MARINER OUTBOARDS

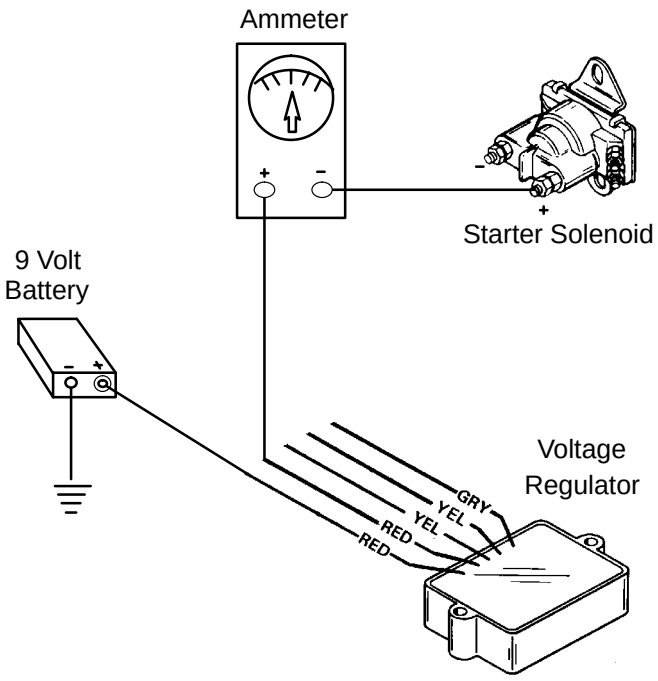
MERCURY OUTBOARDS

# service bulletin

No. 91-10

## Voltage Regulator Test-1991 75-115

**The test for the Voltage Regulator (P/N 815279A2) pictured below is incorrect as described in the current M75/115 Service Manual. This test will be added to the service manual in the near future.**




To Test Regulator: Ammeter and 9 volt transistor battery are required.

1. Check battery voltage at battery with engine running.
2. If battery voltage is above 14.5 volts, replace regulator. Check battery for overcharging damage.
3. Charge battery if voltage is below 14.5 volts; if battery can NOT be satisfactorily charged, replace battery.
4. If battery accepts a satisfactory charge, check battery voltage while cranking engine. If battery voltage drops below 9 1/2 volts during cranking, replace battery.
5. If cranking voltage is acceptable, disconnect the larger diameter **(RED) regulator harness** wire from starter solenoid.
6. Disconnect the smaller diameter **(RED) regulator harness** wire (SENSE LEAD) from starter solenoid and connect it to the **positive (+)** terminal of a 9 volt transistor battery. Ground the **negative (–)** terminal of the 9 volt battery to outboard.
7. Connect **(RED)** ammeter lead to larger diameter **(RED) regulator harness** wire, and **(BLACK)** ammeter lead to **positive (+)** terminal of start solenoid.

**Insure ammeter leads and wires are away from flywheel.**

8. With engine running at the indicated RPM, the ammeter should indicate the following:

| RPM | AMPERES |
|---|---|
| IDLE | 2 |
| 1000 | 10 |
| 2000 | 17 |
| 3000 | 18 |

9. 18 Amperes at 3000 RPM indicates the charging system and regulator are OK and the battery discharge is due to the amperage draw on the system being greater than the amperage output of the outboard charging system.
10. If ammeter reads less than 18 amperes at 3000 RPM, test the stator; if stator tests OK, replace the voltage regulator.



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