GRAVITY AND ELECTROLYTE LEVEL

(a) Check the specific gravity of each cell.

**Standard specific gravity:**

**1.27–1.29 when fully charged at 20°C (68°F)**

If gravity is less than specification, charge the battery.

(b) Check the electrolyte quantity of each cell.

If insufficient, refill with distilled (or purified) water.

**HINT:** Check the indicator as shown in the illustration.

### 2. CHECK BATTERY TERMINALS, FUSIBLE LINKS AND FUSES

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

(b) Check the fusible links and fuses for continuity.

**H-fuse: ALT 150A**

**AM1 100A**

**AM2 30A**

**M-fuse: IG SW 40A**

**Fuse: IGN 7.5A**

**ENGINE 7.5A**

**INJ 30A**

### 3. INSPECT DRIVE BELT

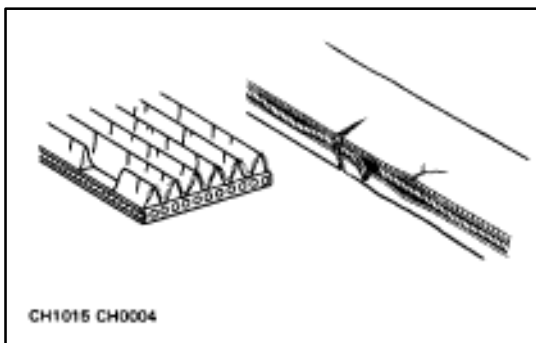
**HINT:** A belt tensioner is used, so checking the belt tension is not necessary.

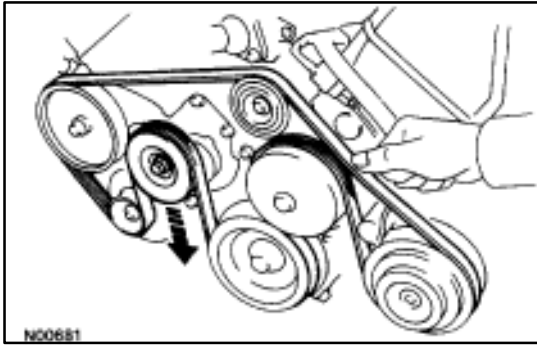
(a) Visually check the drive belt for excessive wear, frayed cords, etc.

If necessary, replace the drive belt.

**HINT:**

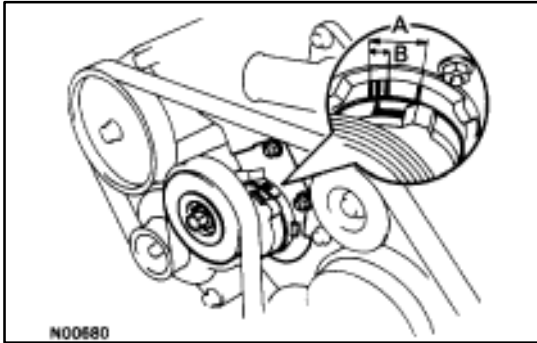
- Cracks on rib side of a drive belt are considered acceptable. If the drive belt has chunks missing from the ribs, it should be replaced.
- The drive belt tension can be released by turning the belt tensioner counterclockwise. The pulley bolt for the belt tensioner has a left-hand thread.





- (b) Check the belt tensioner operation.
- Check that the belt tensioner moves downward when the drive belt is pressed down at the points indicated in the illustration with approx. 98 N ( 10 kgf, 22.0 lbf) of force.
  - Check the alignment of the belt tensioner pulley to make sure the drive belt has not slipped off the pulley.

If necessary, replace the belt tensioner.

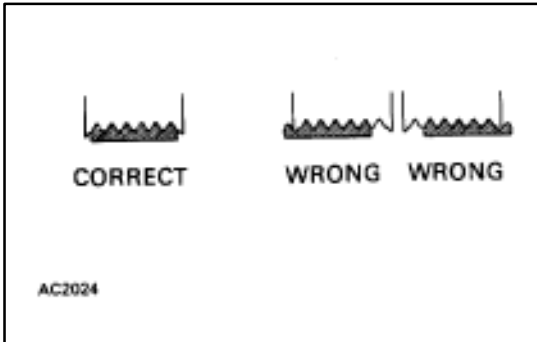


- Check that the arrow mark on the belt tensioner falls within area A of the scale.

If it is outside area A, replace the drive belt.

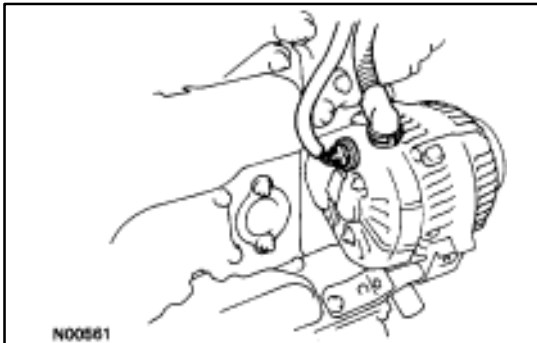
HINT:

- When a new belt is installed, it should lie within area B. If not, the drive belt is not correct.



- After installing a belt, check that it fits properly in the ribbed grooves.
- Check by hand to confirm that the belt has not slipped out of the groove on the bottom of the pulley.

