



## 6 Gauge Box Set with GPS Speedometer

# IS0378

Rev A ecr 100123 6/2015

**For Inboard Engines**

Part Number

KTF064

KTF063

**CAUTION:** Disconnect the battery during installation. Tighten nuts on the back clamp only slightly more than you can tighten with your fingers. *Six inch-pounds of torque are sufficient.* Over tightening may result in damage to the instrument and may void your warranty. Gasket cement or other adhesive is not required to secure tubing to fittings.

Use stranded, insulated wire not lighter than 18 AWG approved for marine use.

Be certain wire insulation is not in danger of melting from engine or exhaust heat or interfering with moving mechanical parts.

### PARTS LIST

#### Speedometer

QTY	Description		
1	Speedometer - GPS	1	
1	Mounting Bracket	2	
Hardware			
7	#8 Brass Nut	3	
2	#8 Brass Flat Washer	4	
4	#8 Split Washer	5	

#### Tachometer

QTY	Description		
1	Tachometer	1	
1	Mounting Bracket	2	
Hardware			
7	#10 Brass Nut	3	
2	#10 Brass Flat Washer	4	
4	#10 Split Washer	5	

#### Fuel Level Gauge

QTY	Description		
1	Fuel Level gauge	1	
1	Mounting Bracket	2	
Hardware			
6	#10 Brass Nut	3	
3	#10 Brass Flat Washer	4	
3	#10 Split Washer	5	

#### Voltmeter

QTY	Description		
1	Voltmeter	1	
1	Mounting Bracket	2	
Hardware			
4	#10 Brass Nut	3	
2	#10 Brass Flat Washer	4	
2	#10 Split Washer	5	

**Water Temperature Gauge**

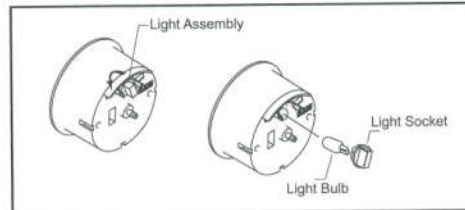
QTY	Description	
1	Water Temperature Gauge	1
1	Mounting Bracket	2
Hardware		
6	#10 Brass Nut	3
3	#10 Brass Flat Washer	4
3	#10 Split Washer	5

**Oil Pressure Gauge**

QTY	Description	
1	Oil Pressure gauge	1
1	Mounting Bracket	2
Hardware		
6	#10 Brass Nut	3
3	#10 Brass Flat Washer	4
3	#10 Split Washer	5

**Light Bulb Replacements**

Speedometer	GE No. 194
Tachometer	GE No. 194
Fuel Level Gauge	GE No. 658
Voltmeter	GE No. 658
Water Temp Gauge	GE No. 658
Oil Pressure Gauge	GE No. 658



## Installation

1. Disconnect the negative battery terminal.
2. If you are not replacing an existing gauge in the dash, locate a mounting location for the gauge(s) that provide easy readability from the operator's position. Verify there is enough workable space behind the mounting location to install your gauge and make connections if necessary.
3. Cut a hole in the dash for each gauge. Use the chart to determine the correct hole size.
4. Install the gauge in the mounting hole and check fit.
5. Mount the gauge(s) with the mounting brackets using the split washers and brass nuts as shown on the next page. Tighten the nuts finger tight using only 6 inch pounds of torque.

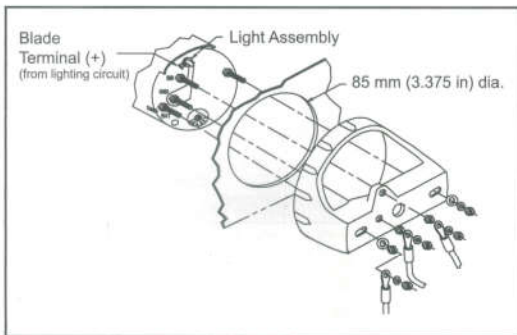
Gauge	Hole Dia.
Speedometer	85 mm (3.375 in)
Tachometer	85 mm (3.375 in)
Fuel Gauge	53 mm (2.063 in)
Voltmeter	53 mm (2.063 in)
Water Temp	53 mm (2.063 in)
Oil Press	53 mm (2.063 in)

### Warning:

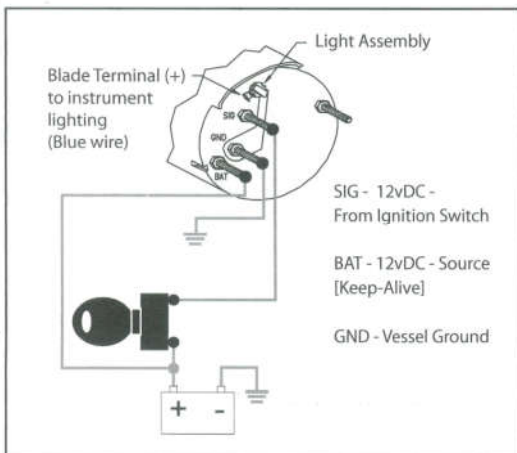
Do not over tighten the mounting nuts. Over tightening the nuts may crack the gauge housing, mounting bracket or mounting panel.

6. It is recommended that insulated wire terminals, preferably ring type be used on all connections. Light assembly connections require 6 mm (.25 in) female blade terminal.
7. When all instruments are installed reconnect the battery.

