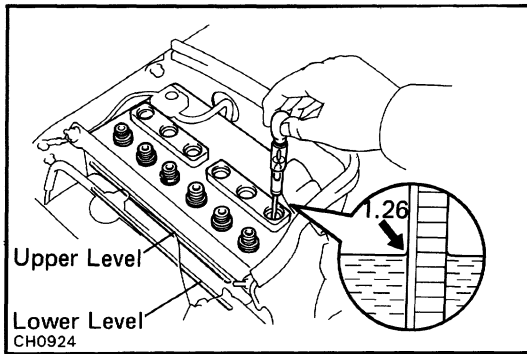




ON-VEHICLE INSPECTION

1. CHECK BATTERY SPECIFIC GRAVITY

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

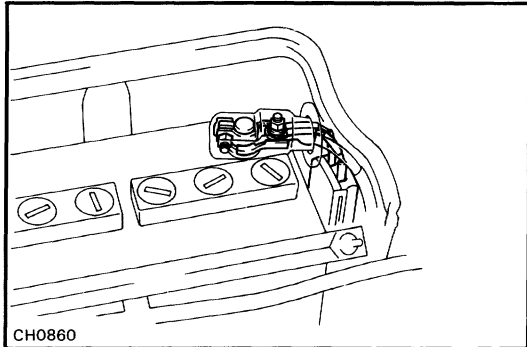
Standard specific gravity

When fully charged at 20°C (68°F): 1.25 – 1.27

If not within specification, charge the battery.

- (b) Check the electrolyte quantity of each cell.

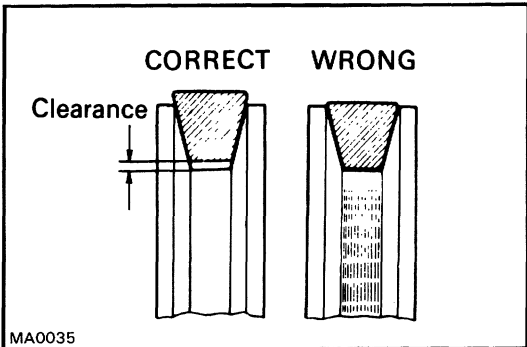
If insufficient, refill with distilled (or purified) water.



2. CHECK BATTERY TERMINALS, FUSIBLE LINKS AND FUSES

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

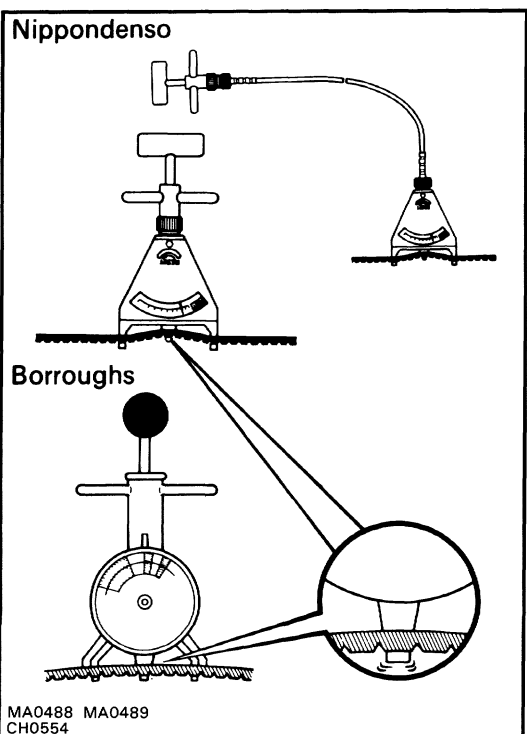
- (b) Check the fusible links and fuses for continuity.



3. INSPECT DRIVE BELT

- (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 belt.



- (b) Using a belt tension gauge, check the drive belt tension.

Belt tension gauge:

Nippondenso BTG-20 (95506-00020) or

Borroughs NO. BT-33-73F

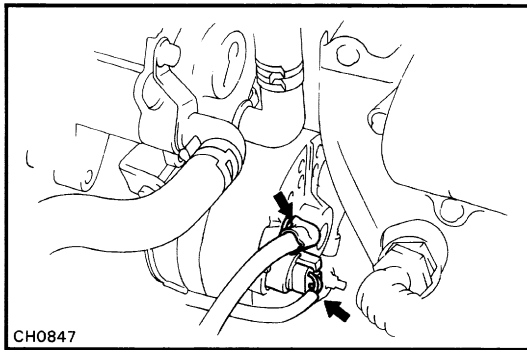
Drive belt tension: New belt 145 ± 25 lb

Used belt 100 ± 20 lb

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

HINT:

- When checking the tension, be sure the gauge is on the belt protrusion.
- "New belt" refers to a belt which has been used for 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 the belt, run the engine for about 5 minutes and recheck the tension.

