# Converting Mercury Optimax Outboards for use with Analog Gauges

(Created from Mercury Outboard Advisory 2000-11 Rev. November 2000)

### Models Affected

2001 Model Year 135hp thru 225 Digital Optimax Mercury S/N: 0T178500 and higher

### Components Needed

Conversion Kit- Faria P/N KT0336	1 each
Faria Optimax Trim Gauge	1 each
Trim Gauge Harness	1 each
Temperature Gauge	1 each
Tachometer Gauge	1 each
Water Pressure Gauge (Bourdon Tube Movement) with TP0020 tubing	1 each
Pitot tube Speedometer Gauge with TP0020 tubing	1 each

#### **Under-Cowl Alterations**

Tachometer Wire (Refer to Illustrations 1, 2 and 3 below)

- 1. Locate the diagnostic port plug mounted on the engine Electronic Control Module (ECM). Unplug and discard the Diagnostic Harness. Cap the exposed Brown-White wire bullet connector with Black Female Bullet Connector Cap.
- 2. Insert the two (2) green Seal Plugs into the Port Plug Cover as shown in Illustration 1.
- 3. Snap the Hinged TPA closed as shown. Insert the Port Plug Cover with the seals installed onto the diagnostic port plug. Refer to illustration 2 and 3.
- 4. Locate Gray Tachometer Signal Wire in the engine wiring harness. Remove Male Bullet Connector Cap from this wire-*Save this Connector Cap, it will be used later*. Connect this wire to the gray wire that was detached from the Diagnostic Harness in Step 1.

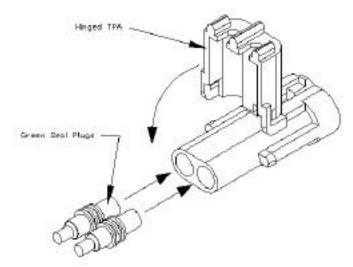
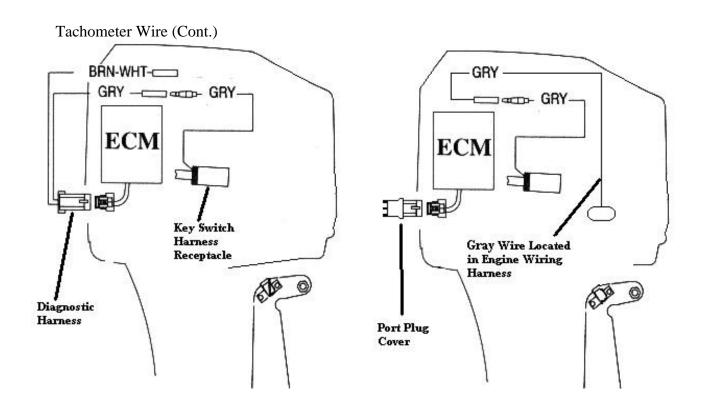


Illustration 1. Port Plug Cover Assembly



Illustrations 2 and 3. Modified from Drawings contained in Mercury Publication 90-10200010

Temperature Sender Wire (Refer to Illustration 4 below)

4. Install the Temperature Sender Harness between the Temperature Sender Tan/Blue wire and the Key Switch Harness Tan wire.

### -Note 1-

3.0 Litre Models with serial numbers later than 0T280001 and 2.5 Litre Models with serial numbers later than 0275885 are supposed to have the Temperature Sender Harness installed at the factory along with the 4 wire temperature sender with Tan/Blue wire. If your outboard does not have the 4 wire sender with Tan/Blue wire, please refer to Mercury Outboard Advisory 2000-11 for sender replacement instructions. If your outboard does not have the Temperature Sender Harness installed from the factory, utilize the harness supplied in KT0336.

Temperature Sender Wire (Cont.)

