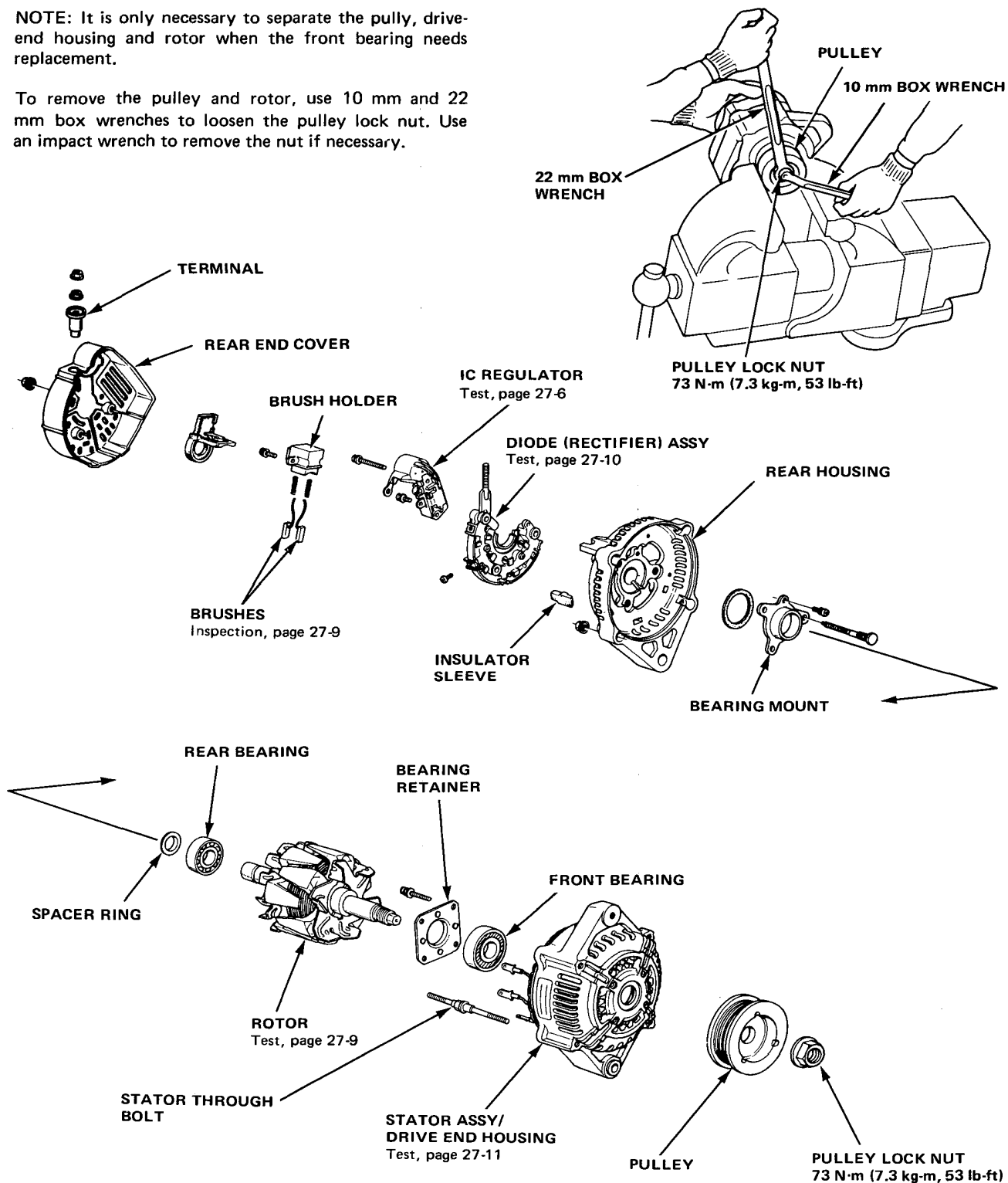


Charging

Alternator Overhaul

NOTE: It is only necessary to separate the pulley, drive-end housing and rotor when the front bearing needs replacement.

To remove the pulley and rotor, use 10 mm and 22 mm box wrenches to loosen the pulley lock nut. Use an impact wrench to remove the nut if necessary.