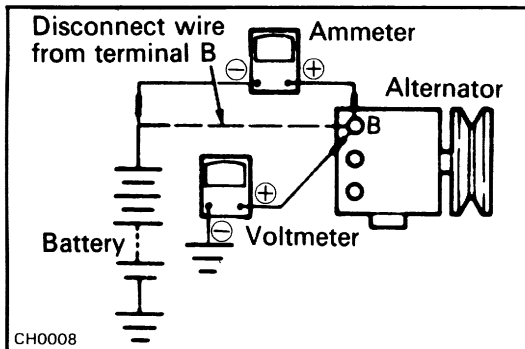


4. VISUALLY CHECK ALTERNATOR WIRING AND LISTEN FOR ABNORMAL NOISES

- Check that the wiring is in good condition.
- Check that there are no abnormal noises from the alternator while the engine is running.

5. CHECK DISCHARGE WARNING LIGHT CIRCUIT

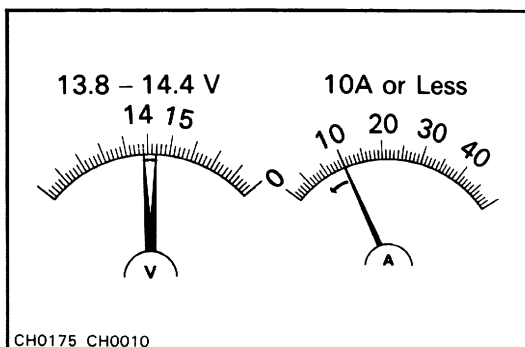
- Warm up the engine and turn it off.
- Turn off all accessories.
- Turn the ignition switch to "ON". Check that the charge light is lit.
- Start the engine. Check that the light goes out. If the light does not come on and go off as specified, troubleshoot the discharge light circuit.



6. INSPECT CHARGING CIRCUIT WITHOUT LOAD

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

- 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 the wire to the negative (-) terminal of the ammeter.
 - Connect the test lead from the positive (+) terminal 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.

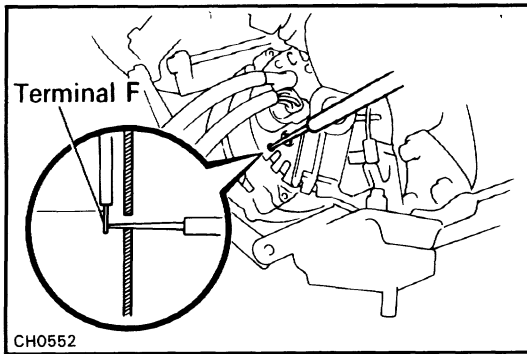


- Check the charging circuit as follows:
With the engine running from idling to 2,000 rpm, check the reading on the ammeter and voltmeter.

Standard amperage: 10 A or less

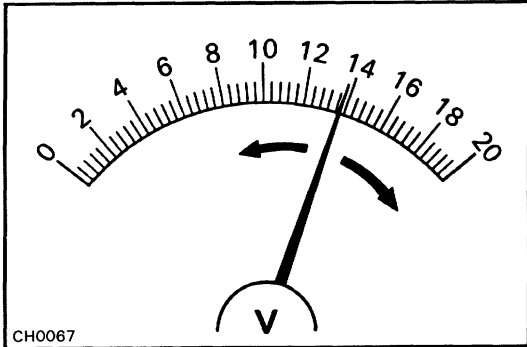
Standard voltage: 13.8 - 14.4 V at 25°C (77°F)

If the voltage reading is not within standard voltage, replace the IC regulator.

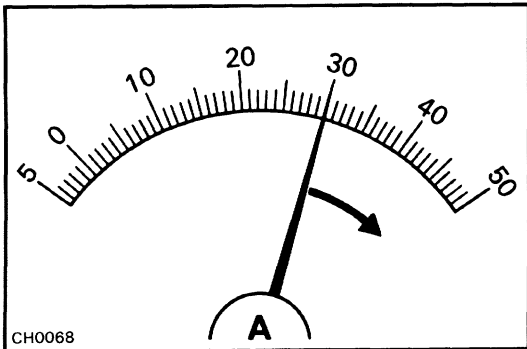


If the voltage reading is less than standard voltage, check the IC regulator and alternator as follows:

- With terminal F grounded, start the engine and check the voltage reading of terminal B.

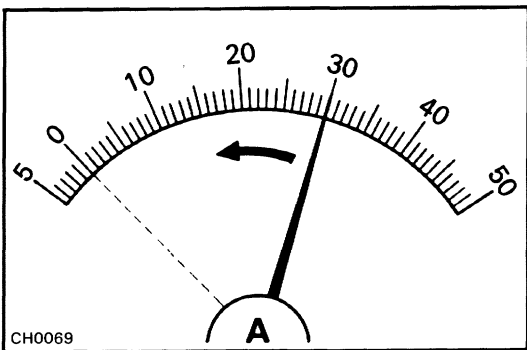


- If the voltage reading is more than standard voltage, replace the IC regulator.
- If the voltage reading is less than standard voltage, check the alternator.



7. INSPECT CHARGING CIRCUIT WITH LOAD

- With the engine running at 2,000 rpm, turn on the high beam headlights and place the heater blower switch at "HI".
- Check the reading on the ammeter.
Standard amperage: 30 A or more



If the ammeter reading is less than 30 A, repair the alternator. (See page [CH-6](#))

HINT: When the battery is fully charged, the indication will sometimes be less than 30 A.