



2012

RIGGING GUIDE

Worldwide Edition

90894-62982-71

PREFACE

This rigging guide has been published to help Yamaha dealers set up Yamaha outboard-motors and genuine accessories.

The information and/or materials is based on 2012 year models available at the time when this guide has issued.

For US and Canada, the model name is expressed in the parenthesis for descriptive purposes.

In this guide, particularly important information is distinguished in the following ways,

⚠ WARNING

A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

NOTICE

A NOTICE indicates special precautions that must be taken to avoid damage to the products or other property.

Specifications and descriptions are subject to change without notice.

The PDF file is available from the service portal site maintained by Yamaha Motor Co., Ltd.

The following contracted terms are expediently used on this guide.

ASSY; assembly

DERC; Digital Electronic Remote Control

EXT; extension

GND; ground

IG; ignition

NA; not applicable, not available

OP; optional

P/N; part number

PTT; power trim & tilt

PWR; power

RC; remote control

STR; steering

SW; switch

WW; Worldwide

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INSTALLATION

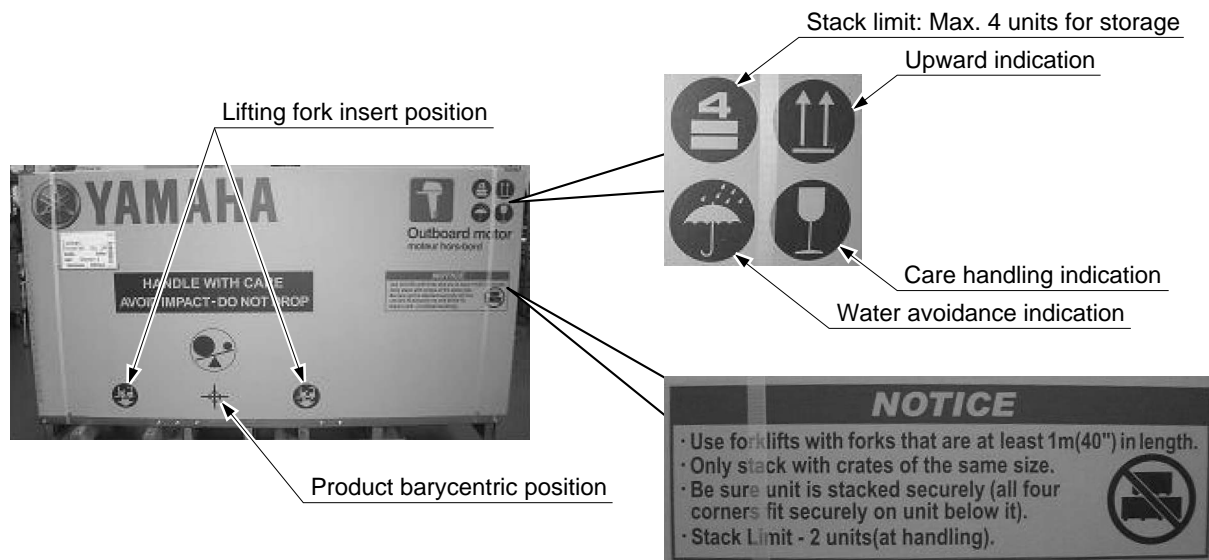
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TOP COVER PICTOGRAPH DESCRIPTION

The following pictographs are important sign to handle the crate.

Read the notice and understand what pictographs mean to avoid a damage to the product when handling, transporting and/or keeping the crate.

* Photo shows F300 (V8)/F350.

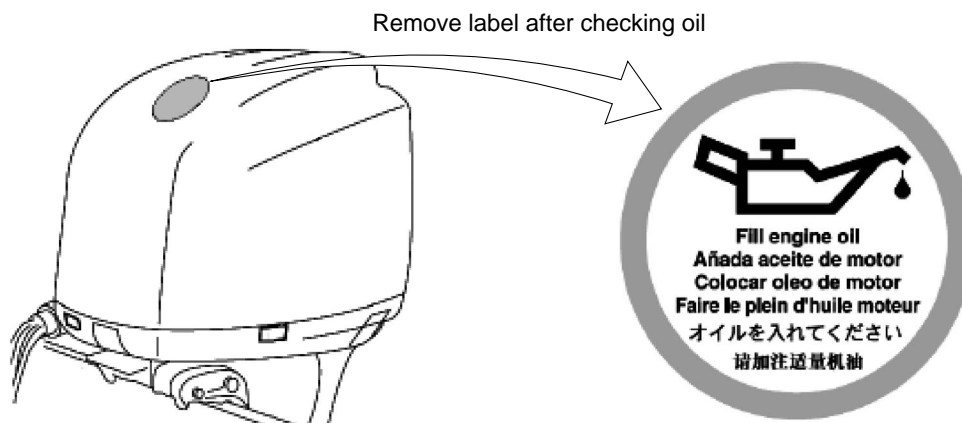


ENGINE OIL REMINDER LABEL (4-STROKE ENGINE)

This temporary label is attached to the top cowl to notice the engine oil quantity after uncrated.

Therefore, remove the label immediately after the engine oil has been filled to the specific quantity.

* If the label has been exposed to the sun-ray for long hours, it may become difficult to remove.



UNCRATING PROCEDURE (FOR TYPICAL STEEL FRAME)

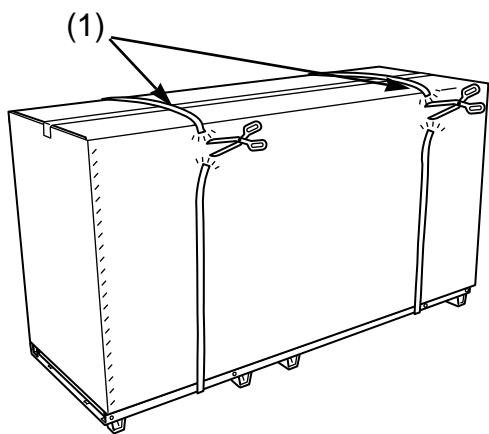
⚠ WARNING

Wear gloves to avoid injury by sharp steel edges while uncrating.

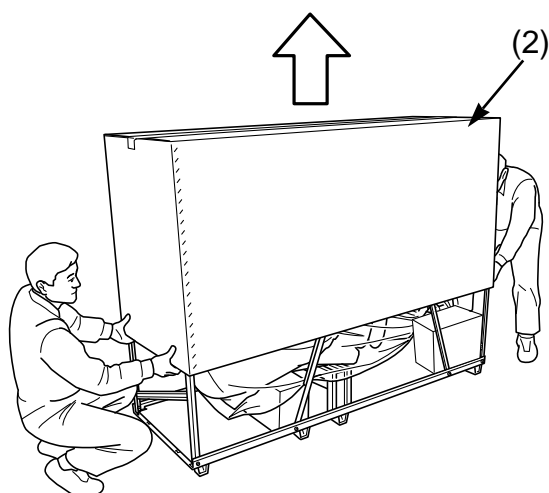
This is an example of the steel crate for V6 models.

For other steel crate models, refer to this procedure for uncrating the steel frame.

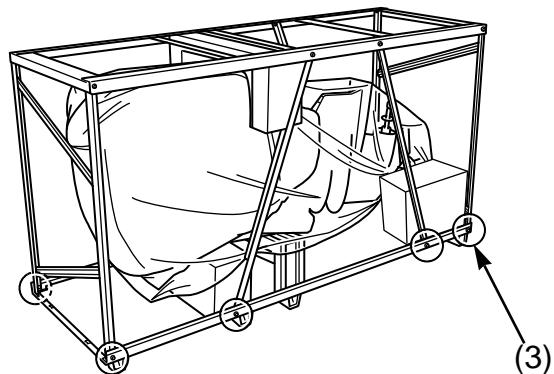
1. Inspect the crate for shipping damage. If a damage has been found, consult your Yamaha dealer.
2. Cut the two straps (1).



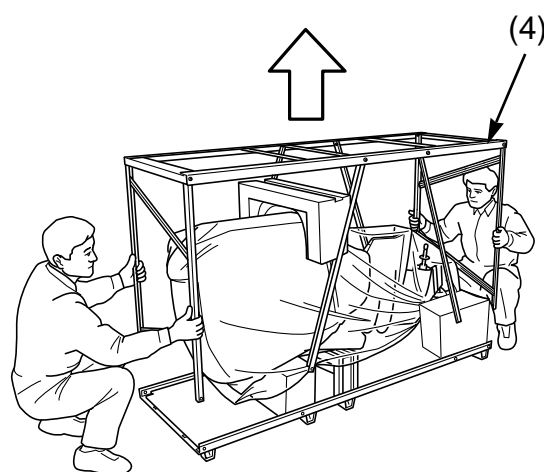
3. Lift the top cover (2) straight up to remove.



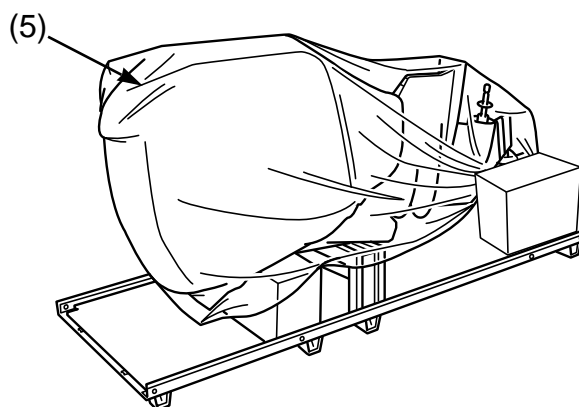
4. Remove the bottom bolts (3).



5. Lift the top frame (4) straight up.



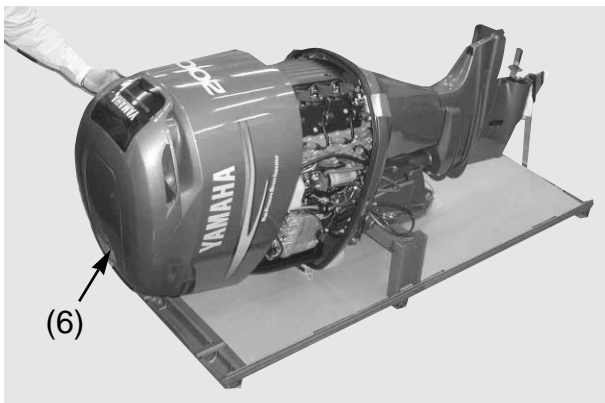
6. Remove the wrapping (5), and inspect the outboard motor for concealed damage. If any damage is found, consult your Yamaha dealer.



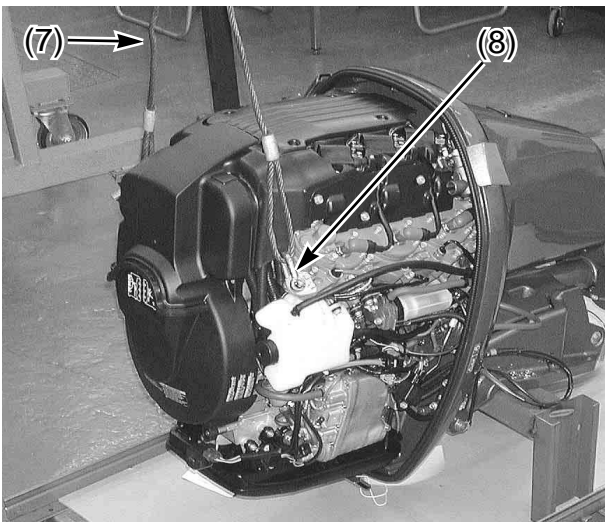
To be continued.

UNCRATING PROCEDURE (FOR TYPICAL STEEL FRAME)

7. Remove the top cowling (6).



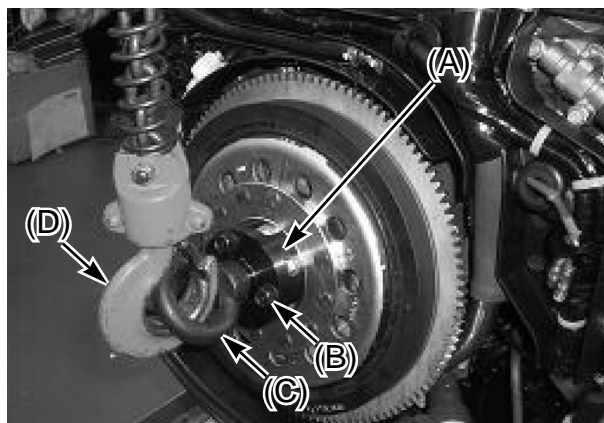
8. If the lifting points are covered by the fly-wheel cover, remove it.
9. Attach a lifting harness (7) securely to the lifting points (8), and tighten the harness.



For 4-stroke V8 and V6 (4.2L) engines, install the lifting attachment (A) to the fly-wheel using the exclusive 3 bolts (B), insert the eye bolt (C) to the attachment, attach a lifting harness (D) to the eye bolt, and tighten the harness.



M10 bolt (B) torque:
36 Nm, 3.6 kgf•m, 27 ft•lb



* Lifting eye kit (P/N: 90890-06820) for 4-stroke V8 and V6 (4.2L) engines as special service tool.

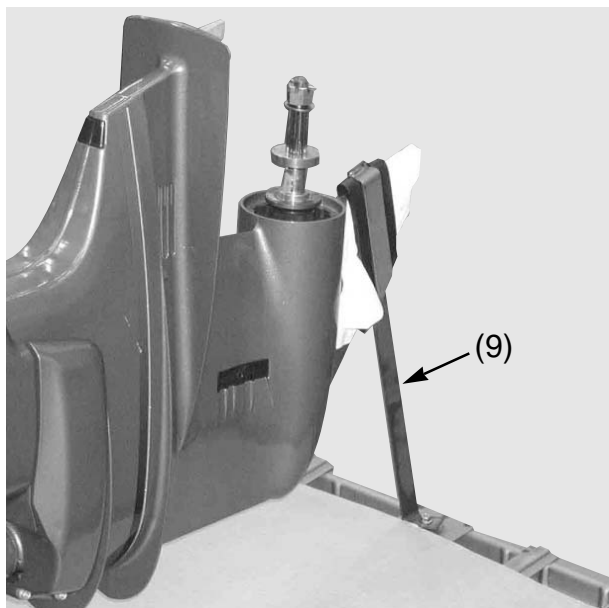
Lifting eye kit contents:



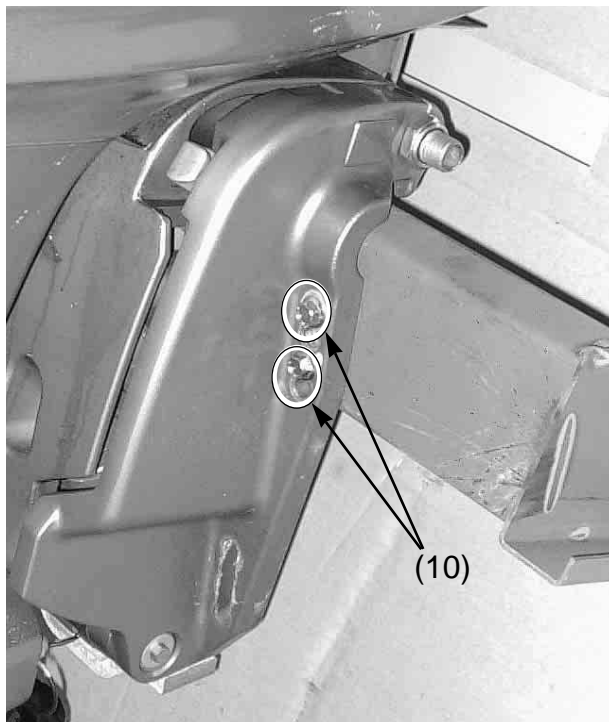
To be continued.

UNCRATING PROCEDURE (FOR TYPICAL STEEL FRAME)

10. Remove the skeg holder (9) if it is attached.



11. Carefully lift up the motor with the bottom crate so that the lifting-harness does not contact to the engine components. Have a helper hold the frame to avoid injury while lifting.
12. Remove the bracket bolts (10).



MOUNTING THE OUTBOARD MOTOR

⚠ WARNING

Overpowering a boat may cause severe instability. Never install an outboard motor that exceeds the maximum boat horsepower rating capacity. If a boat does not have the capacity plate, ask to the boat manufacturer.

Proper mount of outboard motor will obtain better engine performance, product reliability, fuel economy, customer satisfaction, etc.

This chapter describes the brief summary of outboard motor mount.

For the first requirement, make sure the outboard motor has clearance for full movement, from port to starboard, as well as during tilt operation.

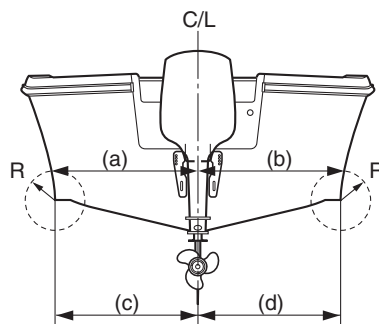
For the motor dimensions, see the later pages.

1. Set an outboard motor on the vertical center line of boat transom.

Measurement points are shown in the illustration.

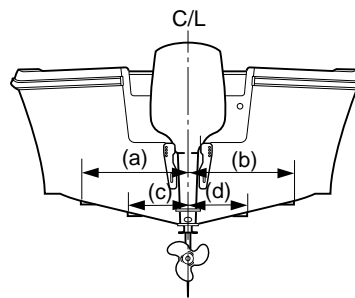
No strakes hull

Make a same radius (R) at both sides of hull, and have another measurement points.



Strakes hull

Have the measurements between port and starboard strakes.



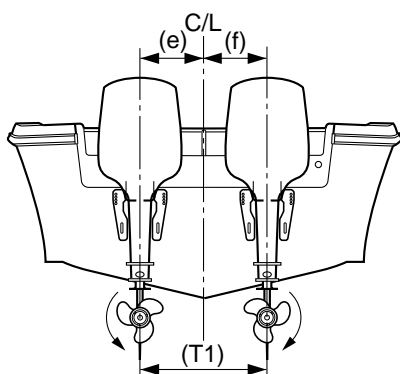
*C/L: Centerline of the transom.

To be continued.

MOUNTING THE OUTBOARD MOTOR

Recheck the measurements, and verify the boat transom vertical centerline is straight. Measurements (a) and (b) should be the same, and measurement (c) and (d) should be the same.

If mounting twin motors, set the motors so that the distance between the boat transom center line and the motor center line should be equal for the both motors.

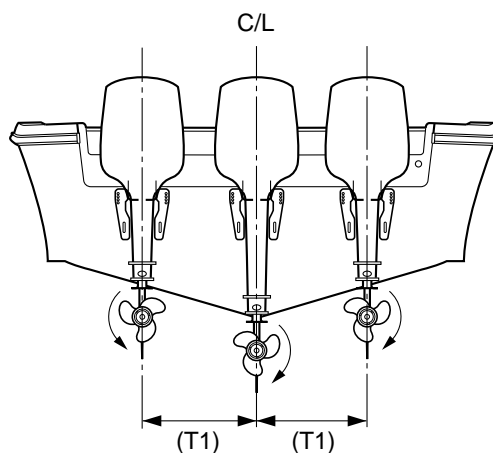


Measurements (e) and (f) should be the same. Maintain a minimum distance (T1) that is the measurement between both vertical center-lines of outboard motor.

Minimum distance (T1) is recommended on each model, and its data is put on the dimension item.

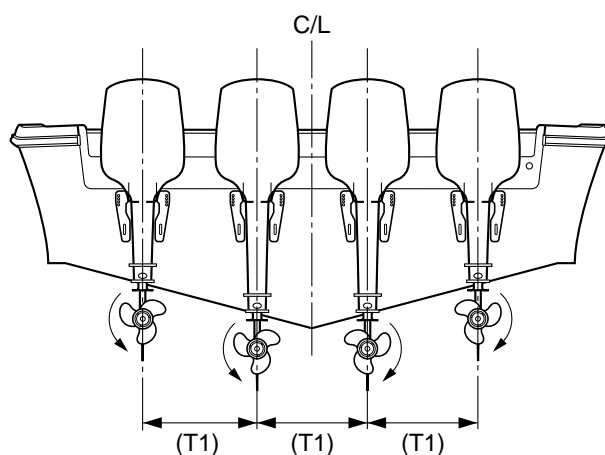
For triple motors installation, set the motors as shown below.

If a boat has V-hull, the center motor should use longer transom motor than outside motors.



For quad motors installation, set the motors as shown below.

If a boat has V-hull, inner twin motors should use longer transom motor than outside motors.



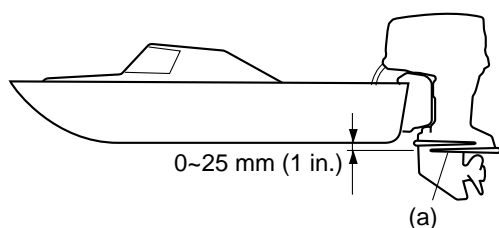
To be continued.

MOUNTING THE OUTBOARD MOTOR

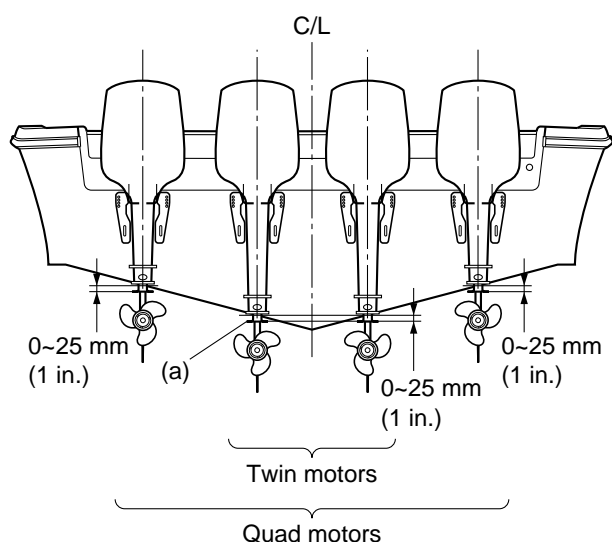
- Adjust the height of outboard motor so that the anti-cavitation plate is positioned to the boat transom bottom, or lowered within 25 mm (1 in.).

For planing boats, the anti-cavitation plate should be positioned to the boat transom bottom or slightly higher.

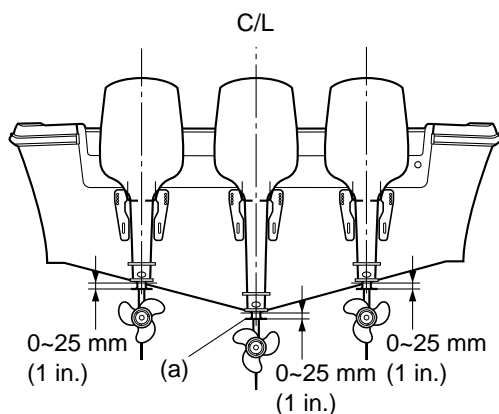
Single motor



Twin motors/ Quad motors



Triple motors

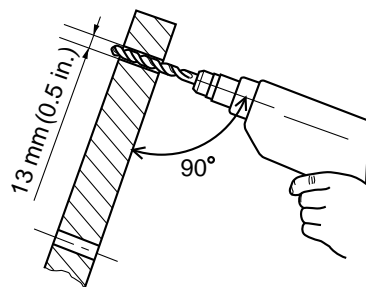


(a): Anti-cavitation plate

* Due to combination of a boat type and an engine type, the mount height of outboard motor varies. Therefore, the complete information is impossible to describe here.

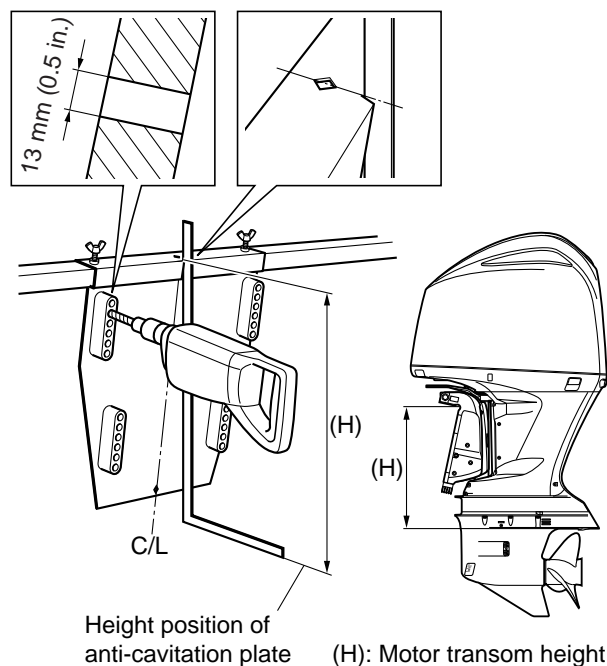
For further information, see the instruction issued by boat manufacturer, or ask to the manufacturer.

- When the outboard motor mount position has determined, mark the 4 symmetrical mount hole positions onto the boat transom. Make the mount holes of 13 mm (0.5 in.) vertically on the marking points.



* To make the mounting holes easier, use the drilling plate (P/N: 90890-06783 or YB-34465 for US).

Ex; Drilling plate (90890-06783)



To be continued.

MOUNTING THE OUTBOARD MOTOR

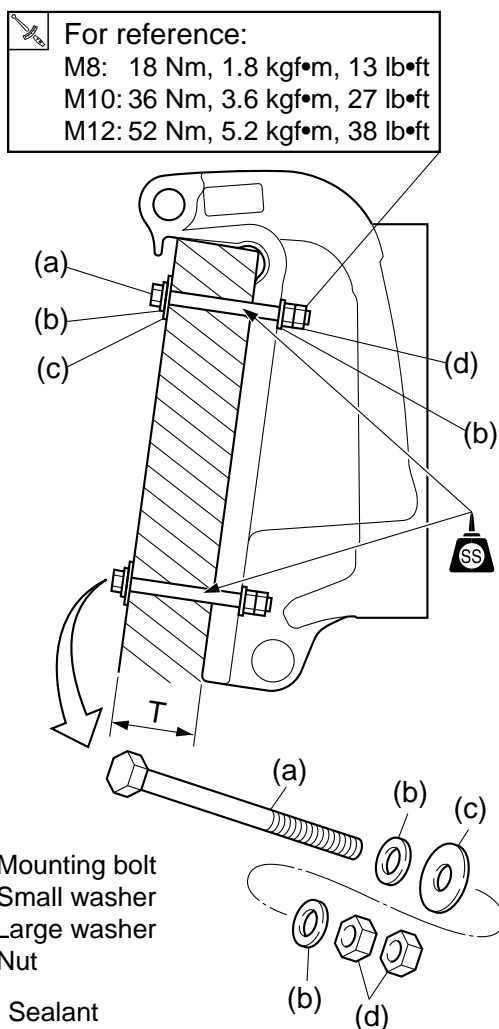
4. Apply a sealant to the mount holes, and secure the motor with supplied mount hardware.

For tightening procedure, first tighten the inside nut, then the double nuts each other.

NOTICE

Make sure there is no clearance between boat transom and motor clamp bracket. Otherwise, the clamp bracket could break.

* The upper mount bolt is usually installed to the 2nd hole from top.



* Tighten the mounting bolts/ nuts by suitable torque due to boat transom structure, material, design, etc.

For above 115 (V4) and F75, select the transom mount bolt due to the boat transom thickness.

Boat transom thickness (T)	Mount bolt size	Bolt P/N
55 – 65 mm (2.17 – 2.56 in.)	M12 ×115 mm	90101-12M03
65 – 75 mm (2.56 – 2.95 in.)	M12 ×130 mm	90101-12M05
75 – 95 mm (2.95 – 3.74 in.)	M12 ×150 mm	90101-12M77
	M12 ×150 mm [High tension bolt]	90101-12031
95 – 115 mm (3.74 – 4.53 in.)	M12 ×170 mm [High tension bolt]	90101-12036

* High tension bolt is recommended to F300 (V8)/F350.

MOUNTING THE OUTBOARD MOTOR

WATER LEVEL GUIDELINE (4-STROKE ENGINES)

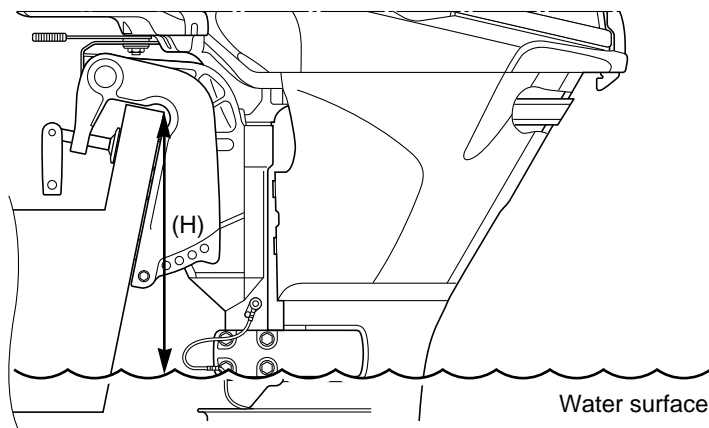
If you replaced 2-stroke engine to 4-stroke engine which has the same horse power, a boat tends to become “stern heavy” because of heavier engine weight.

As a result, water line will rise and get close to the power head.

This effects a poor engine performance, and water could easily enter into the cylinder(s) and damage the engine.

Therefore, you should consider the water level guideline to install 4-stroke outboard motor.

Under mooring of boat with a maximum boat load, maintain the minimum height (H) shown in the illustration between the water surface and the clamp bracket seating point.

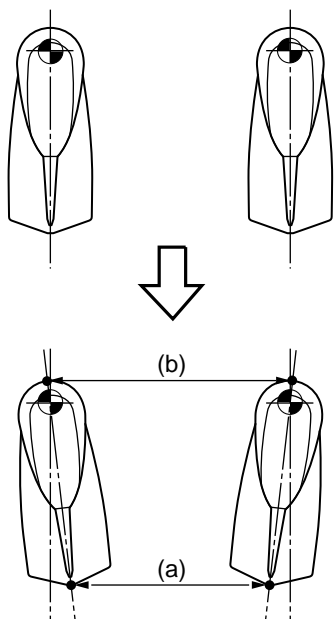


Minimum height between water surface and bracket seating point		
Model	Min. height (H)	
Carbureted F2 – F60	150 mm	5.9 in
Fuel injected F40 (4-cyl) – F70	100 mm	3.9 in
F75 and above	100 mm	3.9 in

MOUNTING THE OUTBOARD MOTOR

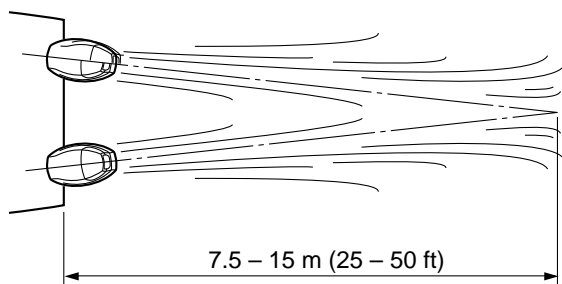
ADJUSTING TWIN MOTORS

Set the engines in the toe-out position, and measure the distances between the two engines at the center point of the rear (a) and front (b) of the lower casing. The difference between measurement (a) and measurement (b) should not exceed 25 mm (1 in.).



* Adjustment: (b) – (a) = Within 25 mm (1 in)

For best result, your toe-out distance should be set so that the twin motors wake meets approximately 7.5 – 15 m (25 – 50 ft) past the stern of the boat.



MAX. BOAT SPEED ESTIMATION

Due to the engine power, boat length and boat weight, the maximum boat speed can be generally estimated with the calculation formula as below.

$$V = 1.398 \sqrt{L} (PS/\Delta)^{0.623}$$

V = Estimated maximum boat speed (km/h)

L = Boat length (m) *water line

PS = Prop shaft output power

Δ = Displacement volume (ton)

For example:

Boat length = 8 m (27 ft) *water line

Engine power = 250 ps

Displacement volume = 3 ton (3000 kg)

$$\text{Max. boat speed [V]} = 1.398 \sqrt{8} (250/3)^{0.623} \\ = 62.2 \text{ km/h (38.6 mph)}$$

* This should be only used as a reference.

The maximum boat speed varies depending on hull design, rigging state, passengers position, engine weight, engine position, etc.

Confirm the actual boat speed by test run.

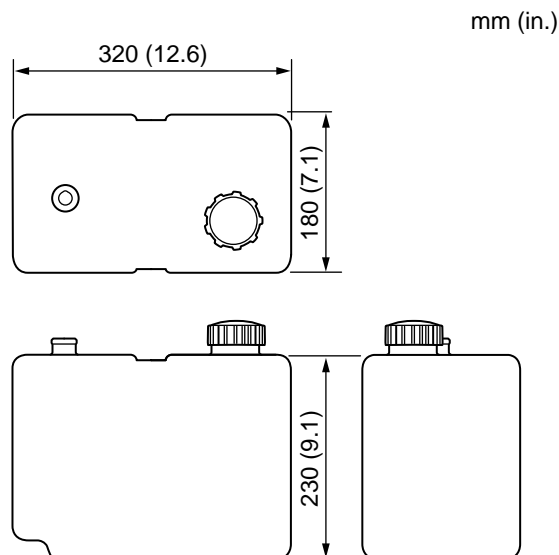
MOUNTING THE REMOTE OIL TANK

The remote oil tank is required for 2-stroke V4 and V6 oil injection engines.

REMOTE OIL TANK DIMENSIONS

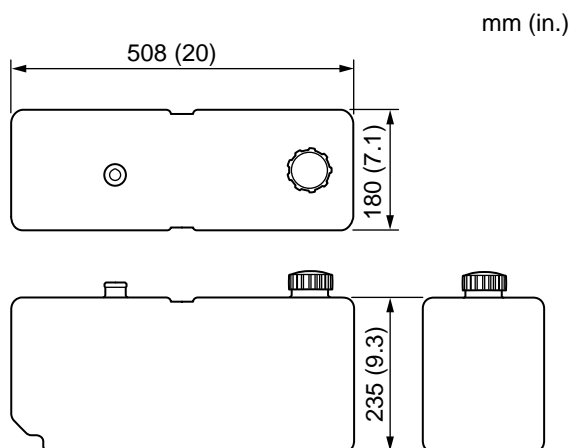
10.5 liters (2.8 US gallons) tank

P/N: 6E5-21733-20

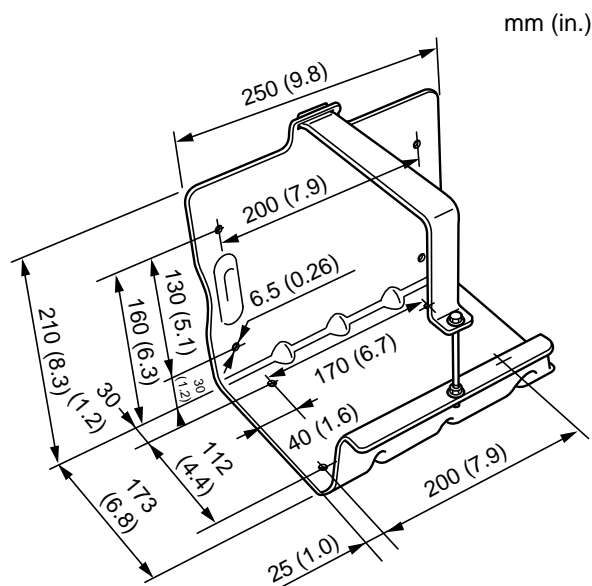


18 liters (4.8 US gallons) tank

P/N: 6E5-21733-30



Oil tank holder

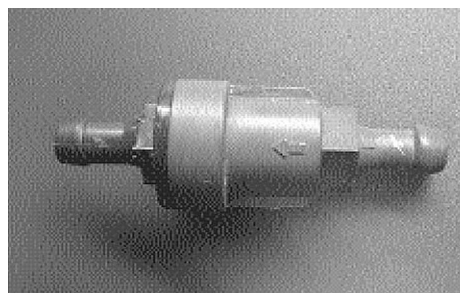


NOTICE FOR MOUNTING THE REMOTE OIL TANK

Follow the notifications below, for the remote oil tank installation.

- Mount the oil tank in as dry as possible location to avoid water entering into the oil tank.
- Mount in a location that will allow service to the filter located on the remote oil tank.
- Mount the remote oil tank lower than the engine oil tank.

If the remote oil tank is mounted higher than the top of the engine because of a boat type, an optional check valve (P/N: 6R5-24408-00) shown below is required.



Install it on the oil hose between the engine and remote oil tank to prevent siphoning of oil to the engine and spillage.

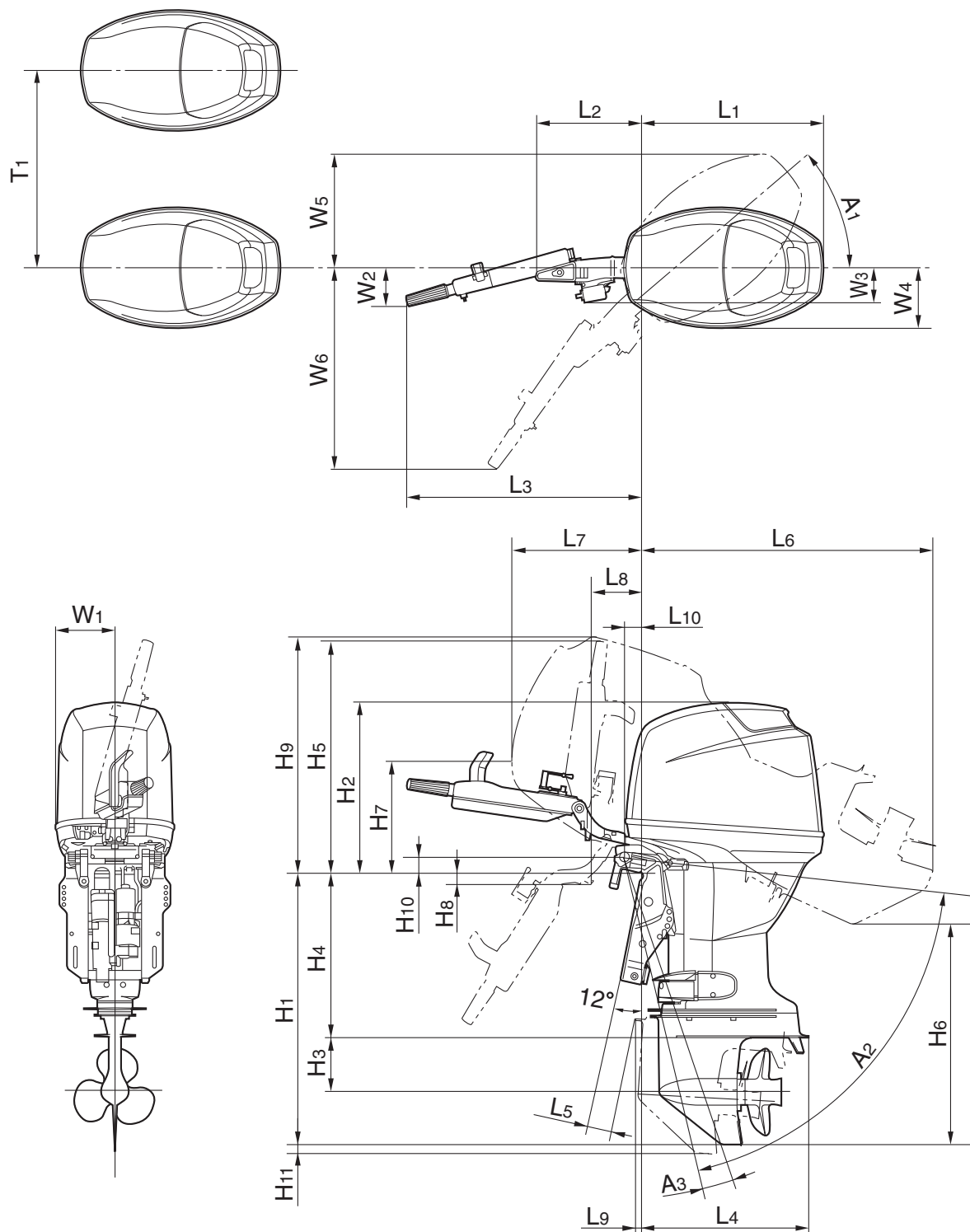
- Route the oil hose between the engine and the remote oil tank without pinching and kinking.

