



Description: *Faria*® Tachometer and Gauge Tester.

The *Faria*® Tachometer and Gauge Tester is an engine tachometer (signal) and a gauge (sender) substitution box designed to check the correct operation of engine electrical instrumentation. The unit may be used with a 115VAC or a 12VDC external battery source.

TACHOMETER FREQUENCY:

Rotate clockwise for increasing revolutions per minute and counterclockwise for decreasing RPM.

GAUGE RESISTANCE:

Rotate clockwise for decreasing resistance (higher gauge readings in most cases) and counterclockwise for increasing resistance (lower gauge readings in most cases).

INSTRUMENT SELECT:

With switch “up” toward ‘TACHOMETER’ position; outboard alternator tachometers, inboard and inboard /outboard 4-cycle gas engine tachometers and diesel tachometers driven by diesel pulse generators or magnetic pick-ups may be tested for operation.

With switch “down” toward ‘GAUGE’ position; 12 volt gauges which operate anywhere in the resistance range of 0-1000 ohms may be tested for operation.

SEND: (Sender) (*Green*) **IGNITION:** (+) (Red) **GROUND:** (-) (Black)

ZERO: (STD IGN ALT)/(MAG PICK-UP DIESEL)

[UP] - For 4-cycle gas engines, alternator, and diesel pulse generator signal source tachometers.

[CENTER] - Zero indicating tachometer is “live”.

[DOWN] - For testing diesel tachometers that use a magnetic pick-up as a signal source.

POWER: (AC) / (DC) adjacent LED will light indicating power is “on”

[UP] - Selector switch for 115VAC

[CENTER] - Off

[DOWN] - 12VDC external battery power

To test any instrument: (bench test, out of boat)

- a.) Plug tester into a 115VAC outlet
- b.) Set 'POWER' switch to "OFF" (center position)
- c.) Insert banana plugs into corresponding color coded connectors on front of box.
- d.) Connect alligator clips to corresponding terminals on rear of gauge or tachometer to be tested; (red to ignition or battery (+) terminal, green to signal or sender terminal, & black to ground (-) terminal)
- e.) Switch 'POWER' switch to "AC" position (up).
- f.) Switch 'INSTRUMENT SELECT' switch to position corresponding to instrument being tested.
(i.e.: (A) up for all tachometers, (B) down for all gauges).

A.) To test a Tachometer;

- a.) Switch 'STD IGN-ZERO-DIESEL' switch to 'ZERO', tachometer should go to "zero".
- b.) Switch 'STD IGN-ZERO-DIESEL' switch to setting appropriate to tachometer being tested, as described above.
- c.) Start with Tachometer Frequency Adjust control in full counterclockwise position (min.).
- d.) Slowly rotate control knob in a clockwise direction. As tachometer begins to indicate/change RPM reading, continue to rotate knob slowly until the highest reading is obtained. (May be less than full scale.)
- e.) Rotate control counterclockwise until pointer returns to lowest reading (may not be zero); repeat procedure and check for smoothness of operation.
- f.) Set 'POWER' switch to 'OFF' (center) position
- g.) Remove alligator clips from back of gauge.

B.) To test a Gauge:

- a.) Start with Gauge Resistance in either full clockwise (min.) or full counterclockwise (max.) position.
- b.) Slowly rotate control knob until gauge pointer moves from initial starting position.
- c.) Continue rotating control knob until gauge reads full scale opposite from initial starting position.
- d.) Return control knob to initial starting position. Pointer should return to original starting position smoothly.
- e.) Repeat test and observe pointer for smoothness of operation.

To test any instrument: (in a boat, using the boat's 12VDC power)

- a.) Disconnect the signal wire from the instrument.
- b.) Connect alligator clips to the corresponding terminals on the back of the gauge after positively identifying them visually, with a wiring diagram, or a voltmeter.
- c.) Set 'POWER' switch to 'DC' position (down).
- d.) Turn boat's ignition switch "ON".
- e.) Follow procedure outlined above for tachometer or gauge testing.
- f.) When test is complete, shut boat's ignition switch 'OFF', return 'POWER' switch to 'OFF' (center) position.
- g.) Remove alligator clips from instrument terminals.
- h.) Reconnect the signal wire to the instrument.

OPTIONAL OMC SYSTEM CHECK TESTER:

To test a System Check Tachometer or Operator Warning System gauge:

- a.) Plug the tester into a 115V AC outlet.
- b.) Connect the instrument to the test box with the 8 pin connector cable.
- c.) Turn the "POWER" switch to the AC position as described above. The four warning lights will simultaneously come on and alarm will sound once indicating that the lights and alarm circuits are functional. The lights will then sequentially go out from left to right. If a light or the alarm stays on the instrument is defective.
- d.) To further test tachometer sweep proceed as above in section: A.) To test a Tachometer, parts:
 - a.) through, e.).
- e.) To test individual warning lights and the alarm for either a tachometer or warning light gauge. Apply a tachometer signal to the instrument as in section: A.) part: d.), press the appropriate light button. If the instrument is working properly the warning light will come on and stay lit and the alarm will sound for 12 seconds. If the light goes out or the alarm stays on the instrument is defective.
- f.) Set "POWER" switch to "OFF" (center) position.
- g.) Remove 8 pin connector cable.