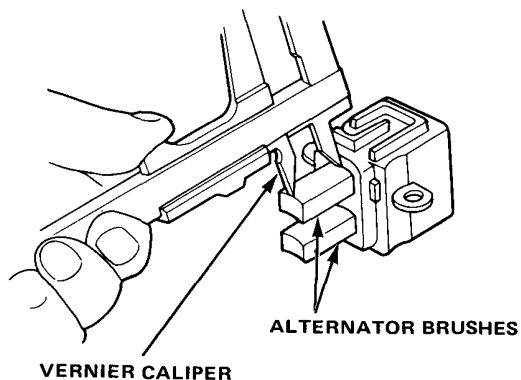
Alternator Brush Inspection

1. Remove the rear end cover, then take out the brush holder by removing its 2 screws.
2. Measure length of the brushes with a vernier caliper.

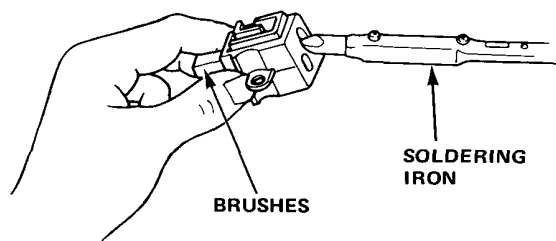
Alternator Brush Length:

Standard: 10.5 mm (0.41 in.)

Service Limit: 4.5 mm (0.18 in.)



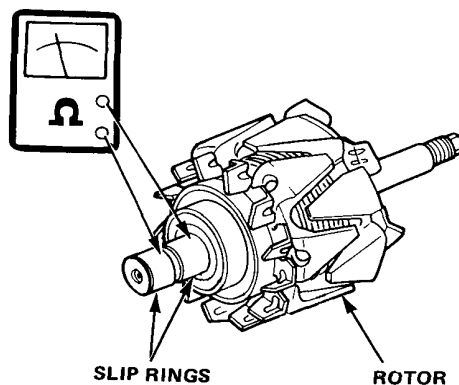
3. If brushes are not within service limit, replace them.



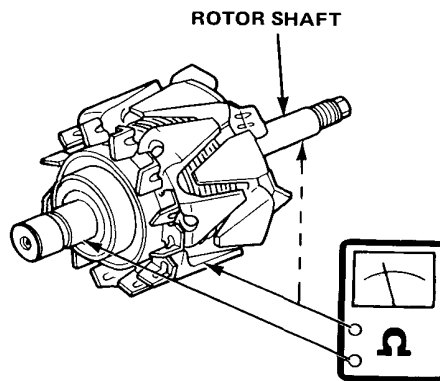
NOTE: When replacing the brushes, use only rosin core type solder or solder joints will corrode.

Rotor Slip Ring Test

1. Check that there is continuity between the slip rings.



2. Check that there is no continuity between the rings and the rotor or rotor shaft.



3. If the rotor fails either continuity check, replace it.

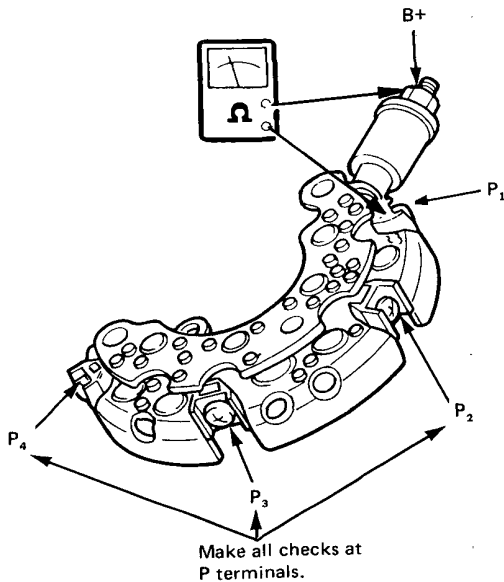
Charging

Rectifier Test

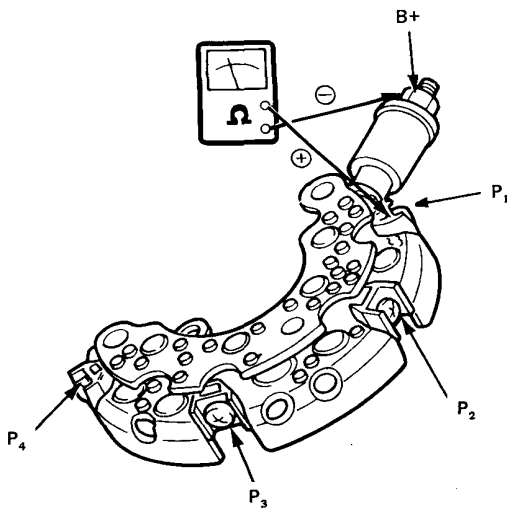
NOTE: Diodes are designed to pass current in one direction and block current in the opposite direction. Since the alternator rectifier is made up of eight diodes (4 pairs), each diode must be tested for continuity in both directions — a total of 16 checks.