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSION ITEMS

Symbol	Definition and Description
L1	Horizontal distance from datum point to rearmost point of power unit
L2	Horizontal distance from datum point to forefront (depend on the model) of power unit
L3	Distance from datum point to farthest point on tiller handle, when the handle is in horizontal position (in use)
L4	Horizontal distance from datum point to rearmost point of the lower case
L5	Minimum distance from transom board or its extension to forefront of the lower case, with motor fully trimmed down and steered to the full
L6	Horizontal distance from datum point to rearmost point of protrusion when motor is tilted up (over-tilt position)
L7	Horizontal distance from datum point to protruded forefront when motor is tilted up (over-tilt position)
L8	Horizontal distance from datum point to lowest point of protrusion when motor is tilted up (over-tilt position)
L9	Horizontal forward protrusion of lower case from the datum line when PT/T is fully trimmed down
L10	Horizontal distance from datum point to bracket shaft (bolt) center
H1	Vertical distance from datum point to lowest point of motor
H2	Vertical distance from datum point to highest point of power head
H3	Vertical distance from cavitation plate undersurface to propeller shaft
H4	Vertical distance from datum point to cavitation plate undersurface
H5	Vertical distance from datum point to tiller handle tip when the handle is in vertical position
H6	Vertical distance from skeg tip at H1 to the lowest point of lower unit when motor is tilted up (over-tilt position)
H7	Vertical distance from datum line to protruded forefront when motor is tilted up (over-tilt position)
H8	Vertical distance from datum line to lowest point of protrusion when motor is tilted up (over-tilt position)
H9	Vertical distance to the highest point of the motor when it is tilted up (over-tilt position)
H10	Vertical distance from datum point to bracket shaft (bolt) center
H11	Difference in the height of lower unit lowest point comparing the height in the standard position and with PT/T in the fully trimmed down position.
W1	Leftward protrusion from center line of motor body when looking at the front face
W2	Distance from tiller handle tip to centerline of motor body when looking at the front face
W3	Distance from centerline to left or right edge of motor body, except for levers and handles
W4	Distance from centerline to left or right end of motor body protrusion, except for levers and handles
W5	Distance from centerline to the farthest point on the body when steered to the maximum angle
W6	Distance from centerline to the farthest point on the tiller handle when steered to the maximum angle
A1	Maximum steering angle each way (symmetrical), from centerline of motor body
A2	Tilt up angle (whole rotating range to over-tilt angle including negative trim angle)
A3	Maximum negative trim angle from the vertical line through the datum point
T1	Centerline-to-centerline minimum distance of the motors in case of twin installation

OUTBOARD MOTOR DIMENSIONS
OVERALL DIMENSION ITEMS



OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (2-STROKE)

Global model (US, CA model)		2CMH	3AMH	4ACMH 5CMH	5CSMH	6CMH (6MH) 8CMH (8MH)	E8DMH EK8DMH	9.9FMH (9.9MH) 15FMH (15MH)	E9.9DMH E15DMH EK9.9DMH EK15DMH EK9.9JMH EK15PMH
Symbol									
L1	mm (in.)	275 (10.8)	311 (12.2)	344 (13.5)	344 (13.5)	363 (14.3)	346 (13.6)	393 (15.5)	405 (15.9)
L2	mm (in.)	122 (4.8)	107 (4.2)	145 (5.7)	145 (5.7)	114 (4.5)	180 (7.1)	180 (7.1)	165 (6.5)
L3	mm (in.)	328 (12.9)	317 (12.5)	333 (13.1)	333 (13.1)	439 (17.3)	372 (14.6)	479 (18.9)	473 (18.6)
L4	mm (in.)	164 (6.5)	223 (8.8)	252 (9.9)	252 (9.9)	359 (14.1)	268 (10.6)	355 (14.0)	357 (14.0)
L5	S	mm (in.)	34 (1.3)	16 (0.6)	16 (0.6)	121 (4.8)	23 (0.9)	78 (3.1)	79 (3.1)
	L	—	—	16 (0.6)	24 (0.9)	126 (5.0)	23 (0.9)	104 (4.1)	78 (3.1)
	Y	—	—	—	—	—	—	—	—
	X	—	—	—	—	126 (5.0)	23 (0.9)	—	78 (3.1)
	U	—	—	—	—	—	—	134 (5.3)	—
L6	S	mm (in.)	589 (23.2)	636 (25.0)	635 (25.0)	705 (27.8)	657 (25.9)	718 (28.3)	708 (27.9)
	L	—	—	760 (29.9)	758 (29.8)	826 (32.5)	782 (30.8)	831 (32.7)	—
	Y	—	—	—	—	—	—	—	—
	X	—	—	—	—	887 (34.9)	827 (32.6)	—	947 (37.3)
	U	—	—	—	—	—	—	957 (37.7)	—
L7	mm (in.)	276 (10.9)	311 (12.2)	331 (13.0)	331 (13.0)	287 (11.3)	354 (13.9)	314 (12.4)	334 (13.1)
L8	mm (in.)	142 (5.6)	156 (6.1)	148 (5.8)	148 (5.8)	154 (6.1)	207 (8.1)	263 (10.4)	165 (6.5)
L9	S	mm (in.)	—	—	—	—	—	—	—
	L	—	—	—	—	—	—	—	4 (0.2)
	Y	—	—	—	—	—	—	—	—
	X	—	—	—	—	—	—	—	14 (0.6)
	U	—	—	—	—	—	—	—	—
L10	mm (in.)	50 (2.0)	68 (2.7)	68 (2.7)	68 (2.7)	65 (2.5)	45 (1.8)	75 (3.0)	73 (2.9)
H1	S	mm (in.)	614 (24.2)	654 (25.7)	653 (25.7)	682 (26.9)	685 (27.0)	705 (27.8)	706 (27.8)
	L	—	—	781 (30.7)	780 (30.7)	809 (31.9)	825 (32.5)	832 (32.8)	833 (32.8)
	Y	—	—	—	—	—	—	—	—
	X	—	—	—	—	872 (34.3)	875 (34.4)	—	975 (38.4)
	U	—	—	—	—	—	—	974 (38.3)	—
H2	mm (in.)	302 (11.9)	343 (13.5)	358 (14.1)	325 (12.8)	295 (11.6)	359 (14.1)	335 (13.2)	356 (14.0)
H3	mm (in.)	100 (3.9)	103 (4.1)	105 (4.1)	105 (4.1)	123 (4.8)	122 (4.8)	135 (5.3)	34 (1.4)
H4	S	mm (in.)	417 (16.4)	441 (17.4)	444 (17.5)	444 (17.5)	436 (17.2)	442 (17.4)	440 (17.3)
	L	—	—	568 (22.4)	571 (22.5)	571 (22.5)	563 (22.2)	582 (22.9)	567 (22.3)
	Y	—	—	—	—	—	—	—	—
	X	—	—	—	—	626 (24.6)	632 (24.9)	—	710 (28.0)
	U	—	—	—	—	—	—	709 (27.9)	—
H5	mm (in.)	462 (18.2)	484 (19.1)	396 (15.6)	396 (15.6)	462 (18.2)	415 (16.3)	467 (18.4)	474 (18.7)
H6	S	mm (in.)	503 (19.8)	621 (24.4)	623 (24.5)	623 (24.5)	668 (26.3)	497 (19.6)	572 (22.5)
	L	—	—	717 (28.2)	719 (28.3)	719 (28.3)	758 (29.8)	574 (22.6)	641 (25.2)
	Y	—	—	—	—	—	—	—	—
	X	—	—	—	—	803 (31.6)	601 (23.7)	—	714 (28.1)
	U	—	—	—	—	—	—	718 (28.3)	—
H7	mm (in.)	38 (1.5)	342 (13.5)	104 (4.1)	104 (4.1)	110 (4.3)	86 (3.4)	138 (5.4)	—
H8	mm (in.)	12 (0.5)	9.0 (0.35)	30 (1.2)	30 (1.2)	2.0 (0.08)	51 (2.0)	19 (0.7)	24 (0.9)
H9	mm (in.)	397 (15.6)	419 (16.5)	459 (18.1)	459 (18.1)	470 (18.5)	465 (18.3)	526 (20.7)	555 (21.9)
H10	mm (in.)	27 (1.0)	30 (1.2)	30 (1.2)	30 (1.2)	32 (1.3)	26 (1.0)	34 (1.3)	34 (1.4)
H11	S	mm (in.)	—	—	—	—	—	—	—
	L	—	—	—	—	—	—	—	—
	Y	—	—	—	—	—	—	—	—
	X	—	—	—	—	—	—	—	—
	U	—	—	—	—	—	—	—	—
W1	mm (in.)	151 (5.9)	108 (4.3)	144 (5.7)	144 (5.7)	150 (5.9)	136 (5.4)	143 (5.6)	173 (6.8)
W2	mm (in.)	125 (4.9)	181 (7.1)	178 (7.0)	178 (7.0)	193 (7.6)	192 (7.6)	189 (7.4)	—
W3	mm (in.)	89 (3.5)	105 (4.1)	134 (5.3)	134 (5.3)	137 (5.4)	129 (5.1)	143 (5.6)	—
W4	mm (in.)	—	—	—	—	—	158 (6.2)	—	185 (7.3)
W5	mm (in.)	—	—	—	—	283 (11.1)	—	280 (11.0)	280 (11.0)
W6	mm (in.)	—	—	—	—	551 (21.7)	—	497 (19.6)	493 (19.4)
A1	degree	360	360	360	360	60	360	45(P)/40(S)	40
A2	degree	73	76	76	76	81	80	63	63
A3	degree	—	—	—	—	—	—	—	4
T1	mm (in.)	—	—	—	—	—	—	—	—

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (2-STROKE)

Global model (US, CA model)		Symbol	20DMH (20MH) 20DMHO 25NWC 25NMH (25MH) 25NMHO	E/25BMH 25BWH 25BWC 25XMH E/30HMH 30HWH 30HWC EK25BMH EK25CMH	25BW 30HW	30DMH 30DMHO	30DEO	30DETO	E40GWH E40GMH EK40GMH	E/40JMH E/40JWH EK40JMH
L1		mm (in.)	428 (16.9)	429 (16.89)	429 (16.89)	465 (18.3)	465 (18.3)	489 (19.25)	504 (19.8)	504 (19.8)
L2		mm (in.)	185 (7.3)	180 (7.09)	180 (7.09)	198 (7.8)	114 (4.5)	89 (3.5)	188 (7.4)	188 (7.4)
L3		mm (in.)	508 (20.0)	420 (16.5)	—	497 (19.6)	—	—	493 (19.4)	493 (19.4)
L4		mm (in.)	402 (15.8)	385 (15.16)	385 (15.16)	496 (19.5)	496 (19.5)	520 (20.5)	421 (16.6)	421 (16.6)
L5	S	mm (in.)	79 (3.1)	61 (2.40)	83 (3.27)	85 (3.3)	85 (3.3)	—	94 (3.7)	94 (3.7)
	L		106 (4.2)	83 (3.27)	—	90 (3.5)	90 (3.5)	103 (4.1)	94 (3.7)	94 (3.7)
	Y		117 (4.6)	83 (3.27)	—	—	99 (3.9)	—	94 (3.7)	94 (3.7)
	X		116 (4.6)	83 (3.27)	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
L6	S	mm (in.)	739 (29.1)	736 (28.98)	854 (33.62)	752 (29.6)	752 (29.6)	—	784 (30.9)	784 (30.9)
	L		852 (33.5)	854 (33.62)	—	859 (33.8)	859 (33.8)	870 (34.2)	897 (35.3)	897 (35.3)
	Y		898 (35.4)	897 (35.31)	—	—	895 (35.2)	—	943 (37.1)	943 (37.1)
	X		931 (36.7)	933 (36.73)	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
L7		mm (in.)	337 (13.3)	405 (15.94)	405 (15.94)	387 (15.2)	375 (14.8)	356 (14.0)	427 (16.8)	427 (16.8)
L8		mm (in.)	242 (9.5)	195 (7.68)	195 (7.68)	228 (9.0)	173 (6.8)	158 (6.2)	193 (7.6)	193 (7.6)
L9	S	mm (in.)	—	—	—	—	—	—	—	—
	L		—	—	—	—	—	—	—	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
L10		mm (in.)	78 (3.1)	74.2 (2.9)	74.2 (2.92)	73 (2.9)	73 (2.9)	65 (2.6)	72 (2.8)	72 (2.8)
H1	S	mm (in.)	703 (27.7)	707 (27.83)	834 (32.83)	712 (28.0)	712 (28.0)	—	771 (30.4)	771 (30.4)
	L		830 (32.7)	834 (32.83)	—	833 (32.8)	833 (32.8)	835 (32.9)	898 (35.4)	898 (35.4)
	Y		881 (34.7)	881 (34.68)	—	872 (34.3)	874 (34.4)	—	948 (37.3)	948 (37.3)
	X		919 (36.2)	920 (36.22)	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
H2		mm (in.)	365 (14.4)	439 (17.28)	439 (17.28)	446 (17.6)	428 (16.9)	426 (16.8)	444 (17.5)	444 (17.5)
H3		mm (in.)	144 (5.7)	144 (5.67)	144 (5.67)	148 (5.8)	148 (5.8)	148 (5.8)	162 (6.4)	162 (6.4)
H4	S	mm (in.)	419 (16.5)	423 (16.65)	550 (21.65)	424 (16.7)	424 (16.7)	—	444 (17.5)	444 (17.5)
	L		546 (21.5)	550 (21.65)	—	545 (21.5)	545 (21.5)	547 (21.5)	570 (22.4)	570 (22.4)
	Y		597 (23.5)	597 (23.50)	—	584 (23.0)	586 (23.1)	—	622 (24.5)	622 (24.5)
	X		635 (25.0)	636 (25.04)	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
H5		mm (in.)	491 (19.3)	466 (18.3)	—	445 (17.5)	—	—	533 (21.0)	533 (21.0)
H6	S	mm (in.)	586 (23.1)	621 (24.45)	701 (27.60)	584 (23.0)	584 (23.0)	—	622 (24.5)	622 (24.5)
	L		655 (25.8)	701 (27.60)	—	648 (25.5)	648 (25.5)	651 (25.6)	691 (27.2)	691 (27.2)
	Y		684 (26.9)	730 (28.74)	—	668 (26.3)	670 (26.4)	—	719 (28.3)	719 (28.3)
	X		704 (27.7)	754 (29.68)	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
H7		mm (in.)	186 (7.3)	118 (4.65)	118 (4.65)	278 (10.9)	224 (8.8)	244 (9.6)	127 (5.0)	127 (5.0)
H8		mm (in.)	24 (0.9)	30 (1.18)	30 (1.18)	29 (1.1)	9.0 (0.35)	8.7 (0.3)	30 (1.2)	30 (1.2)
H9		mm (in.)	584 (23.0)	596 (23.46)	596 (23.46)	657 (25.9)	647 (25.5)	661 (26.0)	695 (27.4)	695 (27.4)
H10		mm (in.)	41 (1.6)	40 (1.6)	40.3 (1.59)	44 (1.7)	44 (1.7)	42 (16.5)	45 (1.8)	45 (1.8)
H11	S	mm (in.)	—	—	—	—	—	—	—	—
	L		—	—	—	—	—	22 (0.87)	—	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
W1		mm (in.)	—	166 (6.54)	166 (6.54)	—	154 (6.1)	154 (6.1)	190 (7.5)	190 (7.5)
W2		mm (in.)	206 (8.1)	233 (9.2)	—	208 (8.2)	—	152 (6.0)	294 (11.6)	294 (11.6)
W3		mm (in.)	152 (6.0)	148 (5.83)	148 (5.83)	152 (6.0)	—	—	173 (6.8)	173 (6.8)
W4		mm (in.)	177 (7.0)	192 (7.56)	192 (7.56)	179 (7.0)	—	—	205 (8.1)	205 (8.1)
W5		mm (in.)	296 (11.7)	302 (11.89)	302 (11.89)	310 (12.2)	310 (12.2)	310 (12.2)	360 (14.2)	360 (14.2)
W6		mm (in.)	528 (20.8)	472 (18.6)	217 (8.54)	522 (20.6)	—	—	602 (23.7)	602 (23.7)
A1		degree	40	40	40	40	40	40	45	45
A2		degree	67	68	68	70	70	61	67	67
A3		degree	—	—	—	—	—	4	—	—
T1		mm (in.)	—	—	—	—	—	—	—	—

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (2-STROKE)

Global model (US, CA model)		Symbol	E40JW	E/40XMH E/40XWH	E/40XW	E/40XWT	40VMHO 50HMO	40VEO	40VETO 50HET 50HETO (50TR)	40VMHD 40VWHDO 40VWHTO 50HMH 50HWH 50HWHTO
L1	mm (in.)		504 (19.8)	533 (21.8)	553 (21.8)	533 (21.8)	490 (19.3)	490 (19.3)	528 (20.8)	528 (20.8)
L2	mm (in.)		188 (7.4)	118 (4.6)	118 (4.6)	118 (4.6)	257 (10.1)	178 (7.0)	142 (5.6)	221 (8.7)
L3	mm (in.)		—	523 (20.6)	—	—	789 (31.1)	—	—	753 (29.6)
L4	mm (in.)		478 (18.8)	522 (20.6)	522 (20.6)	522 (20.6)	493 (19.4)	493 (19.4)	529 (20.8)	529 (20.8)
L5	S	mm (in.)	94 (3.7)	65 (2.6)	65 (2.6)	91 (3.6)	—	—	78 (3.1)	—
	L		—	91 (3.6)	91 (3.6)	—	—	—	77 (3.0)	77 (3.0)
	Y		—	91 (3.6)	—	—	—	—	—	—
	X		—	—	—	—	—	—	77 (3.0)	—
	U		—	—	—	—	—	—	—	—
L6	S	mm (in.)	797 (31.4)	826 (32.5)	826 (32.5)	—	798 (31.4)	798 (31.4)	822 (32.4)	—
	L		910 (35.8)	940 (37.0)	940 (37.0)	935 (36.8)	910 (35.8)	910 (35.8)	937 (36.9)	937 (36.9)
	Y		—	1,043 (41.1)	—	—	—	—	—	—
	X		—	—	—	1,020 (40.2)	—	—	1,040 (40.9)	—
	U		—	—	—	—	—	—	—	—
L7	mm (in.)		427 (16.8)	397 (15.6)	397 (15.6)	391 (15.4)	433 (17.0)	401 (15.8)	387 (15.2)	418 (16.5)
L8	mm (in.)		193 (7.6)	294 (11.6)	—	—	273 (10.7)	179 (7.0)	153 (6.0)	246 (9.7)
L9	S	mm (in.)	—	3 (0.1)	3 (0.1)	—	—	—	-11 (-0.43)	—
	L		—	8 (0.3)	8 (0.3)	8 (0.3)	—	—	10 (0.4)	10 (0.4)
	Y		—	16 (0.6)	—	—	—	—	—	—
	X		—	—	—	16 (0.6)	—	—	—	—
	U		—	—	—	—	—	—	—	—
L10	mm (in.)		72 (2.8)	65 (2.6)	65 (2.6)	65 (2.6)	72 (2.8)	72 (2.8)	63 (2.5)	63 (2.5)
H1	S	mm (in.)	764 (30.1)	767 (30.2)	767 (30.2)	—	751 (29.6)	751 (29.6)	753 (29.6)	—
	L		—	893 (35.2)	893 (35.2)	893 (35.2)	878 (34.6)	878 (34.6)	880 (34.6)	880 (34.6)
	Y		—	1,007 (39.6)	—	—	—	—	—	—
	X		—	—	—	1,007 (39.6)	—	—	994 (39.1)	—
	U		—	—	—	—	—	—	—	—
H2	mm (in.)		444 (17.5)	471 (18.5)	471 (18.5)	471 (18.5)	472 (18.6)	441 (17.4)	439 (17.3)	470 (18.5)
H3	mm (in.)		175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)
H4	S	mm (in.)	421 (16.6)	424 (16.7)	424 (16.7)	—	408 (16.1)	408 (16.1)	410 (16.1)	—
	L		—	550 (21.7)	550 (21.7)	550 (21.7)	535 (21.1)	535 (21.1)	537 (21.1)	537 (21.1)
	Y		—	649 (25.6)	—	—	—	—	—	—
	X		—	—	—	649 (25.6)	—	—	651 (25.6)	—
	U		—	—	—	—	—	—	—	—
H5	mm (in.)		533 (21.0)	—	—	532 (20.9)	731 (28.8)	—	—	728 (28.7)
H6	S	mm (in.)	614 (24.2)	626 (24.6)	626 (24.6)	—	579 (22.8)	579 (22.8)	635 (25.0)	—
	L		—	697 (27.4)	697 (27.4)	637 (25.1)	646 (25.4)	646 (25.4)	709 (27.9)	709 (27.9)
	Y		—	753 (29.6)	—	—	—	—	—	—
	X		—	—	—	709 (27.9)	—	—	775 (30.5)	—
	U		—	—	—	—	—	—	—	—
H7	mm (in.)		127 (5.0)	159 (6.3)	159 (6.3)	176 (6.9)	201 (7.9)	217 (8.5)	222 (8.7)	204 (8.0)
H8	mm (in.)		30 (1.2)	38 (1.5)	—	—	55 (2.2)	17 (0.7)	0.0 (0.00)	43 (1.7)
H9	mm (in.)		695 (27.4)	702 (27.6)	702 (27.6)	706 (27.8)	683 (26.9)	671 (26.4)	688 (27.1)	696 (27.4)
H10	mm (in.)		45 (1.8)	43 (1.69)	43 (1.69)	43 (1.69)	44 (1.7)	44 (1.7)	44 (1.7)	44 (1.7)
H11	S	mm (in.)	—	25 (0.98)	25 (0.98)	—	—	—	20 (0.8)	—
	L		—	24 (0.94)	24 (0.94)	24 (0.94)	—	—	19 (0.7)	19 (0.7)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	55 (2.2)	—	—	—	—
	U		—	—	—	—	—	—	—	—
W1	mm (in.)		190 (7.5)	182 (7.2)	182 (7.2)	182 (7.2)	—	180 (7.1)	180 (7.1)	180 (7.1)
W2	mm (in.)		—	220.5 (8.7)	—	—	124 (4.9)	—	—	124 (4.9)
W3	mm (in.)		173 (6.8)	182 (7.2)	182 (7.2)	182 (7.2)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)
W4	mm (in.)		205 (8.1)	—	—	—	—	180 (7.1)	180 (7.1)	180 (7.1)
W5	mm (in.)		360 (14.2)	369 (14.5)	369 (14.5)	369 (14.5)	340 (13.4)	340 (13.4)	340 (13.4)	340 (13.4)
W6	mm (in.)		602 (23.7)	592 (23.3)	—	—	641 (25.2)	—	—	641 (25.2)
A1	degree		45	42	42	42	40	40	40	40
A2	degree		67	64	64	61	62	62	65	65
A3	degree		—	—	—	4	—	—	4	4
T1	mm (in.)		—	—	—	—	—	—	—	—

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (2-STROKE)

Global model (US, CA model)		Symbol	E48CMH E55CMH	55BED S-transom	55BED L-transom	55BET	55DEHD	E60HMHD E60HWHD	E60HWD	60FED 60FEDO S-transom
L1		mm (in.)	487 (19.2)	531 (20.9)	516 (20.3)	516 (20.3)	545 (21.5)	532 (20.9)	532 (20.9)	547 (21.5)
L2		mm (in.)	298 (11.7)	159 (6.3)	174 (6.9)	174 (6.9)	180 (7.1)	269 (10.6)	269 (10.6)	151 (5.9)
L3		mm (in.)	680 (26.8)	—	—	—	790 (31.1)	651 (25.6)	651 (25.6)	—
L4		mm (in.)	487 (19.2)	531 (20.9)	516 (20.3)	516 (20.3)	547 (21.5)	546 (21.5)	546 (21.5)	562 (22.1)
L5	S	mm (in.)	54 (2.1)	87 (3.4)	—	—	—	97 (3.8)	—	113 (4.4)
	L		71 (2.8)	—	90 (3.5)	90 (3.5)	88 (3.5)	99 (3.9)	99 (3.9)	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	79 (3.1)	85 (3.3)	—	—	—
	U		—	—	—	—	—	—	—	—
L6	S	mm (in.)	827 (32.6)	818 (32.2)	—	—	—	913 (35.9)	—	868 (34.2)
	L		932 (36.7)	—	919 (36.2)	919 (36.2)	968 (38.1)	1,020 (40.2)	1,020 (40.2)	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	1,033 (40.7)	1,080 (42.5)	—	—	—
	U		—	—	—	—	—	—	—	—
L7		mm (in.)	437 (17.2)	392 (15.4)	400 (15.7)	400 (15.7)	—	457 (18.0)	457 (18.0)	403 (15.9)
L8		mm (in.)	280 (11.0)	154 (6.1)	164 (6.5)	164 (6.5)	164 (6.5)	256 (10.1)	256 (10.1)	206 (8.1)
L9	S	mm (in.)	—	—	—	—	—	—	—	—
	L		—	—	—	14 (0.6)	—	—	—	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
L10		mm (in.)	77 (3.0)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)
H1	S	mm (in.)	809 (31.9)	758 (29.8)	—	—	—	831 (32.7)	—	780 (30.7)
	L		931 (36.7)	—	879 (34.6)	879 (34.6)	901 (35.5)	954 (37.6)	954 (37.6)	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	1,006 (39.6)	1,028 (40.5)	—	—	—
	U		—	—	—	—	—	—	—	—
H2		mm (in.)	449 (17.7)	424 (16.7)	424 (16.7)	424 (16.7)	520 (20.5)	528 (20.8)	528 (20.8)	472 (18.6)
H3		mm (in.)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)
H4	S	mm (in.)	451 (17.8)	399 (15.7)	—	—	—	450 (17.7)	—	400 (15.7)
	L		572 (22.5)	—	520 (20.5)	520 (20.5)	520 (20.5)	538 (21.2)	538 (21.2)	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	647 (25.5)	647 (25.5)	—	—	—
	U		—	—	—	—	—	—	—	—
H5		mm (in.)	568 (22.4)	—	—	—	—	753 (29.6)	753 (29.6)	—
H6	S	mm (in.)	591 (23.3)	636 (25.0)	—	—	—	670 (26.4)	—	645 (25.4)
	L		652 (25.7)	—	689 (27.1)	689 (27.1)	698 (27.5)	722 (28.4)	722 (28.4)	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	760 (29.9)	764 (30.1)	—	—	—
	U		—	—	—	—	—	—	—	—
H7		mm (in.)	171 (6.7)	158 (6.2)	147 (5.8)	147 (5.8)	—	216 (8.5)	216 (8.5)	262 (10.3)
H8		mm (in.)	93 (3.7)	12 (0.5)	25 (1.0)	25 (1.0)	23 (0.9)	81 (3.2)	81 (3.2)	−24 (−0.94)
H9		mm (in.)	684 (26.9)	695 (27.4)	682 (26.9)	682 (26.9)	743 (29.3)	722 (28.4)	722 (28.4)	719 (28.3)
H10		mm (in.)	42 (1.7)	47 (1.9)	47 (1.9)	47 (1.9)	47 (1.9)	46 (1.8)	46 (1.8)	47 (1.9)
H11	S	mm (in.)	22 (0.9)	24 (0.9)	24 (0.9)	24 (0.9)	—	27 (1.1)	—	—
	L		21 (0.8)	—	—	—	—	27 (1.1)	27 (1.1)	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
W1		mm (in.)	—	166 (6.5)	166 (6.5)	166 (6.5)	211 (8.3)	—	—	182 (7.2)
W2		mm (in.)	159 (6.3)	—	—	—	—	159 (6.3)	—	—
W3		mm (in.)	165 (6.5)	—	—	166 (6.5)	187 (7.4)	182 (7.2)	182 (7.2)	—
W4		mm (in.)	—	—	—	—	—	—	—	—
W5		mm (in.)	268 (10.6)	271 (10.7)	271 (10.7)	271 (10.7)	331 (13.0)	322 (12.7)	322 (12.7)	321 (12.6)
W6		mm (in.)	507 (20.0)	—	—	—	—	553 (21.8)	—	—
A1		degree	30	30	30	30	30	35	35	35
A2		degree	64	68	68	68	67	67	67	63
A3		degree	—	—	—	4	—	2.8	2.8	0
T1		mm (in.)	—	—	—	—	—	—	—	—

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (2-STROKE)

Global model (US, CA model) Symbol		60FED 60FEDO L-transom	60FETO 70BETO S-transom	60FET 60FETO 70BETO L/X-transom	70BEHTO	55DEHD 75AEHD 85AEHD	75AED 85AED	75AET 85AET	E60JMHD E65AMHD E75BMHD
L1	mm (in.)	532 (20.9)	547 (21.5)	532 (20.9)	532 (20.9)	545 (21.5)	545 (21.5)	545 (21.5)	545 (21.5)
L2	mm (in.)	166 (6.5)	151 (5.9)	166 (6.5)	267 (10.5)	180 (7.1)	180 (7.1)	180 (7.1)	270 (10.6)
L3	mm (in.)	—	—	—	798 (31.4)	790 (31.1)	—	—	652 (25.7)
L4	mm (in.)	547 (21.5)	562 (22.1)	547 (21.5)	547 (21.5)	547 (21.5)	547 (21.5)	547 (21.5)	547 (21.5)
L5	S L Y X U	mm (in.)	— 113 (4.4)	— 91 (3.6)	— 91 (3.6)	— 88 (3.5)	— 88 (3.5)	— 88 (3.5)	— 81 (3.2)
			91 (3.6)	—	—	85 (3.3)	—	—	80 (3.1)
			—	80 (3.1)	80 (3.1)	85 (3.3)	80 (3.1)	80 (3.1)	70 (2.8)
			—	—	—	—	—	—	—
L6	S L Y X U	mm (in.)	— 968 (38.1)	868 (34.2) —	— 968 (38.1)	— 968 (38.1)	— 968 (38.1)	— 968 (38.1)	— 966 (38.0)
			—	—	—	1,015 (40.0)	—	—	1,011 (39.8)
			—	1,081 (42.6)	1,081 (42.6)	1,080 (42.5)	1,080 (42.5)	1,080 (42.5)	1,078 (42.4)
			—	—	—	—	—	—	—
L7	mm (in.)	411 (16.2)	403 (15.9)	411 (16.2)	411 (16.2)	459 (18.1)	459 (18.1)	459 (18.1)	542 (21.3)
L8	mm (in.)	214 (8.4)	206 (8.1)	214 (8.4)	271 (10.7)	164 (6.5)	164 (6.5)	164 (6.5)	256 (10.1)
L9	S L Y X U	mm (in.)	— 0.0 (0.00)	— 14 (0.6)	— 14 (0.6)	— —	— —	— 14 (0.6)	— —
			—	—	—	—	—	—	—
			—	31 (1.2)	31 (1.2)	—	—	23 (0.9)	—
			—	—	—	—	—	—	—
L10	mm (in.)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	68 (2.7)
H1	S L Y X U	mm (in.)	— 901 (35.5)	780 (30.7) —	— 901 (35.5)	— 901 (35.5)	— 901 (35.5)	— 901 (35.5)	— 902 (35.5)
			—	—	—	952 (37.5)	—	—	953 (37.5)
			—	1,028 (40.5)	1,028 (40.5)	1,028 (40.5)	1,028 (40.5)	1,028 (40.5)	1,029 (40.5)
			—	—	—	—	—	—	—
H2	mm (in.)	472 (18.6)	472 (18.6)	472 (18.6)	472 (18.6)	520 (20.5)	520 (20.5)	520 (20.5)	590 (23.2)
H3	mm (in.)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)
H4	S L Y X U	mm (in.)	— 520 (20.5)	400 (15.7) —	— 520 (20.5)	— 520 (20.5)	— 520 (20.5)	— 520 (20.5)	— 521 (20.5)
			—	—	—	571 (22.5)	—	—	572 (22.5)
			—	—	648 (25.5)	647 (25.5)	647 (25.5)	647 (25.5)	648 (25.5)
			—	—	—	—	—	—	—
H5	mm (in.)	—	—	—	706 (27.8)	—	—	—	555 (21.9)
H6	S L Y X U	mm (in.)	— 696 (27.4)	645 (25.4) —	— 696 (27.4)	— 696 (27.4)	— 698 (27.5)	— 698 (27.5)	— 698 (27.5)
			—	—	—	729 (28.7)	—	—	725 (28.5)
			—	764 (30.1)	764 (30.1)	764 (30.1)	764 (30.1)	764 (30.1)	766 (30.2)
			—	—	—	—	—	—	—
H7	mm (in.)	249 (9.8)	262 (10.3)	249 (9.8)	249 (9.8)	199 (7.8)	199 (7.8)	199 (7.8)	253 (10.0)
H8	mm (in.)	−11 (−0.43)	−24 (−0.94)	−11 (−0.43)	70 (2.8)	23 (0.9)	23 (0.9)	23 (0.9)	84 (3.3)
H9	mm (in.)	706 (27.8)	719 (28.3)	706 (27.8)	731 (28.8)	743 (29.3)	743 (29.3)	743 (29.3)	778 (30.6)
H10	mm (in.)	47 (1.9)	47 (1.9)	47 (1.9)	47 (1.9)	47 (1.9)	47 (1.9)	47 (1.9)	46 (1.8)
H11	S L Y X U	mm (in.)	— 0.0 (0.00)	— 28 (1.1)	— 27 (1.1)	— —	— —	— 27 (1.1)	— —
			—	—	—	—	—	—	—
			—	27 (1.1)	27 (1.1)	—	—	27 (1.1)	—
			—	—	—	—	—	—	—
W1	mm (in.)	182 (7.2)	182 (7.2)	182 (7.2)	—	211 (8.3)	187 (7.4)	187 (7.4)	—
W2	mm (in.)	—	—	—	94 (3.7)	—	—	—	159 (6.3)
W3	mm (in.)	—	—	—	181 (7.1)	187 (7.4)	187 (7.4)	187 (7.4)	187 (7.4)
W4	mm (in.)	—	—	—	179 (7.0)	—	—	—	—
W5	mm (in.)	321 (12.6)	321 (12.6)	321 (12.6)	321 (12.6)	331 (13.0)	331 (13.0)	331 (13.0)	331 (13.0)
W6	mm (in.)	—	—	—	583 (23.0)	—	—	—	506 (19.9)
A1	degree	35	35	35	35	30	30	30	30
A2	degree	67	63	67	62	67	67	67	67
A3	degree	4	0	4	4	—	—	4	—
T1	mm (in.)	—	—	—	—	600 (23.6)	600 (23.6)	600 (23.6)	600 (23.6)

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (2-STROKE)

Global model (US, CA model)		75CETO 90AETO (90TR)	E115AMH E115AWH	E115AE 115BE	E115AET 115BET 140BET	115CETO	130BETO	L/150AET L/200AET	150FETO L/200FETO 225DET
Symbol									
L1	mm (in.)	545 (21.5)	539 (21.2)	539 (21.2)	539 (21.2)	542 (21.3)	554 (21.8)	543 (21.4)	550 (21.7)
L2	mm (in.)	180 (7.1)	325 (12.8)	213 (8.4)	213 (8.4)	188 (7.4)	176 (6.9)	188 (7.4)	179 (17.0)
L3	mm (in.)	—	845 (33.3)	—	—	—	—	—	—
L4	mm (in.)	547 (21.5)	616 (24.3)	616 (24.3)	616 (24.3)	616 (24.3)	632 (24.9)	634 (25.0)	647 (25.5)
L5	S	mm (in.)	—	—	—	—	—	—	—
	L	88 (3.5)	80 (3.1)	80 (3.1)	80 (3.1)	70 (2.8)	70 (2.8)	49 (1.9)	61 (2.4)
	Y	—	75 (3.0)	—	—	—	—	—	—
	X	80 (3.1)	85 (3.3)	85 (3.3)	85 (3.3)	61 (2.4)	61 (2.4)	62 (2.4)	80 (3.1)
	U	—	—	—	—	—	—	—	—
L6	S	mm (in.)	—	—	—	—	—	—	—
	L	968 (38.1)	1,005 (39.6)	1,005 (39.6)	1,005 (39.6)	1,007 (39.6)	1,007 (39.6)	1,030 (40.6)	1,036 (40.8)
	Y	—	1,055 (41.5)	—	—	—	—	—	—
	X	1,080 (42.5)	1,120 (44.1)	1,120 (44.1)	1,120 (44.1)	1,124 (44.3)	1,124 (44.3)	1,144 (45.0)	1,152 (45.4)
	U	—	—	—	—	—	—	—	—
L7	mm (in.)	457 (18.0)	570 (22.4)	482 (19.0)	482 (19.0)	468 (18.4)	463 (18.2)	569 (22.4)	587 (23.1)
L8	mm (in.)	164 (6.5)	270 (10.6)	214 (8.4)	215 (8.5)	173 (6.8)	159 (6.3)	173 (6.8)	159 (6.3)
L9	S	mm (in.)	—	—	—	—	—	—	—
	L	14 (0.6)	—	—	12 (0.5)	44 (1.7)	31 (1.2)	54 (2.1)	41 (1.6)
	Y	—	—	—	—	—	—	—	—
	X	31 (1.2)	—	—	12 (0.5)	53 (2.1)	40 (1.6)	62 (2.4)	50 (2.1)
	U	—	—	—	—	—	—	—	—
L10	mm (in.)	67 (2.6)	64 (2.5)	64 (2.5)	64 (2.5)	74 (2.9)	74 (2.9)	74 (2.9)	74 (2.9)
H1	S	mm (in.)	—	—	—	—	—	—	—
	L	901 (35.5)	929 (36.6)	929 (36.6)	929 (36.6)	928 (36.5)	928 (36.5)	946 (37.2)	946 (37.2)
	Y	—	982 (38.7)	—	—	—	—	—	—
	X	1,028 (40.5)	1,056 (41.6)	1,056 (41.6)	1,056 (41.6)	1,054 (41.5)	1,054 (41.5)	1,072 (42.2)	1,072 (42.2)
	U	—	—	—	—	—	—	—	—
H2	mm (in.)	512 (20.2)	631 (24.8)	508 (20.0)	508 (20.0)	544 (21.4)	544 (21.4)	631 (24.8)	670 (26.4)
H3	mm (in.)	191 (7.5)	190 (7.5)	190 (7.5)	190 (7.5)	191 (7.5)	191 (7.5)	210 (8.3)	210 (8.3)
H4	S	mm (in.)	—	—	—	—	—	—	—
	L	520 (20.5)	515 (20.3)	515 (20.3)	515 (20.3)	515 (20.3)	515 (20.3)	516 (20.3)	516 (20.3)
	Y	—	568 (22.4)	—	—	—	—	—	—
	X	647 (25.5)	642 (25.3)	642 (25.3)	642 (25.3)	642 (25.3)	642 (25.3)	642 (25.3)	642 (25.3)
	U	—	—	—	—	—	—	—	—
H5	mm (in.)	—	695 (27.4)	—	—	—	—	—	—
H6	S	mm (in.)	—	—	—	—	—	—	—
	L	698 (27.5)	735 (28.9)	735 (28.9)	735 (28.9)	764 (30.1)	764 (30.1)	762 (30.0)	773 (30.4)
	Y	—	765 (30.1)	—	—	—	—	—	—
	X	764 (30.1)	810 (31.9)	810 (31.9)	810 (31.9)	839 (33.0)	839 (33.0)	837 (33.0)	849 (33.4)
	U	—	—	—	—	—	—	—	—
H7	mm (in.)	226 (8.9)	150 (5.9)	150 (5.9)	150 (5.9)	180 (7.1)	191 (7.5)	205 (8.1)	241 (9.5)
H8	mm (in.)	23 (0.9)	155 (6.1)	53 (2.1)	55 (2.2)	26 (1.0)	15 (0.6)	26 (1.0)	15 (0.6)
H9	mm (in.)	730 (28.7)	780 (30.7)	730 (28.7)	730 (28.7)	730 (28.7)	741 (29.2)	788 (31.0)	791 (31.1)
H10	mm (in.)	47 (1.9)	45 (1.8)	45 (1.8)	45 (1.8)	45 (1.8)	46 (1.8)	45.4 (1.8)	46 (1.8)
H11	S	mm (in.)	—	—	—	—	—	—	—
	L	27 (1.1)	—	—	—	30 (1.2)	30 (1.2)	31 (1.2)	33 (1.3)
	Y	—	—	—	—	—	—	—	—
	X	27 (1.1)	—	—	—	30 (1.2)	30 (1.2)	31 (1.2)	33 (1.3)
	U	—	—	—	—	—	—	—	—
W1	mm (in.)	187 (7.4)	300 (11.8)	297 (11.7)	300 (11.8)	291 (11.5)	291 (11.5)	301 (11.9)	290 (11.4)
W2	mm (in.)	—	210 (8.3)	—	—	—	—	—	—
W3	mm (in.)	187 (7.4)	300 (11.8)	297 (11.7)	300 (11.8)	291 (11.5)	291 (11.5)	—	290 (11.4)
W4	mm (in.)	—	300 (11.8)	—	—	—	—	—	—
W5	mm (in.)	331 (13.0)	424 (16.7)	422 (16.6)	424 (16.7)	409 (16.1)	409 (16.1)	426 (16.8)	406 (16.0)
W6	mm (in.)	—	705 (27.8)	—	—	—	—	—	—
A1	degree	30	35	35	35	35	35	35	35
A2	degree	67	66	66	70	70	70	70	70
A3	degree	4	—	—	4	4	4	4	4
T1	mm (in.)	600 (23.6)	660 (26.0)	660 (26.0)	660 (26.0)	660 (26.0)	660 (26.0)	660 (26.0)	660 (26.0)

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (2-STROKE)

Global model (US, CA model)		Symbol		200GETO	Z150PETO Z175GETO (Z175TR) Z/LZ200NETO (Z/LZ200TR)	Z150QETO (VZ150TR) Z175HETO (VZ175TR) Z200PETO	L/250GETO
L1	mm (in.)			557 (21.9)	613 (24.1)	613 (24.1)	566 (22.3)
L2	mm (in.)			179 (7.0)	180 (7.1)	180 (7.1)	181 (7.1)
L3	mm (in.)			—	—	—	—
L4	mm (in.)			647 (25.5)	646 (25.4)	646 (25.4)	673 (26.5)
L5	S	mm (in.)		—	—	—	—
	L			61 (2.4)	53 (2.1)	53 (2.1)	—
	Y			—	—	—	—
	X			—	69 (2.7)	—	69 (2.7)
	U			—	—	—	89 (3.5)
L6	S	mm (in.)		—	—	—	—
	L			1,036 (40.8)	1,034 (40.7)	1,034 (40.7)	—
	Y			—	—	—	—
	X			—	1,150 (45.3)	—	1,155 (45.5)
	U			—	—	—	1,271 (50.0)
L7	mm (in.)			587 (23.1)	574 (22.6)	574 (22.6)	631 (24.8)
L8	mm (in.)			159 (6.3)	168 (6.6)	168 (6.6)	185 (7.3)
L9	S	mm (in.)		—	—	—	—
	L			41 (1.6)	42 (1.7)	42 (1.7)	—
	Y			—	—	—	—
	X			—	50 (2.0)	—	52 (2.0)
	U			—	—	—	58 (2.3)
L10	mm (in.)			74 (2.9)	74 (2.9)	74 (2.9)	74 (2.9)
H1	S	mm (in.)		—	—	—	—
	L			946 (37.2)	947 (37.3)	947 (37.3)	—
	Y			—	—	—	—
	X			—	1,074 (42.3)	—	1,077 (42.4)
	U			—	—	—	1,203 (47.4)
H2	mm (in.)			691 (27.2)	708 (27.9)	746 (27.9)	710 (28.0)
H3	mm (in.)			210 (8.3)	211 (8.3)	211 (8.3)	216 (8.5)
H4	S	mm (in.)		—	—	—	—
	L			516 (20.3)	516 (20.3)	516 (20.3)	—
	Y			—	—	—	—
	X			—	643 (25.3)	—	642 (25.3)
	U			—	—	—	768 (30.2)
H5	mm (in.)			—	—	—	—
H6	S	mm (in.)		—	—	—	—
	L			773 (30.4)	774 (30.5)	774 (30.5)	—
	Y			—	—	—	—
	X			—	850 (33.5)	—	846 (33.3)
	U			—	—	—	923 (36.3)
H7	mm (in.)			241 (9.5)	308 (12.1)	308 (12.1)	242 (9.5)
H8	mm (in.)			15 (0.6)	14 (0.6)	14 (0.6)	21 (0.8)
H9	mm (in.)			864 (34.0)	835 (32.9)	945 (37.2)	818 (32.2)
H10	mm (in.)			46 (1.8)	44 (1.7)	44 (1.7)	45 (1.8)
H11	S	mm (in.)		—	—	—	—
	L			33 (1.3)	32 (1.3)	32 (1.3)	—
	Y			—	—	—	—
	X			33 (1.3)	32 (1.3)	—	25 (1.0)
	U			—	—	—	25 (1.0)
W1	mm (in.)			290 (11.4)	277 (10.9)	277 (10.9)	281 (11.1)
W2	mm (in.)			—	—	—	—
W3	mm (in.)			290 (11.4)	—	—	—
W4	mm (in.)			—	—	—	—
W5	mm (in.)			406 (16.0)	396 (15.6)	396 (15.6)	420 (16.5)
W6	mm (in.)			—	—	—	—
A1	degree			35	32	32	32
A2	degree			70	70	70	70
A3	degree			4	4	4	3
T1	mm (in.)			—	660 (26.0)	—	660 (26.0)

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (4-STROKE)

