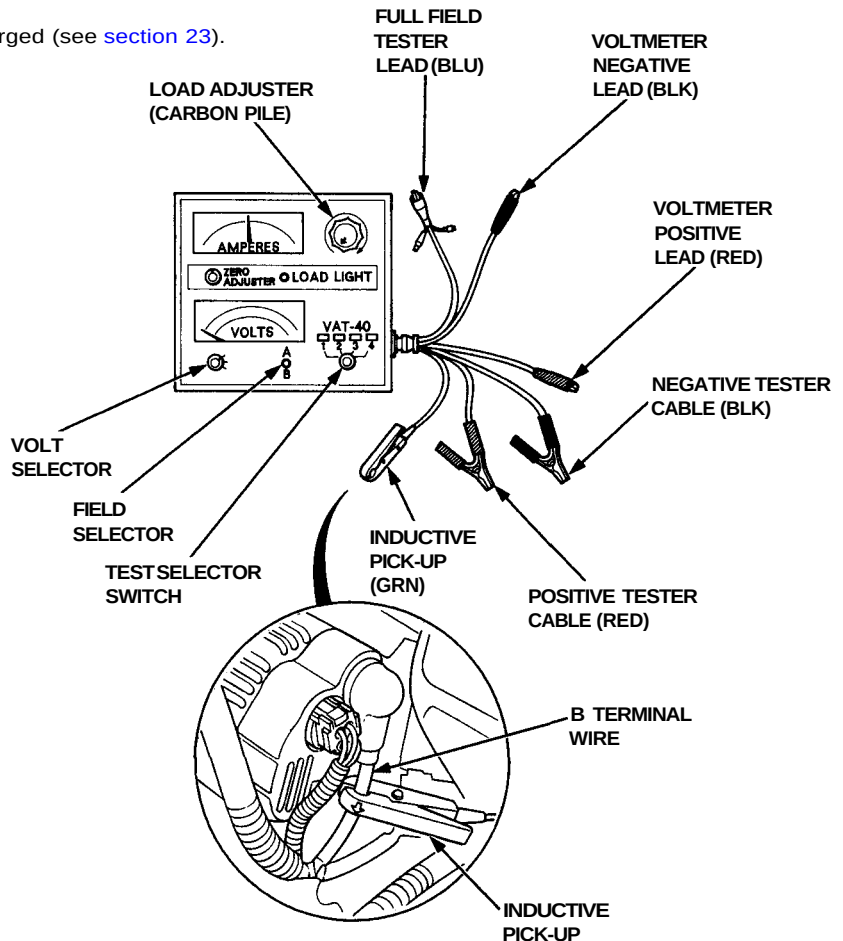


Alternator/Regulator Test

NOTE: Be sure the battery is sufficiently charged (see [section 23](#)).

1. Connect the Sun VAT-40 (or equivalent tester), and turn the selector switch to position 1 (starting).
2. Shift to **P** or **N** position, and start the engine. Hold the engine at 3,000 rpm with no load until the radiator fan comes on, then let it idle.
3. Raise the engine speed to 2,000 rpm, and hold it there.



Is the voltage over 15.1 V?

NO

1. Release the accelerator pedal, and let the engine idle.
2. Make sure all accessories are turned off. Turn the selector switch to position 2 (charging).
3. Remove the inductive pick-up, and zero the ammeter.
4. Place the inductive pick-up over the B terminal wire of the alternator so that the arrow points away from the alternator.
5. Raise the engine speed to 2,000 rpm, and hold it there.

Replace the voltage regulator.

Is the voltage less than 13.5 V?

NO

Apply a load with the VAT-40 until the battery voltage drops to between 12-13.5V.

2

(To page [4-28](#))

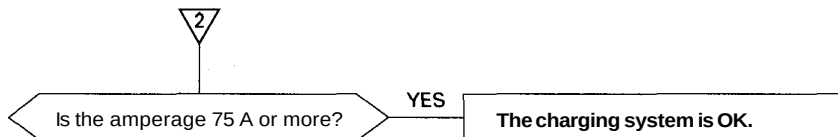
Test and repair the alternator components.

(cont'd)

Charging System

Troubleshooting (cont'd)

(From page 4-27)

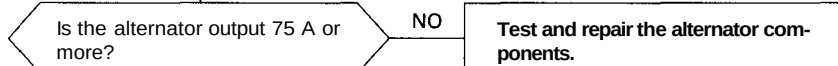
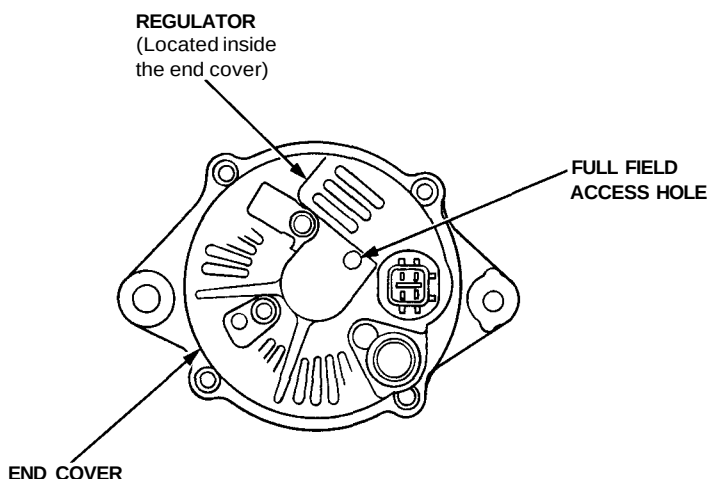


NO

With the engine speed still at 2,000 rpm, full-field the alternator.

CAUTION: The voltage will rise quickly when the alternator is full-fielded. Do not allow the voltage to exceed 18 V; it may damage the electrical system.

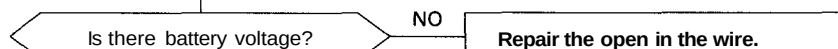
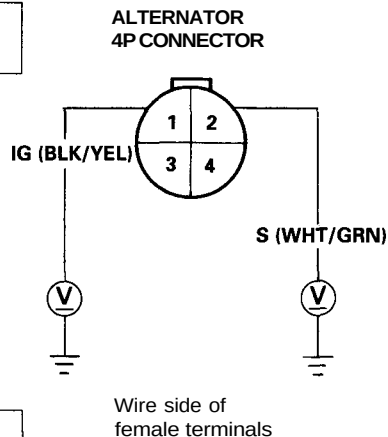
NOTE: Attach a probe to the VAT-40 full field test lead, and insert the probe into the full field access hole at the back of the alternator. Switch the field selector to the "A (Ground)" position momentarily, and check the amperage reading.



YES

Test the BLK/YEL Wire:

1. Turn the ignition switch OFF, then turn it on (II) again.
2. Disconnect the 4P connector from the alternator.
3. Measure voltage between body ground and alternator 4P connector terminals No. 1 and No. 2 individually.



YES

Replace the voltage regulator.