Outboard Motor Tachometer & Tachometer with Hourmeter

IS0012
Rev. Y ecn 10071 3/2015

Caution

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.

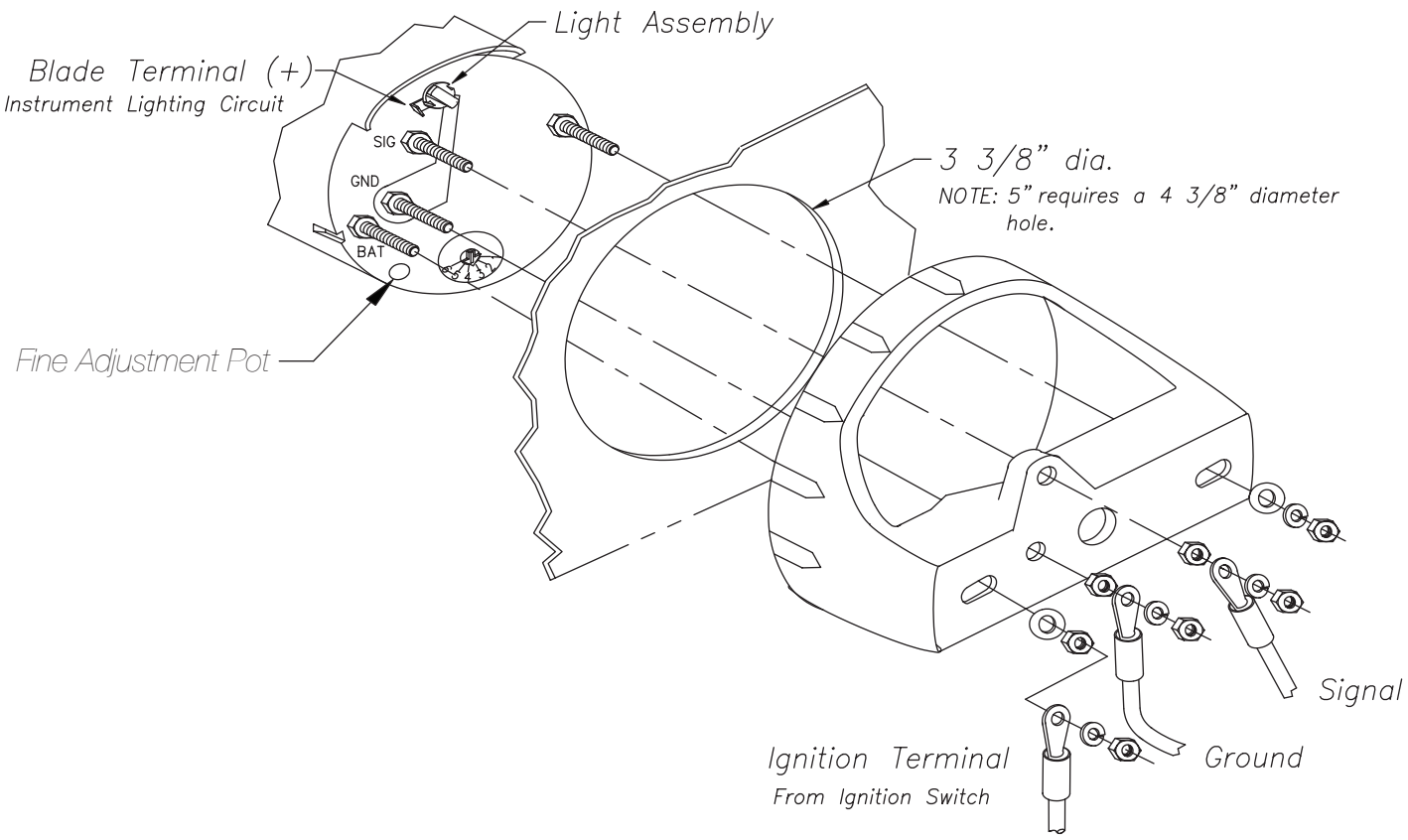
Reconnect Power

9. Reconnect the battery.

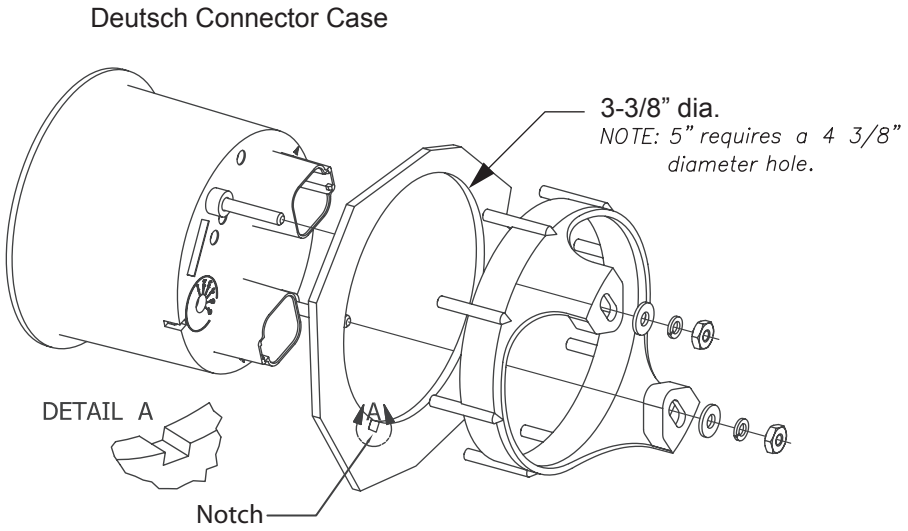
Made in the USA

Faria Beede Instruments, inc.
www.FariaBeede.com

Standard Case - Wire diagram



Connectorized Case - Wire diagram



Deutsch Connector

Hookup	Function
P1.1	'+' Positive
P1.2	Lights
P1.3	Tachometer Signal
P1.4	N/C
P1.5	N/C
P1.6	Ground

Connector	DT06-6S
Contact	1062-16-0122
WedgeLock	W6S
Plug	114017

Packard Connector

Hookup	Function
P1.A	'+' Positive
P1.B	Lights
P1.C	Ground
P1.D	Tachometer Signal

Connector	12162189
Contact	12124075
Plug	12034413

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.