Global model (US, CA model)			F2AMH F2.5AMH (F2.5MH)	F4BMH (F4MHA) F5AMH F6CMH (F6MHA)	F8CMH (F8MHA) Long handle	F8CMH F8CWH Short handle	FT8DMH (T8MHA) FT8DWH (T8EHA) Long handle	FT8DE (T8EA)	FT8DEHP (T8PHA)	FT8DEP (T8PA)
Symbol										
L1	mm (in.)		315 (12.4)	409 (16.1)	430 (16.9)	430 (16.9)	430 (16.9)	430 (16.9)	430 (16.9)	430 (16.9)
L2	mm (in.)		93 (3.7)	130 (5.1)	122 (4.8)	122 (4.8)	122 (4.8)	122 (4.8)	122 (4.8)	122 (4.8)
L3	mm (in.)		309 (12.2)	341 (13.4)	608 (23.9)	498 (19.6)	608 (23.9)	—	608 (23.9)	—
L4	mm (in.)		215 (8.5)	259 (10.2)	355 (14.0)	355 (14.0)	367 (14.4)	367 (14.4)	367 (14.4)	367 (14.4)
L5	S	mm (in.)	57 (2.2)	71 (2.8)	72 (2.8)	72 (2.8)	—	—	—	—
	L		57 (2.2)	93 (3.7)	99 (3.9)	99 (3.9)	99 (3.9)	99 (3.9)	99 (3.9)	99 (3.9)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	99 (3.9)	99 (3.9)	99 (3.9)	99 (3.9)
	U		—	—	—	—	—	—	—	—
L6	S	mm (in.)	636 (25.0)	635 (25.0)	706 (27.8)	706 (27.8)	—	—	—	—
	L		761 (30.0)	753 (29.6)	822 (32.4)	822 (32.4)	879 (34.6)	879 (34.6)	879 (34.6)	879 (34.6)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	941 (37.0)	941 (37.0)	941 (37.0)	941 (37.0)
	U		—	—	—	—	—	—	—	—
L7	mm (in.)		366 (14.4)	383 (15.1)	271 (10.7)	271 (10.7)	271 (10.7)	271 (10.7)	271 (10.7)	271 (10.7)
L8	mm (in.)		167 (6.6)	134 (5.3)	139 (5.5)	139 (5.5)	139 (5.5)	139 (5.5)	190 (7.5)	225 (8.9)
L9	S	mm (in.)	—	—	—	—	—	—	—	—
	L		—	—	—	—	—	—	—	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
L10	mm (in.)		75 (3.0)	63 (2.5)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)
H1	S	mm (in.)	645 (25.4)	644 (25.4)	682 (26.9)	682 (26.9)	—	—	—	—
	L		772 (30.4)	771 (30.4)	809 (31.9)	809 (31.9)	869 (34.2)	869 (34.2)	869 (34.2)	869 (34.2)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	937 (36.9)	937 (36.9)	937 (36.9)	937 (36.9)
	U		—	—	—	—	—	—	—	—
H2	mm (in.)		376 (14.8)	395 (15.6)	318 (12.5)	318 (12.5)	318 (12.5)	318 (12.5)	318 (12.5)	318 (12.5)
H3	mm (in.)		103 (4.1)	104 (4.1)	123 (4.8)	123 (4.8)	157 (6.2)	157 (6.2)	157 (6.2)	157 (6.2)
H4	S	mm (in.)	432 (17.0)	435 (17.1)	436 (17.2)	436 (17.2)	—	—	—	—
	L		559 (22.0)	562 (22.1)	563 (22.2)	563 (22.2)	557 (21.9)	557 (21.9)	557 (21.9)	557 (21.9)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	625 (24.6)	625 (24.6)	625 (24.6)	625 (24.6)
	U		—	—	—	—	—	—	—	—
H5	mm (in.)		470 (18.5)	430 (16.9)	673 (26.5)	563 (22.2)	673 (26.5)	—	673 (26.5)	—
H6	S	mm (in.)	642 (25.3)	555 (21.9)	594 (23.4)	594 (23.4)	—	—	—	—
	L		746 (29.4)	637 (25.1)	669 (26.3)	669 (26.3)	717 (28.2)	717 (28.2)	717 (28.2)	717 (28.2)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	757 (29.8)	757 (29.8)	757 (29.8)	757 (29.8)
	U		—	—	—	—	—	—	—	—
H7	mm (in.)		264 (10.4)	191 (7.5)	203 (8.0)	203 (8.0)	203 (8.0)	203 (8.0)	203 (8.0)	203 (8.0)
H8	mm (in.)		15 (0.6)	1 (0.0)	5 (0.2)	5 (0.2)	5 (0.2)	5 (0.2)	5 (0.2)	5 (0.2)
H9	mm (in.)		406 (16.0)	503 (19.8)	529 (20.8)	529 (20.8)	529 (20.8)	529 (20.8)	529 (20.8)	529 (20.8)
H10	mm (in.)		32 (1.3)	39 (1.5)	32 (1.3)	32 (1.3)	32 (1.3)	32 (1.3)	32 (1.3)	32 (1.3)
H11	S	mm (in.)	—	—	—	—	—	—	—	—
	L		—	—	—	—	—	—	—	—
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	—	—	—	—	—
	U		—	—	—	—	—	—	—	—
W1	mm (in.)		140 (5.5)	181 (7.1)	159 (6.3)	169 (6.7)	172 (6.8)	177 (7.0)	172 (6.8)	177 (7.0)
W2	mm (in.)		205 (8.1)	222 (8.7)	199 (7.8)	206 (8.1)	199 (7.8)	—	199 (7.8)	135 (5.3)
W3	mm (in.)		139 (5.5)	—	159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)
W4	mm (in.)		135 (5.3)	153 (6.0)	159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)
W5	mm (in.)		—	325 (12.8)	286 (11.3)	286 (11.3)	286 (11.3)	286 (11.3)	326 (12.8)	271 (10.7)
W6	mm (in.)		—	425 (16.7)	619 (24.4)	536 (21.1)	619 (24.4)	—	586 (23.1)	271 (10.7)
A1	degree		360	90	45	45	45	45	40	40
A2	degree		80	69	66	66	66	66	66	66
A3	degree		—	—	—	—	—	—	—	—
T1	mm (in.)		—	—	—	—	—	—	—	—

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (4-STROKE)

Global model (US, CA model)		Symbol		F9.9FMH F9.9FEH F9.9FWH Short handle	F9.9FMH (F9.9MHA) F9.9FEH (F9.9EHA) F9.9FWH Long handle	F9.9FE (F9.9EA)	FT9.9GMH (T9.9MHA) FT9.9GWH (T9.9EHA)	FT9.9GEHP (T9.9PHA)	FT9.9GE (T9.9EA)	FT9.9GEP (T9.9PA)	F9.9HMH F15CMH (F15MHA) F15CEH (F15EHA) F15CWH F20BMH (F20MHA) F20BEH (F20EHA) F20BWH F20CMH
L1	mm (in.)			431 (17.0)	431 (17.0)	431 (17.0)	431 (17.0)	430 (16.9)	431 (17.0)	430 (16.9)	489 (19.3)
L2	mm (in.)			121 (4.8)	121 (4.8)	121 (4.8)	121 (4.8)	122 (4.8)	121 (4.8)	122 (4.8)	219 (8.6)
L3	mm (in.)			497 (19.6)	607 (23.9)	—	607 (23.9)	608 (23.9)	—	—	559 (22.0)
L4	mm (in.)			356 (14.0)	356 (14.0)	356 (14.0)	367 (14.4)	367 (14.4)	367 (14.4)	367 (14.4)	387 (15.2)
L5	S	mm (in.)		49 (1.9)	49 (1.9)	49 (1.9)	—	—	—	—	64 (2.5)
	L			67 (2.6)	67 (2.6)	67 (2.6)	67 (2.6)	35 (1.4)	67 (2.6)	35 (1.4)	82 (3.2)
	Y			—	—	—	—	—	—	—	—
	X			—	—	—	67 (2.6)	35 (1.4)	67 (2.6)	35 (1.4)	—
	U			—	—	—	—	—	—	—	—
L6	S	mm (in.)		708 (27.9)	708 (27.9)	708 (27.9)	—	—	—	—	730 (28.7)
	L			825 (32.5)	825 (32.5)	825 (32.5)	891 (35.1)	879 (34.6)	891 (35.1)	879 (34.6)	847 (33.3)
	Y			—	—	—	—	—	—	—	—
	X			—	—	—	954 (37.6)	941 (37.0)	954 (37.6)	941 (37.0)	—
	U			—	—	—	—	—	—	—	—
L7	mm (in.)			274 (10.8)	274 (10.8)	274 (10.8)	274 (10.8)	271 (10.7)	274 (10.8)	271 (10.7)	381 (15.0)
L8	mm (in.)			138 (5.4)	138 (5.4)	138 (5.4)	138 (5.4)	139 (5.5)	138 (5.4)	139 (5.5)	237 (9.3)
L9	S	mm (in.)		18 (0.7)	18 (0.7)	18 (0.7)	—	—	—	—	9 (0.4)
	L			27 (1.1)	27 (1.1)	27 (1.1)	27 (1.1)	62 (2.4)	27 (1.1)	62 (2.4)	18 (0.7)
	Y			—	—	—	—	—	—	—	—
	X			—	—	—	27 (1.1)	62 (2.4)	27 (1.1)	62 (2.4)	—
	U			—	—	—	—	—	—	—	—
L10	mm (in.)			66 (2.6)	66 (2.6)	66 (2.6)	66 (2.6)	67 (2.6)	66 (2.6)	67 (2.6)	66 (2.6)
H1	S	mm (in.)		677 (26.7)	677 (26.7)	677 (26.7)	—	—	—	—	701 (27.6)
	L			804 (31.7)	804 (31.7)	804 (31.7)	864 (34.0)	869 (34.2)	864 (34.0)	869 (34.2)	828 (32.6)
	Y			—	—	—	—	—	—	—	—
	X			—	—	—	932 (36.7)	937 (36.9)	932 (36.7)	937 (36.9)	—
	U			—	—	—	—	—	—	—	—
H2	mm (in.)			323 (12.7)	323 (12.7)	323 (12.7)	323 (12.7)	318 (12.5)	323 (12.7)	318 (12.5)	377 (14.8)
H3	mm (in.)			123 (4.8)	123 (4.8)	123 (4.8)	157 (6.2)	157 (6.2)	157 (6.2)	157 (6.2)	133 (5.2)
H4	S	mm (in.)		431 (17.0)	431 (17.0)	431 (17.0)	—	—	—	—	438 (17.2)
	L			558 (22.0)	558 (22.0)	558 (22.0)	552 (21.7)	557 (21.9)	552 (21.7)	557 (21.9)	565 (22.2)
	Y			—	—	—	—	—	—	—	—
	X			—	—	—	620 (24.4)	625 (24.6)	620 (24.4)	625 (24.6)	—
	U			—	—	—	—	—	—	—	—
H5	mm (in.)			568 (22.4)	679 (26.7)	—	678 (26.7)	673 (26.5)	—	—	570 (22.4)
H6	S	mm (in.)		604 (23.8)	604 (23.8)	604 (23.8)	—	—	—	—	616 (24.3)
	L			682 (26.9)	682 (26.9)	682 (26.9)	730 (28.7)	717 (28.2)	730 (28.7)	717 (28.2)	694 (27.3)
	Y			—	—	—	—	—	—	—	—
	X			—	—	—	771 (30.4)	757 (29.8)	771 (30.4)	757 (29.8)	—
	U			—	—	—	—	—	—	—	—
H7	mm (in.)			206 (8.1)	206 (8.1)	206 (8.1)	206 (8.1)	203 (8.0)	206 (8.1)	203 (8.0)	399 (15.7)
H8	mm (in.)			8 (0.3)	8 (0.3)	8 (0.3)	8 (0.3)	5 (0.2)	8 (0.3)	5 (0.2)	44 (1.7)
H9	mm (in.)			533 (21.0)	609 (24.0)	533 (21.0)	609 (24.0)	604 (23.8)	533 (21.0)	529 (20.8)	580 (22.8)
H10	mm (in.)			37 (1.5)	37 (1.5)	37 (1.5)	37 (1.5)	32 (1.3)	37 (1.5)	32 (1.3)	37 (1.5)
H11	S	mm (in.)		19 (0.7)	19 (0.7)	19 (0.7)	—	—	—	—	19 (0.7)
	L			19 (0.7)	19 (0.7)	19 (0.7)	19 (0.7)	33 (1.3)	19 (0.7)	33 (1.3)	19 (0.7)
	Y			—	—	—	—	—	—	—	—
	X			—	—	—	19 (0.7)	33 (1.3)	19 (0.7)	33 (1.3)	—
	U			—	—	—	—	—	—	—	—
W1	mm (in.)			169 (6.7)	159 (6.3)	177 (7.0)	172 (6.8)	172 (6.8)	177 (7.0)	177 (7.0)	210 (8.3)
W2	mm (in.)			206 (8.1)	199 (7.8)	—	199 (7.8)	199 (7.8)	—	—	210 (8.3)
W3	mm (in.)			159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)	176 (6.9)
W4	mm (in.)			159 (6.3)	159 (6.3)	159 (6.3)	159 (6.3)	159	159 (6.3)	159 (6.3)	—
W5	mm (in.)			279 (11.0)	279 (11.0)	279 (11.0)	279 (11.0)	264 (10.4)	279 (11.0)	264 (10.4)	341 (13.4)
W6	mm (in.)			524 (20.6)	603 (23.7)	—	603 (23.7)	567 (22.3)	—	—	598 (23.5)
A1	degree			43	43	43	43	38	43	38	45
A2	degree			71	71	71	71	74	71	74	71
A3	degree			4	4	4	4	8	4	8	4
T1	mm (in.)			—	—	—	—	—	—	—	—

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (4-STROKE)

Global model (US, CA model)		Symbol	F15CEHP (F15PHA) F20BEHP (F20PHA)	F15CE F20BE (F20EA)	F15CEP F20BEP (F20PA)	F25DMH (F25MHA) F25DEH (F25EHA) F25DWH	F25DMHD F25DEHD F25DWH	F25DEHT	F25DEH 6X4 tiller handle	F25DE (F25EA)
L1	mm (in.)		488 (19.2)	489 (19.3)	488 (19.2)	601 (23.7)	601 (23.7)	601 (23.7)	601 (23.7)	601 (23.7)
L2	mm (in.)		220 (8.7)	176 (6.9)	176 (6.9)	—	—	—	255 (10.0)	123 (4.8)
L3	mm (in.)		559 (22.0)	—	—	580 (22.8)	580 (22.8)	580 (22.8)	769 (30.3)	—
L4	mm (in.)		386 (15.2)	387 (15.2)	386 (15.2)	433 (17.0)	433 (17.0)	433 (17.0)	433 (17.0)	433 (17.0)
L5	S	mm (in.)	—	64 (2.5)	89 (3.5)	85 (3.3)	—	—	—	—
	L		82 (3.2)	82 (3.2)	82 (3.2)	103 (4.1)	111 (4.4)	111 (4.4)	103 (4.1)	103 (4.1)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	115 (4.5)	124 (4.9)	124 (4.9)	—	—
	U		—	—	—	—	—	—	—	—
L6	S	mm (in.)	—	730 (28.7)	727 (28.6)	761 (30.0)	—	—	—	—
	L		840 (33.1)	847 (33.3)	840 (33.1)	880 (34.6)	875 (34.4)	875 (34.4)	880 (34.6)	880 (34.6)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	960 (37.8)	951 (37.4)	951 (37.4)	—	—
	U		—	—	—	—	—	—	—	—
L7	mm (in.)		356 (14.0)	321 (12.6)	309 (12.2)	378 (14.9)	353 (13.9)	353 (13.9)	378 (14.9)	378 (14.9)
L8	mm (in.)		176 (6.9)	184 (7.2)	188 (7.4)	189 (7.4)	197 (7.8)	197 (7.8)	159 (6.3)	147 (5.8)
L9	S	mm (in.)	—	9 (0.4)	—	15 (0.6)	—	—	—	—
	L		18 (0.7)	18 (0.7)	18 (0.7)	6 (0.2)	14 (0.6)	14 (0.6)	6 (0.2)	6 (0.2)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	1 (0.0)	10 (0.4)	10 (0.4)	—	—
	U		—	—	—	—	—	—	—	—
L10	mm (in.)		67 (2.6)	66 (2.6)	67 (2.6)	65 (2.6)	65 (2.6)	65 (2.6)	65 (2.6)	65 (2.6)
H1	S	mm (in.)	—	701 (27.6)	706 (27.8)	707 (27.8)	—	—	—	—
	L		833 (32.8)	828 (32.6)	833 (32.8)	834 (32.8)	834 (32.8)	834 (32.8)	834 (32.8)	834 (32.8)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	920 (36.2)	920 (36.2)	920 (36.2)	—	—
	U		—	—	—	—	—	—	—	—
H2	mm (in.)		372 (14.6)	377 (14.8)	372 (14.6)	450 (17.7)	450 (17.7)	450 (17.7)	450 (17.7)	450 (17.7)
H3	mm (in.)		133 (5.2)	133 (5.2)	133 (5.2)	144 (5.7)	144 (5.7)	144 (5.7)	144 (5.7)	144 (5.7)
H4	S	mm (in.)	—	438 (17.2)	443 (17.4)	423 (16.7)	—	—	—	—
	L		570 (22.4)	565 (22.2)	570 (22.4)	550 (21.7)	550 (21.7)	550 (21.7)	550 (21.7)	550 (21.7)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	635 (25.0)	636 (25.0)	636 (25.0)	—	—
	U		—	—	—	—	—	—	—	—
H5	mm (in.)		566 (22.3)	—	—	—	—	—	766 (30.2)	—
H6	S	mm (in.)	—	616 (24.3)	574 (22.6)	667 (26.3)	—	—	—	—
	L		643 (25.3)	694 (27.3)	643 (25.3)	748 (29.4)	665 (26.2)	665 (26.2)	748 (29.4)	748 (29.4)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	803 (31.6)	711 (28.0)	711 (28.0)	—	—
	U		—	—	—	—	—	—	—	—
H7	mm (in.)		414 (16.3)	218 (8.6)	230 (9.1)	258 (10.2)	282 (11.1)	282 (11.1)	258 (10.2)	258 (10.2)
H8	mm (in.)		37 (1.5)	32 (1.3)	28 (1.1)	41 (1.6)	26 (1.0)	26 (1.0)	47 (1.9)	12 (0.5)
H9	mm (in.)		575 (22.6)	580 (22.8)	575 (22.6)	705 (27.8)	706 (27.8)	706 (27.8)	705 (27.8)	705 (27.8)
H10	mm (in.)		32 (1.3)	37 (1.5)	32 (1.3)	43 (1.7)	43 (1.7)	43 (1.7)	43 (1.7)	43 (1.7)
H11	S	mm (in.)	—	19 (0.7)	—	23 (0.9)	—	—	—	—
	L		19 (0.7)	19 (0.7)	19 (0.7)	22 (0.9)	18 (0.7)	18 (0.7)	22 (0.9)	22 (0.9)
	Y		—	—	—	—	—	—	—	—
	X		—	—	—	22 (0.9)	17 (0.7)	17 (0.7)	—	—
	U		—	—	—	—	—	—	—	—
W1	mm (in.)		210 (8.3)	210 (8.3)	210 (8.3)	199 (7.8)	199 (7.8)	199 (7.8)	199 (7.8)	199 (7.8)
W2	mm (in.)		210 (8.3)	—	—	213 (8.4)	213 (8.4)	213 (8.4)	128 (5.0)	—
W3	mm (in.)		176 (6.9)	180 (7.1)	180 (7.1)	—	—	—	—	—
W4	mm (in.)		—	—	—	—	—	—	—	—
W5	mm (in.)		320 (12.6)	341 (13.4)	320 (12.6)	387 (15.2)	387 (15.2)	387 (15.2)	387 (15.2)	387 (15.2)
W6	mm (in.)		568 (22.4)	—	—	604 (23.8)	604 (23.8)	604 (23.8)	665 (26.2)	—
A1	degree		40	45	40	42	42	42	42	42
A2	degree		67	71	S:63 / L:67	73	66	66	73	73
A3	degree		4	4	S:0 / L:4	4	3	3	4	4
T1	mm (in.)		—	—	—	—	—	—	—	—

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (4-STROKE)

Global model (US, CA model)		Symbol	FT25FET (T25A)	F30BEHT F40FEHT	F30BEHD (F30EHA) F40FEHD (F40EHA)	F30BET (F30A) F40FET (F40A)	F40FED (F40EA)	F40DET F50FET (F50TR/A) F60CET (F60TR/A)	F50FED	F50DET
L1		mm (in.)	601 (23.7)	583 (23.0)	583 (23.0)	583 (23.0)	583 (23.0)	584 (23.0)	584 (23.0)	576 (22.7)
L2		mm (in.)	134 (5.3)	235 (9.3)	235 (9.3)	134 (5.3)	134 (5.3)	122 (4.8)	122 (4.8)	142 (5.6)
L3		mm (in.)	—	779 (30.7)	779 (30.7)	—	—	—	—	—
L4		mm (in.)	522 (20.6)	522 (20.6)	522 (20.6)	522 (20.6)	522 (20.6)	533 (21.0)	533 (21.0)	532 (20.9)
L5	S	mm (in.)	—	—	77 (3.0)	77 (3.0)	77 (3.0)	—	—	—
	L		66 (2.6)	66 (2.6)	66 (2.6)	66 (2.6)	66 (2.6)	97 (3.8)	97 (3.8)	97 (3.8)
	Y		—	—	—	—	—	—	—	—
	X		66 (2.6)	—	66 (2.6)	66 (2.6)	—	121 (4.8)	—	—
	U		—	—	—	—	—	—	—	—
L6	S	mm (in.)	—	—	816 (32.1)	817 (32.2)	816 (32.1)	—	—	—
	L		924 (36.4)	925 (36.4)	923 (36.3)	924 (36.4)	923 (36.3)	932 (36.7)	930 (36.6)	933 (36.7)
	Y		—	—	—	—	—	—	—	—
	X		1,025 (40.4)	—	1,024 (40.3)	1,025 (40.4)	—	1,036 (40.8)	—	—
	U		—	—	—	—	—	—	—	—
L7		mm (in.)	338 (13.3)	345 (13.6)	342 (13.5)	345 (13.6)	342 (13.5)	417 (16.4)	406 (16.0)	407 (16.0)
L8		mm (in.)	158 (6.2)	177 (7.0)	178 (7.0)	158 (6.2)	158 (6.2)	147 (5.8)	148 (5.8)	148 (5.8)
L9	S	mm (in.)	—	—	—	0 (0.0)	0 (0.0)	—	—	—
	L		29 (1.1)	29 (1.1)	29 (1.1)	29 (1.1)	29 (1.1)	0 (0.0)	0 (0.0)	0.6 (0.02)
	Y		—	—	—	—	—	—	—	—
	X		29 (1.1)	—	29 (1.1)	29 (1.1)	—	0 (0.0)	—	—
	U		—	—	—	—	—	—	—	—
L10		mm (in.)	65 (2.6)	65 (2.6)	65 (2.6)	65 (2.6)	65 (2.6)	62 (2.4)	62 (2.4)	63 (2.5)
H1	S	mm (in.)	—	—	757 (29.8)	757 (29.8)	757 (29.8)	—	—	—
	L		879 (34.6)	879 (34.6)	879 (34.6)	879 (34.6)	879 (34.6)	870 (34.2)	870 (34.2)	876 (34.5)
	Y		—	—	—	—	—	—	—	—
	X		993 (39.1)	—	993 (39.1)	993 (39.1)	—	984 (38.7)	—	—
	U		—	—	—	—	—	—	—	—
H2		mm (in.)	433 (17.0)	471 (18.5)	471 (18.5)	471 (18.5)	471 (18.5)	545 (21.5)	545 (21.5)	519 (20.4)
H3		mm (in.)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)	175 (6.9)
H4	S	mm (in.)	—	—	414 (16.3)	414 (16.3)	414 (16.3)	—	—	—
	L		536 (21.1)	536 (21.1)	536 (21.1)	536 (21.1)	536 (21.1)	527 (20.7)	527 (20.7)	533 (21.0)
	Y		—	—	—	—	—	—	—	—
	X		650 (25.6)	—	650 (25.6)	650 (25.6)	—	641 (25.2)	—	—
	U		—	—	—	—	—	—	—	—
H5		mm (in.)	—	770 (30.3)	770 (30.3)	—	—	—	—	—
H6	S	mm (in.)	—	—	594 (23.4)	606 (23.9)	594 (23.4)	—	—	—
	L		667 (26.3)	667 (26.3)	660 (26.0)	667 (26.3)	660 (26.0)	708 (27.9)	682 (26.9)	711 (28.0)
	Y		—	—	—	—	—	—	—	—
	X		728 (28.7)	—	720 (28.3)	728 (28.7)	—	774 (30.5)	—	—
	U		—	—	—	—	—	—	—	—
H7		mm (in.)	274 (10.8)	306 (12.0)	304 (12.0)	306 (12.0)	304 (12.0)	354 (13.9)	354 (13.9)	327 (12.9)
H8		mm (in.)	14 (0.6)	44 (1.7)	43 (1.7)	14 (0.6)	15 (0.6)	22 (0.9)	25 (1.0)	3.5 (0.14)
H9		mm (in.)	698 (27.5)	695 (27.4)	695 (27.4)	695 (27.4)	695 (27.4)	759 (29.9)	762 (30.0)	733 (28.9)
H10		mm (in.)	43 (1.7)	43 (1.7)	43 (1.7)	43 (1.7)	43 (1.7)	49 (1.9)	49 (1.9)	44 (1.7)
H11	S	mm (in.)	—	—	—	19 (0.7)	19 (0.7)	—	—	—
	L		19 (0.7)	19 (0.7)	19 (0.7)	19 (0.7)	19 (0.7)	24 (0.9)	24 (0.9)	24 (0.9)
	Y		—	—	—	—	—	—	—	—
	X		19 (0.7)	—	19 (0.7)	19 (0.7)	—	24 (0.9)	—	—
	U		—	—	—	—	—	—	—	—
W1		mm (in.)	199 (7.8)	192 (7.6)	192 (7.6)	192 (7.6)	192 (7.6)	192 (7.6)	192 (7.6)	181 (7.1)
W2		mm (in.)	—	128 (5.0)	128 (5.0)	—	—	—	—	—
W3		mm (in.)	—	—	—	—	—	—	—	181 (7.1)
W4		mm (in.)	—	—	—	—	—	—	—	—
W5		mm (in.)	376 (14.8)	364 (14.3)	364 (14.3)	364 (14.3)	364 (14.3)	360 (14.2)	360 (14.2)	345 (13.6)
W6		mm (in.)	—	654 (25.7)	654 (25.7)	—	—	—	—	—
A1		degree	40	40	40	40	40	40	40	40
A2		degree	66	66	65	66	65	63	63	65
A3		degree	3	3	3	3	3	4	4	4
T1		mm (in.)	—	—	—	—	—	560 (22.0)	560 (22.0)	560 (22.0)

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (4-STROKE)

Global model (US, CA model)		Symbol		F50FEHD	F50FEHT (F50THA) F60CEHT (F60THA)	FT50GET (T50TR/A) FT60DET (T60TR/A)	FT50CET	FT50GEHT FT60DEHT	FT50CEHD	FT50CED	FT60DEHD
L1	mm (in.)			584 (23.0)	584 (23.0)	584 (23.0)	576 (22.7)	584 (23.0)	576 (22.7)	576 (22.7)	584 (23.0)
L2	mm (in.)			225 (8.9)	225 (8.9)	122 (4.8)	142 (5.6)	225 (8.9)	272 (10.7)	142 (5.6)	225 (8.9)
L3	mm (in.)			788 (31.0)	788 (31.0)	—	—	788 (31.0)	797 (31.2)	—	788 (31.0)
L4	mm (in.)			533 (21.0)	533 (21.0)	561 (22.1)	560 (22.1)	561 (22.1)	560 (22.1)	560 (22.1)	561 (22.1)
L5	S	mm (in.)		—	—	—	—	—	—	—	—
	L			97 (3.8)	97 (3.8)	98 (3.9)	98 (3.9)	98 (3.9)	98 (3.9)	98 (3.9)	98 (3.9)
	Y			—	—	—	—	—	—	—	—
	X			—	121 (4.8)	114 (4.5)	—	114 (4.5)	—	—	—
	U			—	—	—	—	—	—	—	—
L6	S	mm (in.)		—	—	—	—	—	—	—	—
	L			930 (36.6)	932 (36.7)	996 (39.2)	989 (38.9)	996 (39.2)	989 (38.9)	989 (38.9)	995 (39.2)
	Y			—	—	—	—	—	—	—	—
	X			—	1,036 (40.8)	1,099 (43.3)	—	1,099 (43.3)	—	—	—
	U			—	—	—	—	—	—	—	—
L7	mm (in.)			406	417 (16.4)	417 (16.4)	407 (16.0)	417 (16.4)	397 (15.6)	397 (15.6)	407 (16.0)
L8	mm (in.)			168 (6.6)	165 (6.5)	147 (5.8)	148 (5.8)	165 (6.5)	189 (7.2)	149 (5.9)	168 (6.6)
L9	S	mm (in.)		—	—	—	—	—	—	—	—
	L			0 (0.0)	0 (0.0)	0 (0.0)	0.8 (0.03)	0 (0.0)	0.8 (0.03)	0.8 (0.03)	0 (0.0)
	Y			—	—	—	—	—	—	—	—
	X			—	0 (0.0)	0 (0.0)	—	0 (0.0)	—	—	—
	U			—	—	—	—	—	—	—	—
L10	mm (in.)			62 (2.4)	62 (2.4)	62 (2.4)	63 (2.5)	62 (2.4)	63 (2.5)	63 (2.5)	62 (2.4)
H1	S	mm (in.)		—	—	—	—	—	—	—	—
	L			870 (34.2)	870 (34.2)	910 (35.8)	917 (36.1)	910 (35.8)	917 (36.1)	917 (36.1)	910 (35.8)
	Y			—	—	—	—	—	—	—	—
	X			—	984 (38.7)	1,024 (40.3)	—	1,024 (40.3)	—	—	—
	U			—	—	—	—	—	—	—	—
H2	mm (in.)			545 (21.5)	545 (21.5)	545 (21.5)	519 (20.4)	545 (21.5)	519 (20.4)	519 (20.4)	545 (21.5)
H3	mm (in.)			175 (6.9)	175 (6.9)	191 (7.5)	194 (7.6)	191 (7.5)	194 (7.6)	194 (7.6)	191 (7.5)
H4	S	mm (in.)		—	—	—	—	—	—	—	—
	L			527 (20.7)	527 (20.7)	530 (20.9)	533 (21.0)	530 (20.9)	533 (21.0)	533 (21.0)	530 (20.9)
	Y			—	—	—	—	—	—	—	—
	X			—	641 (25.2)	644 (25.3)	—	644 (25.3)	—	—	—
	U			—	—	—	—	—	—	—	—
H5	mm (in.)			790 (31.1)	790 (31.1)	—	—	790 (31.1)	680 (26.8)	—	790 (31.1)
H6	S	mm (in.)		—	—	—	—	—	—	—	—
	L			682 (26.9)	708 (27.9)	746 (29.4)	749 (29.5)	746 (29.4)	723 (28.5)	723 (28.5)	720 (28.3)
	Y			—	—	—	—	—	—	—	—
	X			—	774 (30.5)	812 (40.0)	—	812 (40.0)	—	—	—
	U			—	—	—	—	—	—	—	—
H7	mm (in.)			354 (13.9)	354 (13.9)	354 (13.9)	327 (12.9)	354 (13.9)	330 (13.0)	330 (13.0)	354 (13.9)
H8	mm (in.)			33 (1.3)	37 (1.5)	22 (0.9)	3.5 (0.14)	37 (1.5)	110 (4.3)	0.5 (0.02)	34 (1.3)
H9	mm (in.)			713 (28.1)	759 (29.9)	759 (29.9)	733 (28.9)	759 (29.9)	738 (29.1)	738 (29.1)	763 (30.0)
H10	mm (in.)			49 (1.9)	49 (1.9)	49 (1.9)	44 (1.7)	49 (1.9)	44 (1.7)	44 (1.7)	49 (1.9)
H11	S	mm (in.)		—	—	—	—	—	—	—	—
	L			24 (0.9)	24 (0.9)	24 (0.9)	28 (1.1)	24 (0.9)	28 (1.1)	28 (1.1)	24 (0.9)
	Y			—	—	—	—	—	—	—	—
	X			—	24 (0.9)	—	—	—	—	—	—
	U			—	—	—	—	—	—	—	—
W1	mm (in.)			192 (7.6)	192 (7.6)	192 (7.6)	181 (7.1)	192 (7.6)	181 (7.1)	181 (7.1)	192 (7.6)
W2	mm (in.)			137 (5.4)	137 (5.4)	—	—	137 (5.4)	213 (8.4)	—	137 (5.4)
W3	mm (in.)			—	—	—	181 (7.1)	—	181 (7.13)	181 (7.13)	—
W4	mm (in.)			—	—	—	—	—	—	—	—
W5	mm (in.)			360 (14.2)	360 (14.2)	360 (14.2)	345 (13.6)	360 (14.2)	345 (13.6)	345 (13.6)	360 (14.2)
W6	mm (in.)			672 (26.5)	672 (26.5)	—	—	672 (26.5)	738 (29.1)	—	672 (26.5)
A1	degree			40	40	40	40	40	40	40	40
A2	degree			63	65	65	65	65	63	63	67
A3	degree			4	4	4	4	4	4	4	4
T1	mm (in.)			—	—	560 (22.0)	560 (22.0)	—	560 (22.0)	560 (22.0)	—

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (4-STROKE)

Global model (US, CA model) Symbol									
		F70AET (F70A) F40GET	F70AET (F70A) w/ 6X4 tiller handle	F75BET (F75TR/A) F80BET F90BET (F90TR/A) F100DET	F75BET (F75TR/A) F80BET F90BET (F90TR/A) F100DET w/ 6X4 tiller handle	F75CED F80CED	F75CEHD F80CEHD F100BEHD	F95AET F100BET	F/FL115AET (F/LF115A)
L1	mm (in.)	591 (23.3)	591 (23.3)	651 (25.6)	651 (25.6)	664 (26.1)	664 (26.1)	664 (26.1)	665 (26.2)
L2	mm (in.)	122 (4.8)	225 (8.9)	171 (6.7)	247 (9.7)	161 (6.3)	324 (12.8)	161 (6.3)	161 (6.3)
L3	mm (in.)	—	788 (31.0)	—	822 (32.4)	—	844 (33.2)	—	—
L4	mm (in.)	582 (22.9)	582 (22.9)	574 (22.6)	574 (22.6)	631 (24.8)	631 (24.8)	631 (24.8)	631 (24.8)
L5	S	mm (in.)	—	—	—	—	—	—	—
	L		67 (2.6)	67 (2.6)	63 (2.5)	63 (2.5)	79 (3.1)	79 (3.1)	69 (2.7)
	Y		—	—	—	—	—	—	—
	X		67 (2.6)	67 (2.6)	63 (2.5)	63 (2.5)	87 (3.4)	87 (3.4)	76 (3.0)
U		—	—	—	—	—	—	—	89 (3.5)
L6	S	mm (in.)	—	—	—	—	—	—	—
	L		1,000 (39.4)	1,000 (39.4)	998 (39.3)	998 (39.3)	1,005 (39.6)	1,005 (39.6)	1,005 (39.6)
	Y		—	—	—	—	—	—	—
	X		1,103 (43.4)	1,103 (43.4)	1,115 (43.9)	1,115 (43.9)	1,118 (44.0)	1,118 (44.0)	1,122 (44.2)
U		—	—	—	—	—	—	—	—
L7	mm (in.)	421 (16.6)	421 (16.6)	527 (20.7)	527 (20.7)	504 (19.8)	504 (19.8)	536 (21.9)	555 (21.9)
L8	mm (in.)	152 (6.0)	165 (6.5)	164 (6.5)	108 (4.3)	168 (6.6)	208 (8.2)	158 (6.2)	158 (6.2)
L9	S	mm (in.)	—	—	—	—	—	—	—
	L		26 (1.0)	26 (1.0)	28 (1.1)	28 (1.1)	19 (0.7)	19 (0.7)	25 (1.0)
	Y		—	—	—	—	—	—	—
	X		26 (1.0)	26 (1.0)	28 (1.1)	28 (1.1)	15 (0.6)	15 (0.6)	25 (1.0)
U		—	—	—	—	—	—	—	33 (1.3)
L10	mm (in.)	62 (2.4)	62 (2.4)	62 (2.4)	62 (2.4)	75 (3.0)	75 (3.0)	75 (3.0)	75 (3.0)
H1	S	mm (in.)	—	—	—	—	—	—	—
	L		915 (36.0)	915 (36.0)	917 (36.1)	917 (36.1)	929 (36.6)	929 (36.6)	929 (36.6)
	Y		—	—	—	—	—	—	—
	X		1,029 (40.5)	1,029 (40.5)	1,044 (41.1)	1,044 (41.1)	1,056 (41.6)	1,056 (41.6)	1,056 (41.6)
U		—	—	—	—	—	—	—	—
H2	mm (in.)	561 (22.1)	561 (22.1)	666 (26.2)	666 (26.2)	667 (26.3)	667 (26.3)	666 (26.2)	681 (26.8)
H3	mm (in.)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)	191 (7.5)
H4	S	mm (in.)	—	—	—	—	—	—	—
	L		534 (21.0)	534 (21.0)	536 (21.1)	536 (21.1)	516 (20.3)	516 (20.3)	516 (20.3)
	Y		—	—	—	—	—	—	—
	X		648 (25.5)	648 (25.5)	663 (26.1)	663 (26.1)	643 (25.3)	643 (25.3)	643 (25.3)
U		—	—	—	—	—	—	—	—
H5	mm (in.)	—	790 (31.1)	—	784 (30.9)	—	764 (30.1)	—	—
H6	S	mm (in.)	—	—	—	—	—	—	—
	L		749 (29.5)	749 (29.5)	766 (30.2)	766 (30.2)	709 (27.9)	709 (27.9)	776 (30.6)
	Y		—	—	—	—	—	—	—
	X		815 (32.1)	815 (32.1)	842 (33.1)	842 (33.1)	776 (30.6)	776 (30.6)	854 (33.6)
U		—	—	—	—	—	—	—	850 (33.5)
H7	mm (in.)	371 (14.6)	371 (14.6)	366 (14.4)	366 (14.4)	401 (15.8)	401 (15.8)	388 (15.3)	406 (16.0)
H8	mm (in.)	26 (1.0)	37 (1.5)	27 (1.1)	49 (1.9)	4 (0.2)	93 (3.7)	14 (0.6)	14 (0.6)
H9	mm (in.)	741 (29.2)	741 (29.2)	857 (33.7)	857 (33.7)	892 (35.1)	892 (35.1)	877 (34.5)	879 (34.6)
H10	mm (in.)	49 (1.9)	49 (1.9)	49 (1.9)	49 (1.9)	44 (1.7)	44 (1.7)	44 (1.7)	44 (1.7)
H11	S	mm (in.)	—	—	—	—	—	—	—
	L		29 (1.1)	29 (1.1)	25 (1.0)	25 (1.0)	17 (0.7)	17 (0.7)	25 (1.0)
	Y		—	—	—	—	—	—	—
	X		29 (1.1)	29 (1.1)	24 (0.9)	24 (0.9)	17 (0.7)	17 (0.7)	25 (1.0)
U		—	—	—	—	—	—	—	—
W1	mm (in.)	193 (7.6)	193 (7.6)	240 (9.4)	240 (9.4)	243 (9.6)	243 (9.6)	243 (9.6)	249 (9.8)
W2	mm (in.)	—	137 (5.4)	—	137 (5.4)	—	96 (3.8)	—	—
W3	mm (in.)	—	—	—	—	—	—	—	—
W4	mm (in.)	—	—	—	—	—	—	—	—
W5	mm (in.)	363 (14.3)	363 (14.3)	405 (15.9)	405 (15.9)	384 (15.1)	384 (15.1)	384 (15.1)	392 (15.4)
W6	mm (in.)	—	676 (26.6)	—	633 (24.9)	—	578 (22.8)	—	—
A1	degree	40	40 (1.6)	35	35	30	30	30	30
A2	degree	65	65 (2.6)	70	70	64	64	70	70
A3	degree	4	4 (0.2)	4	4	3	3	4	4
T1	mm (in.)	560 (22.0)	—	660 (26.0)	660 (26.0)	660 (26.0)	—	660 (26.0)	660 (26.0)

OUTBOARD MOTOR DIMENSIONS

OVERALL DIMENSIONS (4-STROKE)

Global model (US, CA model)		Symbol		F/FL150AET (F/LF150A) F/FL150BET	F/FL200CET (F/LF200A) F/FL225BET (F/LF225A) F/FL250AET (F/LF250TR) F/FL200BET F/FL250GET	F225CET L-transom	F200DET (VF200LA) F225DET (VF225LA) F250CET (VF250LA) F225GET F250FET F275AET L-transom	F/FL225FET (F/LF225CA) F/FL250DET (F/LF250CA) F/FL300BET (F/LF300CA)	F/FL300AET F/FL350AET (F/LF350CA)
L1	mm (in.)			698 (27.5)	651 (25.6)	664 (26.1)	741 (29.2)	728 (28.7)	776 (30.6)
L2	mm (in.)			164 (6.5)	219 (8.6)	206 (8.1)	218 (8.6)	230 (9.1)	255 (10.0)
L3	mm (in.)			—	—	—	—	—	—
L4	mm (in.)			646 (25.4)	673 (26.5)	685 (27.0)	688 (27.1)	673 (26.5)	732 (28.8)
L5	S	mm (in.)		—	—	—	—	—	—
	L			60 (2.5)	—	62 (2.4)	54 (2.1)	—	—
	Y			—	—	—	—	—	—
	X			80 (3.2)	59 (2.3)	—	—	59 (2.3)	48 (1.9)
	U			—	59 (2.3)	—	—	59 (2.3)	48 (1.9)
L6	S	mm (in.)		—	—	—	—	—	—
	L			1,032 (40.6)	—	1,043 (41.1)	1,033 (40.7)	—	—
	Y			—	—	—	—	—	—
	X			1,148 (45.2)	1,115 (45.5)	—	—	1,155 (45.5)	1,193 (47.0)
	U			—	1,272 (50.1)	—	—	1,272 (50.1)	1,310 (51.6)
L7	mm (in.)			629 (24.8)	619 (24.4)	615 (24.2)	651 (25.6)	639 (25.2)	712 (28.0)
L8	mm (in.)			162 (6.4)	230 (9.1)	226 (8.9)	237 (9.3)	240 (9.4)	258 (10.2)
L9	S	mm (in.)		—	—	—	—	—	—
	L			35 (1.4)	—	18 (0.7)	81 (3.2)	—	—
	Y			—	—	—	—	—	—
	X			43 (1.8)	52 (2.0)	—	—	53 (2.1)	56 (2.2)
	U			—	59 (2.3)	—	—	59 (2.3)	62 (2.4)
L10	mm (in.)			75 (3.0)	75 (3.0)	75 (3.0)	75 (3.0)	75 (3.0)	73 (2.9)
H1	S	mm (in.)		—	—	—	—	—	—
	L			946 (37.2)	—	951 (37.4)	932 (36.7)	—	—
	Y			—	—	—	—	—	—
	X			1,073 (42.2)	1,078 (42.4)	—	—	1,078 (42.4)	1,098 (43.2)
	U			—	1,205 (47.4)	—	—	1,205 (47.4)	1,225 (48.2)
H2	mm (in.)			769 (31.3)	752 (29.6)	754 (29.7)	817 (32.2)	812 (32.0)	909 (35.8)
H3	mm (in.)			210 (8.3)	216 (8.5)	216 (8.5)	216 (8.5)	216 (8.5)	229 (9.0)
H4	S	mm (in.)		—	—	—	—	—	—
	L			516 (20.3)	—	516 (20.3)	493 (19.4)	—	—
	Y			—	—	—	—	—	—
	X			643 (25.3)	643 (25.3)	—	—	643 (25.3)	637 (25.1)
	U			—	770 (30.3)	—	—	770 (30.3)	764 (30.1)
H5	mm (in.)			—	—	—	—	—	—
H6	S	mm (in.)		—	—	—	—	—	—
	L			787 (31.0)	—	779 (30.7)	715 (28.1)	—	—
	Y			—	—	—	—	—	—
	X			864 (34.0)	847 (33.3)	—	—	847 (33.3)	864 (34.0)
	U			—	924 (36.4)	—	—	924 (36.4)	941 (37.0)
H7	mm (in.)			455 (18.0)	387 (15.2)	399 (15.7)	507 (20.0)	510 (20.1)	588 (23.1)
H8	mm (in.)			16 (0.6)	39 (1.5)	26 (1.0)	33 (1.3)	48 (1.9)	65 (2.6)
H9	mm (in.)			915 (36.2)	902 (35.5)	915 (36.0)	1,008 (39.7)	951 (37.4)	1,041 (41.0)
H10	mm (in.)			45 (1.8)	45 (1.8)	45 (1.8)	45 (1.8)	45 (1.8)	49 (1.9)
H11	S	mm (in.)		—	—	—	—	—	—
	L			27 (1.1)	—	26 (1.0)	35 (1.4)	—	—
	Y			—	—	—	—	—	—
	X			27 (1.1)	25 (1.0)	—	—	25 (1.0)	26 (1.0)
	U			—	25 (1.0)	—	—	25 (1.0)	26 (1.0)
W1	mm (in.)			256 (10.1)	317 (12.5)	318 (12.5)	332 (13.1)	317 (12.5)	317 (12.5)
W2	mm (in.)			—	—	—	—	—	—
W3	mm (in.)			—	—	—	—	—	—
W4	mm (in.)			—	—	—	—	—	—
W5	mm (in.)			433 (17.1)	453 (17.8)	464 (18.3)	496 (19.5)	454 (17.9)	476 (18.7)
W6	mm (in.)			—	—	—	—	—	—
A1	degree			35	32	35	35	32	32
A2	degree			70	70	67	66	67	70
A3	degree			4	3	4	4	3	3
T1	mm (in.)			660 (26)	724 (28.5)	—	—	724 (28.5)	724 (28.5)

