Disconnect the battery during installation. Tighten nuts on the backclamp only slightly more than you can tighten with your fingers. Six inch-pounds of torque is sufficient. Overtightening may result in damage to the instrument and may void your warranty.

**Note**

a. To change light bulb, twist black socket assembly one-eighth turn counter clockwise until it pops out. Bulb pulls straight out of assembly. Use a GE No. 194 instrument lamp for replacement.

b. If your Tachometer is equipped with an hourmeter, the hourmeter will be energized only while the engine is running.

**Installation**

1. Location: The tachometer should be located at least 18" from a magnetic compass. Some interference (erratic operation) may be noticed on the tachometer during radio transmissions. This will neither damage a tachometer nor affect accuracy when not transmitting.

2. Be certain to use stranded, insulated wire not lighter than 18AWG that is approved for marine use.

   It is recommended that insulated wire terminals, preferably ring type, be used on all connections to the tach, except the light, which requires a 1/4” insulated female blade terminal.

3. Using a small flat head screw driver, SLIGHTLY depress and turn the selector switch on the back of the tachometer to the correct position to match the number of poles in the alternator (see label on the side of the tachometer).

   Depressing the switch too hard may cause damage to the tachometer! Be sure the selector switch has locked into the detent at the correct position by slightly rotating the switch back and forth with the screwdriver.

   If the number of poles is not known, consult the “Outboard Tachometer Application” chart or call Faria Beede Instruments at (860) 848-9271 with make, model, HP, and year of the motor.

   Note: If a fine adjustment is required, use a 000 Phillips Jewelers screw driver through the Fine Adjustment Pot access hole. (Some older model tachometers may required a 5/64 allen wrench.)

4. Cut a 3-3/8” (for 4” tachometer or 4 3/8” for 5”) diameter hole in the dash and mount the tachometer with the backclamp supplied.

   For connectorized cases be sure to cut a .175” wide by .115” deep notch to accept the key on the case.

   See Detail A on next page.

**Wire Connections**

**Standard Case**

5. Connect a wire to the tach stud marked “BAT” (battery) and secure with a nut and lock washer. Connect the opposite end to a 12VDC circuit that is activated by the ignition switch.

6. Connect a wire to the tach stud marked “SIG” (signal) and secure with a nut and lock washer. Connect the opposite end to a terminal or wire originating from the unrectified side of the alternator. On most late model outboards, a tach hook-up wire can be found at the control box. Tach plug-in harnesses are sometimes available from the engine manufacturer to simplify the hook-up.

7. Connect a wire to the tach stud marked “GND” (ground) and secure with a nut and lock washer. Connect opposite end to the boat’s electrical ground, generally available in several locations at or near the instrument panel.

8. Connect the blade terminal adjacent to the twist-out light assembly to the positive “+” side of the boat’s instrument lighting circuit. No separate ground is required for lighting.

**Connectorized Case**

5. Insert a wire with appropriate contact to the Tachometer Signal function of the connector. Connect the opposite end to the terminal or wire originating from the unrectified side of the alternator. On most late model outboards, a tachometer hookup wire can be found at the control box. Tachometer plug-in harnesses are sometimes available from the engine manufacturer to simplify the hookup.

6. Insert a wire with the appropriate contact to the ‘+’ (positive) function of the connector. Connect the opposite end to a 12Vdc circuit that is activated by the ignition switch.

7. Insert a wire with appropriate contact to the ground function of the connector. Connect the opposite end to the boat’s electrical ground, generally available in several locations at or near the instrument panel.

8. Insert a wire with appropriate contact to the light function of the connector. Connect the opposite end to the positive portion of the lighting circuit. Insert the connector into the back of the case.

   Go to next page for diagrams of wire connections.

**Reconnect Power**

9. Reconnect the battery.
Deutsch Connector Case

3-3/8" dia.
NOTE: 5" requires a 4 3/8" diameter hole.

 Packsard Connector

For technical assistance, contact Faria Beede Instruments - Customer Service between 8:30 AM and 5:30 PM Eastern time weekdays at (860) 848-9271 or (800) 473-2742.
Outboard Tachometer Applications

<table>
<thead>
<tr>
<th>Make / Year</th>
<th>Model</th>
<th># of Poles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrysler</td>
<td>1968 - 1983</td>
<td>35 HP, 70 HP &amp; up 12</td>
</tr>
<tr>
<td>Force</td>
<td>1984 - 1999</td>
<td>50 HP through early 1987 (A,B models) 8</td>
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<tr>
<td>Honda</td>
<td>to Present</td>
<td>70 HP &amp; up Cabreu, DT 2-Stroke Models 12</td>
</tr>
<tr>
<td>Mercury/Mariner</td>
<td>1977 to Present</td>
<td>18, 25, 48, 60 HP Mariner through 1983 4</td>
</tr>
<tr>
<td>Suzuki</td>
<td>to Present</td>
<td>All LLDI 40 through 115</td>
</tr>
<tr>
<td>Tohatsu / Nissan</td>
<td>1997 to Present</td>
<td>115 HP, 120 HP, 140 HP, M115A-M140A (all 4 cyl) 12</td>
</tr>
<tr>
<td>Yamaha</td>
<td>1964 to Present</td>
<td>All TLDI 40 through 115</td>
</tr>
<tr>
<td>Evinrude/Johnson</td>
<td>1977 to Present</td>
<td>9.9 HP - 15 HP 4 stroke after 2001 6</td>
</tr>
<tr>
<td></td>
<td>for 88 HP (90) &amp; 112 HP (115)</td>
<td>2 cylinders less than 70 HP (Pre 1993) 12</td>
</tr>
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<td></td>
<td>A System Check Tach or 2&quot; gauge is required.</td>
<td>6000 RPM Outboard Tach</td>
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<td>7000 RPM Outboard Tach</td>
</tr>
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Notes:

a. 6000 RPM tachs are for Inboard & I/O gas engine applications only
b. 7000 RPM & 8000 RPM tachs are for all outboard motor applications only. 20 Pole Tachs are no longer available.

c. Electrical pulses per revolution are equal to 1/2 the number of alternator poles.

d. Older model outboards (prior to 1977) may have the tach signal wire originating at the ignition system though they are alternator equipped. All alternator tachometers may be used on these systems by disconnecting the tach signal wire at the engine and connecting that wire to the unrectified alternator signal at the rectifier. Be certain the number of alternator poles match the tachometer pole setting of the tach.

e. TOHATSU recommends, when using aftermarket tachs on TLDI engines, using inductor light kit part number 3Y9762510 and Harness 3T5710420. Strong alternator interference on some TOHATSU / NISSAN outboards and some pre 2001 Mercury 90HP outboards may require wiring a .1mf, 100 volt non-polarized capacitor between the signal and ground stud terminals.

f. Faria Beede no longer makes a 20 pole tach.

E/N CYL. SWITCH SETTING
1 = 4 CYL
2 = 6 CYL
3 = 8 CYL
4 = 12 POLE OB ALT
SLIGHTLY DEPRESS WHILE TURNING

7000 RPM Outboard Tach

OB ALT SWITCH SETTING
1 = 4 POLE
2 = 6 POLE
3 = 8 POLE
4 = 10 POLE
5 = 12 POLE
SLIGHTLY DEPRESS WHILE TURNING

6000 RPM w/12 Pole option

Reference IS0086 Rev. U ecn 10390 6/2016