

# **Tachometer Applications**

### OutBoard Engines

Chrysler	Make / Year	Model	# of Poles
Force	Chrysler	35 HP, 70 HP & up	12
35 HP (1986 & later)	1968 - 1983	55, 60, 85 & 125 HP	20
35 HP (1986 & later)	Force	50 HP through early 1987 (A,B models)	8
Some older Force engines are 20 pole (see note f.)	1984 - 1999		
Some older Force engines are 20 pole (see note f.)		40 HP (1991 & later)	
Some older Force   engines are 20 pole   (see note f.)		50 HP (1992 B models & later)	12
See note f.   145 HP L-Drive (1991 & later)   Honda to Present Older tiller models require Honda jumper wire 32197-ZH8-003, BF 40/50 (2006 and later)   4		70 HP (1991 & later)	12
Honda	1	90 - 120 HP L-Drive (1991 B & later)	
BF 25/30, BF60, BF 75/90 HP   BF 40/50 (2006 and later)   BF 40/50 (2006 and later)   BF 115 /130 HP   BF 135/150 HP, BF 200/225 HP   BF 335/150 HP, BF 200/225 HP   BF 35/45, BF 40/50 HP (thru 2005)   G 6 6 6 6 6 838-ZV5-315   BF 8D/9.9D, BF 15D/ 20D   12	(see note f.)	145 HP L-Drive (1991 & later)	
BF 40/50 (2006 and later)   4	Honda		
BF 115 /130 HP   BF 200/225 HP   BF 35/150 HP, BF 200/225 HP   BF 35/150 HP   At 10 HP (after serial # 582399 and before)   40 HP (after serial # 582399)   45 HP (1987), 50-60 HP (4 stroke)   40 HP (after serial # 582399)   45 HP (1987), 50-60 HP (4 stroke)   45 HP (1987), 50-60 HP (4			
wire 32197-ZH8-003,         BF 40/50 HP require         BF 35/45, BF 40/50 HP (thru 2005)         6           06383-ZV5-315         BF 8D/9.9D, BF 15D/ 20D         12           Tach Kit (thru 2005)         (Includes Power Thrust Models)         12           Mercury/Mariner         18, 25, 48, 60 HP Mariner through 1983         19.9, 15 and 25 HP (4 stroke)(after1998-2004)         12           (See note "e")         Less than 40 HP - All Before 1999         4           *Use Tach adapter         40 HP (serial # 582399 and before)         4           #17461A9         8, 9.9 (Before 1999 and after 2005) & 50H (4 stroke)         6           Service #17461T9         Verado 200 - 400 HP         8           **Use Tach adapter         6 to 25 HP 1999 & up, *2002 & up         10           MM #17461A8 or A10         25 HP 309 & up, *2002 & up         10           Service #56-883040A1         25 HP 309 & up, *2002 & up         10           SmartCraft requires AGI converter for Analog         50 HP & above, ** 75, 90,115 HP (4 stroke EFI)         12           SmartCraft requires AGI converter for Analog         30 L EFI 225 & 250 HP         12           Gauges.         99 HP - 15 HP 4 stroke after 2001         6           All 2 cylinders less than 70 HP (Pre 1993)         10           40 - 50 HP, 2 cylinder (1993 & later)		BF 40/50 (2006 and later)	4
## 10			
BF 8D/9.9D, BF 15D/ 20D	1	,	
Tach Kit (thru 2005)			Ь
Mercury/Mariner   1977 to Present   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   4   40 HP (serial # 582399 and before)   8, 9.9 (Before 1999 and after 2005) & 50H (4 stroke)   6   Verado 200 - 400 HP   8   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)   12   135, 150, 200, 225 HP, DI   3.0L EFI 225 & 250 HP   Pro Max 3.0L 300 HP EFI   Evinrude/Johnson   1977 to Present   for 88 HP (90) & 9.9 HP -15 HP 4 stroke after 2001   6   All 2 cylinders less than 70 HP (Pre 1993)   10   9.9 HP & 15 HP (2 cylinder) (4 stroke)   12   40-50 HP, 2 cylinder (1993 & later)   12   40-50 HP, 3 cylinder (1985 & later)   70 HP & greater, including sea drives   All FICHT models			12
1977 to Present (See note "e")		,	