OUTBOARD MOTOR DIMENSIONS

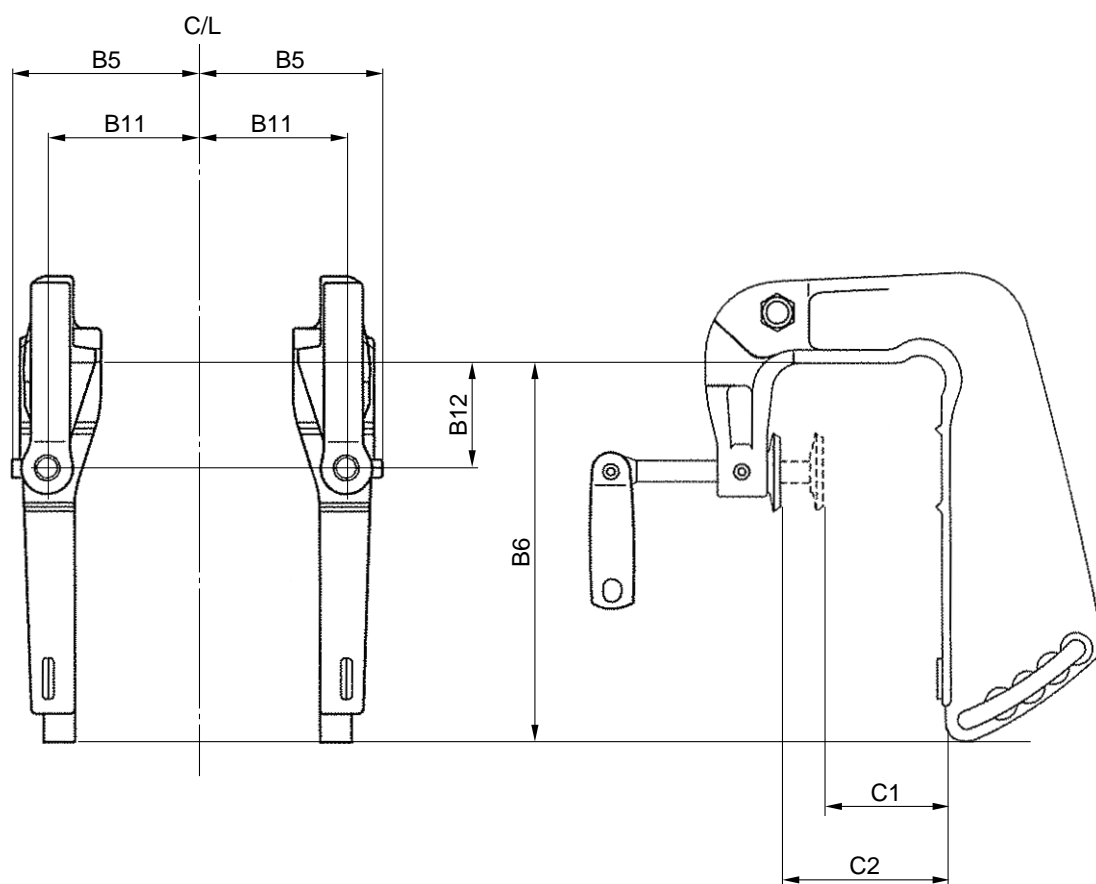
CLAMP BRACKET DIMENSION ITEMS

Symbol	Definition and Description
B1	Horizontal dimension from centerline of motor body to lower bracket mounting hole (slot)
B2	Vertical dimension from transom top to lower bracket mounting hole (slot)
B3	Horizontal dimension from centerline of motor body to the center of upper bracket mounting hole
B4	Vertical dimension from transom top to the center of upper bracket mounting hole
B5	Horizontal dimension from centerline of motor body to the point of largest width on the bracket
B6	Vertical dimension from transom top to lowest point on the bracket
B7	Horizontal dimension from centerline of motor body to the center of lower extra bracket mounting hole
B8	Vertical dimension from transom top to the center of extra hole at the lower part of bracket
B9	Dimensions between the upper bracket mounting bolts (when holes are at even intervals)
B10	Dimensions between the upper bracket mounting bolts (when holes are not at even intervals)
B11	Horizontal dimensions from centerline of motor body to the clamping bolt center
B12	Vertical dimensions from transom top to the clamping bolt center
B13	Mount flange thickness of clamp bracket
C1	Allowable transom board thickness when clamping screw is driven-in to the least extent
C2	Allowable transom board thickness when clamping screw is driven-in to the full extent
C3	Maximum allowable transom plate thickness for mounting the motor
D1	Diameter of bracket (main) lower mounting hole, or screw
D2	Diameter of bracket (main) mounting hole, or screw (lower mounting hole diameter, or, for slot, center-to-center distance of both end circles)
D3	Diameter of bracket mounting (sub) hole
D4	Diameter of central bracket mounting extra hole or the screw size
AN1	Vertical dimension from bottom of clamp bracket to the bottom end of anode
AN2	Horizontal dimension from centerline of motor (anode) to the point of largest width of anode

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	F2A	F2.5A						
US model		F2.5						
Canada model		F2.5						
Manual tilt								

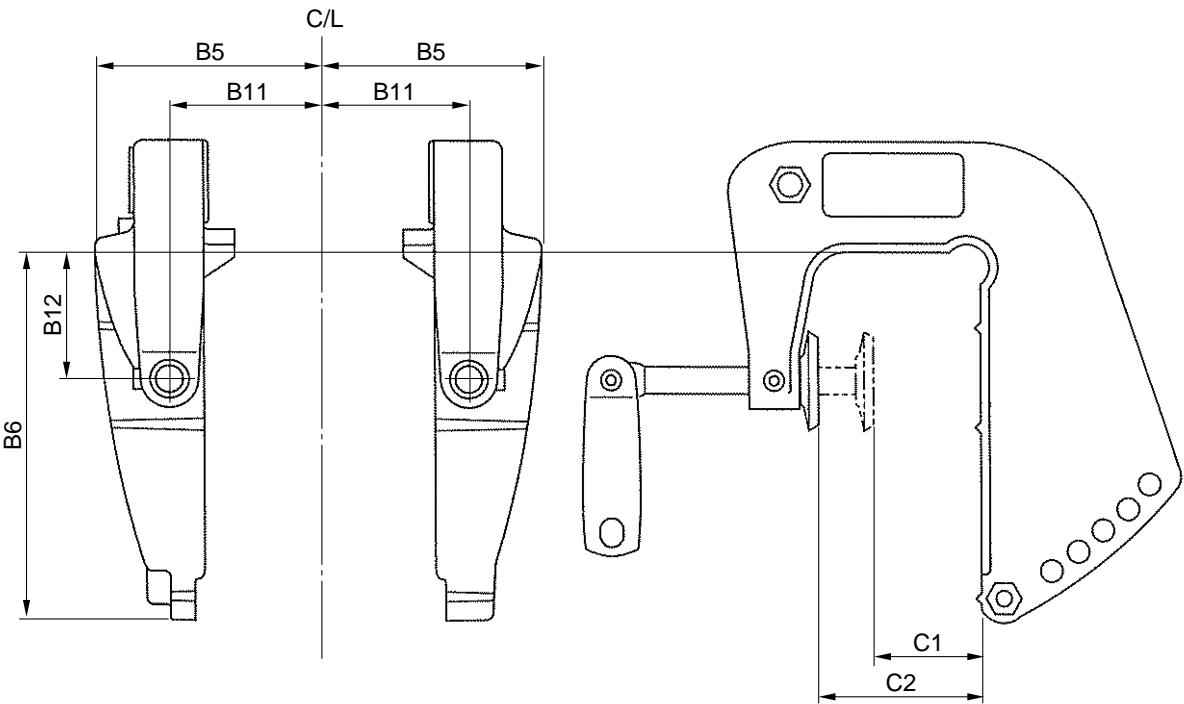


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	—	B8	—	C1	22 (0.9)	D1	—
B2	—	B9	—	C2	58 (2.3)	D2	—
B3	—	B10	—	C3	—	D3	—
B4	—	B11	56 (2.2)			D4	—
B5	69 (2.7)	B12	40 (0.2)				
B6	143.7 (5.7)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	4AC	5C	5CS	F4B	F5A	F6C		
US model				F4A		F6A		
Canada model				F4A		F6A		
Manual tilt								

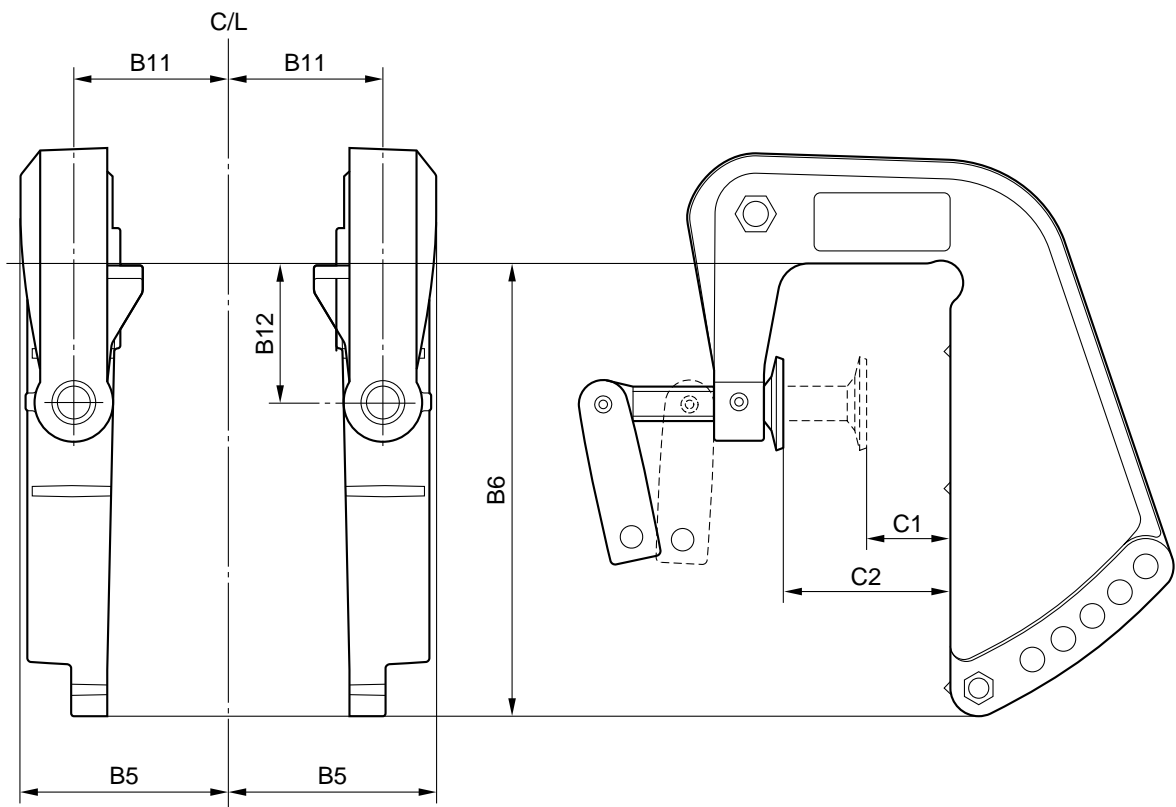


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	—	B8	—	C1	22 (0.9)	D1	—
B2	—	B9	—	C2	58 (2.3)	D2	—
B3	—	B10	—	C3	—	D3	—
B4	—	B11	55 (2.2)			D4	—
B5	83 (3.3)	B12	48 (1.9)				
B6	136 (5.4)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	6C	8C						
US model								
Canada model	6	8						
Manual tilt								

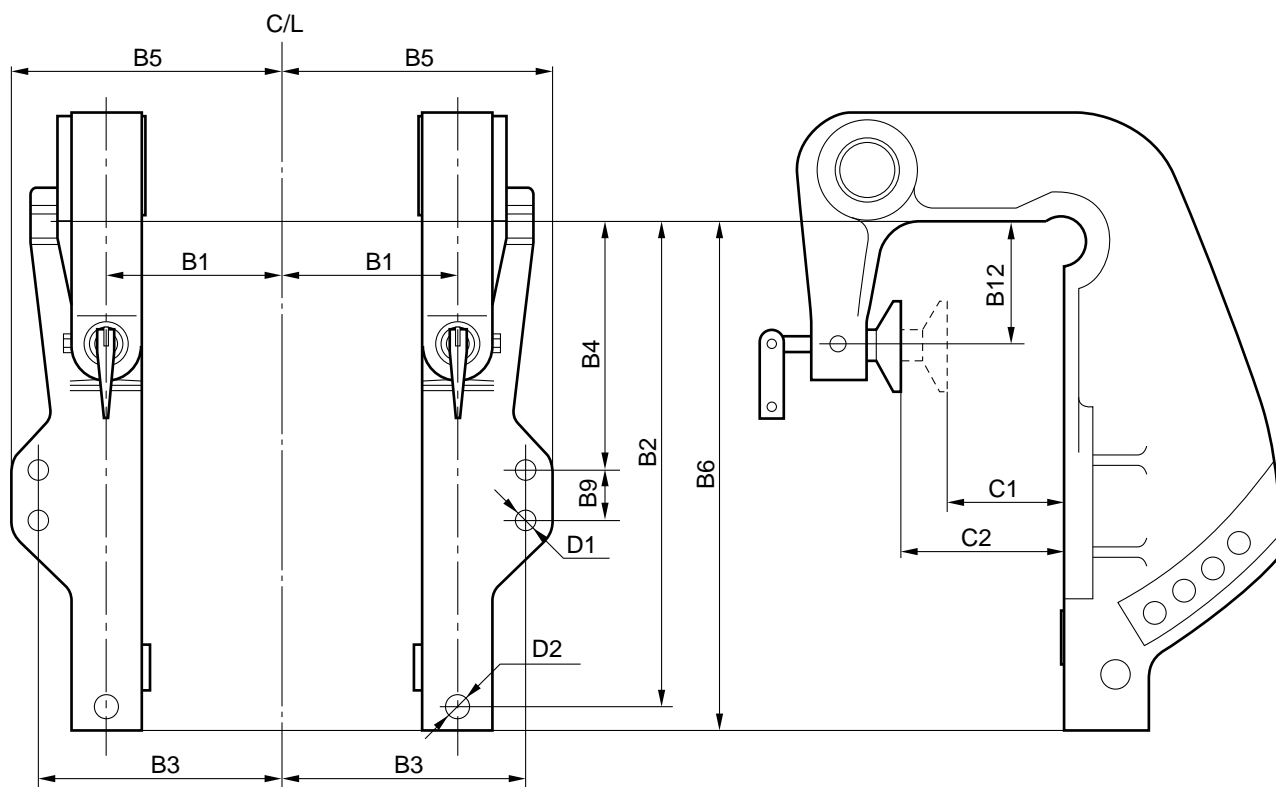


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	—	B8	—	C1	22 (0.9)	D1	—
B2	—	B9	—	C2	55 (2.2)	D2	—
B3	—	B10	—	C3	—	D3	—
B4	—	B11	56 (2.2)			D4	—
B5	75 (3.0)	B12	50 (2.0)				
B6	164.3 (6.5)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	F8C	FT8D						
US model	F8A							
Canada model	F8A	T8A						
Manual tilt								

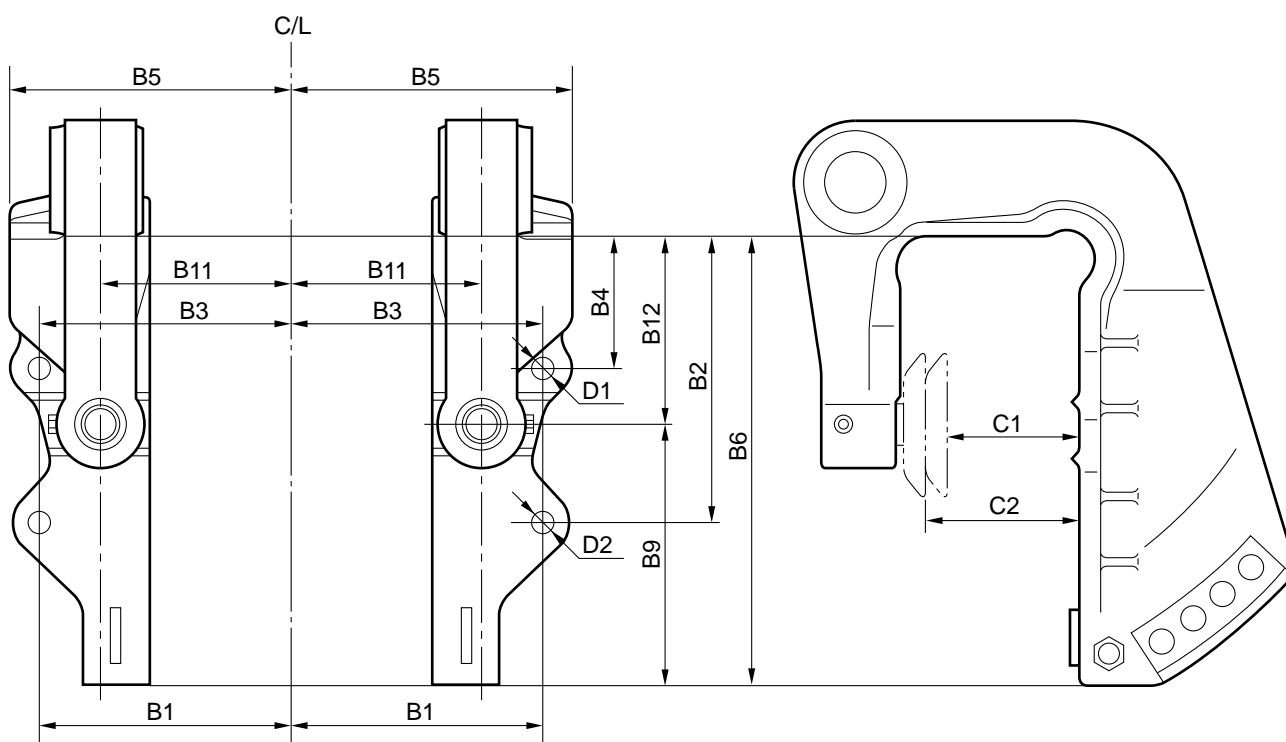


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	70.5 (2.8)	B8	—	C1	32 (1.3)	D1	8.3 (0.3)
B2	180.5 (7.1)	B9	18 (0.7)	C2	65 (2.6)	D2	8.3 (0.3)
B3	95.3 (3.8)	B10	—	C3	—	D3	—
B4	94.5 (3.7)	B11	—			D4	—
B5	105.3 (4.2)	B12	48 (1.9)				
B6	189.5 (7.4)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	9.9F	15F						
US model								
Canada model	9.9	15						
Manual tilt								

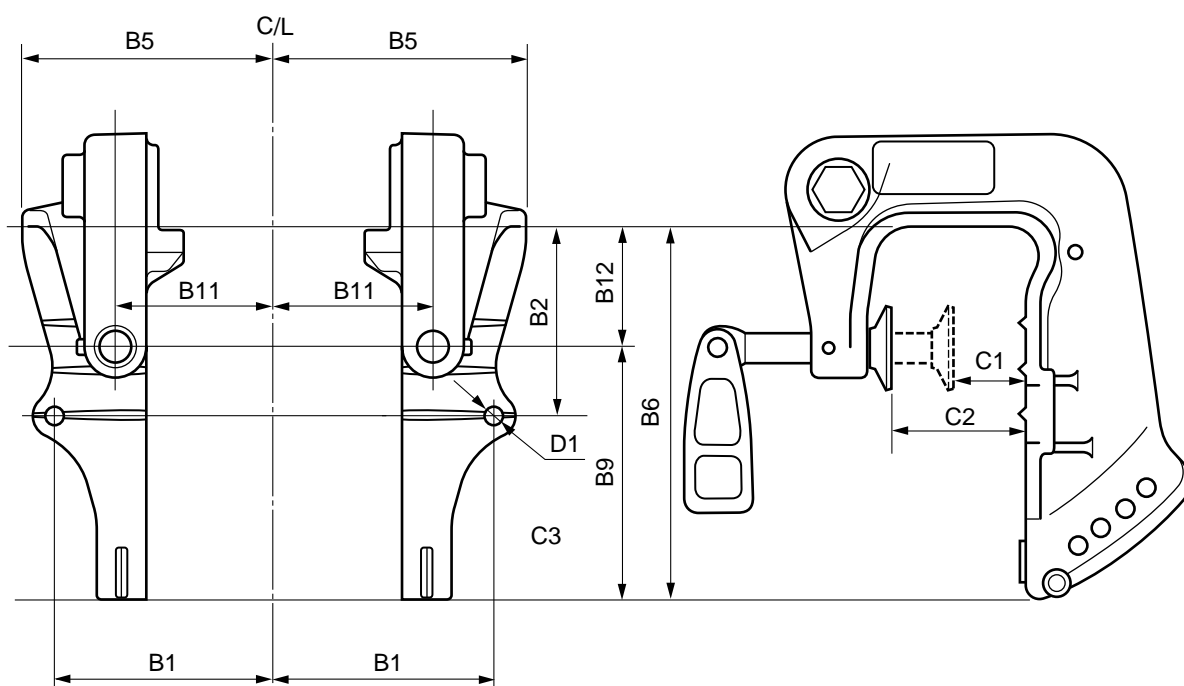


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	92.5 (3.6)	B8	—	C1	30 (1.2)	D1	8.3 (0.3)
B2	103.5 (4.1)	B9	54.5 (2.1)	C2	56 (2.2)	D2	8.3 (0.3)
B3	92.5 (3.6)	B10	—	C3	—	D3	—
B4	49 (1.9)	B11	70.5 (2.8)			D4	—
B5	102.5 (4.0)	B12	69 (2.7)				
B6	176 (6.9)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	E9.9D	E15D	EK9.9D	EK15D	EK9.9J	EK15P		
US model								
Canada model								
Manual tilt								

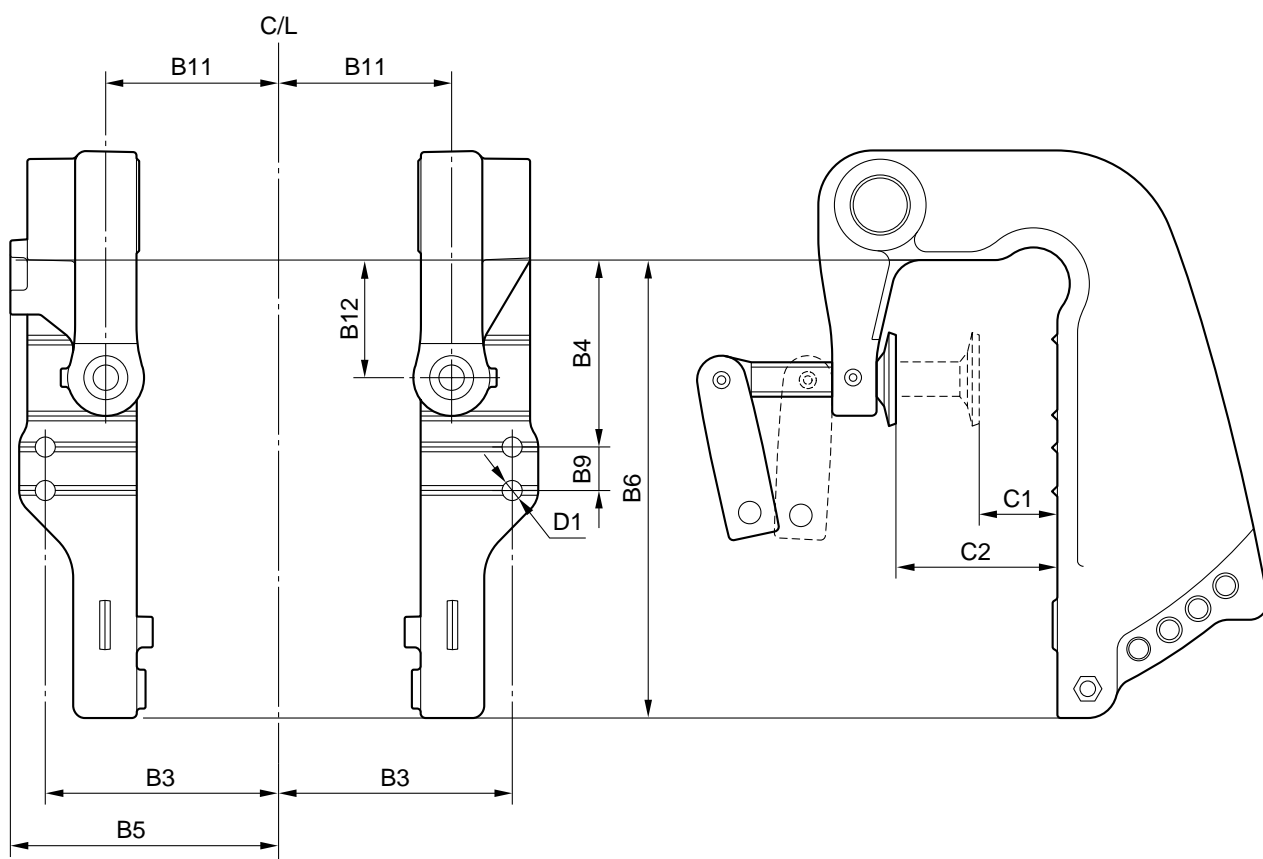


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	92.6 (3.6)	B8	—	C1	30 (1.2)	D1	8.3 (0.32)
B2	79 (3.1)	B9	107 (4.2)	C2	60 (2.4)	D2	—
B3	—	B10	—	C3	—	D3	—
B4	—	B11	67.3 (2.6)			D4	—
B5	106.3 (4.2)	B12	50 (2.0)				
B6	157 (6.2)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	F9.9H	F15C	F20B	F20C	F9.9F	FT9.9G		
US model		F15A	F20A		F9.9A			
Canada model		F15A	F20A		F9.9A	T9.9A		
Manual tilt								

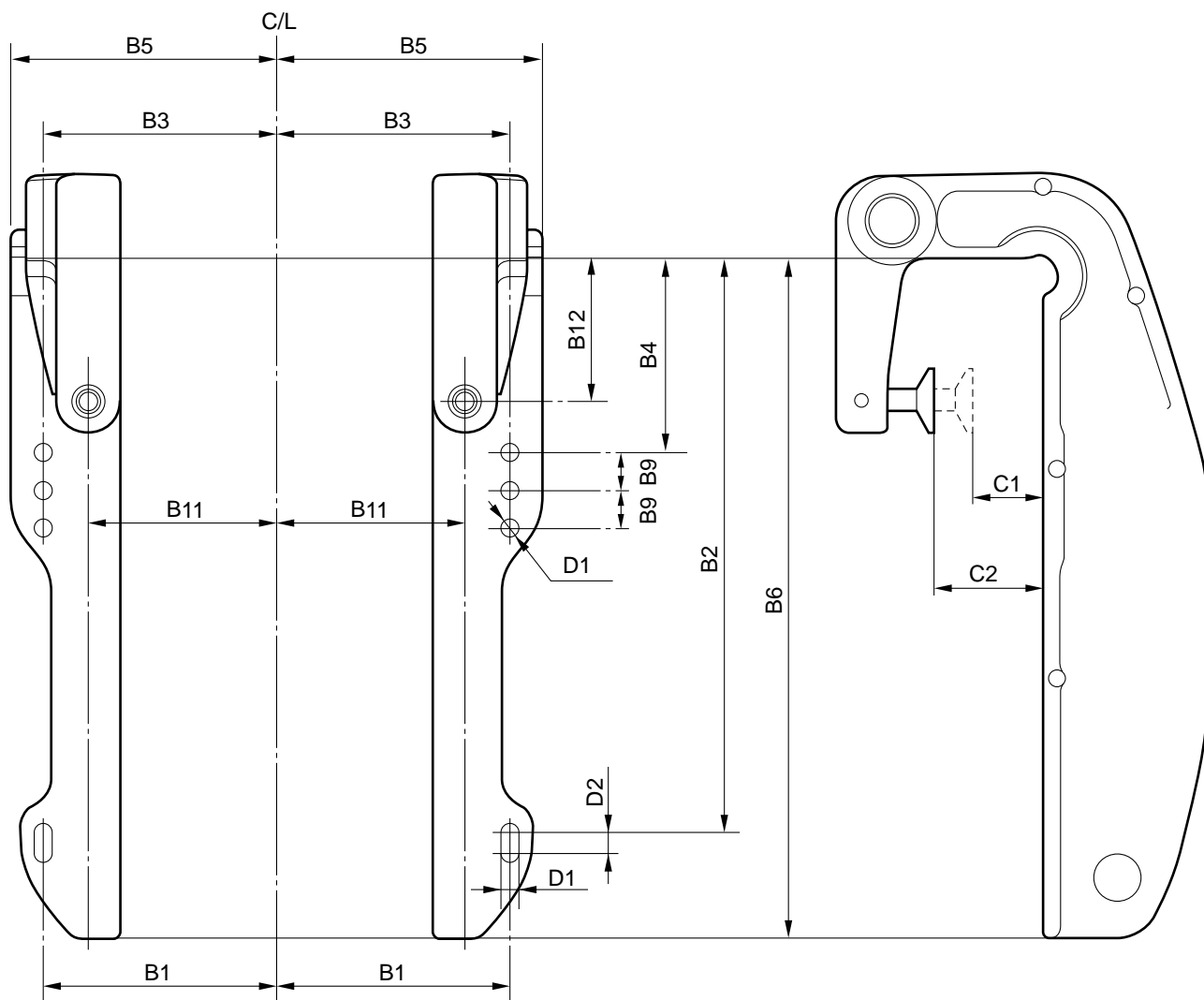


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	—	B8	—	C1	32 (1.3)	D1	8.3 (0.33)
B2	—	B9	18 (0.71)	C2	67 (2.6)	D2	—
B3	95.3 (3.8)	B10	—	C3	—	D3	—
B4	76.5 (3.0)	B11	70.5 (2.8)			D4	—
B5	110 (4.3)	B12	48 (1.9)				
B6	187.5 (7.4)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	FT8D	F15C	F20B	FT9.9G				
US model		F15A	F20A	T9.9A				
Canada model	T8A	F15A	F20A	T9.9A				
Power tilt								

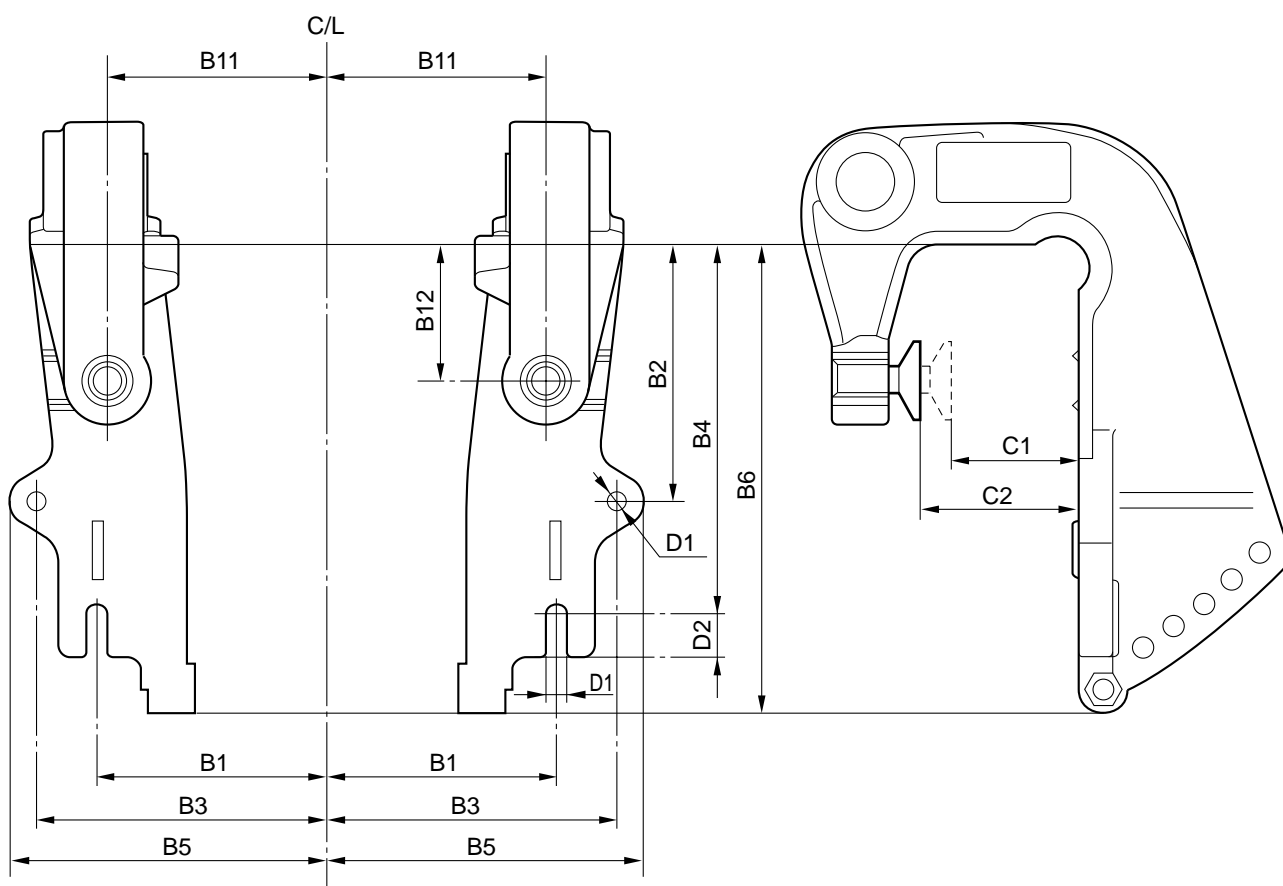


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	95.3 (3.8)	B8	—	C1	38 (1.5)	D1	8.3 (0.3)
B2	275.5 (10.8)	B9	18 (0.7)	C2	67 (2.6)	D2	10 (0.4)
B3	95.3 (3.8)	B10	—	C3	—	D3	—
B4	94.5 (3.7)	B11	73.5 (2.9)			D4	—
B5	111 (4.4)	B12	69.5 (2.7)				
B6	325.5 (12.8)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	E/25B	25X	E/30H	EK25B	EK25C			
US model								
Canada model								
Manual tilt								

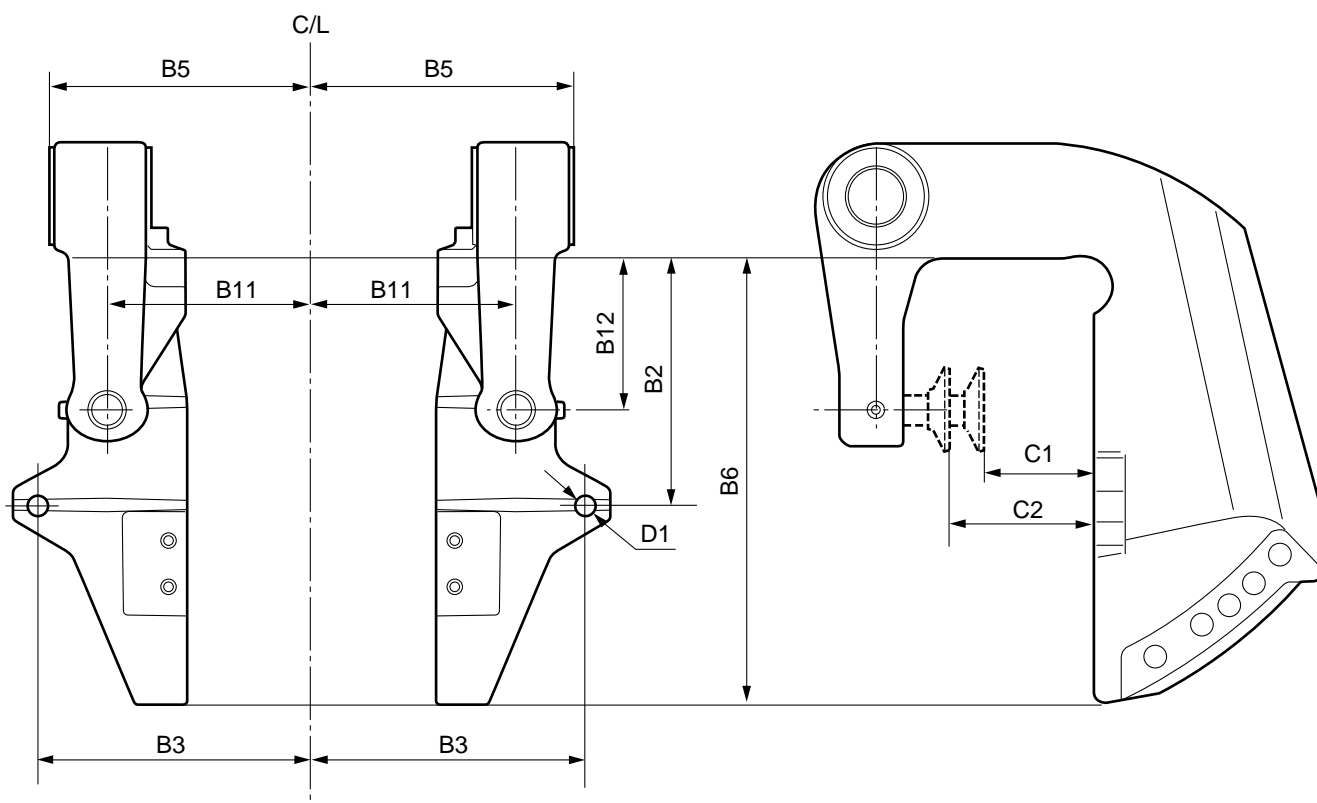


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	89 (3.5)	B8	—	C1	35 (1.4)	D1	8.5 (0.33)
B2	140 (5.5)	B9	—	C2	65 (2.6)	D2	15 (0.59)
B3	112.5 (4.4)	B10	—	C3	—	D3	—
B4	96.5 (3.8)	B11	85 (3.3)			D4	—
B5	122.5 (4.8)	B12	51 (2.0)				
B6	176 (6.9)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	20D	25N						
US model								
Canada model	20	25						
Manual tilt								

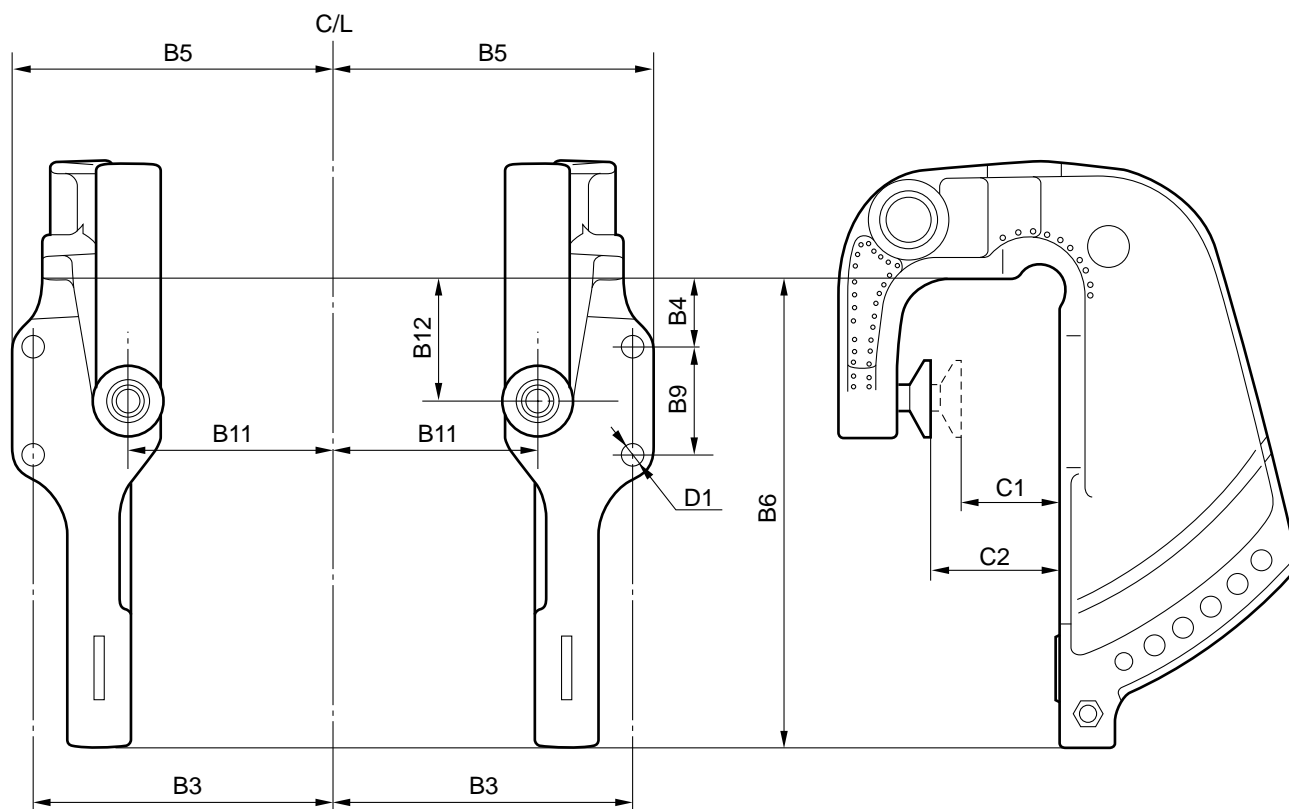


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	—	B8	—	C1	25 (1.0)	D1	8.3 (0.32)
B2	97.5 (3.8)	B9	—	C2	65 (2.6)	D2	—
B3	114.5 (4.5)	B10	—	C3	—	D3	—
B4	—	B11	87.5 (3.4)			D4	—
B5	122.5 (4.8)	B12	84 (3.3)				
B6	175 (6.9)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	E/40X	F25D						
US model		F25A						
Canada model		F25A						
Manual tilt								

