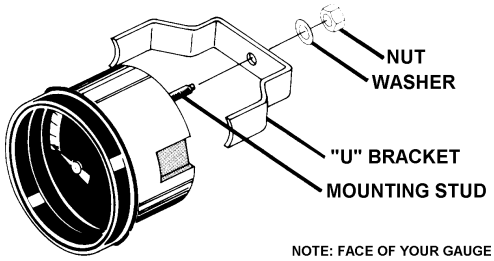
Marine Products
COPYRIGHT 1997 - TELEFLEX, INC., (USA)

Manufactured by:
Teleflex inc. (USA)
6980 Professional Pkwy East
Sarasota, FL 34240-8414
Phone (941) 907-1000
FAX (941) 907-1020
www.tflx.com

POWER TRIM INDICATOR INSTRUCTIONS



NOTE: FACE OF YOUR GAUGE MAY DIFFER FROM DRAWING

FIGURE 1

FOLLOWING ARE INSTRUCTIONS FOR INSTALLING A POWER TRIM INDICATOR TO INBOARD/OUTBOARD AND OUTBOARD ENGINES.

THE ENGINE OR DRIVE UNIT MUST BE EQUIPPED WITH A TRIM SENDER - IF NOT, THE GAUGE WILL NOT WORK. THESE SENDERS ARE A PRODUCT OF THE VARIOUS ENGINE/DRIVE MANUFACTURERS, NOT TELEFLEX.

THE GAUGE INDICATES THE ATTITUDE OF THE VESSEL'S BOW (HIGH, LOW) WHEN THE ENGINE IS TRIMMED. *IT IS NOT INTENDED FOR DUAL STATION USE UNLESS THE DRIVE'S SENDER IS SPECIFICALLY INTENDED FOR USE WITH TWO GAUGES PER SENDER. THE USE OF ANY GAUGE NOT INTENDED FOR USE WITH THAT SENDER MAY RESULT IN DAMAGE TO THE SENDER. CONSULT THE CATALOG AND TELEFLEX APPLICATION GUIDE FOR PROPER GAUGE, ENGINE AND SENDER APPLICATIONS.*

Additional supplies required to complete installation:

Trim Sender - available from engine/drive manufacturer if not present.

No. 16 stranded insulated wire suitable for marine use. (Colors to match engine/boat color code recommended.)

Insulated terminal lugs as required.

CAUTION: READ THESE INSTRUCTIONS CAREFULLY BEFORE PROCEEDING WITH INSTALLATION. DO NOT DEVIATE FROM WIRING INSTRUCTIONS. INCORRECT WIRING COULD CAUSE ELECTRICAL SHORT AND POSSIBLE FIRE. ALWAYS DISCONNECT BATTERY BEFORE MAKING ANY ELECTRICAL CONNECTIONS.

PREPARATION FOR INSTALLATION

Select a mounting location for gauge which provides good readability from the operator's position. Check behind the dash for sufficient installation clearance.

1. Cut a 2-1/8" (54mm) diameter hole through panel at desired location.
2. Insert gauge into mounting hole and check for fit.
3. Open Hardware Package . Fit "U" bracket over mounting stud on back of Gauge. (See Figure 1). Bracket is made to accommodate panels to ½" (13mm) thickness. Legs of bracket may be shortened if necessary.

INSTALLATION OF GAUGE

After checking fit of gauge and "U" bracket, insert gauge into panel and install bracket over mounting stud. Install nut and washer as shown in Figure 1. (Gauges for Honda application differ in appearance from Figure 1. Two mounting studs are used. Refer to Figure 3).

Tighten nut(s) until Gauge can no longer be rotated in panel by hand. **CAUTION: OVERTORQUING OF NUT MAY CRACK GAUGE HOUSING OR MOUNTING PANEL**.

CONNECTION OF WIRING

Refer to Engine/Drive Owner's Manual (or other Technical Information) and identify Trim Sender Wires.