IS0012

Outboard Tachometer Applications

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Make / Year	Model	# of Poles
Chrysler	35 HP, 70 HP & up	12
1968 - 1983	55, 60, 85 & 125 HP	20
Force	50 HP through early 1987 (A,B models)	8
1984 - 1999 Some older Force engines are 20 pole (see note f.)	35 HP (1986 & later) 40 HP (1991 & later) 50 HP (1992 B models & later) 70 HP (1991 & later) 90 - 120 HP L-Drive (1991 B & later) 145 HP L-Drive (1991 & later)	12
Honda to Present Older tiller models require Honda jumper wire 32197-ZH8-003, BF 40/50 HP require 06383-ZV5-315 Tach Kit (thru 2005)	BF 75/100A, BF 8A, BF 9.9/15A HP BF 25/30, BF60, BF 75/90 HP BF 40/50 (2006 and later) BF 115 /130 HP BF 135/150 HP, BF 200/225 HP	4
	BF 35/45, BF 40/50 HP (thru 2005)	6
	BF 8D/9.9D, BF 15D/ 20D (Includes Power Thrust Models)	12
Mercury/Mariner 1977 to Present (See note "e") *Use Tach adapter #17461A9 Service #17461T9 **Use Tach adapter MM #17461A8 or A10 Service #56-883040A1 SmartCraft requires AGI converter for Analog Gauges.	18, 25, 48, 60 HP Mariner through 1983 8, 9.9, 15 and 25 HP (4 stroke)(after1998-2004) Less than 40 HP - All Before 1999 40 HP (serial # 582399 and before)	4
	8, 9.9 (Before 1999 and after 2005) & 50HP (4 stroke)	6
	6 to 25 HP 1999 & up, *2002 & up	10
	25 HP & 30 HP (4 stroke) 40 HP (after serial # 582399) 45 HP (1987), 50-60 HP (4 stroke EFI) 50 HP & above, ** 75, 90,115 HP (4 stroke EFI) 135, 150, 200, 225 HP, DI 3.0L EFI 225 & 250 HP Pro Max 3.0L 300 HP EFI	12
Evinrude/Johnson 1977 to Present for 88 HP {90} & 112 HP {115} a voltage reg. kit is recommended. A System Check Tach or 2" gauge is required	9.9 HP -15 HP 4 stroke after 2001	6
	All 2 cylinders less than 70 HP	10
	9.9 HP & 15 HP (2 cylinder) (4 stroke) 25-35 HP 3 CYL 40-50 HP, 2 cylinder (1993 & later) 60 HP, 3 cylinder (1985 & later) 70 HP & greater, including sea drives All FICHT models All E-Tech 40 HP - 250 HP	12
Suzuki to Present A System Monitor Tach or 2" gauge is required	Less than 55 HP - All, DT55, 2-Stroke Models 60 HP, 65 HP thru 1985, DT 2-Stroke Models 50 - 60 HP Cabrea, DT 2-Stroke Models	4
	DF 2.5 through DF 15, DF 25 V(TWIN) 2006 & later 25 HP & 30 HP (1993 & later) DT 2-Stroke Models 55 HP & 65 HP (1985 & later) DT 2-Stroke Models	6
	75 HP & up (1985 & later) DF 25 through DF 30 (3 Cyl Models), DT 2-Stroke Models 75 HP and up (Cabrea) DT 2-Stroke Models 115 HP and up (1988 & later), DT 2-Stroke Models DF 40 through DF 250, (4 stroke) ALL	12
Tohatsu / Nissan to Present (See note "e").	(2 strokes) 8 HP, 9.8, 9.9, 15, 18, 25, 30, 40C, M40C or less (all 2 cylinder) All TLDI 40 through 115	4
	(2 strokes) M40D, 40D2, 50D, 50D2, 70B and CM90A (all 3 cylinder) (4 strokes) MFS20 or less	6
	(2 strokes) 115 HP, 120 HP, 140 HP, M115A-M140A (all 4 cyl.) (4 strokes) 8, 9.8, 9.9, 15, 18, 25 & 30 HP, EFI 25, 30, MFS25/30 (3 cyl)	12
Yamaha 1984 to Present S250B and V8 four stroke will not support a conventional tachometer.	6 HP - 25 HP (2 cyl '84-'87), F/T 9.9 ('85-'91) C25 - C55 (2 cyl) Except C30 (2cyl '93-'97)	4
	F/T 9.9 (MID '92 on), C30-C70 (3 cyl) C30 (2 cyl '93-'97), 25 HP (3 cyl), 25 HP (2 cyl,'88-'05) C/P/E 30-70, F8, F15, F20	6
	F/T 25-F250, HPDI 150-300, 80-SX250 F/T 9.9 (early '92), C75-C150, P75-P200 V /V X 150-250, F15C/F20	12

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 indictor 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 no longer makes a 20 pole tach.

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

ENG. CYL. SWITCH SETTING
1 - 4 CYL
2 - 6 CYL
3 - 8 CYL
4 - 12 POLE OB ALT
SLIGHTLY DEPRESS WHILE TURNING

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