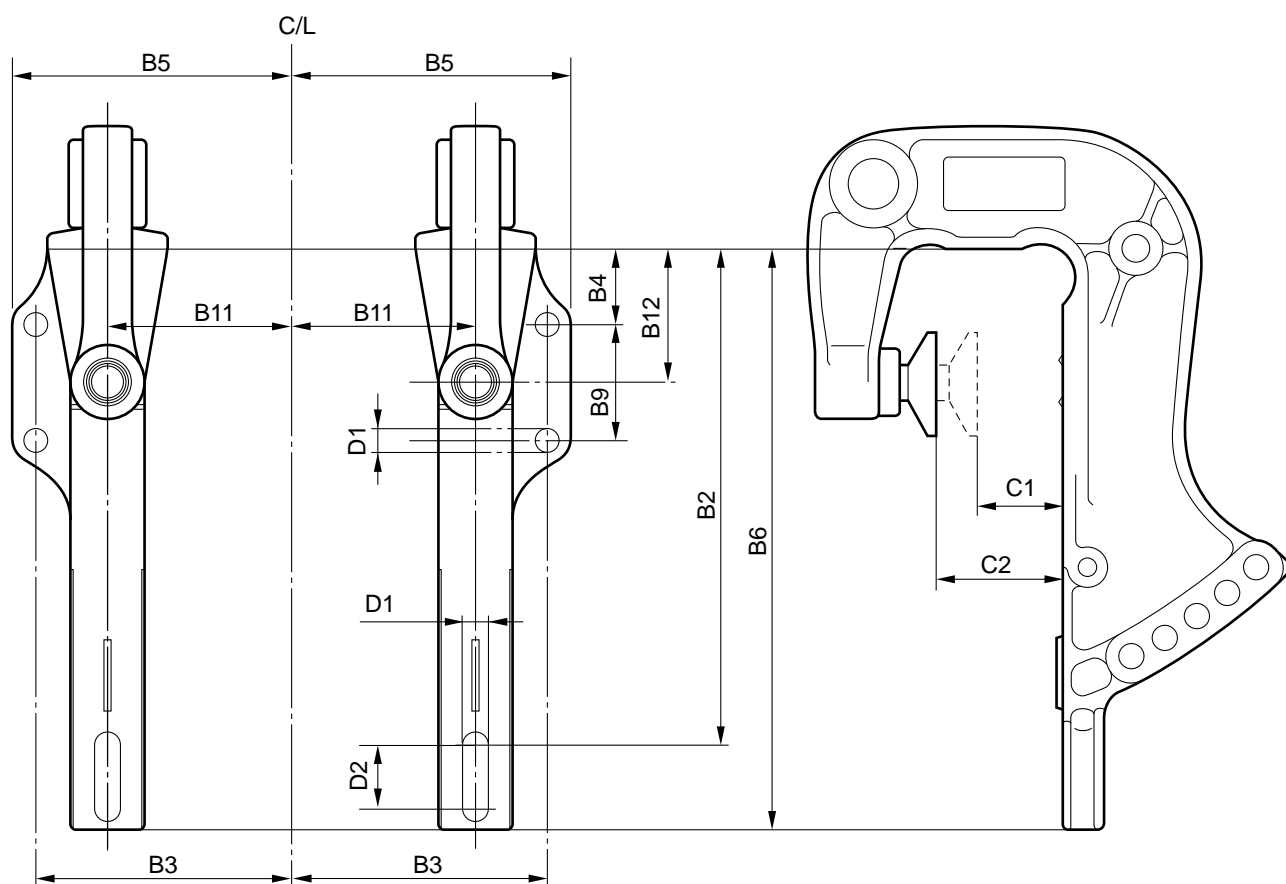


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	—	B8	—	C1	37 (1.5)	D1	10.5 (0.41)
B2	—	B9	50 (2.0)	C2	68 (2.7)	D2	—
B3	140 (5.5)	B10	—	C3	—	D3	—
B4	32 (1.3)	B11	95.5 (3.8)			D4	—
B5	150 (5.9)	B12	57 (2.2)				
B6	218 (8.6)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	E40G	E/40J	EK40G	EK40J				
US model								
Canada model								
Manual tilt								

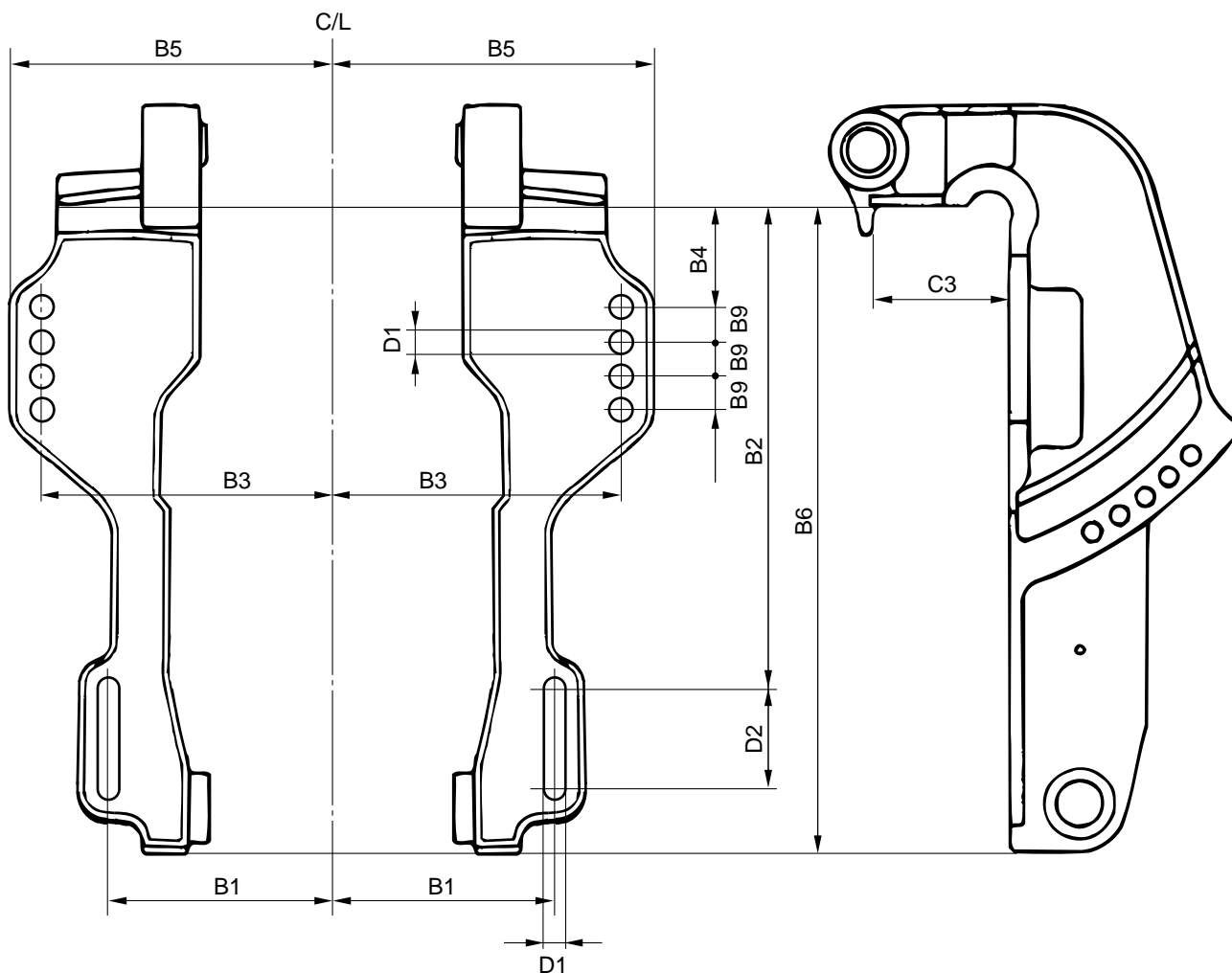


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	—	B8	—	C1	33 (1.3)	D1	10.5 (0.41)
B2	212 (8.3)	B9	50 (2.0)	C2	60 (2.3)	D2	27 (1.1)
B3	124.5 (4.9)	B10	—	C3	—	D3	—
B4	32 (1.3)	B11	93.5 (3.7)			D4	—
B5	134.5 (5.3)	B12	57 (2.2)				
B6	249 (9.8)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	30D	E/40X	F25D	FT25F	F30B	F40F	F20D	
US model			F25A	T25A		F40A		
Canada model			F25A	T25A	F30A	F40A		
PTT & Hydro-tilt								

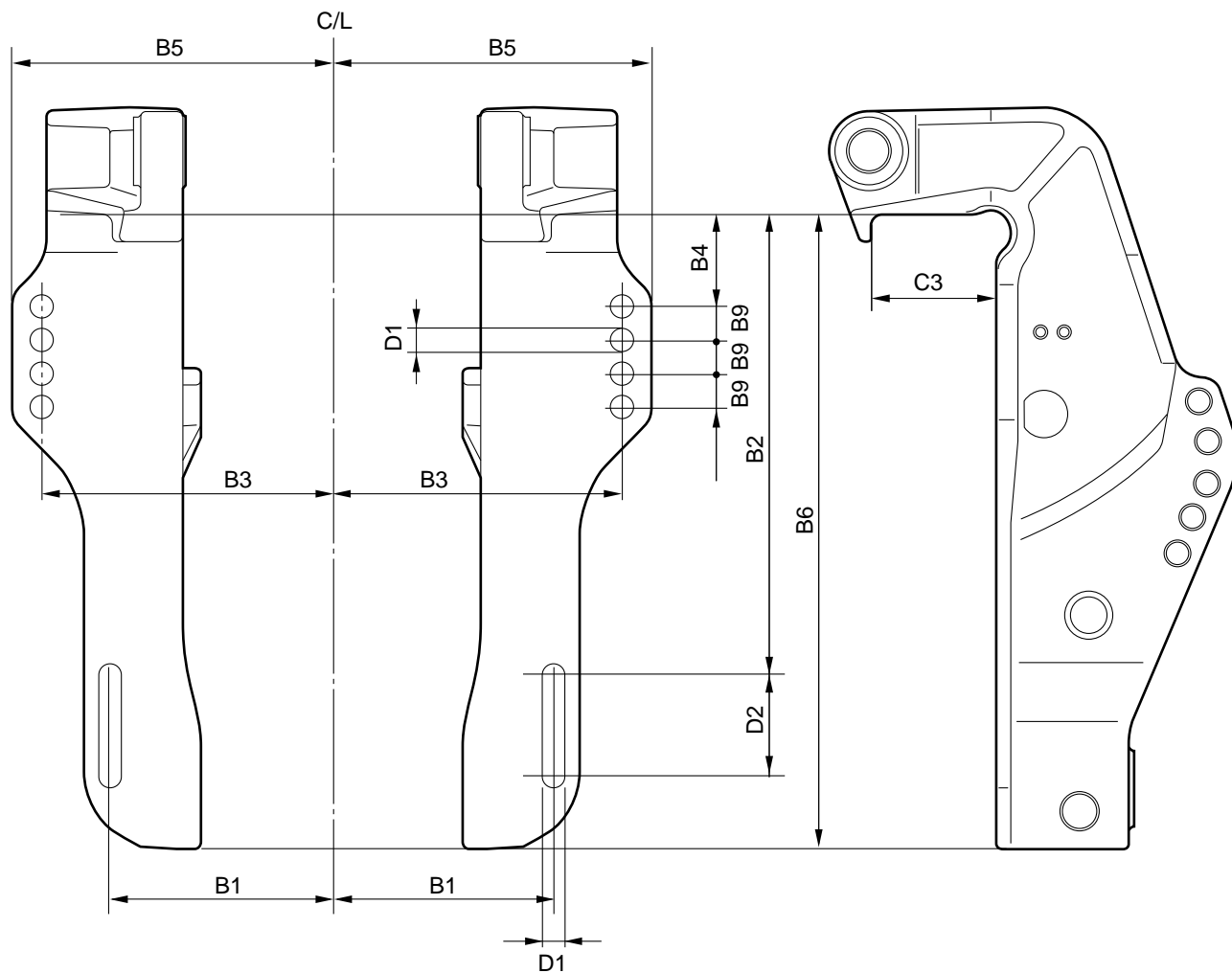


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	126 (5.0)	B8	—	C1	—	D1	13 (0.5)
B2	254 (10.0)	B9	18.5 (0.7)	C2	—	D2	55.5 (2.2)
B3	163.5 (6.4)	B10	—	C3	69 (2.7)	D3	—
B4	50.8 (2.0)	B11	—			D4	—
B5	180 (7.1)	B12	—				
B6	338 (13.3)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	F50F	FT50G	F60C	FT60D	F40D	F70A	F40G	
US model	F50	T50	F60	T60		F70A		
Canada model	F50A	T50A	F60A	T60A		F70A		
PTT & Hydro-tilt								

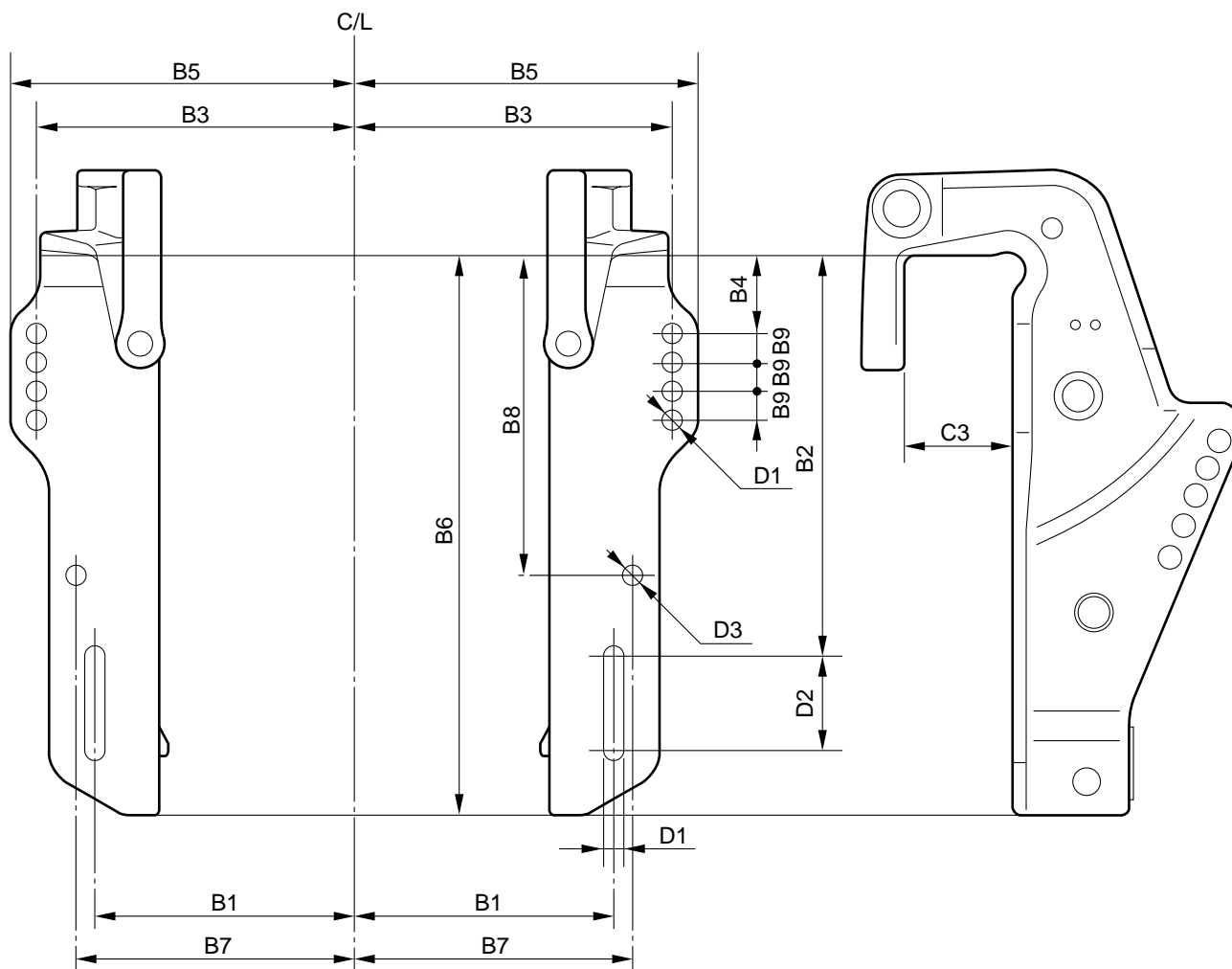


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	126 (5.0)	B8	—	C1	—	D1	13 (0.5)
B2	254 (10.0)	B9	18.5 (0.7)	C2	—	D2	55.5 (2.2)
B3	163.5 (6.4)	B10	—	C3	69 (2.7)	D3	—
B4	50.8 (2.0)	B11	—			D4	—
B5	180 (7.1)	B12	—				
B6	350 (13.8)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	40V	50H	E60H	F50D	FT50C			
US model								
Canada model		50						
PTT & Hydro-tilt								

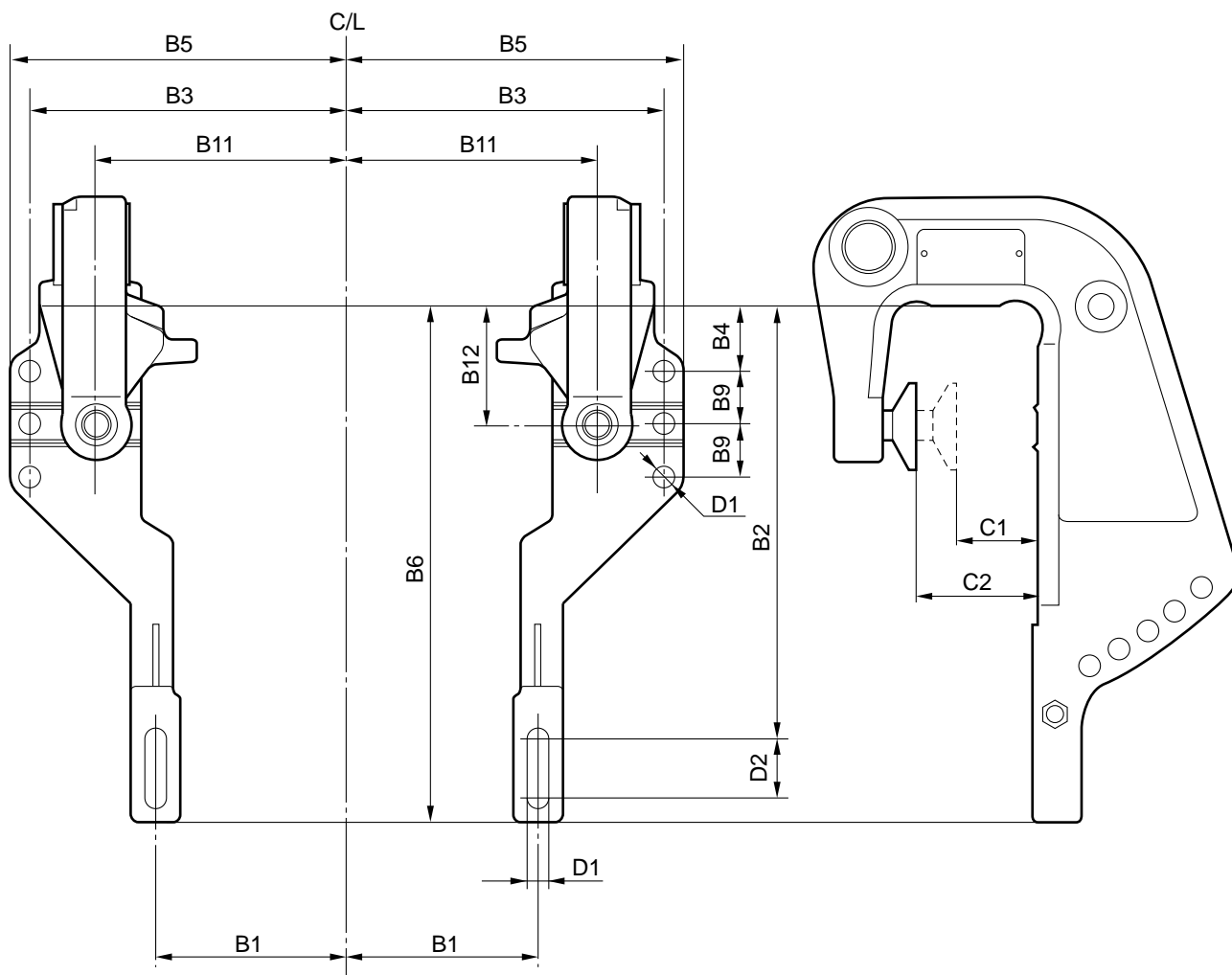


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	126 (5.0)	B8	203 (8.0)	C1	—	D1	13 (0.51)
B2	254 (10.0)	B9	18.5 (0.73)	C2	—	D2	60.5 (2.4)
B3	163.5 (6.4)	B10	—	C3	69 (2.7)	D3	13 (0.51)
B4	50.8 (2.0)	B11	—			D4	—
B5	180 (7.1)	B12	—				
B6	355 (14.0)						
B7	138 (5.4)						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	30D	40V	50H					
US model								
Canada model								
Manual tilt								

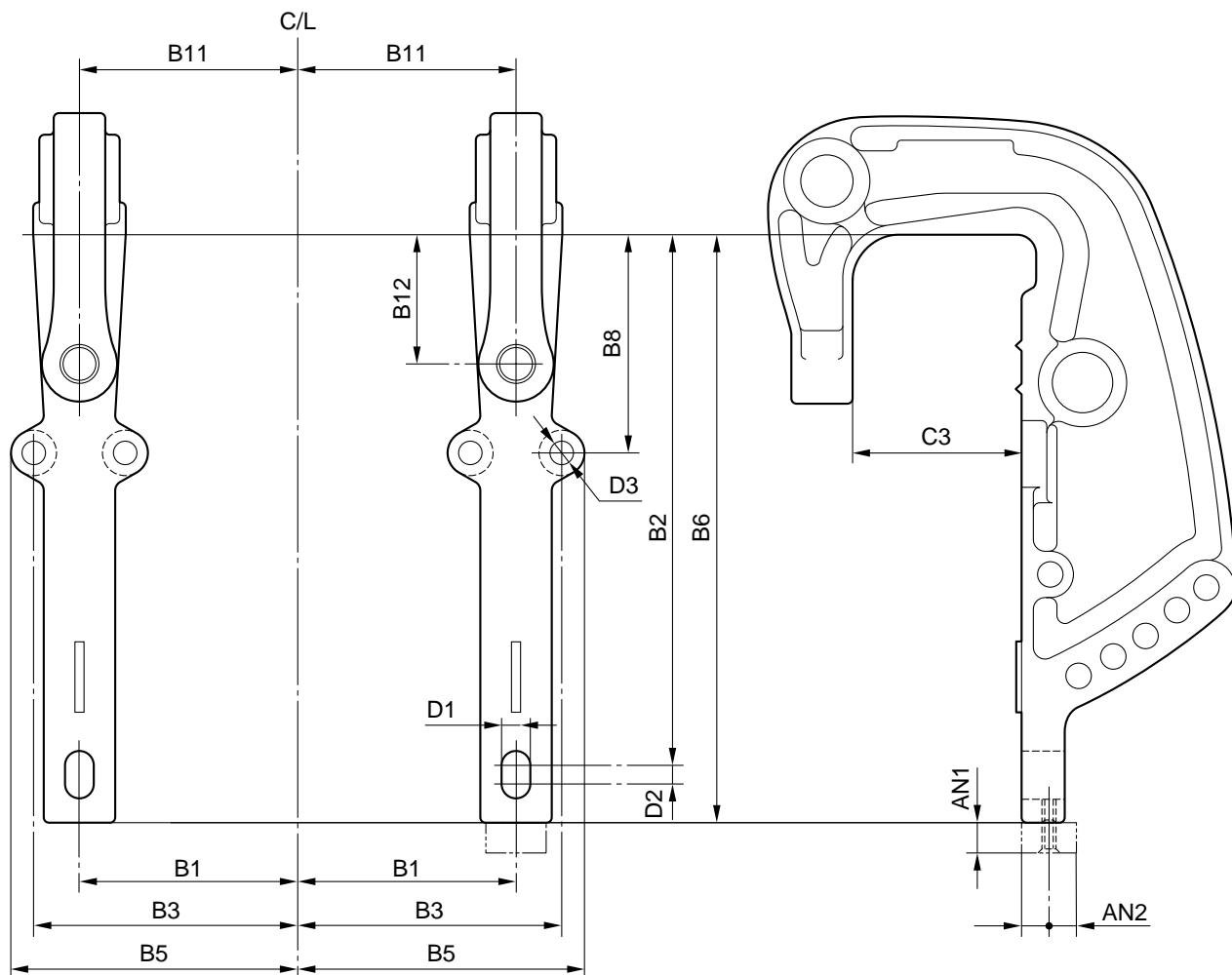


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	62.5 (2.5)	B8	—	C1	30 (1.2)	D1	10.5 (0.41)
B2	208 (8.2)	B9	25 (0.98)	C2	66 (2.6)	D2	26 (1.0)
B3	121.5 (4.8)	B10	—	C3	—	D3	—
B4	32 (1.3)	B11	90.5 (3.6)			D4	—
B5	131.5 (5.2)	B12	57 (2.2)				
B6	245 (9.6)						
B7	—						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	E48C	E55C						
US model								
Canada model								
Manual tilt								

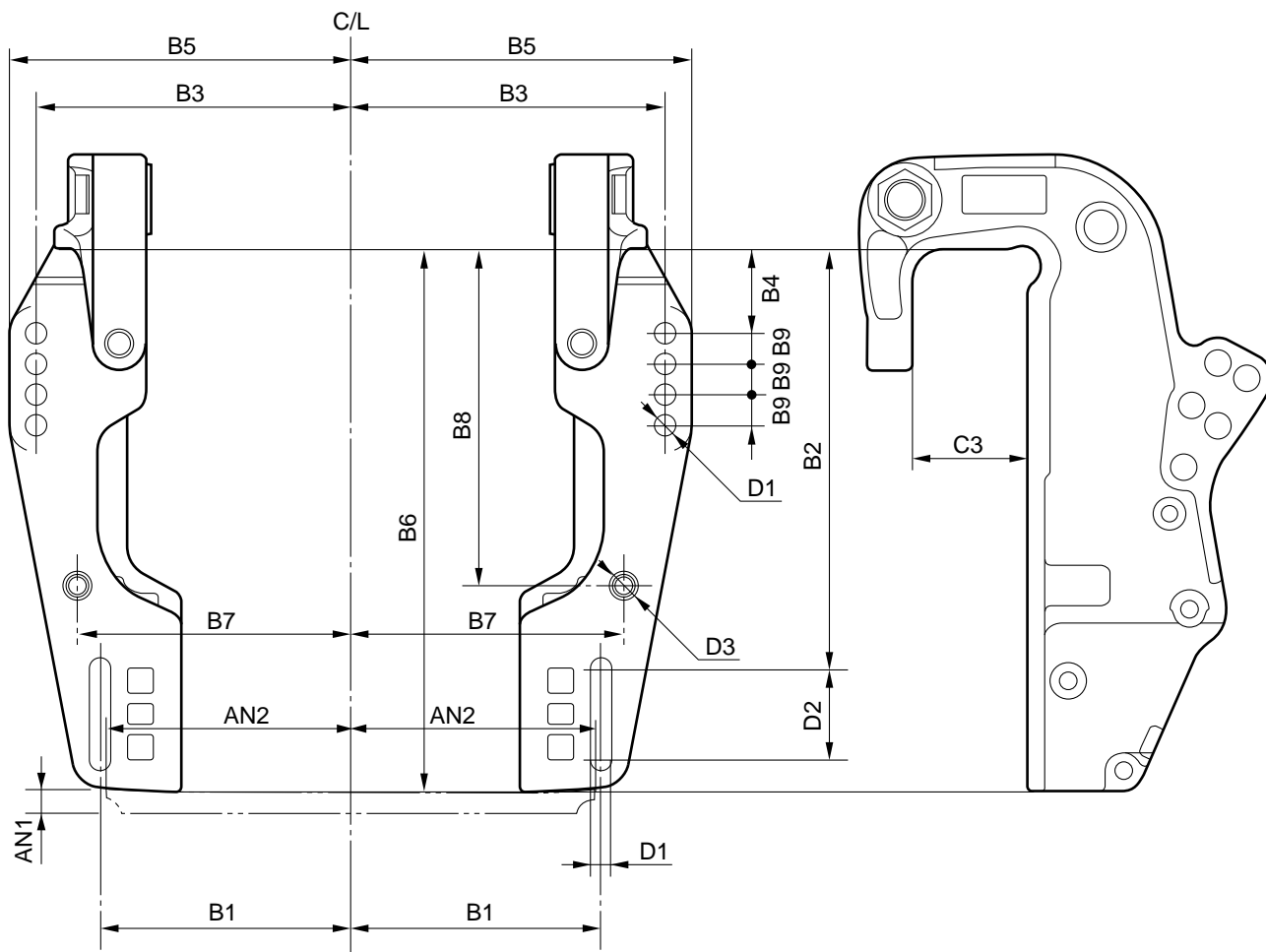


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	96 (3.8)	B8	95 (3.7)	C1	—	AN1	14 (0.55)
B2	230 (9.1)	B9	—	C2	—	AN2	12 (0.47)
B3	119 (4.7)	B10	—	C3	73 (2.9)		
B4	—	B11	96 (3.8)	D1	12 (0.47)		
B5	129 (5.1)	B12	57 (2.2)	D2	8 (0.31)		
B6	254 (10.0)			D3	10.5 (0.41)		
B7	—			D4	—		

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	55B	60F	E60H					
US model								
Canada model								
PTT & Hydro-tilt for S-transom								

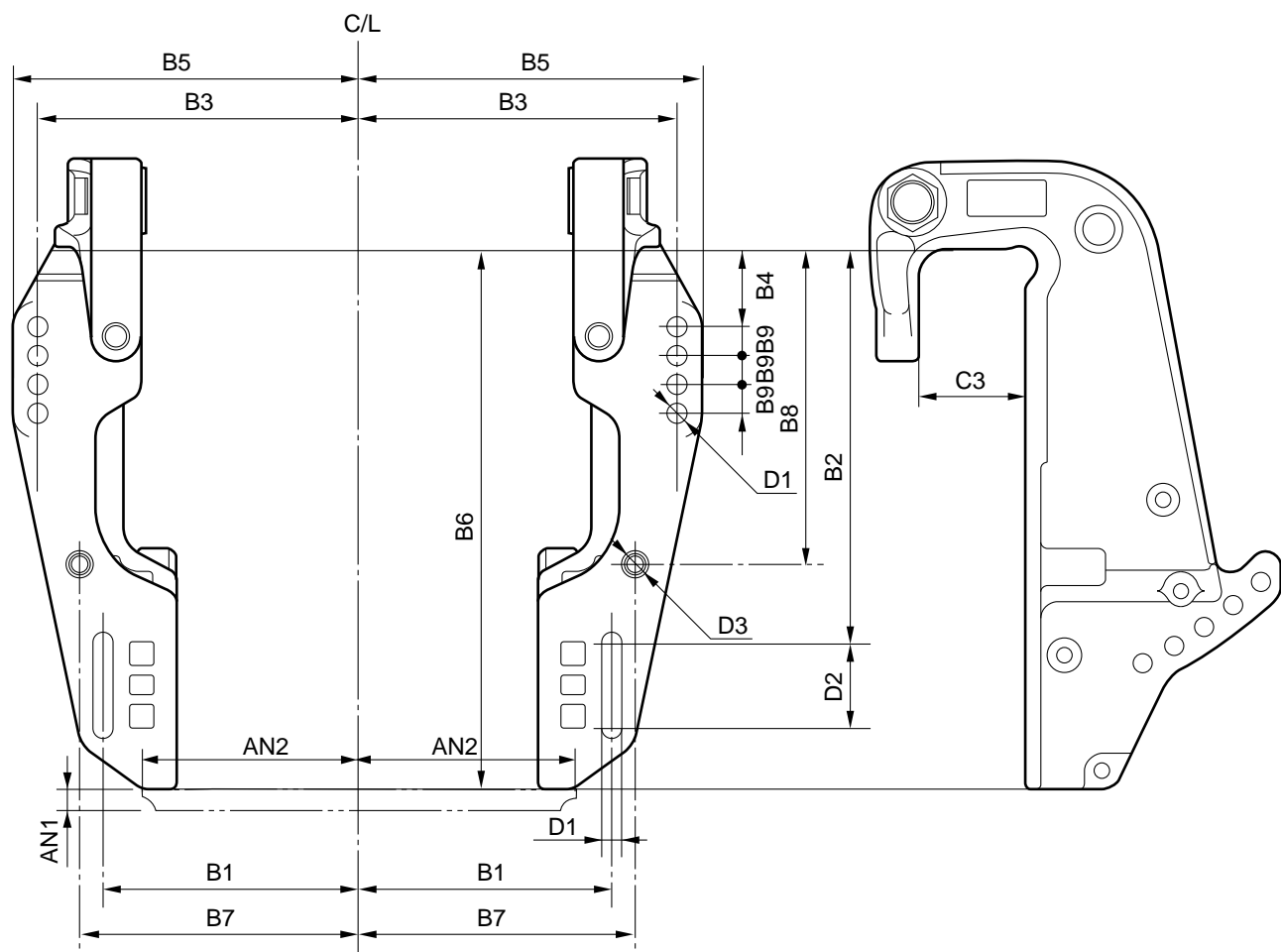


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	125.4 (4.9)	B8	203.2 (8.0)	C1	—	D1	13 (0.51)
B2	254 (10.0)	B9	18.5 (0.73)	C2	—	D2	55.5 (2.2)
B3	163.5 (6.4)	B10	—	C3	68.5 (2.7)	D3	Studbolt hole: M12 x 1.25-40 deep
B4	50.8 (2.0)	B11	—			D4	—
B5	180 (7.1)	B12	—			AN1	19 (0.75)
B6	329 (13.0)					AN2	101.5 (4.0)
B7	138.1 (5.4)						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	55B	55D	60F	70B	75A	75C	85A	
US model								
Canada model								
Global model	90A	E60H	E60J	E65A	E75B			
US model								
Canada model	90							
PTT & Hydro-tilt for L/X-transom								

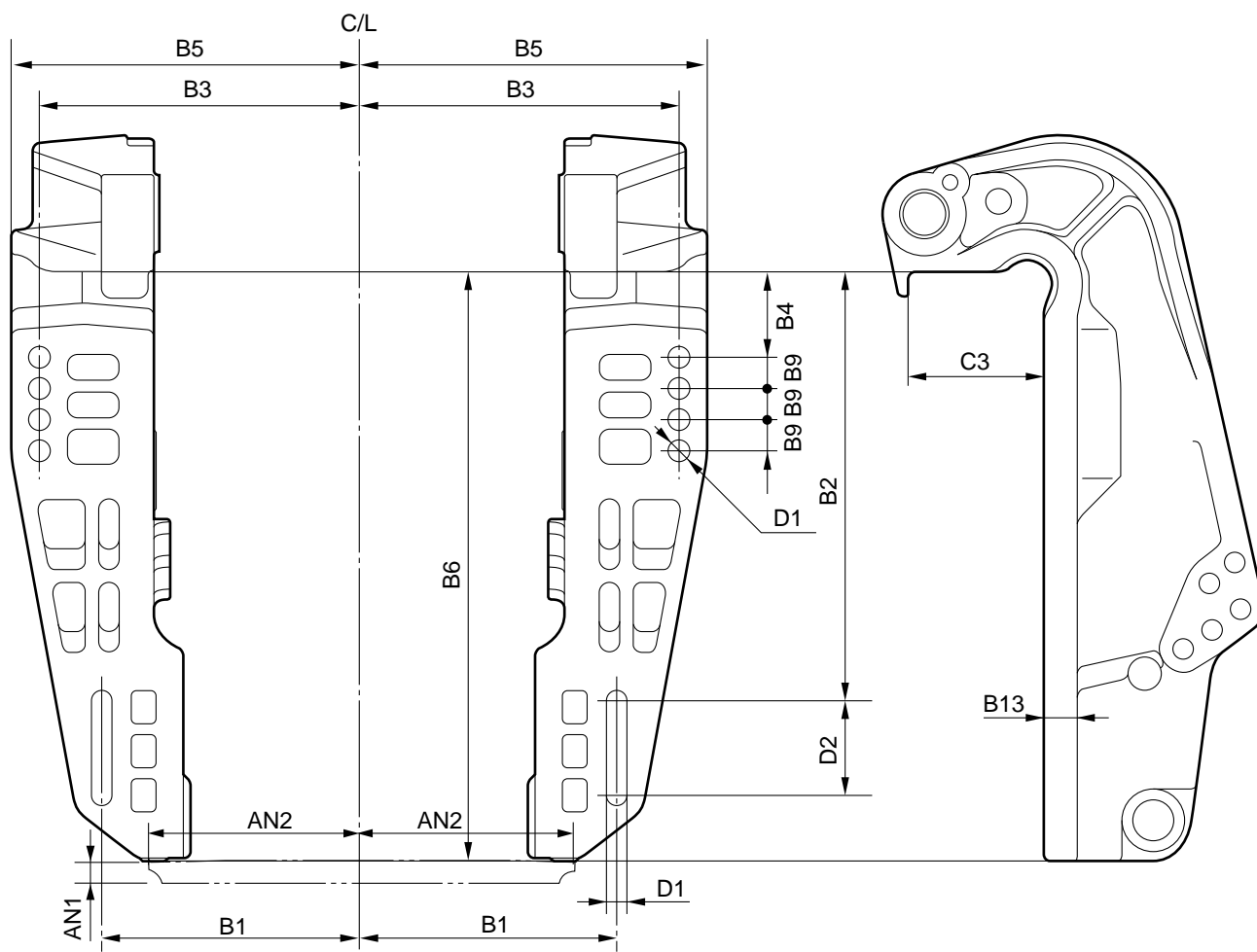


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	125.4 (4.9)	B8	203.2 (8.0)	C1	—	D1	13 (0.51)
B2	254 (10.0)	B9	18.5 (0.73)	C2	—	D2	55.5 (2.2)
B3	163.5 (6.4)	B10	—	C3	68.5 (2.7)	D3	Studbolt hole: M12 x 1.25-40 deep
B4	50.8 (2.0)	B11	—			D4	—
B5	180 (7.1)	B12	—			AN1	19 (0.75)
B6	352 (13.9)					AN2	101.5 (4.0)
B7	138.1 (5.4)						

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	F75B	F80B	F90B	F100D				
US model	F75		F90					
Canada model	F75A		F90A					
PTT								

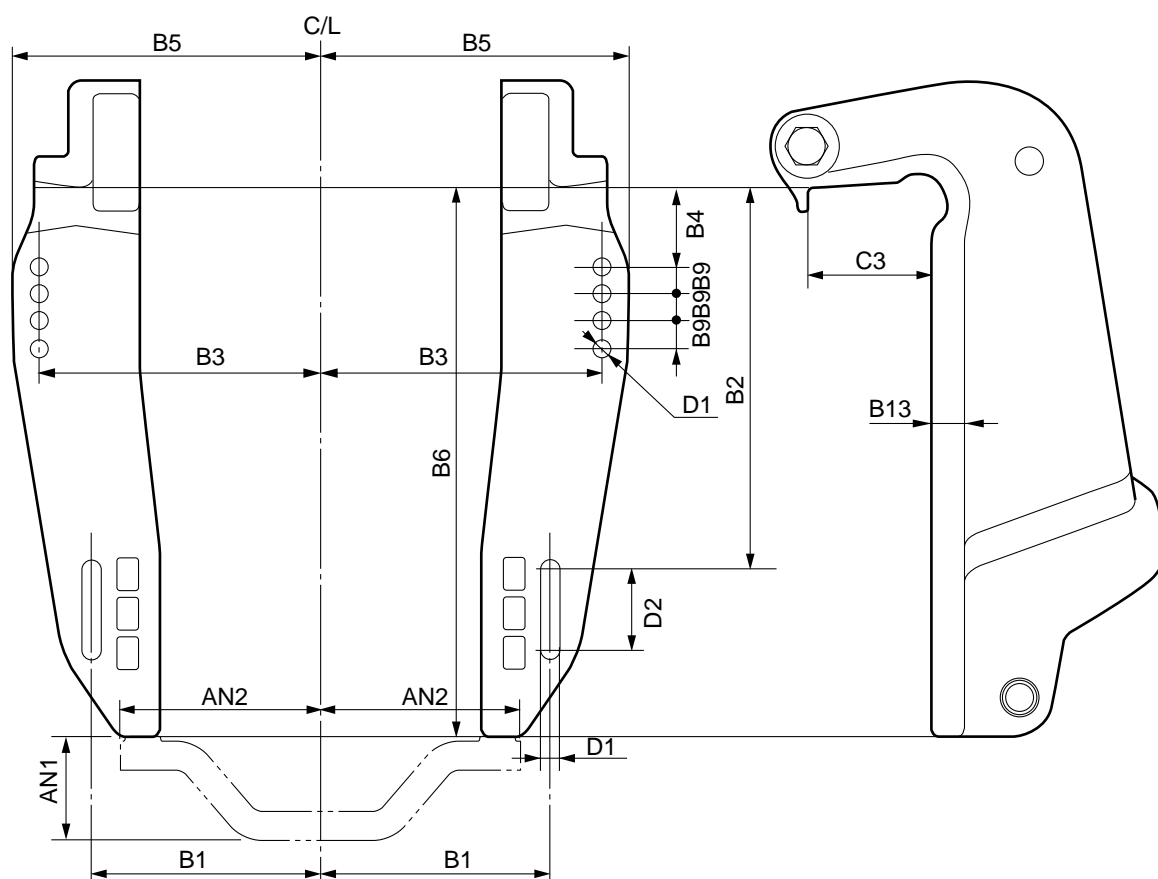


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	125.4 (4.9)	B8	—	C1	—	AN1	19 (0.75)
B2	254 (10.0)	B9	18.5 (0.73)	C2	—	AN2	101.5 (4.0)
B3	163.5 (6.4)	B10	—	C3	80 (3.1)		
B4	50.8 (2.0)	B11	—	D1	13 (0.51)		
B5	180 (7.1)	B12	—	D2	55.5 (2.2)		
B6	368 (14.5)	B13	20 (0.79)	D3	—		
B7	—			D4	—		

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	E115A	115B	115C	130B	140B	L/150A	L/200A	150F
US model								
Canada model								
Global model	150G	200G	200F	225D	Z150P	Z150Q	Z175G	Z175H
US model						VZ150		VZ175
Canada model					Z150	VZ150		
Global model	Z/LZ200N	Z200P	F75C	F80C	F95A	F100B	F/FL115A	F/FL150A
US model	Z/LZ200						F/LF115A	F/LF150A
Canada model							F/LF115A	F/LF150A
Global model	F/FL150B	F225C						
US model								
Canada model								
PTT & Hydro tilt								