#### 4. REMOVE ENGINE UNDER COVER

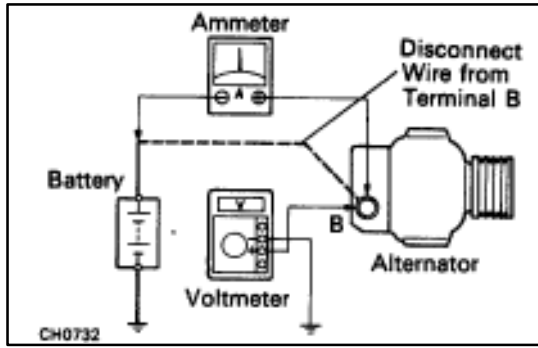


#### 5. VISUALLY CHECK ALTERNATOR WIRING AND LISTEN FOR ABNORMAL NOISES

- (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.

#### 6. INSPECT CHARGE WARNING LIGHT CIRCUIT

- (a) Warm up the engine and then turn it off.
- (b) Turn off all accessories.
- (c) Turn the ignition switch ON. Check that the charge warning light is lit.
- (d) Start the engine. Check that the light goes off.
- If the light does not go off as specified, troubleshoot the charge light circuit.

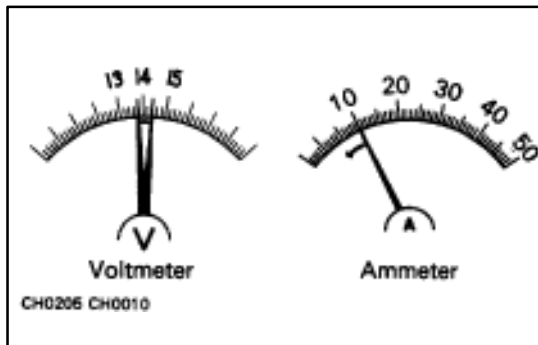


## 7. INSPECT CHARGING CIRCUIT WITHOUT LOAD

HINT: If a battery/alternator tester is available, connect the tester to the charging circuit as per 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 (–) probe of the ammeter.
- Connect the positive (+) probe of the ammeter to terminal B of the alternator.
- Connect the positive (+) probe of the voltmeter to terminal B of the alternator.
- Ground the negative (–) probe of the voltmeter.



(b) Check the charging circuit as follows:

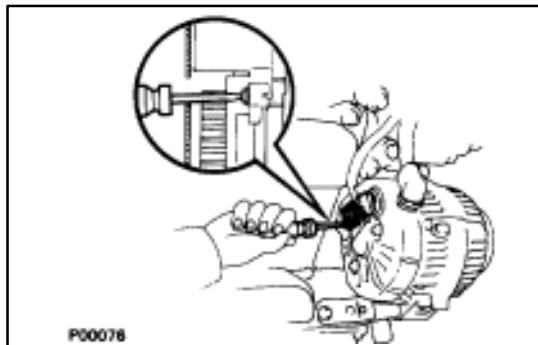
With the engine running from idling to 2,000 rpm, check the reading on the ammeter and voltmeter.

**Standard amperage: 10 A or less**

**Standard voltage: 13.9–15.1 V at 25°C (77°F)**

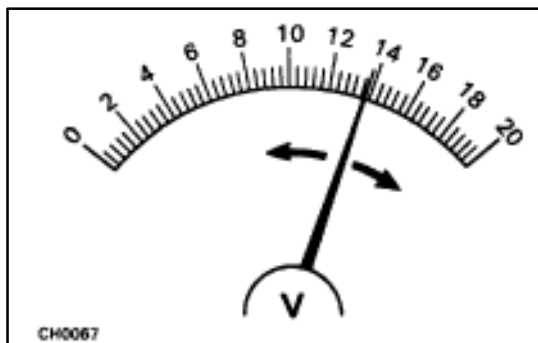
**13.5–14.3 V at 115°C (239°F)**

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

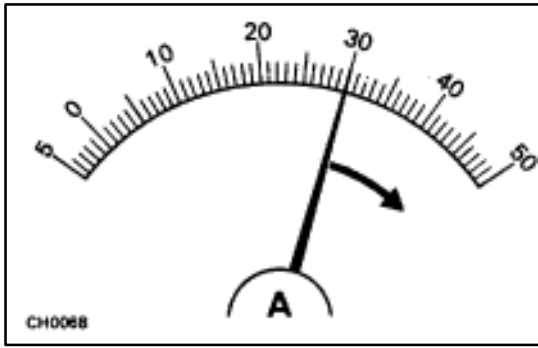


If the voltmeter reading is less than standard voltage, check the IC regulator and alternator as follows:

- Remove the engine under cover.
- With terminal F grounded, start the engine and check the voltmeter reading of terminal B.

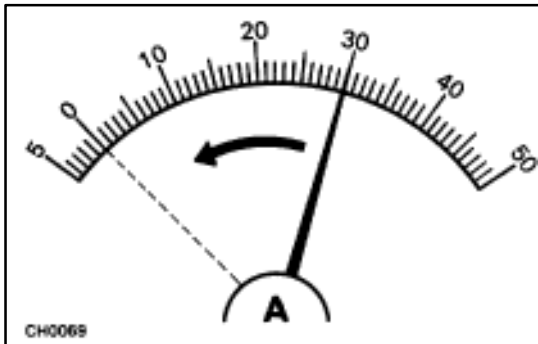


- If the voltmeter reading is greater than standard voltage, replace the IC regulator.
- If the voltmeter reading is less than standard voltage, check the alternator.
- Reinstall the engine under cover.

**8. 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. (See page [CH-9](#))

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

**9. REINSTALL ENGINE UNDER COVER**