

## Ignition Coil Tests

Many ignition testers are available from various manufacturers. In addition, some automotive testers having the proper specifications can be used.

Detailed instructions for the use of any tester are provided with the unit, therefore, only general information is given here. Refer to the manual of the ignition tester you are using for coil specifications. Specifications will vary among testers.

Ignition coils **must be** removed from the powerhead for power and leakage testing.

**⚠ To avoid personal injury from electrical shock, perform all coil tests on a wooden (or insulated) bench top.**

### Specifications

	Primary Resistance	Secondary Resistance	Operating Amps (Max.)	Analyzer Polarity
Magneto Coil P/N 582508	$0.1 \pm 0.05 \Omega$	$275 \pm 50 \Omega$	Merc-O-Tronic 1.5 amps	Normal
			Stevens 1.1 amps	

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### Ohmmeter Tests

Resistance tests may be performed while the ignition coil is still mounted on the powerhead.

1. Twist and remove the spark plug and primary leads from the ignition coil.

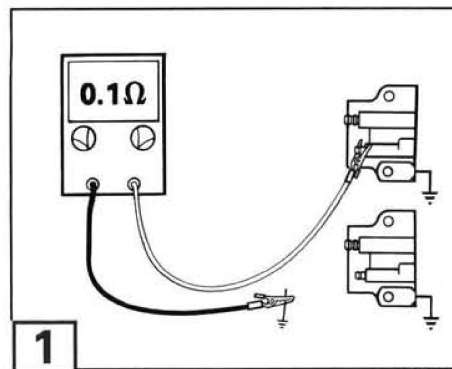
**1** 2. Calibrate ohmmeter on appropriate scale. Connect meter black lead to clean engine ground. If the coil is not mounted on the engine, connect meter black lead to ground tab on the coil. Connect meter red lead to coil primary terminal.

- Meter must show  $0.1 \pm 0.05$  ohm.

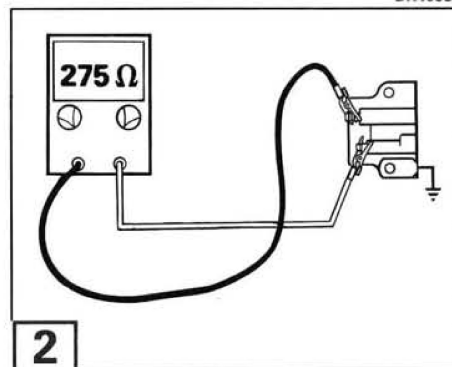
**2** 3. Calibrate ohmmeter on appropriate scale. Connect meter red lead to coil primary terminal. Connect meter black lead to coil spark plug terminal.

- Meter must show  $275 \pm 50$  ohms.

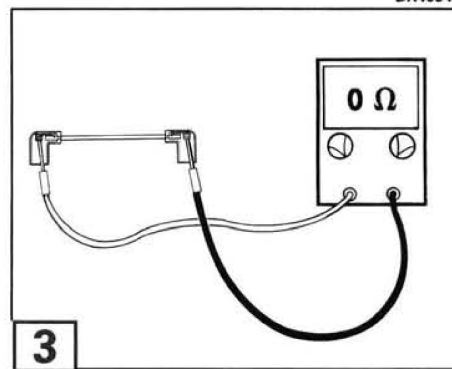
**3** 4. Test spark plug leads for continuity. Calibrate ohmmeter on low ohms scale. Attach one ohmmeter lead to each spring terminal. While wiggling both spark plug covers and entire length of the spark plug lead, the resistance should remain near zero. Replace spark plug lead if your test results vary.



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**Safety Related**

## Power Test

**Note** Do not exceed the coil's maximum specified amperage when testing it.

**4** The ignition coil is tested with "normal" polarity connections. Connect tester red lead to the primary terminal **A** of the coil and the tester black lead to the ground tab **B**. Connect the high tension lead of the tester to the coil spark plug lead **C**.

A steady spark in the tester, at or before maximum specified amperage, indicates a good coil. Refer to **Ignition Coil Specifications**.

## Surface Leakage Test

**Note** Do not exceed the coil's maximum specified amperage when testing it.

The ignition coil and spark plug lead should be tested for leakage and insulation failures using the ignition tester. Leakage is caused by moisture, cracks, or holes in the coil housing or spark plug leads.

**5** With the tester's small black and red leads still connected, remove the tester's high tension lead from the coil. Turn on the tester and probe entire surface of the coil, spark plug lead, and spark plug cover. Leakage will be apparent wherever insulation has broken down. Replace any coil or spark plug lead that shows leakage.