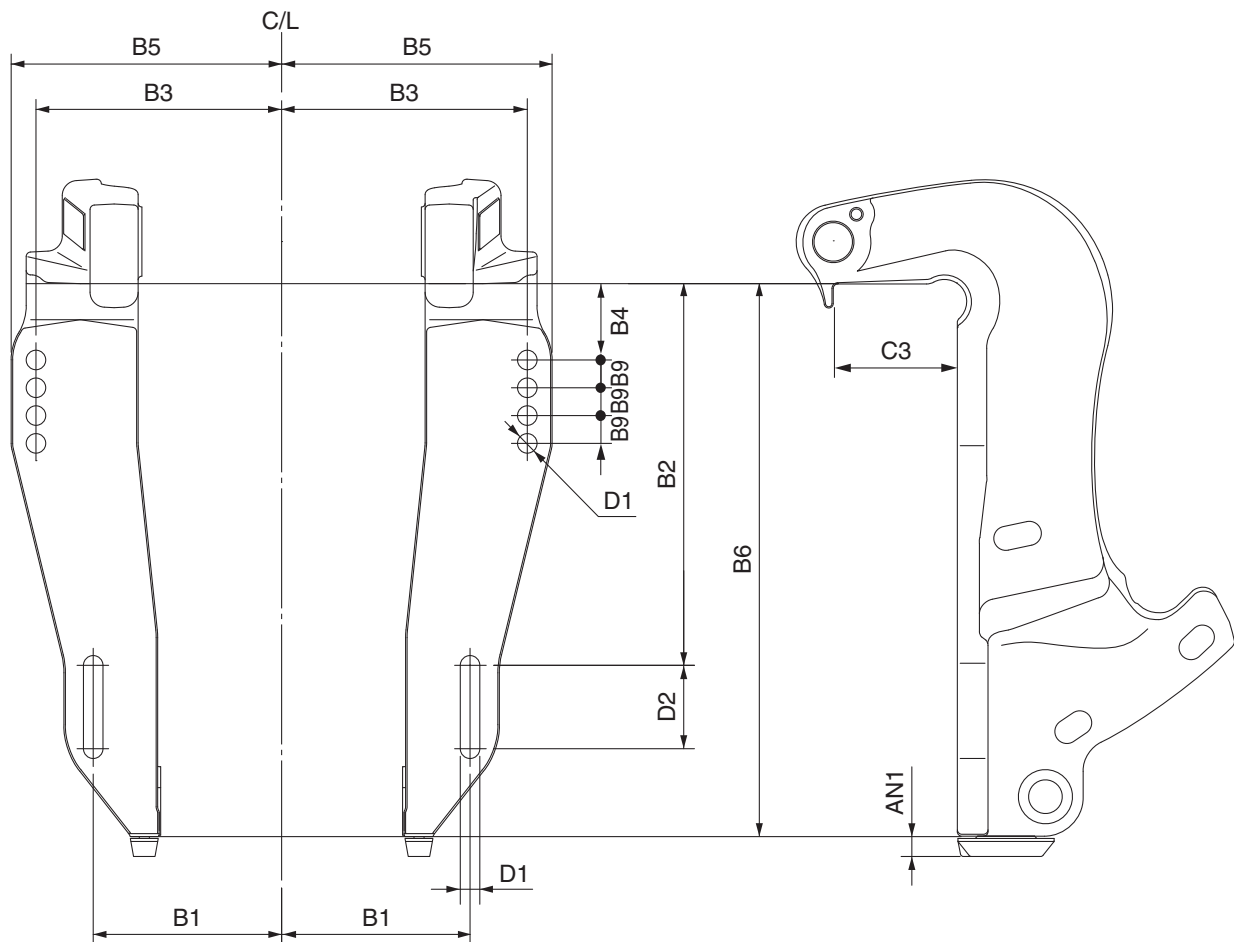


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	125.4 (4.9)	B8	—	C1	—	AN1	52 (2.0)
B2	254 (10.0)	B9	18.5 (0.73)	C2	—	AN2	102 (4.0)
B3	163.5 (6.4)	B10	—	C3	82 (3.2)		
B4	50.8 (2.0)	B11	—	D1	13 (0.51)		
B5	180 (7.1)	B12	—	D2	55.5 (2.2)		
B6	367 (14.4)	B13	24 (0.94)	D3	—		
B7	—			D4	—		

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	F200D	F225D	F250C	F225G	F250F	F275A		
US model	VF200LA	VF225LA	VF250LA					
Canada model	VF200LA	VF225LA	VF250LA					
PTT								

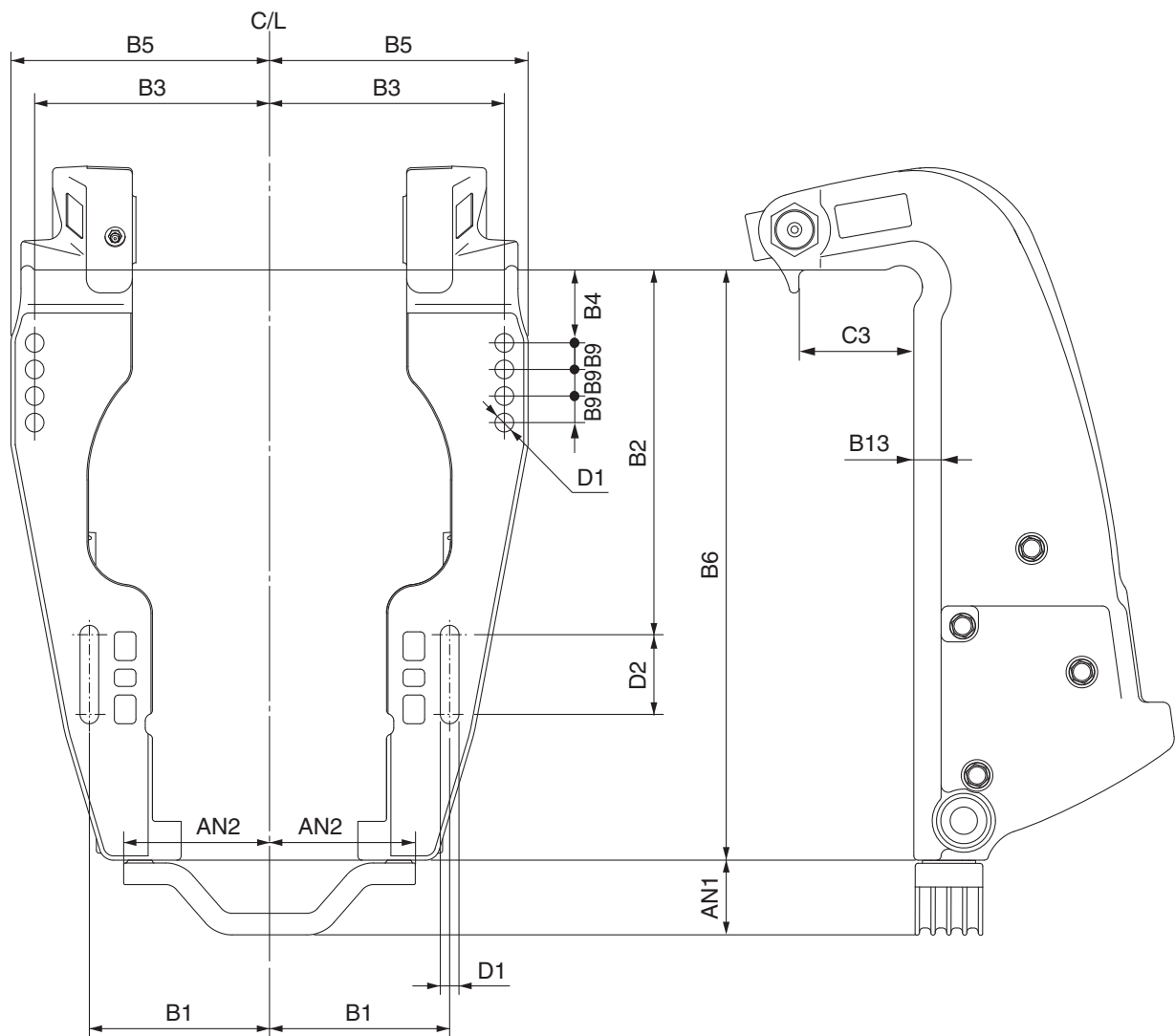


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	125.4 (4.9)	B8	—	C1	—	AN1	13.5 (0.5)
B2	254 (10.0)	B9	18.5 (0.7)	C2	—	AN2	—
B3	163.5 (6.4)	B10	—	C3	82 (3.2)		
B4	50.8 (2.0)	B11	—	D1	13 (0.5)		
B5	180 (7.1)	B12	—	D2	55.5 (2.2)		
B6	368 (14.5)	B13	—	D3	—		
B7	—			D4	—		

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	L/250G	F/FL200B	F/FL200C	F/FL225B	F/FL250A	F/FL250G	F/FL225F	F/FL250D
US model			F/LF200A	F/LF225A	F/LF250		F/LF225CA	F/LF250CA
Canada model			F/LF200A				F/LF225CA	F/LF250CA
Global model	F/FL300B							
US model	F/LF300CA							
Canada model	F/LF300CA							
PTT								

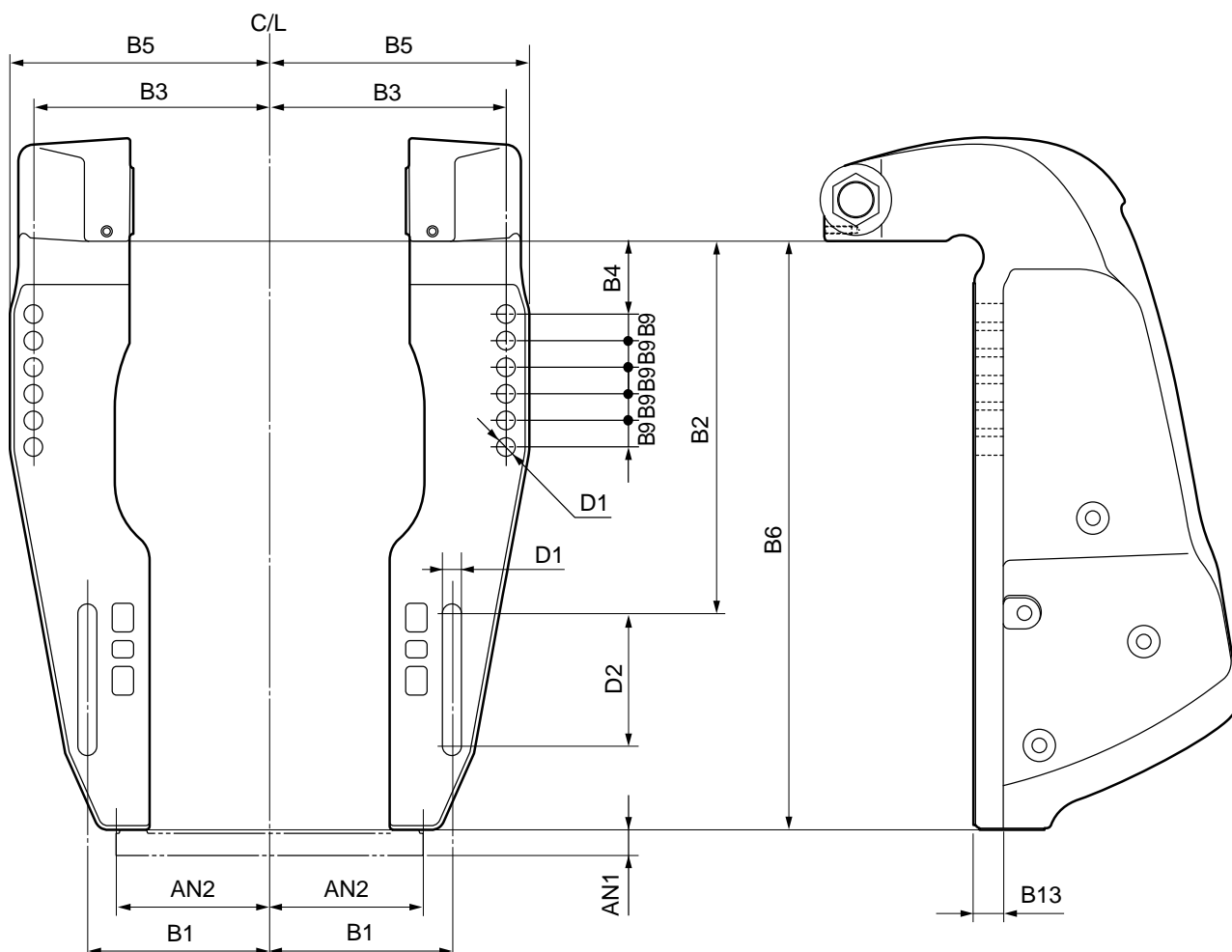


Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	125.4 (4.9)	B8	—	C1	—	AN1	52 (2.0)
B2	254 (10.0)	B9	18.5 (0.7)	C2	—	AN2	102 (4.0)
B3	163.5 (6.4)	B10	—	C3	79 (3.1)		
B4	50.8 (2.0)	B11	—	D1	13 (0.5)		
B5	180 (7.1)	B12	—	D2	55.5 (2.2)		
B6	411 (16.2)	B13	20 (0.79)	D3	—		
B7	—			D4	—		

OUTBOARD MOTOR DIMENSIONS

CLAMP BRACKET DIMENSIONS

Global model	F/FL300A	F/FL350A						
US model		F/LF350CA						
Canada model		F/LF350CA						
PTT								



Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)	Symbol	mm (in.)
B1	125.4 (4.9)	B8	—	C1	—	AN1	19 (0.75)
B2	254 (10.0)	B9	18.5 (0.73)	C2	—	AN2	102 (4.0)
B3	163.5 (6.4)	B10	—	C3	—		
B4	50.8 (2.0)	B11	—	D1	13 (0.51)		
B5	180 (7.1)	B12	—	D2	92.6 (3.6)		
B6	406 (16.0)	B13	21 (0.83)	D3	—		
B7	—			D4	—		

PROPELLERS

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PROPELLER SPECIFICATIONS

PROPELLER TYPES

Yamaha propellers are specifically designed to match the characteristics of Yamaha outboard motors.

There are some types of the propeller for the best matching due to operating condition.

Major types of propeller include:

STANDARD

This is designed as general purpose propellers for almost operating conditions.

A stainless steel or an aluminum propeller is available for your preference.

Stainless steel L/H rotation propellers are available for twin-engine applications.



RELIANCE SERIES

New polished stainless steel propellers are designed to provide for 150PS and bigger standard type engines.

These propellers are generally more aggressive than black standard stainless steel propellers, and will fit the engines under almost operating conditions.

L/H rotation propellers are available for twin-engine applications.



SALTWATER SERIES II

This new breed of stainless steel props is designed exclusively for offshore fishing boats and features highly polished, larger diameter design. The aggressive rake angle and extra cupping on the blades provide superior mid-range fuel efficiency, along with excellent anti-cavitation performance.

Shift Dampener System (SDS) has been adopted to reduce the shock and noise when shifting, and become possible to replace the propeller damper.

L/H rotation propellers are available for twin-engine applications.



SALTWATER SERIES XL

New polished stainless steel propellers have designed for big offshore boats to obtain big impulsion power.

It features large diameter blade design, especially for F350/F300 (V8) engine.

Shift Dampener System (SDS) has been adopted to reduce the shock and noise when shifting, and become possible to replace the propeller damper.

L/H rotation propellers are available for multi-engine applications.



PROPELLER SPECIFICATIONS

SALTWATER SERIES HS4

Polished stainless steel propellers with 4-blade for V6-3.1L, -3.3L and -4.2L engines, except for VMAX series.

Compared with the conventional three blades propeller, four blades make larger propeller blade surface area, which can catch much more water and obtain higher thrust performance.

As a result, this propeller will obtain better acceleration, and stable operation under rough water.

However, generally boat top speed performance is slightly lesser than three blades propeller.

Shift Dampener System (SDS) has been adopted to reduce the shock and noise when shifting, and become possible to replace the propeller damper.

L/H rotation propellers are available for twin-application.



*** Shift Dampener System (SDS):**

Using a special new design and high-strength components, much of the resulting force of an outboard shifting into forward or reverse gear is absorbed, resulting in far quieter and smoother operation.

VMAX SERIES

These polished stainless steel propellers are designed for a high-speed and light weight special boat with high-power engine for better performance.

These specialized propellers are generally more aggressive than the ventilated type propellers.



PERFORMANCE

These stainless steel propellers with vents for exhaust gas induction offer the best acceleration and top end performance causing the engine rpm rapidly increasing with a high rake, progressive pitch and more cup.

It allows higher transom mounting such as bass boats, yet does not increase steering torque.

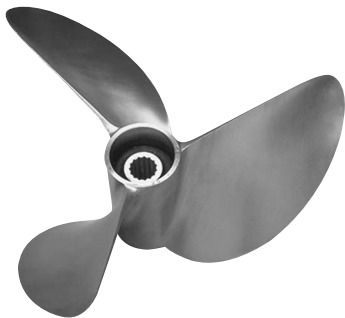


PROPELLER SPECIFICATIONS

HIGH PERFORMANCE

The progressive pitch design, highly cupped blades, and special small hub propellers for high-performance runabout boats.

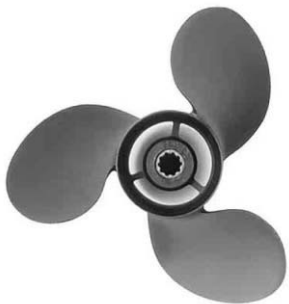
The through-hub exhaust system allows the exhaust gas to outlet the leading edge of each blade for enhanced acceleration.



WEEDLESS

This is designed for use in shallow water.

It eliminates weed buildup around the propeller hub.



DUAL THRUST

This is designed for sailboat or other large displacement boats.

This redirects the exhaust gases so that the blades cut through "clean" water, for higher efficiency.



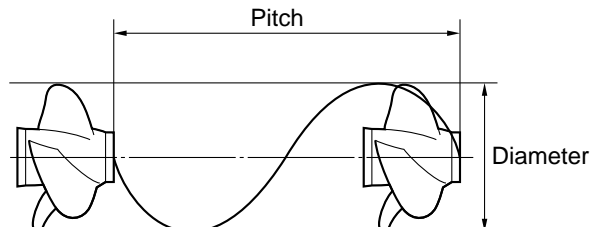
PROPELLER IDENTIFICATION

The propeller identification of the size is indicated as follows.

$$\text{Propeller identification} = \text{Diameter (inch)} \times \text{Pitch (inch)} - \text{Mark}$$

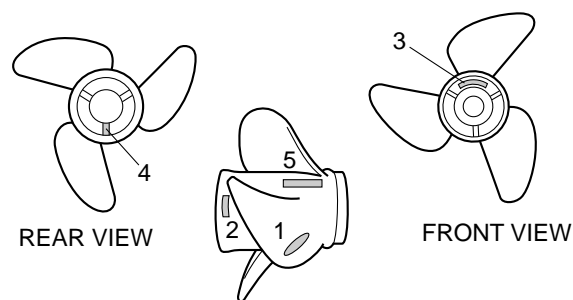
Diameter: Diameter of propeller rotating circle.

Pitch: Logical advancing distance when propeller rotated one time.



The location of the propeller identification varies.

Refer to the illustration as shown.



Example:

- (1) 7-1/4 X 6 - BS
- (2) 21 - ML (Pitch - Mark)
- (3) 13 X 17 - K2
- (4) 19K (Pitch and Mark)
- (5) 9-1/4 X 9 - J

* Calculation formula of the logical boat speed is as below.

^ Boat speed (km/h) = propeller pitch (inch) X engine speed (r/min) X 0.001524 X propeller efficiency / gear ratio.

^ Propeller efficiency = Actual advancing distance when propeller rotated one time / Logical advancing distance when propeller rotated one time.

PROPELLER SELECTION

Depending on a model, Yamaha outboard motors are fitted with the propellers which are chosen to perform well over a range of applications, but there may be the uses where a propeller with a different pitch would be more appropriate.

For a greater operating load, a smaller pitch propeller is more suitable as enables the correct engine speed at WOT (Wide-Open-Throttle) to be maintained.

Conversely, a larger pitch propeller is more suitable for a smaller operating load.

For details, see the WOT operation range table in this chapter.

Besides, select the best matched propeller series which meets with the purpose of use due to a classification and/or kind of boat.

2012 PROPELLER APPLICATIONS

STANDARD PROPELLER

2 ps

Global model				2C						
US model										
Canada model										
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks				
3	7 1/4	4	A	Plastic	6A1-45943-00	Fitted with shear pin				
3	7 1/4	4 1/2	A	Aluminum	646-45944-01	Fitted with shear pin				
3	7 1/4	5	A	Aluminum	6F8-45942-01	Fitted with shear pin				
3	7 1/4	5 1/2	A	Aluminum	646-45942-01	Fitted with shear pin				

2 – 3 ps

Global model				F2A	F2.5A	3A				
US model					F2.5					
Canada model					F2.5					
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks				
3	7 1/4	5	BS	Aluminum	6L5-45949-00					
3	7 1/4	5 1/2	BS	Aluminum	6L5-45952-00					
3	7 1/4	6	BS	Aluminum	6L5-45943-00					
3	7 1/4	7 1/4	BS	Aluminum	6L5-45945-00					
3	7 1/4	8 1/4	BS	Aluminum	6L5-45947-00					

* Use the thrust washer (68D-G5987-00) for 4-stroke mode, and (6L5-45987-01) for 2-stroke model.

4 – 6 ps

Global model				4AC	5C	5CS	F4B	F5A	F6C	
US model							F4A		F6A	
Canada model							F4A		F6A	
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks				
3	7 1/4	6 1/2	BA	Aluminum	6E0-45949-00					
3	7 1/2	7	BA	Aluminum	6E0-45943-01					
3	7 1/2	8	BA	Aluminum	6E0-45941-01					
3	7 1/2	9	BA	Aluminum	6E0-45954-00					

2012 PROPELLER APPLICATIONS

STANDARD PROPELLER

8 ps

Global model				E8D	E8DK						
US model											
Canada model											
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks					
3	7 1/4	5	C	Aluminum	655-45949-00	Fitted with shear pin					
3	9	5 3/4	C	Aluminum	655-45947-01	Fitted with shear pin					
3	9	6 1/2	C	Aluminum	655-45945-00	Fitted with shear pin					
3	9	7	C	Aluminum	647-45943-00	Fitted with shear pin					
3	9	7 1/2	C	Aluminum	655-45943-00	Fitted with shear pin					
3	9	9	C	Aluminum	647-45947-00	Fitted with shear pin					
3	9 1/4	9 1/4	C	Aluminum	647-45941-00	Fitted with shear pin					

6 – 9.9 ps

Global model				6C	8C	F8C	F9.9F				
US model						F8A	F9.9A				
Canada model				6	8	F8A	F9.9A				
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks					
3	8 1/2	6 1/2	N	Aluminum	6G1-45947-00						
3	8 1/2	7 1/2	N	Aluminum	6G1-45943-00						
3	8 1/2	8	N	Aluminum	6G1-45952-00						
3	8 1/2	8 1/2	N	Aluminum	6G1-45941-00						
3	8 1/2	9 1/4	N	Aluminum	6G1-45954-00						

9.9 – 15 ps

Global model				9.9F	15F	E9.9D	E15D	EK9.9J	EK15P	EK9.9D	EK15D
US model											
Canada model				9.9	15						
Global model				F9.9H	F15C						
US model					F15A						
Canada model					F15A						
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks					
3	9 1/2	6 1/2	J	Aluminum	683-45949-00						
3	9 1/4	8	J	Aluminum	63V-45947-00						
3	9 1/4	9	J	Aluminum	63V-45945-00						
3	9 1/4	9 3/4	J	Aluminum	683-45952-00						
3	9 1/4	10	J	Aluminum	63V-45952-00						
3	9 1/4	10 1/2	J	Aluminum	683-45943-00						
3	9 1/4	11	J	Aluminum	63V-45943-00						
3	9 1/4	12	J	Aluminum	683-45941-00						

* Use the thrust washer (6B8-45987-00) for kerosene model, avoiding propeller damper damage.

2012 PROPELLER APPLICATIONS

STANDARD PROPELLER

9.9 – 20 ps

Global model				F9.9H	F15C	F20B	F20C				
US model					F15A	F20A					
Canada model					F15A	F20A					
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	9 1/4	8	J	Aluminum		63V-45947-00					
3	9 1/4	9	J1	Aluminum		63V-45945-10					
3	9 1/4	10	J1	Aluminum		63V-45952-10					
3	9 1/4	11	J1	Aluminum		63V-45943-10					
3	9 1/4	12	J1	Aluminum		63V-45941-10					

20 – 30 ps

Global model				20D	25N	E/25B	25X	E/30H	EK25B/C	30D	F25D
US model											F25A
Canada model				20	25						F25A
Global model				F20D							
US model											
Canada model											
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	9 7/8	8	F	Aluminum		664-45943-01					
3	9 7/8	9	F	Aluminum		664-45941-01					
3	9 7/8	10	F	Aluminum		62C-45941-00					
3	9 7/8	10 1/2	F	Aluminum		664-45945-00					
3	9 7/8	11 1/4	F	Aluminum		664-45947-01					
3	9 7/8	12	F	Aluminum		664-45954-01					
3	9 7/8	13	F	Aluminum		664-45949-02					
3	9 7/8	14	F	Aluminum		664-45952-00					

2012 PROPELLER APPLICATIONS

STANDARD PROPELLER

FT/T25 & 30 – 60 ps

Global model				40V	50H	E/40J	EK40J	E/40X	E48C	E55C	55B
US model											
Canada model					50						
Global model				FT25F	F30B	F40F	F50D	F40D	F50F	F60C	
US model				T25A		F40A			F50	F60	
Canada model				T25A	F30A	F40A			F50A	F60A	
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	12 1/4	8	G	Aluminum		63D-45941-00					
3	12 1/4	9	G	Aluminum		663-45956-01					
3	11 3/4	10	G	Aluminum		663-45954-01					
3	11 5/8	11	G	Aluminum		69W-45947-00					
3	10 5/8	12	G	Aluminum		6H5-45952-00					
3	11 3/8	12	G	Aluminum		69W-45952-00					
3	10 3/8	13	G	Aluminum		6H5-45945-00					
3	11 1/8	13	G	Aluminum		69W-45945-00					
3	11 1/8	13	G	Aluminum		69W-45945-00					
3	10 1/4	14	G	Aluminum		6H5-45958-00					
3	11 1/4	14	G	Aluminum		69W-45958-00					
3	11 1/4	14	G	Aluminum		663-45958-01					
3	10	15	G	Aluminum		6H5-45943-00					
3	11	15	G	Aluminum		69W-45943-00					
3	10 3/4	16	G	Aluminum		663-45949-01					
3	10 3/4	17	G	Aluminum		663-45941-01					
3	12	11	G	S-Steel		663-45972-60					
3	12	12	G	S-Steel		663-45970-60					
3	11 1/2	13	G	S-Steel		663-45974-60					
3	10 1/4	14	G	S-Steel		663-45930-00					
3	11 1/4	14	G	S-Steel		697-45970-00					
3	10 1/4	15	G	S-Steel		663-45976-00					
3	10 1/4	16	G	S-Steel		663-45978-00					

40 ps

Global model				E40G	EK40G						
US model											
Canada model											
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	11 3/4	7 1/2	H	Aluminum		676-45956-61		Fitted with drive pin			
3	11 3/4	8 3/4	H	Aluminum		676-45947-62		Fitted with drive pin			
3	11 3/4	10	H	Aluminum		676-45945-62		Fitted with drive pin			
3	11 1/2	11	H	Aluminum		676-45941-62		Fitted with drive pin			
3	11 1/2	12	H	Aluminum		676-45943-62		Fitted with drive pin			
3	11 1/2	13	H	Aluminum		676-45952-62		Fitted with drive pin			
3	11 1/2	13 1/2	H	Aluminum		676-45949-62		Fitted with drive pin			

2012 PROPELLER APPLICATIONS

STANDARD PROPELLER

50 – 115 ps

Global model	60F	70B	E60H	55D	E60J	E65A	75A	E75B
US model								
Canada model								
Global model	85A	75C	90A	115C	130B	E115A	115B	140B
US model								
Canada model			90					
Global model	FT50C	FT50G	FT60D	F75B	F80B	F90B	F100D	F75C
US model		T50	T60	F75		F90		
Canada model		T50A	T60A	F75A		F90A		
Global model	F80C	F95A	F100B	F115A	F70A	F40G		
US model				F115A	F70A			
Canada model				F115A	F70A			
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	14	11	K	Aluminum	6E5-45954-00			
3	13 5/8	13	K	Aluminum	6E5-45949-00			
3	13 5/8	14	K	Aluminum	6E5-45958-00			
3	13 1/2	15	K	Aluminum	6E5-45947-00			
3	13 1/4	17	K	Aluminum	6E5-45945-01			
3	13 1/2	17	K	Aluminum	68V-45941-00	Cupped blade		
3	13	19	K	Aluminum	6E5-45941-00			
3	13 1/2	19	K	Aluminum	68V-45943-00	Cupped blade		
3	12 5/8	21	K	Aluminum	6E5-45943-00			
3	13	23	K	Aluminum	6E5-45952-00			
3	13	25	K	Aluminum	6E5-45956-00			
3	13 1/2	14	K	S-Steel	688-45932-60			
3	13 1/2	16	K	S-Steel	688-45978-60			
3	13	17	K	S-Steel	688-45930-02			
3	13	19	K	S-Steel	688-45970-03			
3	13	21	K	S-Steel	688-45972-02			
3	13	23	K	S-Steel	688-45974-02			
3	13	25	K	S-Steel	688-45976-01			

L115 ps

Global model	FL115A							
US model	LF115A							
Canada model	LF115A							
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	13	17	KL	S-Steel	6L6-45930-01			
3	13	19	KL	S-Steel	6L6-45970-00			
3	13	21	KL	S-Steel	6L6-45972-00			

2012 PROPELLER APPLICATIONS

STANDARD PROPELLER

150 – 200 ps

Global model	150A	200A	150F	200F	Z150P	Z175G	Z200N	F150A
US model							Z200	F150A
Canada model							Z200	F150A
Global model	F150B	F200B	F200C					
US model			F200A					
Canada model			F200A					
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	15 1/4	15	M	Aluminum	6G5-45941-01			
3	14 5/8	16	M	Aluminum	6G5-45952-00			
3	14 1/2	17	M	Aluminum	6G5-45947-01			
3	14	19	M	Aluminum	6G5-45945-01			
3	13 3/4	21	M	Aluminum	6G5-45943-01			
3	13 1/2	23	M	Aluminum	6G5-45949-00			

L150 – L200 ps

Global model	L150A	L200A	L200F	LZ200N	FL150A	FL150B	FL200B	FL200C
US model				LZ200	LF150A			LF200A
Canada model					LF150A			LF200A
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	14 1/2	17	ML	Aluminum	6K1-45947-00			
3	14	19	ML	Aluminum	6K1-45945-00			

150 – 250 ps

Global model	150A	200A	150F	200F	225D	Z150P	Z175G	Z200N
US model								Z200
Canada model								Z200
Global model	250G	F150A	F150B	F200B	F200C	F225B	F225C	F250A
US model		F150A			F200A	F225A		F250
Canada model		F150A			F200A			
Global model	F250G							
US model								
Canada model								
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	15 3/4	13	M	S-Steel	6G5-45932-00			
3	15 1/4	15	M	S-Steel	6G5-45970-02			
3	13 3/4	17	M2	S-Steel	6G5-45978-03			
3	13 3/4	19	M2	S-Steel	6G5-45974-03			
3	13 3/4	21	M	S-Steel	6G5-45972-02			
3	13 3/8	23	M	S-Steel	6G5-45976-01			
3	13 3/8	25	M	S-Steel	6G5-45930-00			

2012 PROPELLER APPLICATIONS

STANDARD PROPELLER

L150 – L250 ps

Global model				L150A	L200A	L200F	L250G	LZ200N	FL150A	FL150B	FL200B
US model								LZ200	LF150A		
Canada model									LF150A		
Global model				FL200C	FL225B	FL250A	FL250G				
US model				LF200A	LF225A	LF250					
Canada model				LF200A							
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	15 1/4	15	ML	S-Steel		6K1-45970-01					
3	13 3/4	17	ML1	S-Steel		6K1-45978-02					
3	13 3/4	19	ML1	S-Steel		6K1-45974-02					
3	13 3/4	21	ML	S-Steel		6K1-45972-01					
3	13 3/8	23	ML	S-Steel		6K1-45976-00					

200 – 250 ps

Global model				250G	F200B	F200C	F225B	F225C	F250A	F250G	
US model						F200A	F225A		F250A		
Canada model						F200A					
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	15	17	T	S-Steel		61A-45978-00					
3	14 1/2	19	T	S-Steel		61A-45974-00					
3	14 1/2	21	T	S-Steel		61A-45972-00					

L200 – L250 ps

Global model				L250G	FL200B	FL200C	FL225B	FL250A	FL250G		
US model						LF200A	LF225A	LF250A			
Canada model						LF200A					
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	15	17	TL	S-Steel		61B-45978-00					
3	14 1/2	19	TL	S-Steel		61B-45974-00					
3	14 1/2	21	TL	S-Steel		61B-45972-00					

DUAL THRUST PROPELLERS

6 – 9.9 ps

Global model				6C	8C	F8C	F9.9F				
US model						F8A	F9.9A				
Canada model				6	8	F8A	F9.9A				
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	9	5	N	Aluminum		6G1-W4592-00					
3	9	7	N	Aluminum		6G1-W4591-01					

2012 PROPELLER APPLICATIONS

DUAL THRUST PROPELLERS

8 – 9.9 ps

Global model				FT8D	FT9.9G						
US model					T9.9A						
Canada model				T8A	T9.9A						
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	11 3/4	5 3/4	R	Aluminum		69G-45941-00					
3	11 3/4	7	R	Aluminum		69G-45943-00					
3	11 3/4	8 1/4	R	Aluminum		6G8-45947-00					
3	11 3/4	11	R	Aluminum		6G8-45941-00					
3	11 3/4	9 1/4	R	Plastic		6G8-45945-00					
3	11 3/4	11	R	Plastic		6G8-45941-00					
3	11 3/4	12 1/4	R	Plastic		6G8-45943-00					

9.9 – 15 ps

Global model				9.9F	15F	E9.9D	E15D	EK9.9J	EK15P	EK9.9D	EK15D
US model											
Canada model				9.9	15						
Global model				F9.9H	F15C						
US model					F15A						
Canada model					F15A						
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	9 3/4	6 1/2	J	Aluminum		683-W4592-02					
3	9 3/4	8	J	Aluminum		683-W4591-02					

* Use the thrust washer (6B8-45987-00) for kerosene model, avoiding propeller damper damage.

20 – 30 ps

Global model				30D	F25D						
US model					F25A						
Canada model					F25A						
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	10 5/8	8 1/4	F	Aluminum		6J8-W4591-00		For PT/PTT model.			

25 ps

Global model				FT25F							
US model				T25A							
Canada model				T25A							
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	12 1/4	9	G	Aluminum		68U-45941-00					

50 – 60 ps

Global model				FT50C	FT50G	FT60D					
US model					T50	T60					
Canada model					T50A	T60A					
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	14	11	K	Aluminum		68S-45941-00					

2012 PROPELLER APPLICATIONS

WEEDLESS PROPELLERS

4 – 6 ps

Global model				4AC	5C/S	F4B	F5A	F6C			
US model						F4A		F6A			
Canada model						F4A		F6A			
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number			Remarks		
3	7 1/4	8 1/4	BA	Aluminum		6E0-45952-00					

20 – 30 ps

Global model				20D	25N	E/25B	25X	E/30H	EK25B/C	30D	F25D
US model											F25A
Canada model				20	25						F25A
Global model				F20D							
US model											
Canada model											
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number			Remarks		
3	9 1/8	12	F	S-Steel		664-45972-00					
3	9 1/8	13	F	S-Steel		664-45970-00					

RELIANCE SERIES PROPELLERS

150 – 250 PS

Global model				150A	200A	150F	200F	225D	Z150P	Z175G	Z200N
US model											Z200
Canada model									Z150		Z200
Global model				250G	F150A/B	F200B	F200C	F225B	F225C	F250A	FL250G
US model					F150		F200A	F225A		F250A	
Canada model					F150		F200A				
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number			Remarks		
3	14 1/2	15	M	S-steel		68F-45970-00			F150 is not recommended. (*1)		
3	14 1/4	17	M	S-steel		68F-45972-00					
3	14 1/4	18	M	S-steel		68F-45978-00					
3	13 3/4	19	M	S-steel		68F-45974-00					
3	13 3/4	21	M	S-steel		68F-45976-00					

(*1) Propeller noise occurs.

L150 – L250 ps

Global model				L150A	L200A	L200F	L250G	LZ200N	FL150A/B	FL200B	FL200C
US model								LZ200	LF150		LF200A
Canada model									LF150		LF200A
Global model				FL225B	FL250A	FL250G					
US model				LF225A	LF250						
Canada model											
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number			Remarks		
3	14 1/4	17	ML	S-steel		68G-45972-00					
3	14 1/4	18	ML	S-steel		68G-45978-00					
3	13 3/4	19	ML	S-steel		68G-45974-00					
3	13 3/4	21	ML	S-steel		68G-45976-00					

2012 PROPELLER APPLICATIONS

SALTWATER SERIES PROPELLERS

150 – 250 ps

Global model	150F	150A	Z150P	F150A/B	Z175G	200A	200F	Z200N
US model				F150A				
Canada model				F150A				
Global model	F200B	225D	250G	F200B	F200C	F225B	F225C	F250A
US model					F200A	F225A		F250
Canada model					F200A			
Global model	F250G							
US model								
Canada model								
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	15 1/4	15	M	S-Steel	6R4-45976-A0			
3	15 1/4	17	M	S-Steel	6R4-45978-A0			
3	15 1/4	19	M	S-Steel	6R4-45970-A1			
3	14 7/8	21	M	S-Steel	6R4-45972-A0			
3	14 1/2	23	M	S-Steel	6R4-45974-A0			

L150 – L250 ps

Global model	L150A	FL150A/B	L200A	L200F	LZ200N	L250G	FL200B	FL200C
US model								LF200A
Canada model								LF200A
Global model	FL225B	FL250A	FL250G					
US model	LF225A	LF250						
Canada model								
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	15 1/4	15	ML	S-Steel	6R1-45976-A0			
3	15 1/4	17	ML	S-Steel	6R1-45978-A0			
3	15 1/4	19	ML	S-Steel	6R1-45970-A1			
3	14 7/8	21	ML	S-Steel	6R1-45972-A0			
3	14 1/2	23	ML	S-Steel	6R1-45974-A0			

2012 PROPELLER APPLICATIONS

SALTWATER SERIES II PROPELLERS

150 – 250 ps (V6 engine)

Global model	150F	150A	Z150P	F150A/B	Z175G	200A	200F	Z200N
US model				F150A				
Canada model				F150A				
Global model	250G	F200B	F200C	F225B	F225C	F250A	F250G	
US model			F200A	F225A		F250A		
Canada model			F200A					
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	15 3/4	15	T	S-Steel	6D0-45976-00	For V6 3.1/3.3L model. (*1)		
3	15 1/2	17	T	S-Steel	6D0-45978-00			
3	15 1/4	19	T	S-Steel	6D0-45970-00			
3	15	21	T	S-Steel	6D0-45972-00			
3	14 3/4	23	T	S-Steel	6D0-45974-00			

(*1) The blade contacts to 6J9 lower-case.

Global model	150F	150A	Z150P	F150A/B	Z175G	200A	200F	Z200N
US model				F150A				
Canada model				F150A				
Global model	F225F	F250D	F300B	F200B	F200C	F225B	F225C	F250A
US model	F225CA	F250CA	F300CA		F200A	F225A		F250A
Canada model	F225CA	F250CA	F300CA		F200A			
Global model	F250G							
US model								
Canada model								
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	15 3/4	13	T	S-Steel	6CE-45930-00	SDS, For V6 3.1/3.3/4.2L model. (*1)		
3	15 3/4	15	T	S-Steel	6CE-45976-00	SDS, For V6 3.1/3.3/4.2L model. (*1)		
3	15 1/2	17	T	S-Steel	6CE-45978-00	SDS		
3	15 1/4	19	T	S-Steel	6CE-45970-00	SDS		
3	15	21	T	S-Steel	6CE-45972-00	SDS		
3	14 3/4	23	T	S-Steel	6CE-45974-00	SDS		

* SDS – Shift Dampener System

* SDS propeller requires the exclusive spacer (P/N: 6CE-45997-00).

(*1) The blade contacts to 6J9 lower-case.

2012 PROPELLER APPLICATIONS

SALTWATER SERIES II PROPELLERS

L150 – L250 ps (V6 engine)

Global model	L150A	FL150A/B	L200A	L200F	LZ200N	L250G	FL200B	FL200C
US model		LF150A						LF200A
Canada model		LF150A						LF200A
Global model	FL225B	FL250A	FL250G					
US model	LF225B	LF250A						
Canada model								
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	15 3/4	15	TL	S-Steel	6D1-45976-00	For V6 3.1/3.3L model. (*1)		
3	15 1/2	17	TL	S-Steel	6D1-45978-00			
3	15 1/4	19	TL	S-Steel	6D1-45970-00			
3	15	21	TL	S-Steel	6D1-45972-00			
3	14 3/4	23	TL	S-Steel	6D1-45974-00			

(*1) The blade contacts to 6J9 lower-case.

Global model	L150A	FL150A/B	L200A	L200F	LZ200N	L250G	FL225F	FL250D
US model		LF150A					LF225CA	LF250CA
Canada model		LF150A					LF225CA	LF250CA
Global model	FL300B	FL200B	FL200C	FL225B	FL250A	FL250G		
US model	LF300CA		LF200A	LF225A	LF250			
Canada model	LF300CA		LF200A					
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	15 3/4	13	TL	S-Steel	6CF-45930-00	SDS, For V6 3.1/3.3/4.2L model. (*1)		
3	15 3/4	15	TL	S-Steel	6CF-45976-00	SDS, For V6 3.1/3.3/4.2L model. (*1)		
3	15 1/2	17	TL	S-Steel	6CF-45978-00	SDS		
3	15 1/4	19	TL	S-Steel	6CF-45970-00	SDS		
3	15	21	TL	S-Steel	6CF-45972-00	SDS		
3	14 3/4	23	TL	S-Steel	6CF-45974-00	SDS		

* SDS – Shift Dampener System

* SDS propeller requires the exclusive spacer (P/N: 6CE-45997-00).

(*1) The blade contacts to 6J9 lower-case.

2012 PROPELLER APPLICATIONS

SALTWATER SERIES HS4 PROPELLERS

150 – 250 ps (V6 engine)

Global model	150F	150A	Z150P	F150A/B	Z175G	200A	200F	Z200N
US model				F150A				
Canada model				F150A				
Global model	250G	F200B	F200C	F225B	F225C	F250A	F250G	
US model			F200A	F225A		F250		
Canada model			F200A					
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
4	15	21	T	S-Steel	6BR-45B70-00-00			
4	15	22	T	S-Steel	6BR-45B72-00-00			
4	15	23	T	S-Steel	6BR-45B74-00-00			

Global model	150F	150A	Z150P	F150A/B	Z175G	200A	200F	Z200N
US model				F150A				
Canada model				F150A				
Global model	F225F	F250D	F300B	F200B	F200C	F225B	F225C	F250A
US model	F225CA	F250CA	F300CA		F200A	F225A		F250
Canada model	F225CA	F250CA	F300CA		F200A			
Global model	F250G	250G						
US model								
Canada model								
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
4	15	21	T	S-Steel	6CE-45B70-00-00	SDS		
4	15	22	T	S-Steel	6CE-45B72-00-00	SDS		
4	15	23	T	S-Steel	6CE-45B74-00-00	SDS		

* SDS – Shift Dampener System

* SDS propeller requires the exclusive spacer (P/N: 6CE-45997-00).

L150 – L250 ps (V6 engine)

Global model	L150A	FL150A/B	L200A	L200F	LZ200N	L250G	FL200B	FL200C
US model		LF150A						LF200A
Canada model		LF150A						LF200A
Global model	FL225B	FL250A	FL250G					
US model	LF225A	LF250						
Canada model								
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
4	15	21	TL	S-Steel	6BS-45B70-00			
4	15	22	TL	S-Steel	6BS-45B72-00			
4	15	23	TL	S-Steel	6BS-45B74-00			

Global model	L150A	FL150A/B	L200A	L200F	LZ200N	L250G	FL225F	FL250D
US model		LF150A					LF225CA	LF250CA
Canada model		LF150A					LF225CA	LF250CA
Global model	FL300B	FL200B	FL200C	FL225B	FL250A	FL250G		
US model	LF300CA		LF200A	LF225A	LF250			
Canada model	LF300CA		LF200A					
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
4	15	21	TL	S-Steel	6CF-45B70-00	SDS		
4	15	22	TL	S-Steel	6CF-45B72-00	SDS		
4	15	23	TL	S-Steel	6CF-45B74-00	SDS		

* SDS – Shift Dampener System

* SDS propeller requires the exclusive spacer (P/N: 6CE-45997-00).