(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.  Evinrude/Johnson 1977 to Present for 88 HP {90} & 12 HP {115} a voltage reg. kit is recommended. A System Check Tach or 2" gauge is required  *Use Tach adapter MM #17461A8 or A10 Service #56-883040A1  Less than 40 HP - All Before 1999 40 HP (serial # 582399 and before) 8, 9.9 (Before 1999 and after 2005) & 50H (4 stroke) 6 Verado 200 - 400 HP 8			
*Use Tach adapter #17461A9		, , , , , , , , , , , , , , , , , , , ,	,
#17461A9 Service #17461T9 **Use Tach adapter MM #17461A8 or A10 Service #56-883040A1  SmartCraft requires AGI converter for Analog Gauges.  Evinrude/Johnson 1977 to Present for 88 HP {90} & 9.9 HP -15 HP 4 stroke after 2001 for 88 HP {90} & 9.9 HP -15 HP (2 cylinder) (4 stroke)  12 System Check Tach or 2" gauge is required  8, 9.9 (Before 1999 and after 2005) & 50H (4 stroke) 8 8	,		4
Verado 200 - 400 HP			6
**Use Tach adapter MM #17461A8 or A10 Service #56-883040A1  Service #58-83040A1  Service #56-883040A1  Service #56-883040A1  Service #582399)  45 HP (4stroke)  12  135, 150, 200, 225 HP, DI  3.0L EFI 225 & 250 HP  For Max 3.0L 300 HP EFI  Sevinrude/Johnson  1977 to Present  All 2 cylinders less than 70 HP (Pre 1993)  Service #56-883040A1  Service #56-883040A  Se			
MM #17461A8 or A10   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)   12   135, 150, 200, 225 HP, DI   3.0L EFI 225 & 250 HP   Pro Max 3.0L 300 HP EFI			-
Service #56-883040A1			10
45 HP (1987), 50-60 HP (4 stroke EFI)   50 HP & above, ** 75, 90,115 HP (4 stroke EFI)   12   135, 150, 200, 225 HP, DI   3.0L EFI 225 & 250 HP   Pro Max 3.0L 300 HP EFI		,	
SmartCraft requires AGI converter for Analog Gauges.			
SmartCraft requires AGI converter for Analog Gauges.         135, 150, 200, 225 HP, DI         3.0L EFI 225 & 250 HP         3.0L EFI 225 & 250 HP         9.9 HP -15 HP 4 stroke after 2001         6         4         6         4         6         4         6         6         4         7         8         7         7         7         8         7         8         7         8			12
converter for Analog Gauges.         3.0L EFI 225 & 250 HP Pro Max 3.0L 300 HP EFI           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 All 2 cylinders less than 70 HP (Pre 1993) 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 (1993 & later) 70 HP & greater, including sea drives All FICHT models         12	SmartCraft requires AGI		'-
Pro Max 3.0L 300 HP EFI   9.9 HP -15 HP 4 stroke after 2001   6	converter for Analog		
All 2 cylinders less than 70 HP ( Pre 1993)   10	Gauges.		
All 2 cylinders less than 70 HP ( Pre 1993)   10	Evingude/ Johnson	9.9 HP -15 HP 4 stroke after 2001	6
for 88 HP (90) & 9.9 HP & 15 HP (2 cylinder) (4 stroke)  112 HP {115} a 25-35 HP 3 CYL  voltage reg. kit 40-50 HP, 2 cylinder (1993 & later) is recommended. 60 HP, 3 cylinder (1985 & later) A System Check Tach or 2" gauge is required All FICHT models		All 2 cylinders less than 70 HP ( Pre 1993)	10
112 HP {115} a 25-35 HP 3 CYL 40-50 HP, 2 cylinder (1993 & later) 12 is recommended. A System Check Tach or 2" gauge is required All FICHT models			
voltage reg. kit is recommended. A System Check Tach or 2" gauge is required  40-50 HP, 2 cylinder (1993 & later) 60 HP, 3 cylinder (1985 & later) 70 HP & greater, including sea drives All FICHT models			
is recommended.  A System Check Tach or 2" gauge is required  60 HP, 3 cylinder (1985 & later) 70 HP & greater, including sea drives All FICHT models			
A System Check Tach 70 HP & greater, including sea drives all FICHT models	0 0		12
or 2" gauge is required			
		All E-Tech 40 HP - 250 HP	