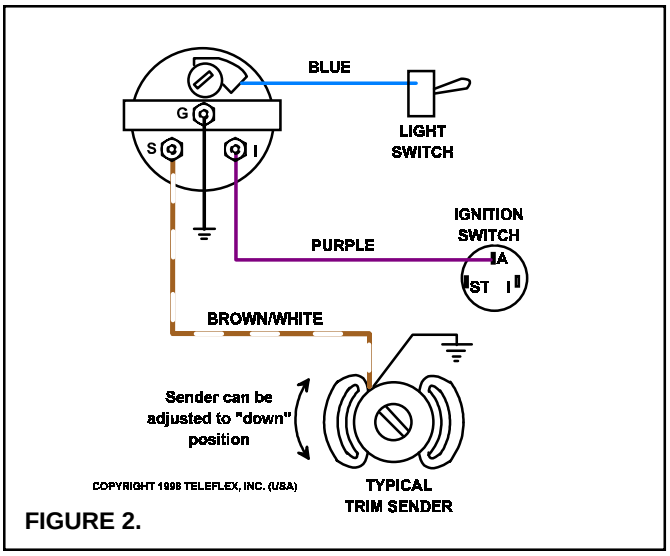


FIGURE 2.

Evinrude/Johnson/Mariner/Mercury/OMC Stern Drive:

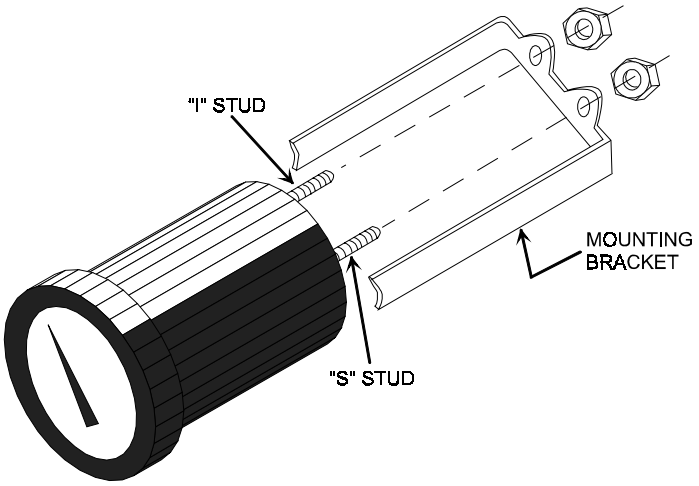
Refer to Figure 2 and connect wiring as follows:

1. Using No. 16 stranded marine wire, connect "G" terminal of gauge to electrical system ground. **Note:** If you are installing the Trim Sender, you will have to make a ground connection to the appropriate wire from the Sender also.
2. Connect "I" terminal of gauge to "I" terminal of another gauge or to "I" terminal of Ignition Switch.
3. Connect the appropriate wire (U.S. made engines - usually Brown/White) from Engine/Drive's Trim Sender to the "S" terminal of the Gauge.
4. If lighting is desired, connect "L" terminal of gauge to Panel Light Switch or "L" terminal of another gauge.

Yamaha Outboards:

Refer to Figure 2 and connect wiring as follows:

1. Using No. 16 stranded marine wire, connect "G" terminal of gauge to electrical system ground. **Note:** If you are installing the Trim Sender, you will have to make a ground connection to the appropriate wire from the Sender also.
2. Connect "I" terminal of gauge to "I" terminal of another gauge or to "I" terminal of Ignition Switch.
3. Connect the Pink wire from Engine/drive's Trim Sender to the "S" terminal of the Gauge.
(Do not connect Orange wire from sender, tape/insulate end)
4. If lighting is desired, connect "L" terminal of gauge to Panel Light Switch or "L" terminal of another gauge.