2012 PROPELLER APPLICATIONS

SATLWATER SERIES XL PROPELLERS

300 – 350 ps (V8 engine)

Global model				F300A	F350A						
US model					F350CA						
Canada model					F350CA						
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	16 1/4	15	X	S-Steel		6AW-45970-10		SDS			
3	16 1/4	17	X	S-Steel		6AW-45972-10		SDS			
3	15 1/2	19	X	S-Steel		6AW-45974-10		SDS			
3	15 1/4	21	X	S-Steel		6AW-45976-10		SDS			
3	15 1/4	23	X	S-Steel		6AW-45978-10		SDS			

* SDS – Shift Dampener System

* SDS propeller requires the exclusive spacer (P/N: 6AW-45997-10).

L300 – L350 ps (V8 engine)

Global model				FL300A	FL350A						
US model					LF350CA						
Canada model					LF350CA						
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	16 1/4	15	XL	S-Steel		6AX-45970-10		SDS			
3	16 1/4	17	XL	S-Steel		6AX-45972-10		SDS			
3	15 1/2	19	XL	S-Steel		6AX-45974-10		SDS			
3	15 1/4	21	XL	S-Steel		6AX-45976-10		SDS			
3	15 1/4	23	XL	S-Steel		6AX-45978-10		SDS			

* SDS – Shift Dampener System

* SDS propeller requires the exclusive spacer (P/N: 6AW-45997-10).

VMAX SERIES PROPELLERS

200 – 275 ps (SHO engine)

Global model				F200D	F225D	F250C	F225G	F250F	F275A		
US model				VF200LA	VF225LA	VF250LA					
Canada model				VF200LA	VF225LA	VF250LA					
Blade	Dia. (in)	Pitch (in)	Mark	Material		Part number		Remarks			
3	14 1/2	23	T1	S-Steel		6CB-45974-00		Ventless			
3	15 1/8	25	T1	S-Steel		6CB-45972-00		Ventless			
3	15 1/8	27	T1	S-Steel		6CB-45970-00		Ventless			
3	14 3/4	29	T1	S-Steel		6CB-45976-00		Ventless			

2012 PROPELLER APPLICATIONS

PERFORMANCE SERIES PROPELLERS

50 – 140 ps

Global model	FT50C	FT50G	55D	60F	E60H	FT60D	70B	F70A
US model		T50				T60		F70A
Canada model		T50A				T60A		F70A
Global model	E75B	75/85A	90A	F75B/C	F80B/C	F90B	F95A	F100B
US model				F75		F90		
Canada model			90	F75A		F90A		
Global model	F100D	E115A	115B/C	F/FL115A	130/140B			
US model				F/LF115A				
Canada model				F/LF115A				
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	13 1/2	17	K	S-Steel	62A-45976-00			
3	13 1/2	19	K	S-Steel	62A-45974-10			
3	13 1/2	21	K	S-Steel	62A-45970-10			
3	13 1/2	23	K	S-Steel	62A-45972-10			

150 – 200 ps

Global model	200G	Z150Q	Z175H	Z200P				
US model		VZ150	VZ175					
Canada model		VZ150	VZ175					
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	14 1/2	21	M1	S-Steel	6J9-45976-10			
3	14 1/2	23	M2	S-Steel	66K-45974-B0			
3	14 1/2	25	M2	S-Steel	66K-45972-B0			
3	14 1/2	27	M1	S-Steel	66K-45970-B0			

HIGH PERFORMANCE SERIES PROPELLERS

60 – 200 ps

Global model	60F	70B	75/85A	75C	90A	115B/C	130/140B	150F
US model								
Canada model					90			
Global model	L/150A	Z150Q	Z175H	L/200A	L/200F	Z200P		
US model		VZ150	VZ175					
Canada model								
Blade	Dia. (in)	Pitch (in)	Mark	Material	Part number	Remarks		
3	14	20	P	S-Steel	6E5-45970-10	Special purpose		
3	14	22	P	S-Steel	6E5-45976-10	Special purpose		
3	14	24	P	S-Steel	6E5-45972-10	Special purpose		
3	14	26	P	S-Steel	6E5-45978-10	Special purpose		
3	14	28	P	S-Steel	6E5-45974-10	Special purpose		

* For L-transom engine, matching to sports boat.

WOT OPERATION RANGE TABLE

With WOT (Wide-Open-Throttle) operation and under a maximum boat load, the engine RPM should be within the upper half of the WOT speed range.

Select a propeller which fulfills this requirement.

2-stroke engines			
Global Model	US Model	Canada Model	WOT range (rpm)
2C			4,000 – 5,000
3A			4,500 – 5,500
4AC, 5C, 5CS			4,500 – 5,500
6C		6	4,000 – 5,000
8C		8	4,500 – 5,500
E8D, EK8D			4,500 – 5,500
9.9F, 15F, E9.9D, E15D, EK9.9D, EK15D, EK9.9J, EK15P		9.9, 15	4,500 – 5,500
20D, 25N		20, 25	5,000 – 6,000
30D			4,500 – 5,500
E/25B, E/30H, 25X, EK25B, EK25C			4,500 – 5,500
EK40G, E40G, EK40J, E40J			4,500 – 5,500
E/40X			4,500 – 5,500
40V, 50H		50	4,500 – 5,500
E48C, E55C, 55B			4,500 – 5,500
E60H, 60F			4,500 – 5,500
70B			5,000 – 6,000
55D, E60J, E65A, 75A, E75B, 75C, 85A, 90A		90	4,500 – 5,500
E115A, 115B, 115C, 140B			4,500 – 5,500
130B			5,000 – 6,000
L/150A, L/200A			4,500 – 5,500
150F, 200F			4,500 – 5,500
Z150P, Z175G, Z/LZ200N, Z150Q, Z175H, Z200P	VZ150, VZ175, Z/LZ200		4,500 – 5,500
200G, 225D			5,000 – 6,000
L/250G			4,500 – 5,500

To be continued.

WOT OPERATION RANGE TABLE

4-stroke engines			
Global Model	US Model	Canada Model	WOT range (rpm)
F2A, F2.5A	F2.5	F2.5	5,250 – 5,750
F4B	F4A	F4A	4,000 – 5,000
F5A, F6C	F6A	F6A	4,500 – 5,500
F8C, FT8D, F9.9F, FT9.9G	F8A, F9.9A, T9.9A	F8A, T8D, F9.9A, T9.9A	5,000 – 6,000
F9.9H, F15C, F20B, F20C	F15A, F20A	F15A, F20A	5,000 – 6,000
F20D, F25D, FT25F	F25A, T25A	F25A, T25A	5,000 – 6,000
F30B, F40F	F40A	F30A, F40A	5,000 – 6,000
FT50C, F50D			5,000 – 6,000
F40D, F50F, FT50G, F60C, FT60D	F50, T50, F60, T60	F50A, T50A, F60A, T60A	5,000 – 6,000
F70A, F40G	F70A	F70A	5,300 – 6,300
F95A, F100B			5,000 – 6,000
F75B, F75C, F80B, F80C, F90B, F100D	F75, F90	F75A, F90A	5,000 – 6,000
F/FL115A	F/LF115A	F/LF115A	5,000 – 6,000
F/FL150A, F/FL150B	F/LF150A	F/LF150A	5,000 – 6,000
F/FL200B, F/FL200C, F/FL225B, F225C, F/FL250A, F/FL250G	F/LF200A, F/LF225A, F/LF250	F/LF200A	5,000 – 6,000
F200D, F225D, F250C, F225G, F250F, F275A	VF200LA, VF225LA, VF250LA	VF200LA, VF225LA, VF250LA	5,000 – 6,000
F/FL225F, F/FL250D, F/FL300B	F/LF225CA, F/LF250CA, F/LF300CA	F/LF225CA, F/LF250CA, F/LF300CA	5,000 – 6,000
F/FL300A, F/FL350A	F/LF350CA	F/LF350CA	5,000 – 6,000

If the engine RPM exceeds the recommended WOT range, replace to a larger pitch propeller.
If the engine RPM does not reach the recommended WOT range, replace to a smaller pitch propeller.

NOTICE

Do not run the engine at the speed which exceeds WOT range, as the engine could cause a damage from overload or over rev.

* The engine rpm at WOT operation will be usually changed about 150 rpm if the pitch of propeller has been changed one inch.

However, the change of rpm varies due to the propeller type, water type (salt or freshwater), boat type (weight or hull shape), etc.

* The maximum engine RPM will increase when the outboard motor is trimmed out.

MEMO



REMOTE CONTROLS

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REMOTE CONTROL APPLICATIONS

A Yamaha outboard motor has one of two throttle control systems, either “Push To Open” or “Pull To Open”.

For example, “Push To Open” means the throttle valve opens when the remote control inner cable is extended and then the throttle arm is pushed.

Most models have “Push To Open” system.

However, some following models have “Pull To Open” system.

“Pull to Open” models									
20D (20)	25B E25B	25N (25)	30D	30H E30H	40J E40J	EK40J	E40G	55B	E60H

The 10-pin connector is usually used for PTT and/or PT (Power Tilt) models.

The 7-pin connector is for manual tilt models. But, F9.9F (F9.9A), FT9.9G (T9.9A), F15C (F15A) and F20B (F20A) have the 10-pin connector.

Install the remote control box so that there is sufficient clearance between steering wheel and remote control lever operation area.

701 SIDE-MOUNT REMOTE CONTROL [Mechanical RC]

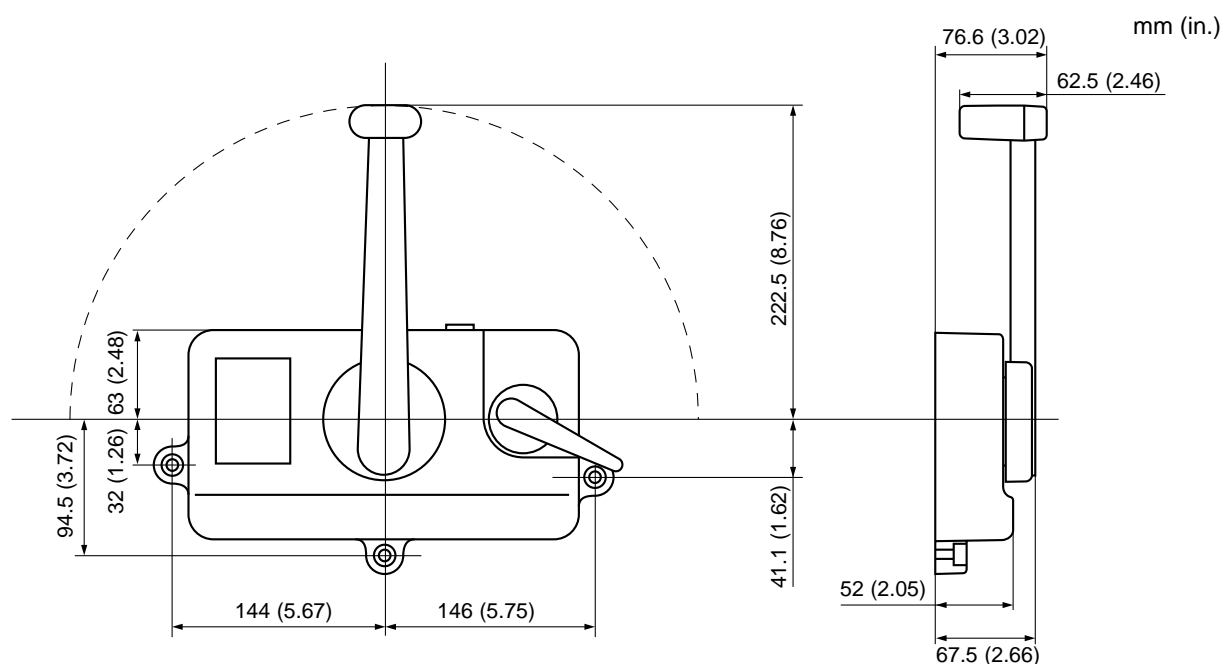
Designed for smaller models.

The attachment kit may be required to setup the remote control.



Part No.	Throttle		Lanyard stop S/W	Neutral lock	Mount		Remarks
	Push	Pull			R	L	
701-48101-23		1	1		1		
701-48101-51		1			1		
701-48101-E2		1	1	1	1		
701-48101-G1		1		1	1		
701-48102-23		1	1			1	
701-48102-51		1				1	
701-48102-E2		1	1	1		1	
701-48102-G1		1		1		1	
701-48130-23	1		1		1		
701-48130-E0	1		1	1	1		
701-48140-E0	1		1	1		1	

701 REMOTE CONTROL DIMENSIONS



REMOTE CONTROL APPLICATIONS

703 SIDE-MOUNT REMOTE CONTROL [Mechanical RC]

Designed for use with all electric start models.

Fitted to almost kinds of boats. Basic control functions are included in the 703 control box.



Part No.	Throttle		Choke	PTT	Coupler		Mount		Remarks
	Push	Pull			7-pin	10-pin	R	L	
703-48201-18	1		1			1	1		
703-48201-A4	1					1	1		
703-48202-17	1		1		1		1		For Twin-application
703-48203-17	1		1		1		1		
703-48203-A4	1				1		1		For Analog gauge only
703-48204-15		1	1		1			1	
703-48205-1A	1		1	1		1	1		
703-48205-A6	1			1		1	1		
703-48207-1A	1		1	1		1	1		For additional tilt SW
703-48207-A6	1			1		1	1		
703-48208-A5	1					1	1		For Twin-application
703-48210-18		1	1			1	1		
703-48220-17		1	1		1		1		For Twin-application
703-48230-17		1	1		1		1		For Analog gauge only
703-48250-1A		1	1	1		1	1		
703-48272-1A		1	1	1		1	1		For additional tilt SW

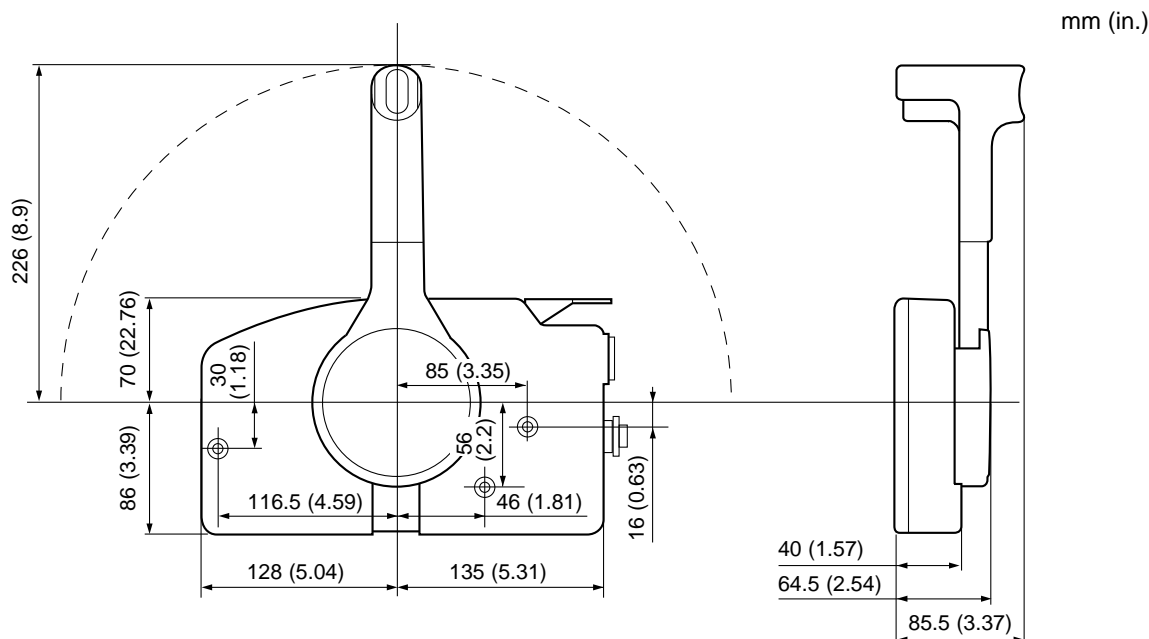
* Throttle opening direction can be reversed.

* Control lever position can be changed to its opposite position.

* Spacer which thickness is 13 mm (0.5 in.) is included in the remote control package.

* For further information, see the instruction (P/N:703-28199-33) in the package.

703 REMOTE CONTROL DIMENSIONS



REMOTE CONTROL APPLICATIONS

704 BINNACLE MOUNT REMOTE CONTROL [Mechanical RC]

Designed for use with electric start models. Best fitted to a boat with center console.

Single lever or Twin lever is available for engine applications.

Two kinds of control box, Premium or Standard type, is selectable to match boat design, cost, etc.

1



2



3



Ref. No.	Part No.	Throttle		PT/T	Lever			Remarks
		Push	Pull		R	L	Twin	
1	704-48203-P1	1				1		Premium
	704-48205-P1	1		1		1		Premium
	704-48206-P1	1		1	1			Premium
2	704-48205-B1	1		1		1		Standard
3	704-48207-P1	1		1			1	Premium

* Switch panel and extension wire-harness are required to connect to the engine 10-pin harness.

* Throttle opening direction can be reversed.

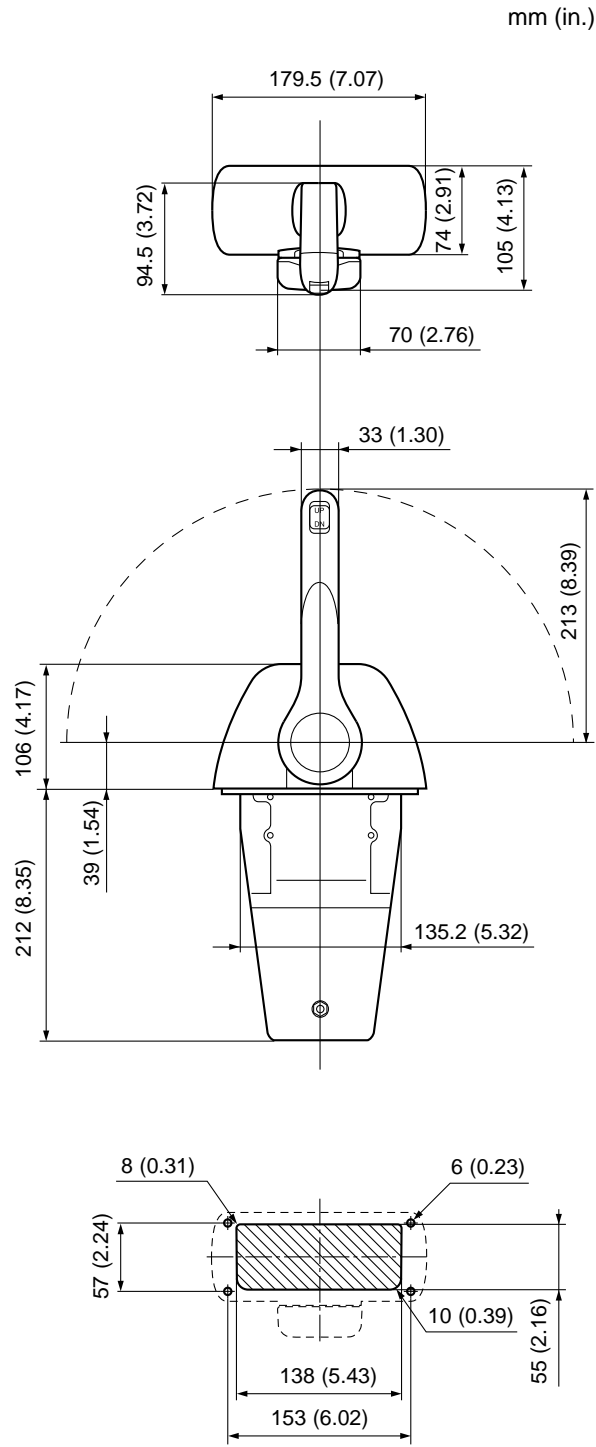
* Lever location can be changed to its opposite position.

* For further information, see the instruction (P/N:704-28199-P0) in the package.

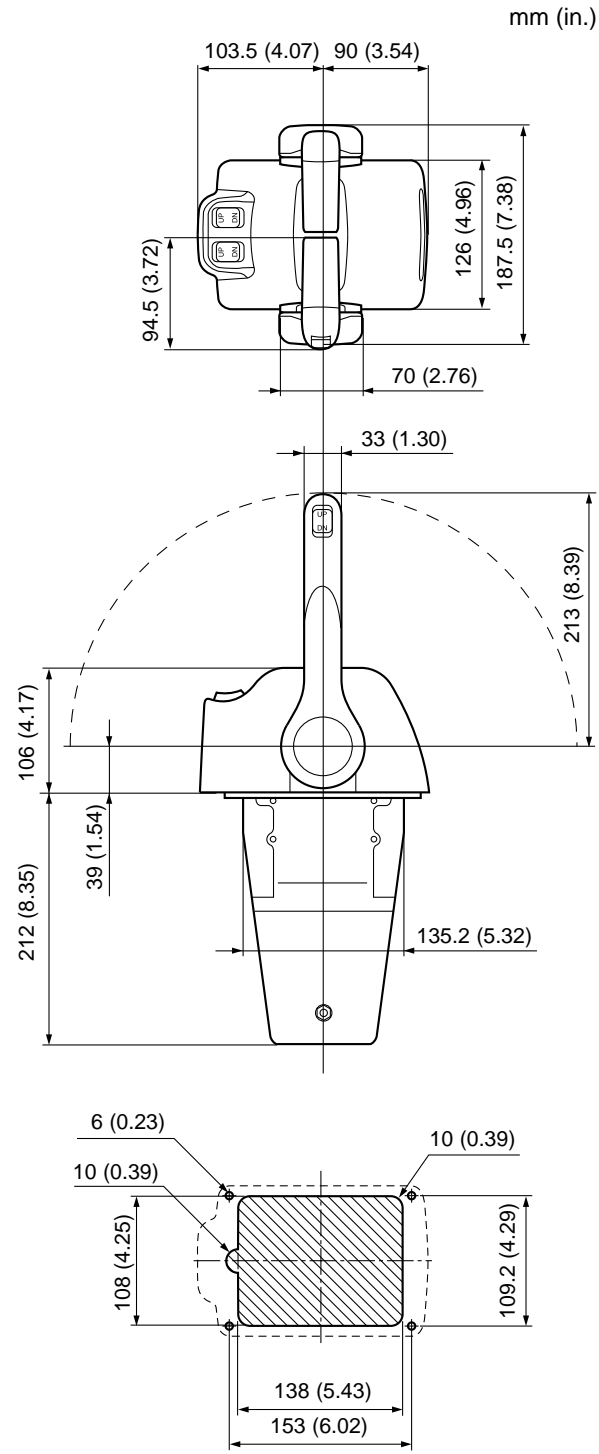
REMOTE CONTROL APPLICATIONS

704 REMOTE CONTROL DIMENSIONS

Single lever



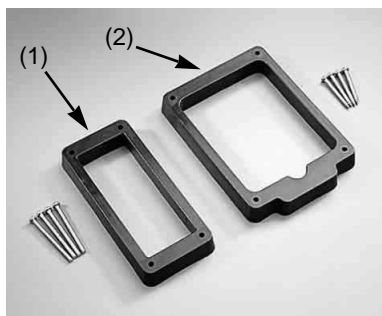
Twin lever



REMOTE CONTROL APPLICATIONS

704 REMOTE CONTROL SPACER

Designed to raise the control box 22 mm (0.9 in.) to make more clearance when the lever is into WOT position.



Ref. No.	Part No.	Descriptions
1	704-48293-00	For STD single, Not shown
	704-48293-20	For premium single
2	704-48293-30	For premium twin

6X3 CONCEALED REMOTE CONTROL [Mechanical RC]

Designed for the electric start models. Best fitted to runabout type boats.

The mounting position can be selected from horizontal or inclined 30-degree up or down position due to boat design.



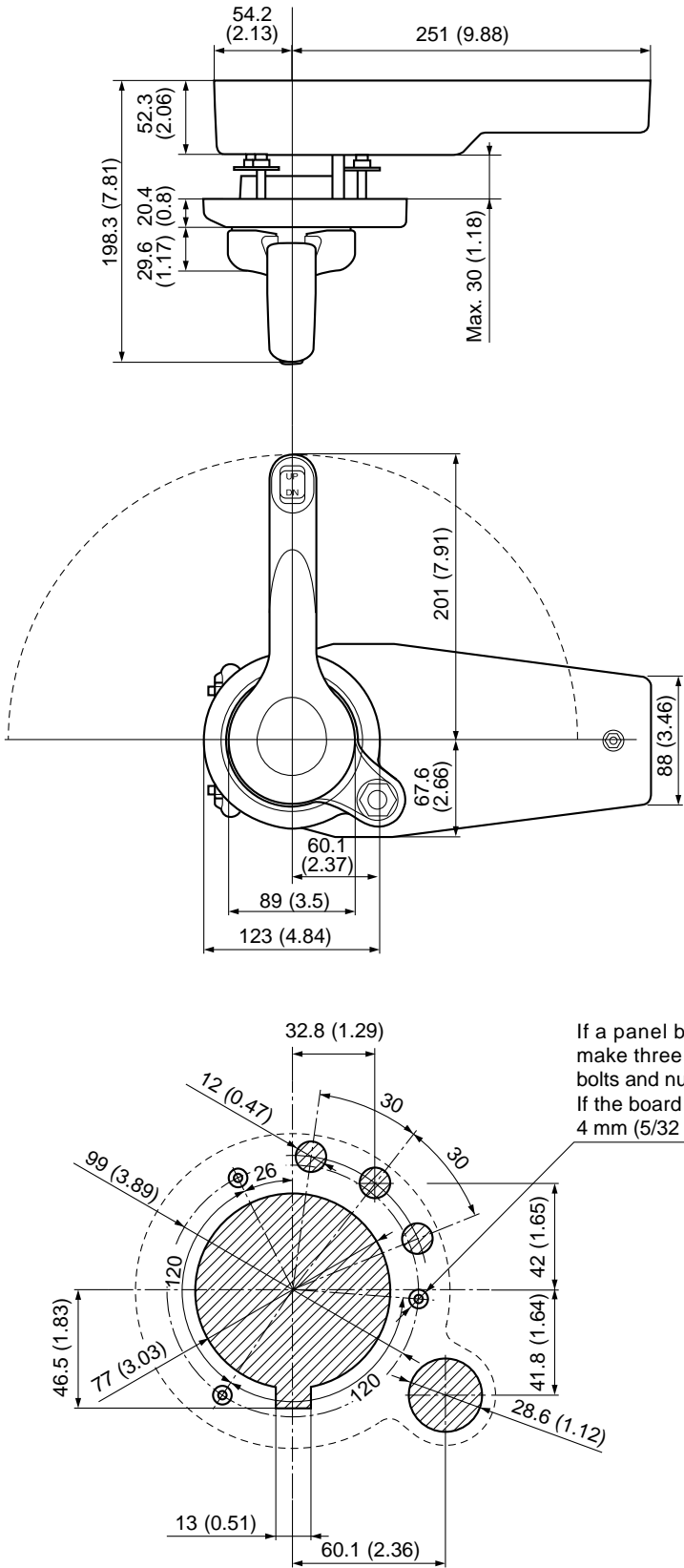
Part No.	Throttle		PT/T	Mount		Remarks
	Push	Pull		R	L	
6X3-48206-01	1		1	1		With emergency shut-off cord

- * Ignition switch panel without engine shut-off cord and extension wire-harness are required to connect to the engine.
- * Throttle opening direction can be reversed.
- * For further information, see the instruction in the package.

REMOTE CONTROL APPLICATIONS

6X3 REMOTE CONTROL DIMENSIONS

mm (in.)



REMOTE CONTROL APPLICATIONS

6X5 BINNACLE MOUNT REMOTE CONTROL [Mechanical RC] (FOR US)

Unique binnacle-mount design for triple-application for F225 and F250 with mechanical remote control.

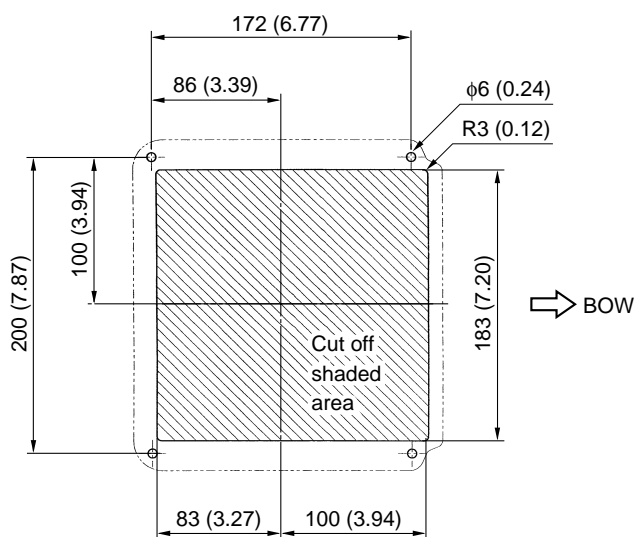
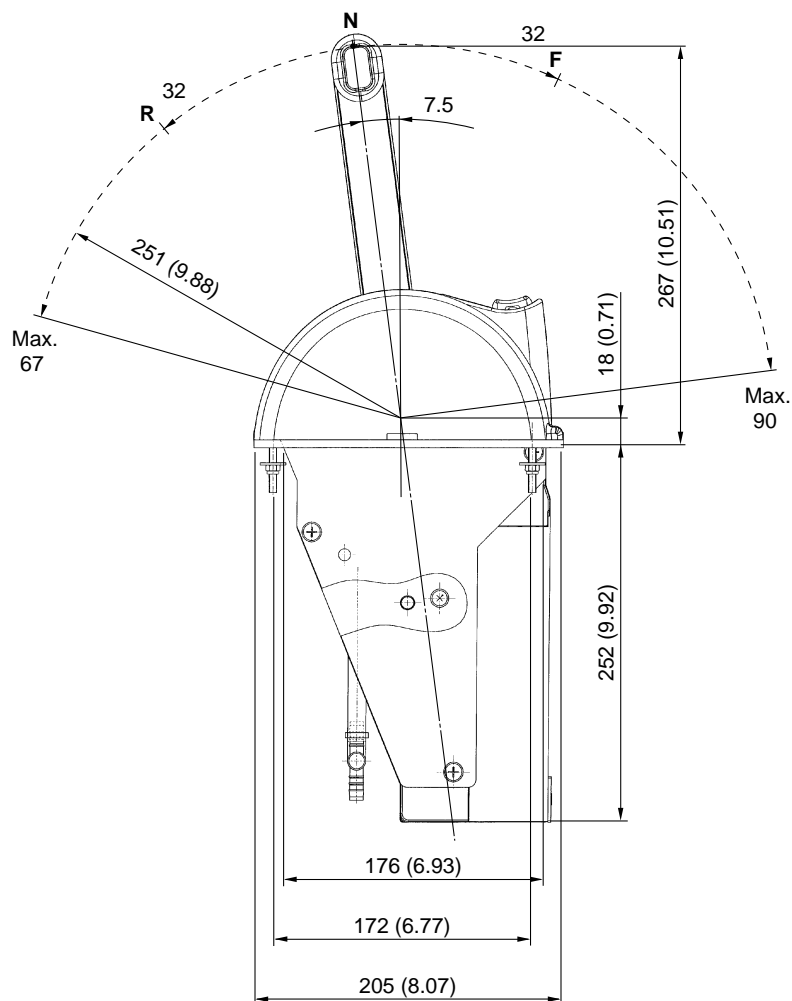
Requires to combine with the genuine triple-switch panel and Digital Network Gauge System (6Y8).



Part No.	Throttle		PT/T	Mount		Remarks
	Push	Pull		R	L	
6X5-48207-01	1		1	1		

- * Yamaha remote control cable, Premier Series, or equivalent cable (Teleflex CC3300) is recommended for 6X5 remote control box.
- * Premier Series is handled by Yamaha Motor Corporation, USA.
- * For further information, see the instruction (P/N: 6X5-28199-P0) supplied with package.

6X5 REMOTE CONTROL DIMENSIONS



* If the mounting board is thinner than 20 mm (0.8 in.), make four 6 mm (0.24 in.) diameter holes and secure the remote control box with the supplied bolts and nuts. If the supplied tapping screws are used, make four 3.5 mm (0.14 in.) diameter holes.

REMOTE CONTROL APPLICATIONS

6X6 BINNACLE MOUNT REMOTE CONTROL [DERC]

Exclusive binnacle remote control unit, which requires no mechanical remote control cables.

The throttle and shift operations are electrically controlled by new Digital Network System, which will obtain smoother remote control operation without cable friction.

Rigging has been simplified, because the mechanical cable installation and adjustment are not required.

These remote control units cover single, twin, triple and quad engine application.

1



2



3



4



Ref. No.	Part No.	Variation code	Engine				Single station	Dual station		Remarks
			Single	Twin	Triple	Quad		Main	2nd	
1	6X6-48205-31	A	1				1			Single station only
	6X6-48205-41	C	1				1	1		
	6X6-48205-51	G	1						1	
2	6X6-48207-31	B		1			1			Single station only
	6X6-48207-41	D		1			1	1		
	6X6-48207-51	H		1					1	
3	6X6-48208-41	F			1		1	1		
	6X6-48208-51	K			1				1	
4	6X6-48209-01	L				1	1	1		w/ PTT SW panel
	6X6-48209-11	M				1			1	w/ PTT SW panel

* For further information, see the instruction which is supplied with the remote control package.

* Quad engine RC is applicable to 2011 and later F/LF350 for US.

REMOTE CONTROL APPLICATIONS

DERC ENGINE SELECTION

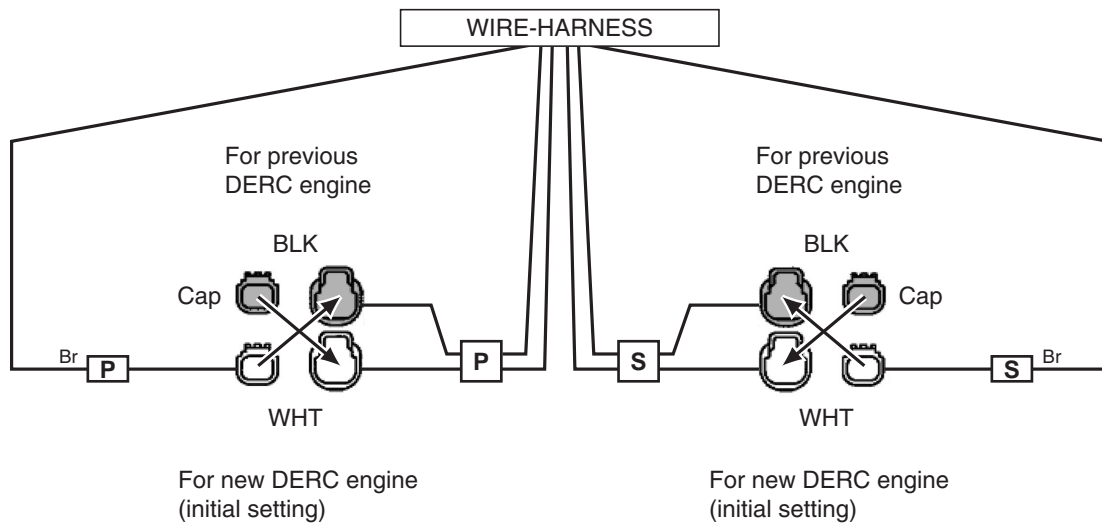
This RC unit accepts all DERC engines.

The initial setting is completed for new DERC engines.

If this RC unit is used for previous DERC engines such as F250B and F300(V8) for 2011 model, follow the procedure below.

1. Remove the black cap.
 2. Disconnect the white coupler, and connect it to the black coupler.
 3. Attach the black cap to the white coupler for waterproofing.
- * If the re-setting is wrong, the engine will not start.
 - * The RC unit with variation code [A] is not required for setting to select the engine.

Example: twin engine

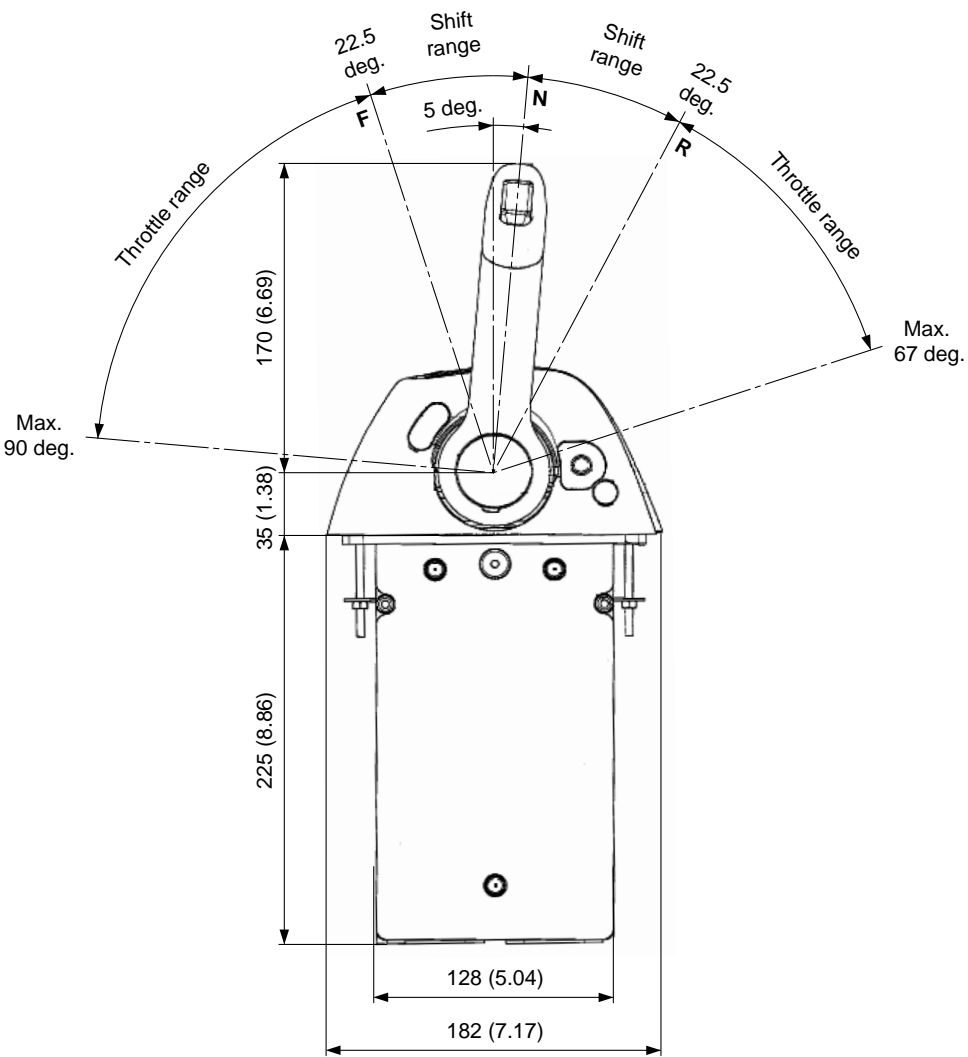


REMOTE CONTROL APPLICATIONS

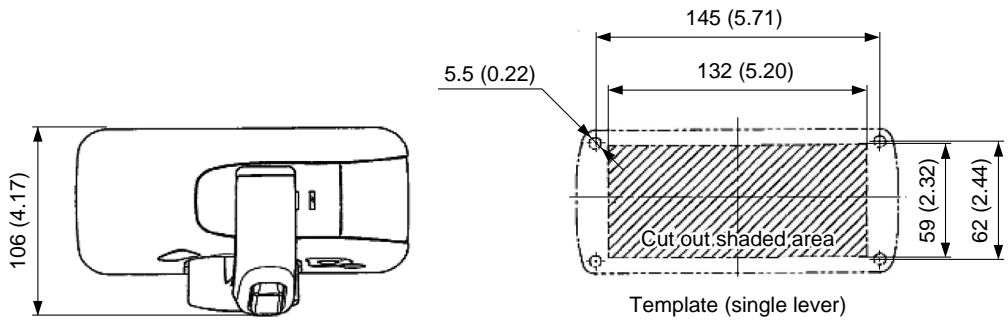
6X6 REMOTE CONTROL DIMENSIONS

The side view is the same among all remote control unit variation.

mm (in.)



Single engine

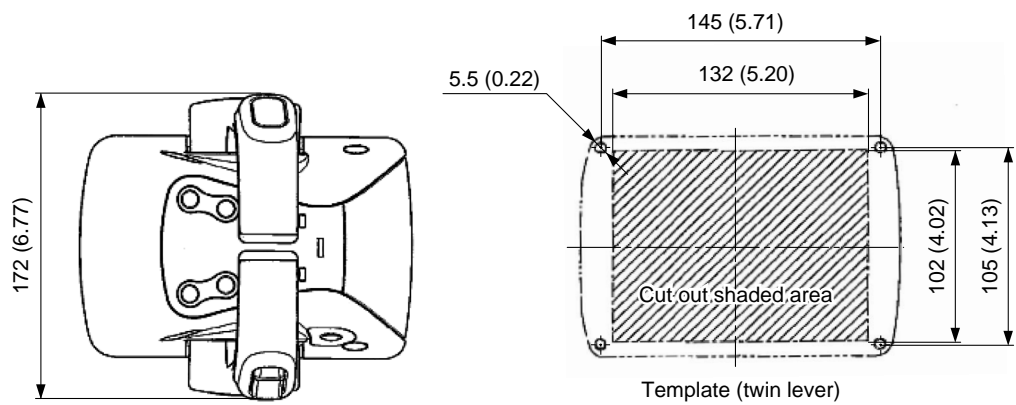


To be continued.

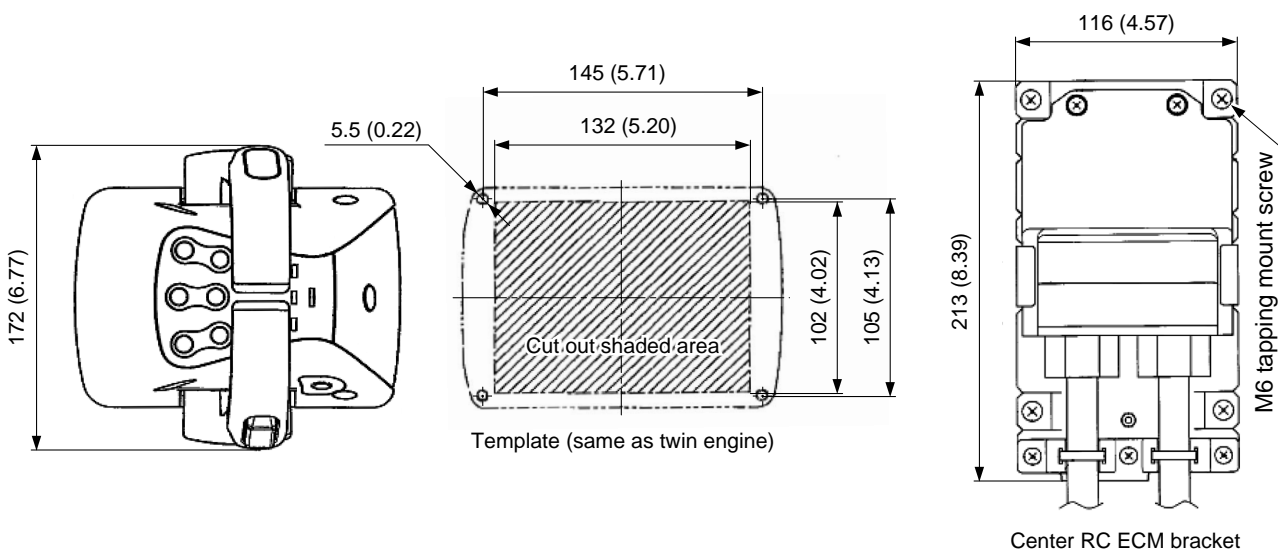
REMOTE CONTROL APPLICATIONS

Twin-engine

mm (in.)