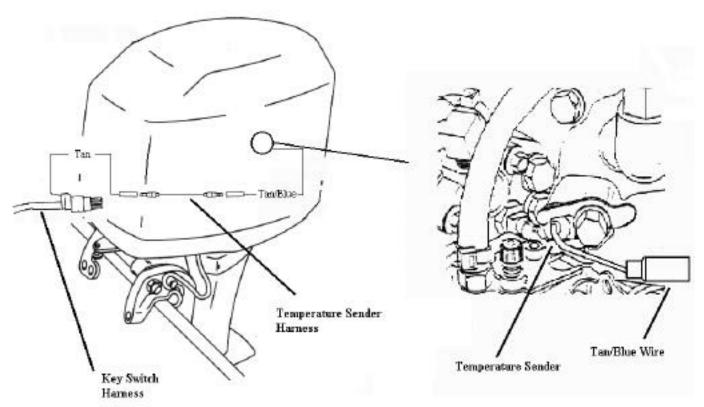


Illustration 4. Modified from Drawings contained in Mercury Publication 90-10200010 and Outboard Advisory 2000-11 Pitot-Tube Speedometer Hose (Refer to Illustration 5 Below)

- 5. Remove upper Black speedometer pressure hose from union fitting by depressing release flange while pulling on hose.
- 6. Insert Barb Fitting Adaptor into Union Fitting and attach pitot hose. Route pitot hose.

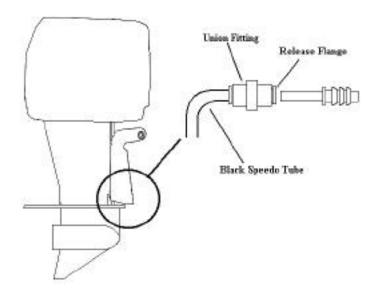


Illustration 5. Created from Drawing contained in Mercury Outboard Advisory 2000-11

## Faria MARINE INSTRUMENTS

### Mechanical Pressure Gauge Hose

- 7. Locate the Gray hose with Red end plug that exits the front of the engine. Remove the Red Plug by pushing on the coupler ring.
- 8. Insert a Barb Fitting Adaptor into the coupler and attach gauge hose to fitting.

### Optimax Trim Gauge (Refer to Illustration 6 below)

- 9. Locate the three (3) trim sender wires (Blue, Black, and Yellow).
- 10. Unplug the bullet connectors and seal the engine connectors with two (2) Female Bullet Connector Caps and the Male Bullet Connector Cap removed in Step 3. If the Male Bullet Connector Cap is unavailable, use one (1) of the red caps included in the kit.
- 11. Plug Harness in as shown in Illustration 6.

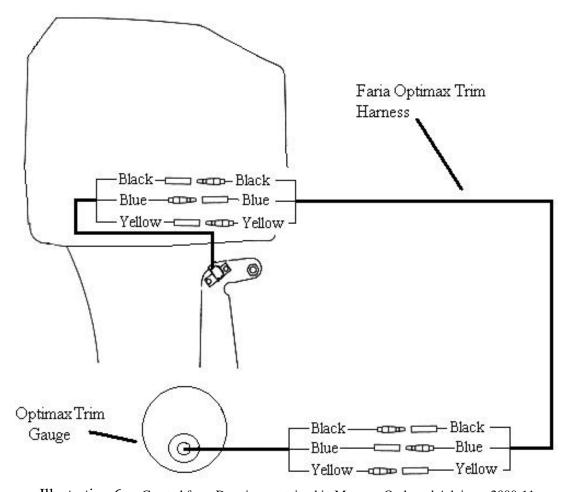


Illustration 6. Created from Drawing contained in Mercury Outboard Advisory 2000-11

# Faria MARINE INSTRUMENTS

### **Under-Console Alterations**

Tachometer and Temperature gauge hookup. (Refer to Illustration 7 below)

1. Plug Analog Tachometer Harness into Key Switch Harness Receptacle. Sender wire designations and power connections are shown in Illustration 6.

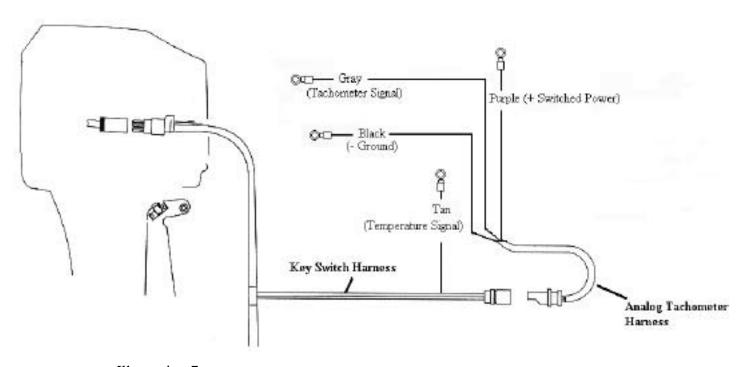


Illustration 7. Modified from Drawings contained in Mercury Publication 90-10200010