1. Using an ohmmeter or continuity tester (test light), check one diode from each pair, in both directions:

- Connect **POSITIVE** test probe to B+ terminal and **NEGATIVE** test probe to P terminal of each diode pair. Note readings.

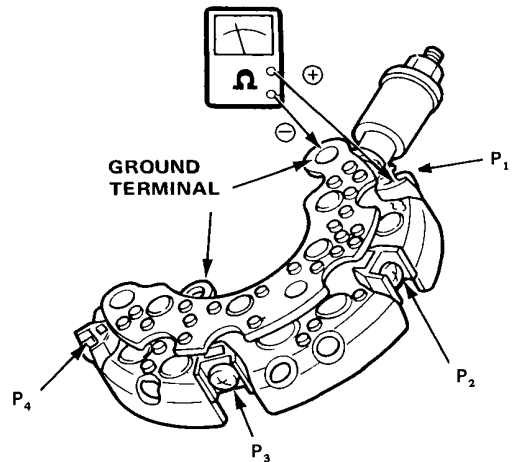


- Reverse probe position and check diodes at P terminals again.

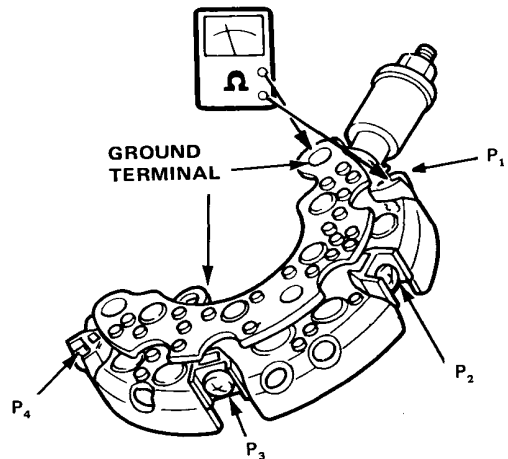


2. Check the other diode from each pair, in both directions:

- Connect **NEGATIVE** test probe to ground terminal and **POSITIVE** probe to P terminal of each diode pair.



- Reverse probe positions and check diodes at P terminals again.

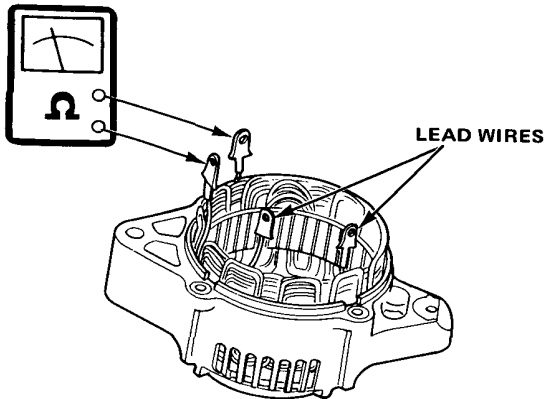


3. If any of the 16 checks shows continuity in both directions, or no continuity in both directions, the diode is defective and the rectifier assembly must be replaced. (Diodes are not available separately.)

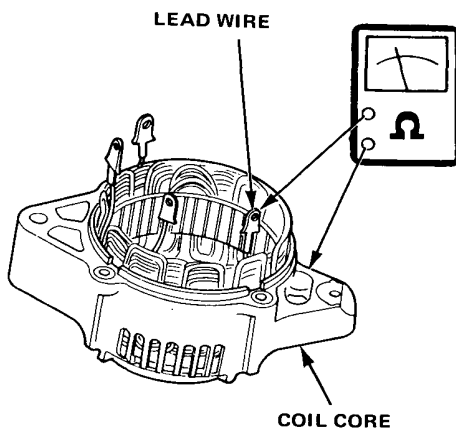


Stator Test

1. Check that there is continuity between each pair of lead wires.



2. Check that there is no continuity between each lead wire and the coil core.



3. If the coil fails either continuity check, replace the stator.