### GPS Speedometer



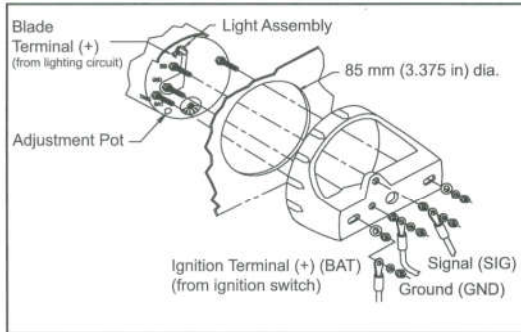
1. Connect a wire to the SIG post on the speedometer to the 12 vDC side of the ignition.
2. Connect a wire to the BAT post on the speedometer to the 12 vDC. It is recommend to connect this to an always on 12 vDC source.
3. Connect a wire to the (+) blade on the lighting assembly on the speedometer to the 12 vDC side of the ignition.
4. Connect a wire to the GND post on the speedometer to the electrical ground, generally available in several locations at or near the instrument panel.



### Operation

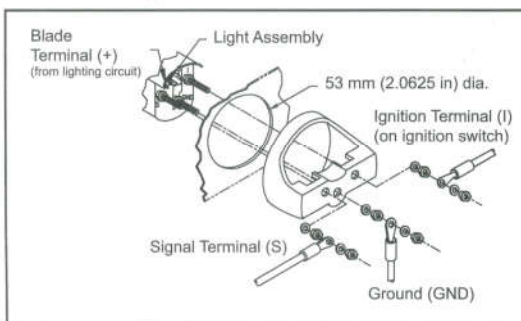
1. After turning on the power the speedometer will perform a full scale sweep and go to 5 MPH.
2. Once the Speedometer has a GPS Lock on the satellite the Pointer will read current speed.

**Tachometer Connections**

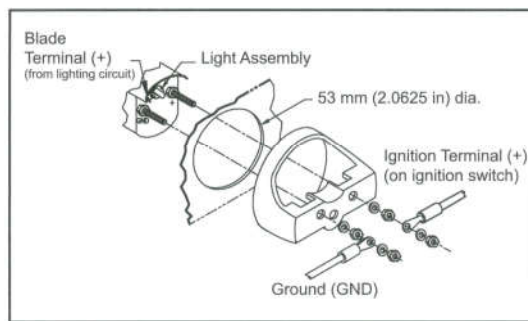


Using a small screwdriver, SLIGHTLY depress and turn the selector switch on the back of the tachometer to the correct position to match the number of cylinders (see label on the side of the tachometer). Depressing the switch too hard may cause damage to the tachometer! Be sure the selector switch has locked into the detent at the correct position by slightly rotating the switch back and forth with the screwdriver.

**Fuel Level Gauge Connections**

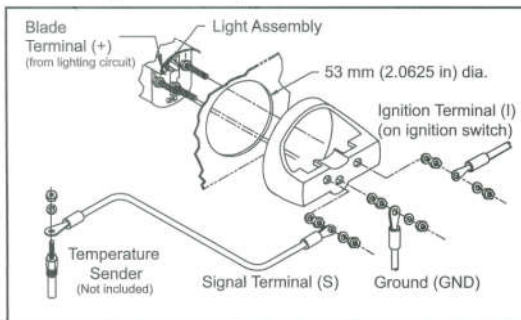


**Voltmeter Connections**

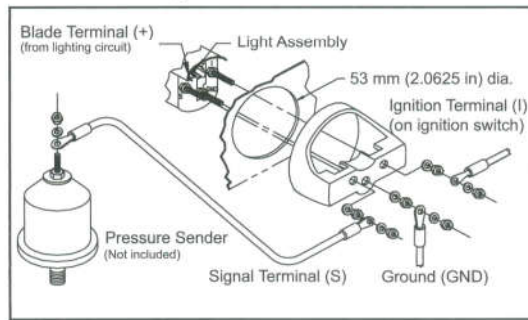


**Special Caution** should be taken when working on or around tanks that have, or have had fuel in them.

**Water Temperature Gauge Connections**



**Oil Pressure Gauge Connections**





**Selecting the proper Sender**

Senders are designated by the following descriptions and must be selected in combinations of one each from A, B, & C.

(For example: Single station, American resistance, Standard ground)

A	Station <sup>a</sup>	Single
		Dual
B	Resistance <sup>b</sup>	American
		European
C	Ground <sup>c</sup>	Standard
		Floating

Notes:

a. Station: It is the sender that is unique in a dual station application. The gauge is the same in either single or dual applications.

b. Resistance: Choose your sender to electrically match your gauge not just the manufacturer. Some sender manufacturers make both resistance types; and, some instrument manufacturers may use either resistance type depending on the gauge. There is usually no visual way alone to determine the resistance type.

c. Ground: Standard ground is the most common having battery negative (-) connected directly to the engine block. Sending units may have one (1) terminal (signal). In a floating ground system, the battery negative is not connected to the engine block so merely threading in the sender does not supply ground. Floating ground senders will have two (2) terminals (signal & ground). Both sender terminals may be wired to the appropriate gauge terminal or the sender's ground may be wired directly to the battery negative. A floating ground sender may be used in a standard ground system but not vice versa.

**Oil Pressure Senders**

Engines or transmissions equipped with a low oil pressure switch that activates a warning light require an appropriate "T" pipe fitting to accommodate both pressure sender and warning light. Most oil pressure sending units have 1/8"NPT pipe threads and are usually mounted in the engine's block. If the block or transmission case has a larger pipe size, an appropriate bushing may be used without affecting pressure- sensing accuracy.

**Temperature Senders**

Temperature senders are available from Faria® Marine Instruments in 1/8"NPT thread sizes. If your water jacket, oil pan or transmission housing requires a thread diameter larger than 1/8"NPT, a bushing will be required. "T" fittings should NOT be used as these may affect the accuracy of the sender by reducing the temperature signal.