6000 RPM w/12 Pole option - Pre 2016

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

6000 RPM w/12 Pole option - 2016 & newer

SWITCH SETTING
1 - 4 POLE/CYL
2 - 6 POLE/CYL
3 - 8 POLE/CYL
4 - 10 POLE
5 - 12 POLE
SLIGHTLY DEPRESS WHILE TURNING

wire to the unrectified alternator signal at the rectifier. Be certain the number of alternator poles match the tachometer pole setting of the tach.

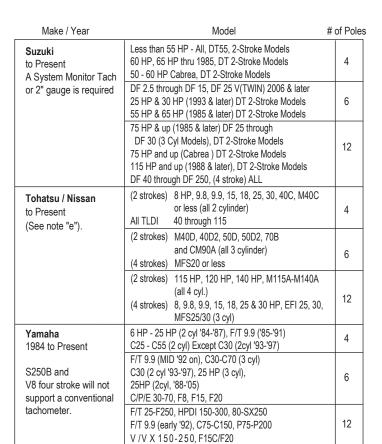
- e. TOHATSU recommends, when using aftermarket tachs on TLDI engines, using indictor light kit part number 3Y9762510 and Harness 3T5710420. Strong alternator interference on some TOHATSU / NISSAN outboards and some pre 2001 Mercury 90HP outboards may require wiring a .1mf, 100 volt non-polarized capacitor between the signal and ground stud terminals.
- f. Faria Beede no longer makes a 20 pole tach.

000 RPM Outboard Tach				
SWITCH SETTING				
1 - 4 POLE/CYL				
2 - 6 POLE/CYL				
3 - 8 POLE/CYL				
4 - 10 POLE				
5 - 12 POLE				
SLIGHTLY DEPRESS WHILE TURNING				

INO	τ	е	S	į
		-		

- 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

Faria Beede Instruments, inc. Made in the USA www.FariaBeede.com



## I/O and Inboard Engines

Most I/O and Inboard Applications use a Tach Setting as Follows					
4 Cylinder 6 Cylinder 8 Cylinder	Setting 1 Setting 2 Setting 3				
For Mercury engines use the following:					
Engine	Tach Signal	Pulses	Setting		
3.0 TKS	4 cyl	2P/Rev	1		
3.0 MPI EC	8 cyl	4P/Rev	3		
4.3 TKS	6 cyl	3P/Rev	2		
4.3 MPI	6 cyl	3P/Rev	2		
4.3 MPI EC	8 cyl	4P/Rev	3		
4.5L MPI	6 cyl	4P/Rev	3		
4.5L MPI EC	6 cyl	4P/Rev	3		
5.0 MPI	8 cyl	4P/Rev	3		
5.0 MPI EC	8 cyl	4P/Rev	3		
350 Mag	8 cyl	4P/Rev	3		
350 Mag EC	8 cyl	4P/Rev	3		
377 Mag & EC	8 cyl	4P/Rev	3		
8.2 Mag & EC	8 cyl	4P/Rev	3		