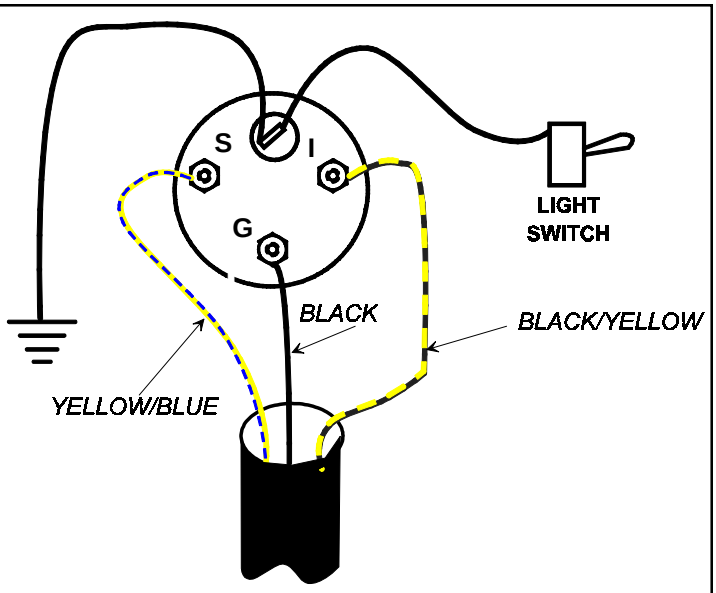


FIGURE 3

Honda Outboards:

Refer to Figure 3 and connect wiring as follows:

1. Connect “G” terminal of gauge to Black wire in Honda Trim Harness. **Note:** If you are installing the Trim Sender, follow procedure in Honda Shop Manual.
2. Connect “I” terminal of gauge to Black/Yellow wire in harness.
3. Connect the Yellow/Blue wire from Trim Sender Harness to the “S” terminal of the Gauge.
4. If lighting is desired, connect one wire from light socket to Panel Light Switch or “L” terminal of another gauge. Connect other wire from light socket to Ground.

CAUTION: BEFORE RECONNECTING BATTERY, RE-CHECK WIRING TO INSURE ALL CONNECTIONS ARE PROPERLY MADE. INCORRECT WIRING COULD CAUSE DAMAGE TO COMPONENTS OR ELECTRICAL SHORT WITH POSSIBLE FIRE. ELEMENTS OF ELECTRICAL SYSTEMS SHOULD HAVE SUITABLE FUSES INSTALLED. MAKE SURE ALL WIRING IS DRESSED AND SECURED AWAY FROM MOVING OR HOT ENGINE COMPONENTS.

When wiring is complete, connect power and check gauge for proper operation.

TROUBLESHOOTING

1. *Gauge reads backwards* - wrong gauge for application. Consult catalog for correct Part Number gauge.
2. *Gauge pointer goes Full “Up” when power is applied even though engine/drive is not-*
   Evinrude/Johnson Outboards - sender wire/sender is shorted to Ground.
   Mariner/Mercury/Honda/Yamaha - sender wire is broken/ disconnected, or sender has no continuity.
3. *Gauge pointer goes Full “Down” when power is applied even though engine/drive is not -*
   Evinrude/Johnson Outboards - sender wire is broken/ disconnected, or sender has no continuity.
   Mariner/Mercury/Honda/Yamaha - sender wire/sender is shorted to Ground.

Typical Sender Ranges

Engine Type	Sender Resistance (ohms)	
	Up	**Down**
Evinrude/Johnson Outboards	1	88
Pre 1978 OMC I/O Selectrim	33	240
1979 & on OMC I/O Selectrim & OMC Seadrive	88	10
Mercruiser,Mariner, Mercury Outboards,OMC Cobras, Volvo DP/SX Force ‘95 & on 40, 50, 90 & 120 HP Single Ram	167	10
Mercruiser Alpha,Bravo I & II (with sender for 2 gauges)	84	5
Yamaha I/O EST Series (low current draw)	167	10
Yamaha Outboards, pre 2001	411	110
Yamaha Outboards, 2001 (“Z” in model number)	167	10

If you require Technical Assistance or Warranty Replacement on this product, contact your Dealer, or Teleflex Technical Service.