Triple-engine

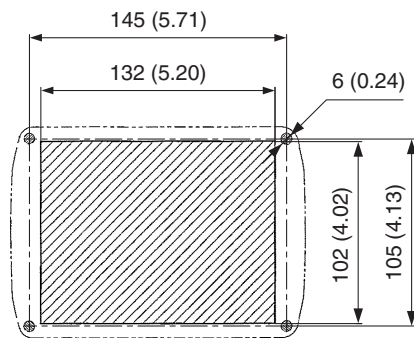
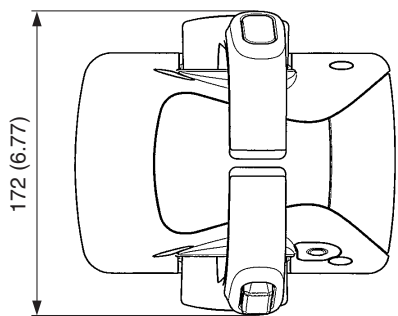


To be continued.

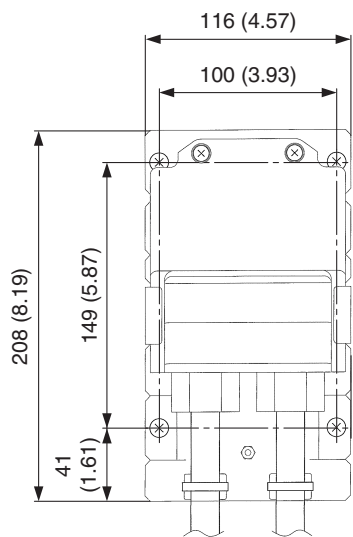
REMOTE CONTROL APPLICATIONS

Quad-engine

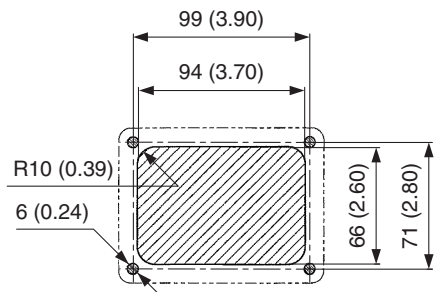
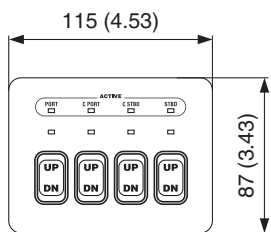
mm (in.)



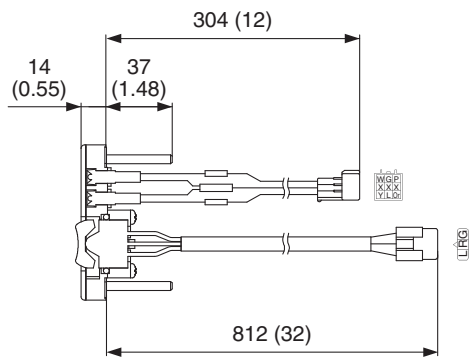
Template for RC unit



ECM for C-PORT/ C-STBD



Template for PTT SW



REMOTE CONTROL APPLICATIONS

6X7 CONCEALED REMOTE CONTROL [DERC]

Exclusive concealed remote control unit, which requires no mechanical remote control cables.

The throttle and shift operations are electrically controlled by new Digital Network System, which will obtain smoother remote control operation without cable friction.

Rigging has been simplified, because the mechanical cable installation and adjustment are not required.



Part No.	Variation code	Engine			Mount		Remarks
		Single	Twin	Triple	R	L	
6X7-48206-10	A	1			1		With emergency shut-off SW

* Ignition switch panel (P/N: 64D-82570-20) is required.

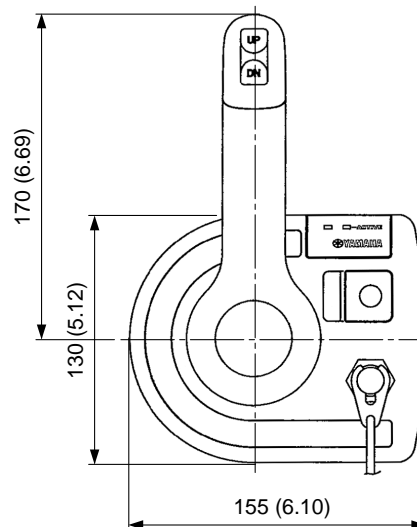
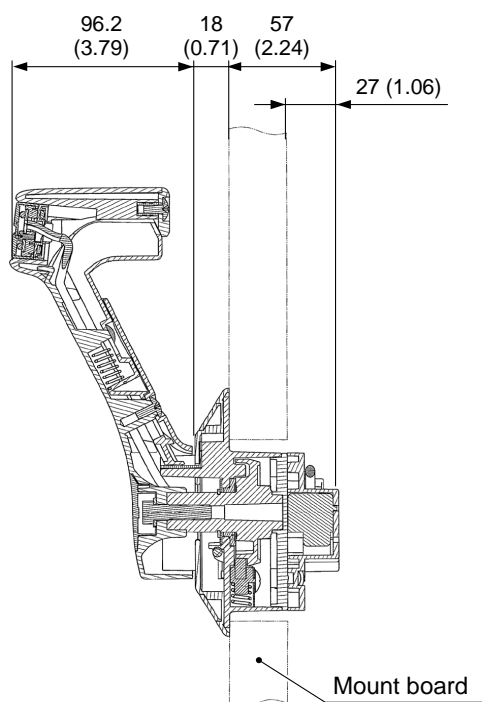
* Dual-station system is not acceptable.

* For further information, see the instruction which is supplied with the remote control unit.

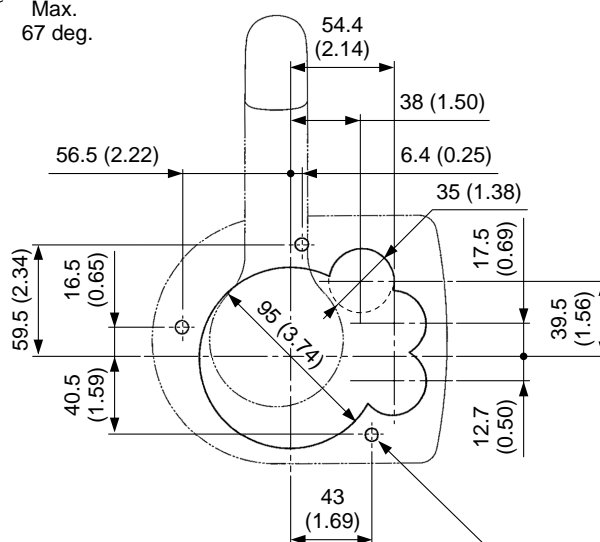
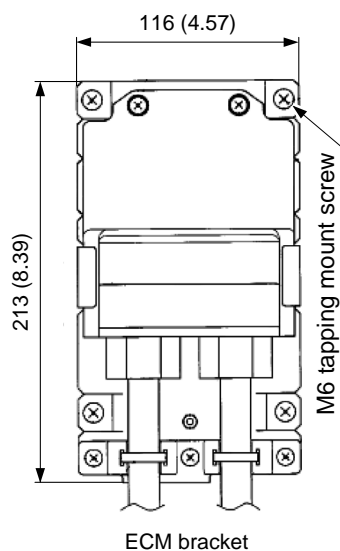
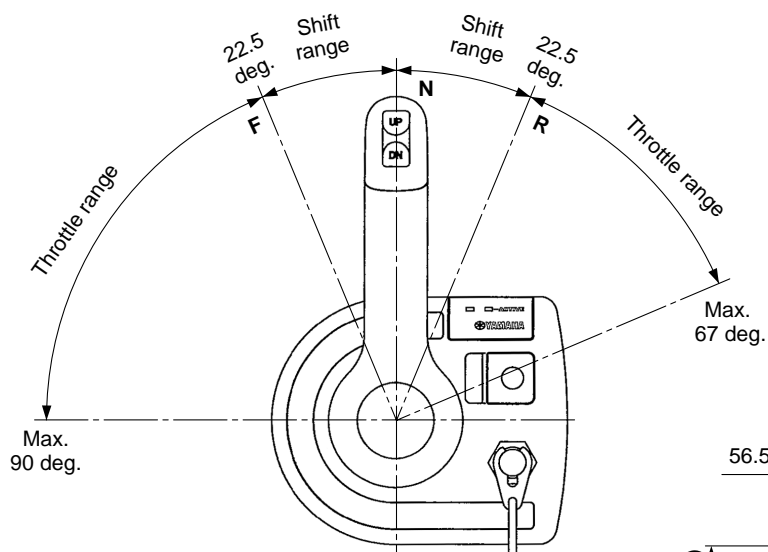
REMOTE CONTROL APPLICATIONS

6X7 REMOTE CONTROL DIMENSIONS

mm (in.)



* Wire-harness length:
approx. 2 m (6.5 ft)



Make three 7 mm (9/32 in) holes for mounting with bolts and nuts.
Drill 4 mm (5/32 in) holes for tapping screws, if the board is thicker
than 20 mm (0.79 in).

Template

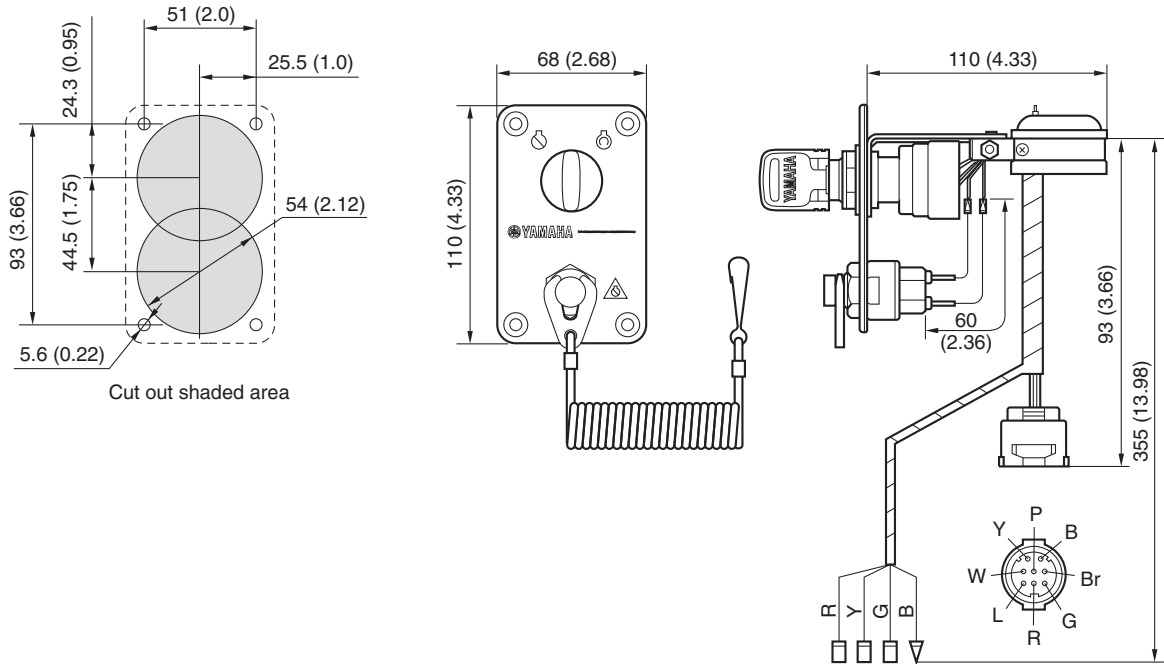
REMOTE SWITCH APPLICATIONS

COMBINATION SWITCH PANEL (IG SWITCH AND EMERGENCY STOP SWITCH)
SINGLE IG SWITCH W/ PANEL

Ref. No.	Part No.	Description
1	704-82570-09	w/ choke SW
	6R5-82570-05	w/o choke SW, For Prime start model or Digital network system (6Y8)
2	6X6-82570-30	For Digital network system (6Y9), Main helm
3	6X6-82570-00	For Digital network system (6Y8), 2nd helm

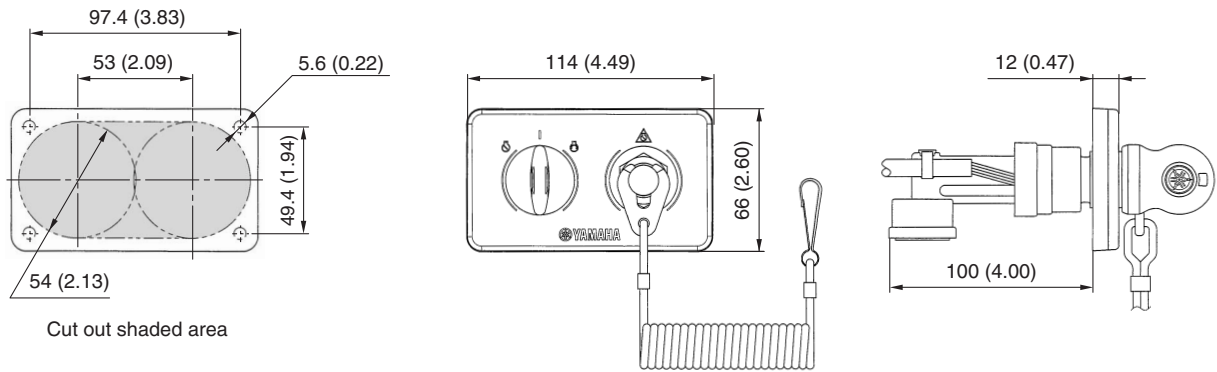
1

mm (in.)



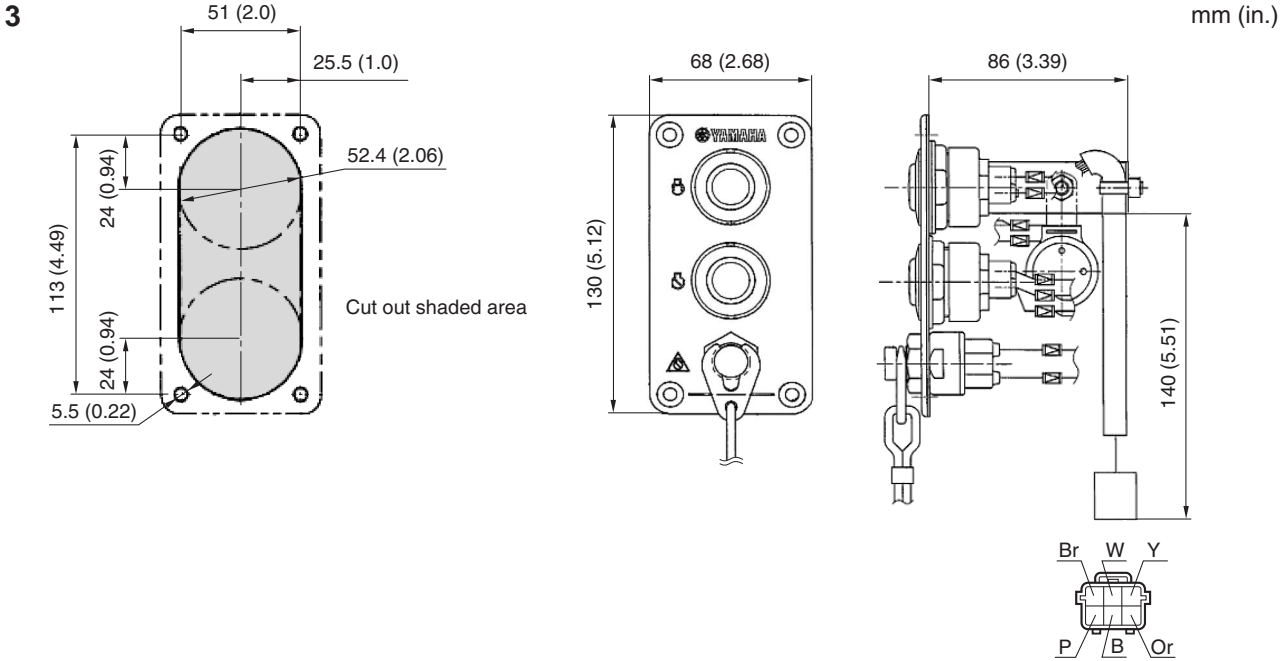
2

mm (in.)



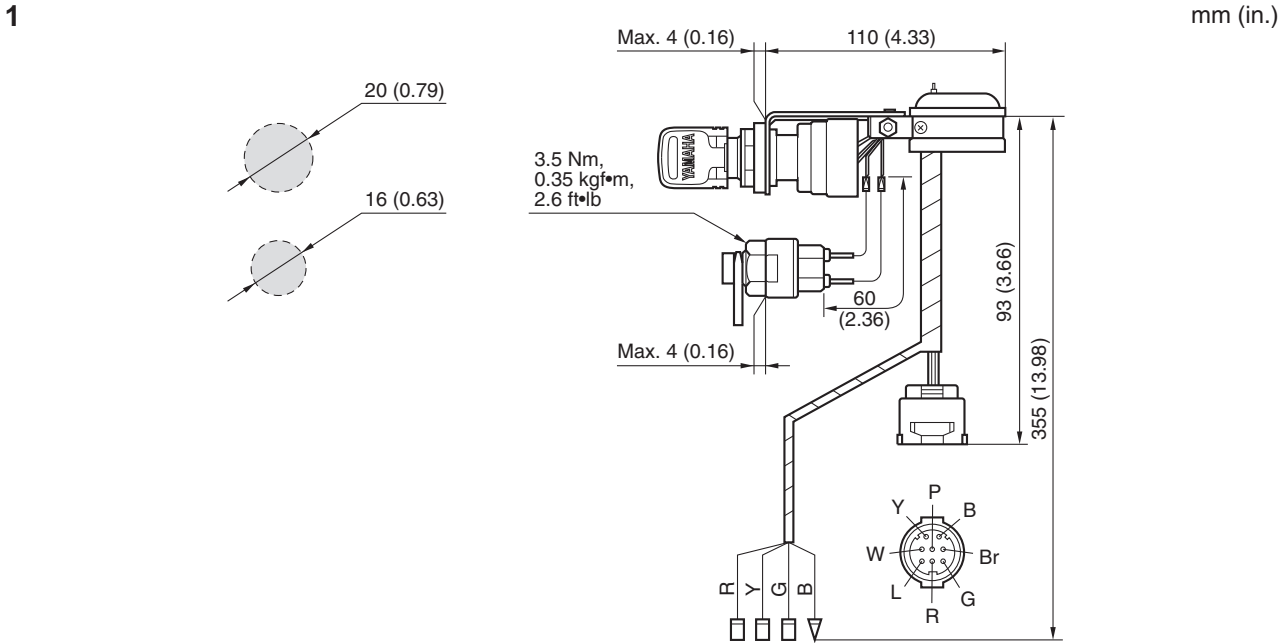
To be continued.

REMOTE SWITCH APPLICATIONS SINGLE IG SWITCH W/ PANEL



SINGLE IG SWITCH W/O PANEL

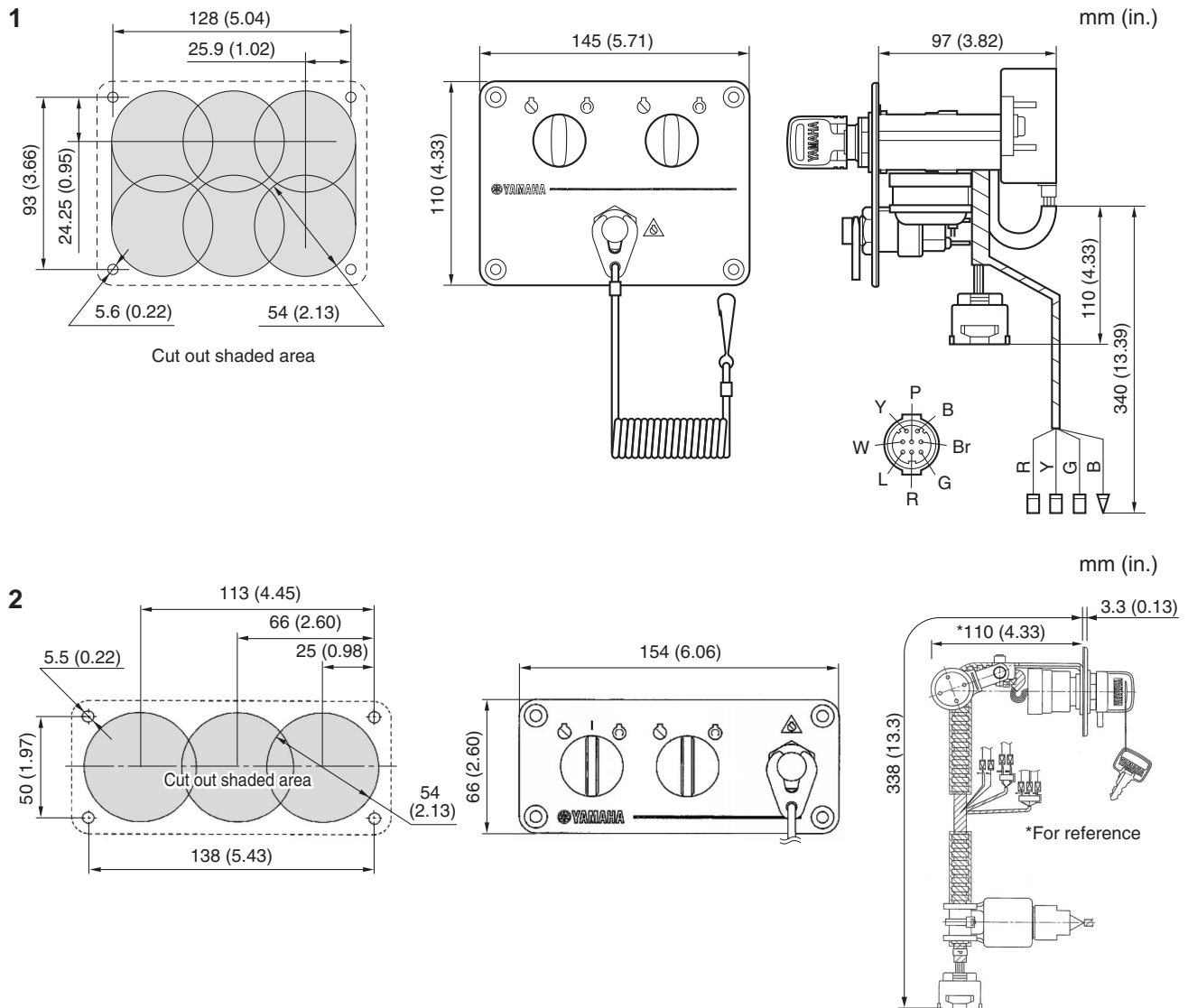
Ref. No.	Part No.	Description
1	704-8257C-00	With choke switch



REMOTE SWITCH APPLICATIONS

TWIN IG SWITCH

Ref. No.	Part No.	Description
1	6K1-82570-08	w/ choke SW
	61B-82570-03	w/o choke SW
2	6Y8-82570-02	For Digital network system (6Y8), Main helm
3	6X6-82570-40	For Digital network system (6Y9), Main helm
4	6X6-82570-10	For 2nd helm (6Y8)
5	6X6-82570-60	For main helm (6Y9), w/o buzzer, Required [No.3]
	6X6-82570-E0	For 2nd helm (6Y9), w/ buzzer

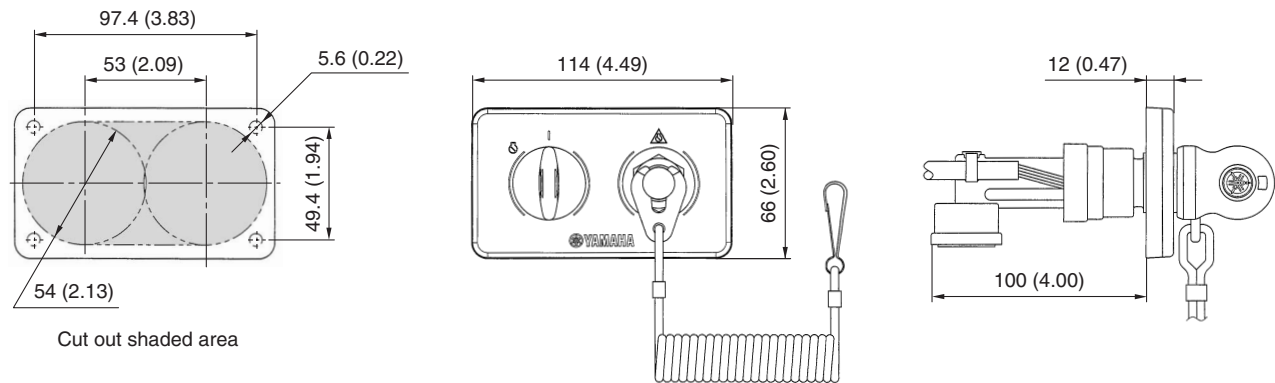


To be continued.

REMOTE SWITCH APPLICATIONS TWIN IG SWITCH

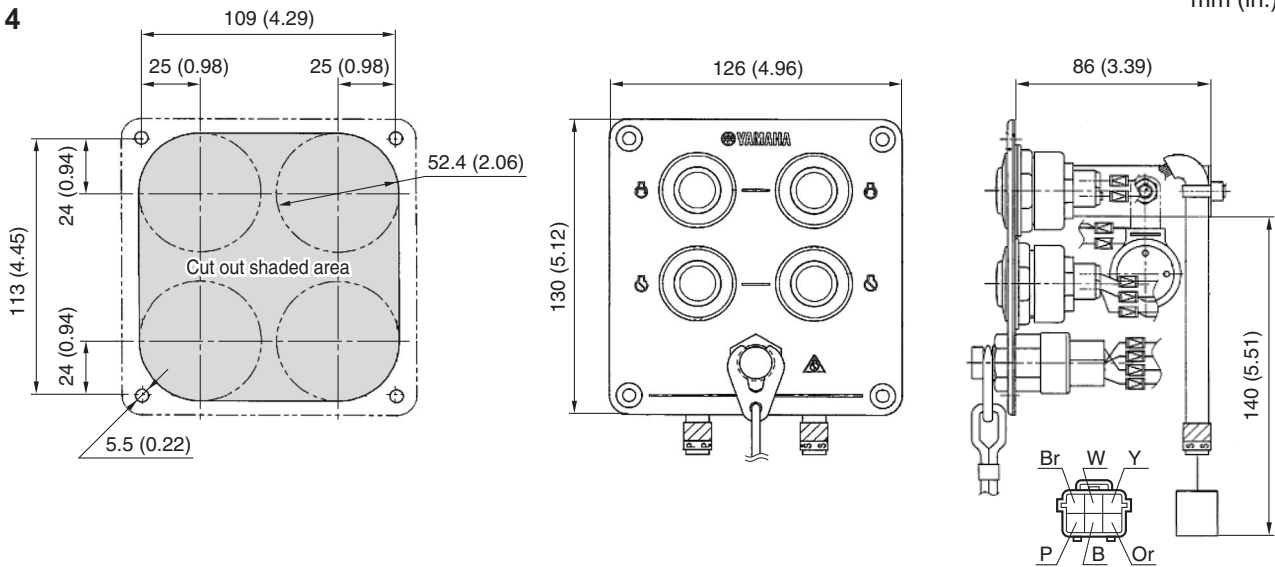
3

mm (in.)



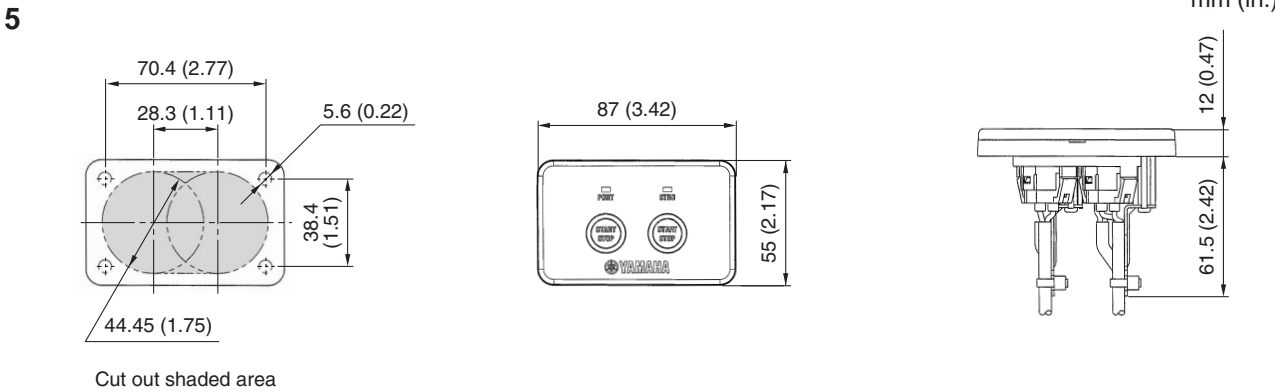
4

mm (in.)



5

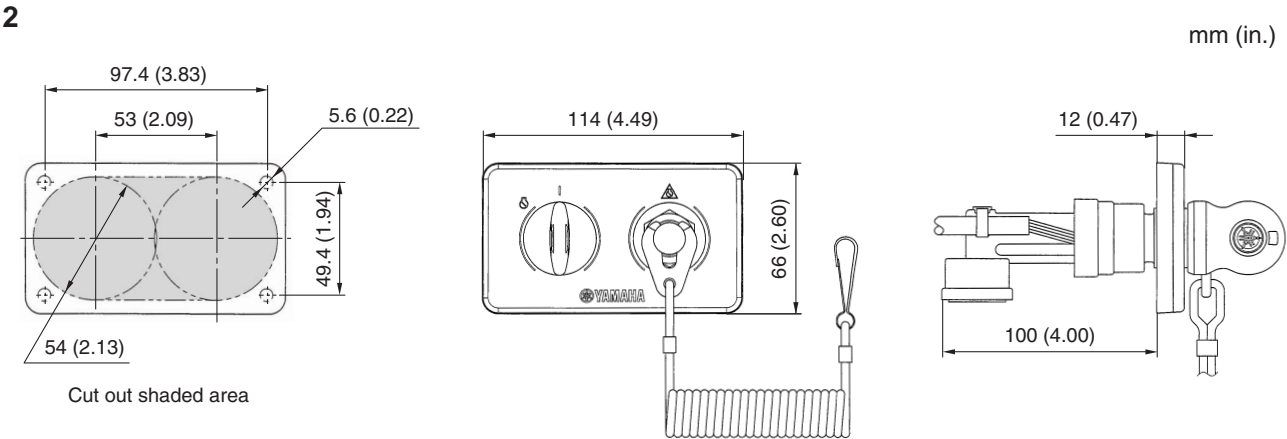
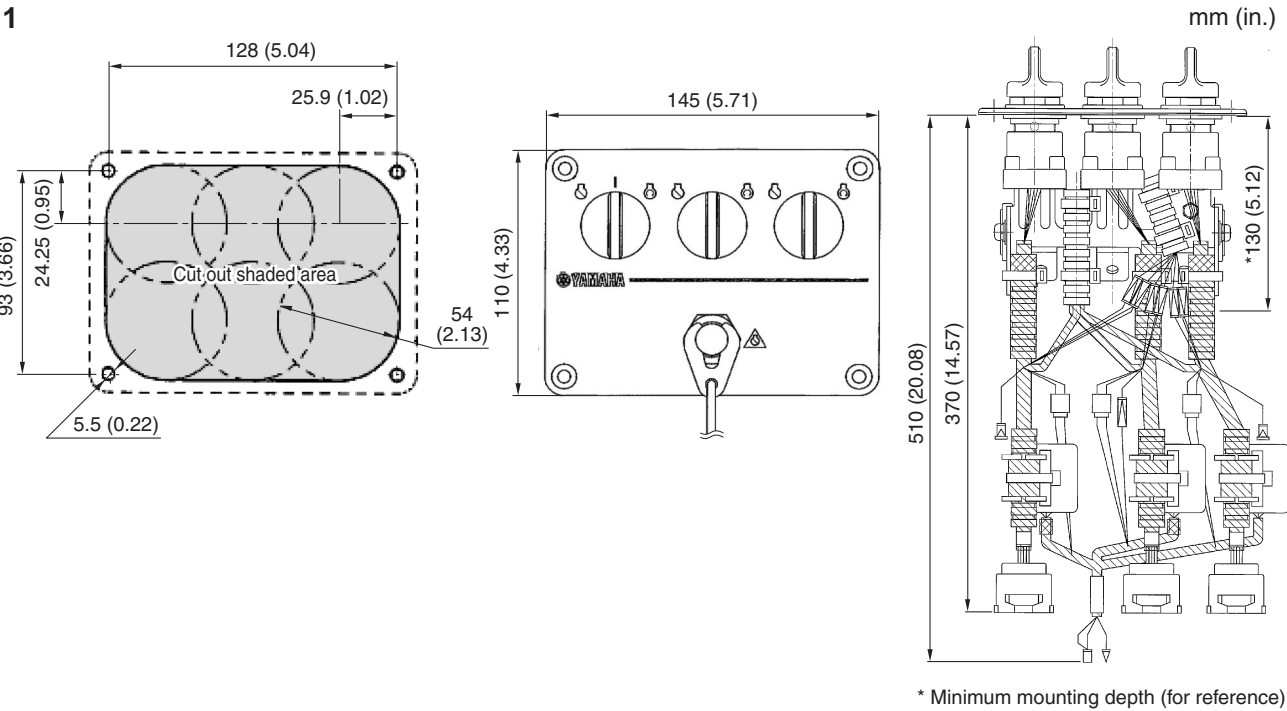
mm (in.)



REMOTE SWITCH APPLICATIONS

TRIPLE IG SWITCH

Ref. No.	Part No.	Description
1	6X5-82570-01	For Digital network system (6Y8), Main helm
2	6X6-82570-50	For Digital network system (6Y9), Main helm
3	6X6-82570-20	For 2nd helm (6Y8)
4	6X6-82570-70	For main helm (6Y9), w/o buzzer, Required [No.2]
	6X6-82570-F0	For 2nd helm (6Y9), w/ buzzer

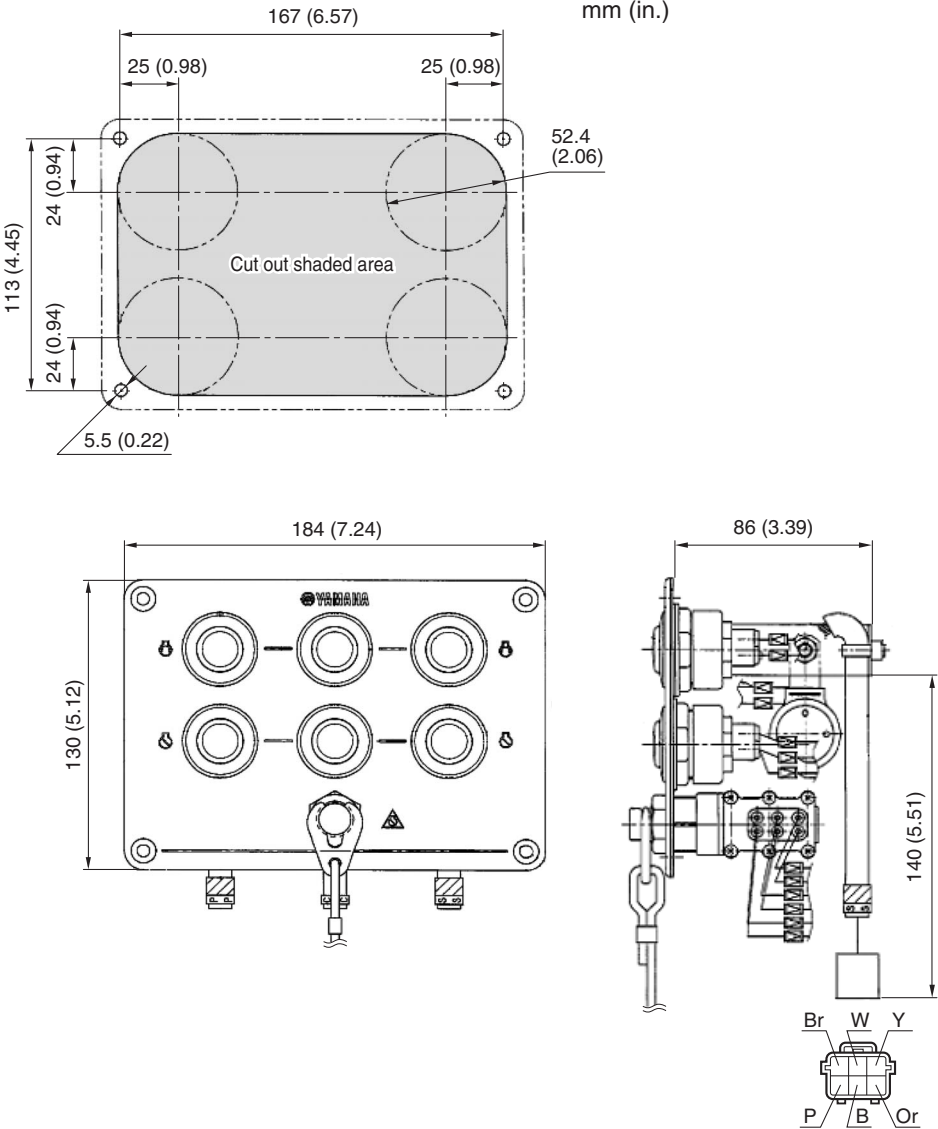


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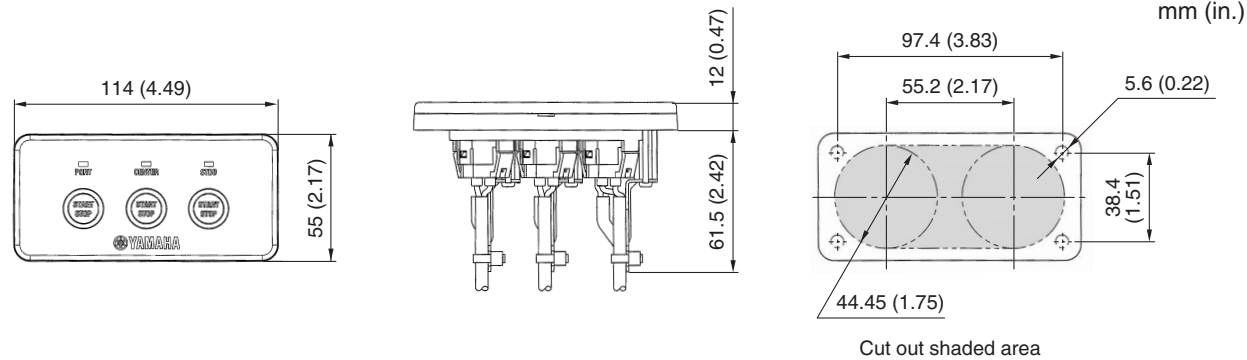
REMOTE SWITCH APPLICATIONS

TRIPLE IG SWITCH

3



4



REMOTE SWITCH APPLICATIONS

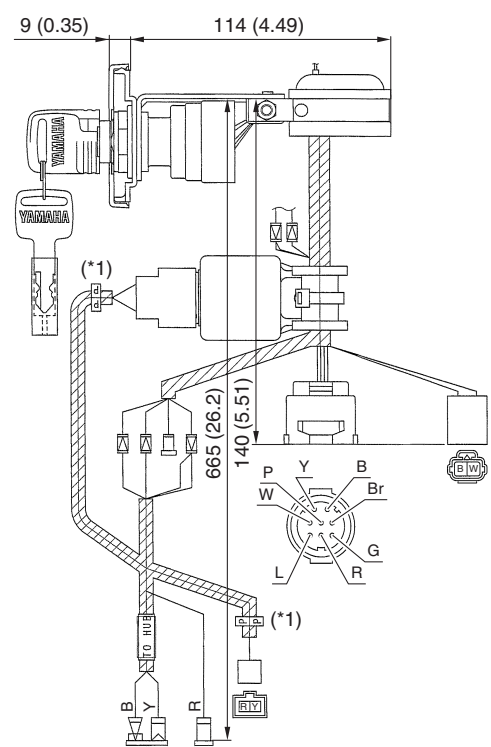
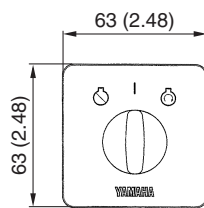
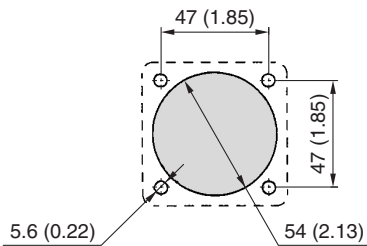
QUAD IG SWITCH

Ref. No.	Part No.	Description
1	6X6-82570-M0	For Digital Network System (6Y9), Main helm, Assembled P, CP, CS and S as below*
	*6X6-82570-R0	For P engine
	*6X6-82570-S0	For CP engine
	*6X6-82570-T0	For CS engine
	*6X6-82570-U0	For S engine
2	6X6-82570-J0	For 2nd helm (6Y9), P/CP engine
	6X6-82570-K0	For 2nd helm (6Y9), CS/S engine

1 P/ CS SW PANEL

EX: P SW panel

mm (in.)

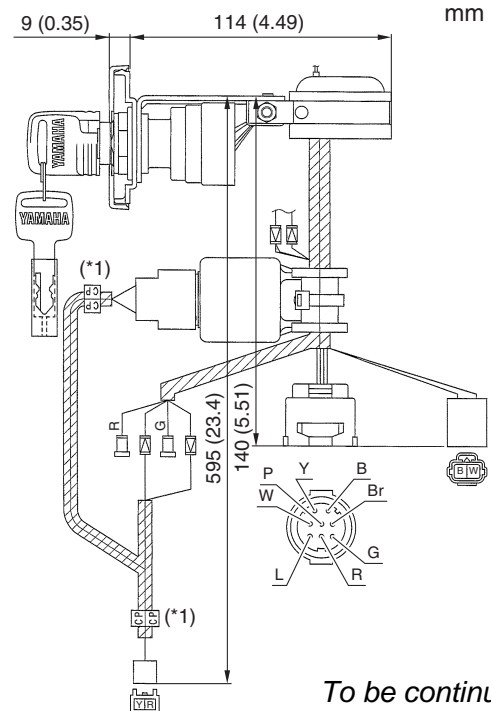
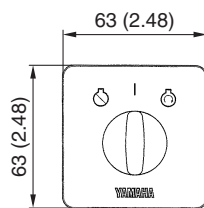
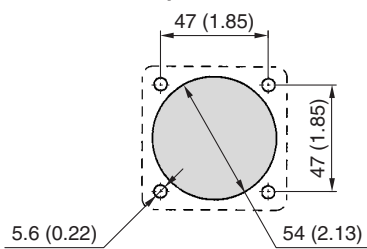


(*1) CS SW panel has **CS** mark.

CP/ S SW PANEL

EX: CP SW panel

mm (in.)



(*1) S SW panel has **S** mark.

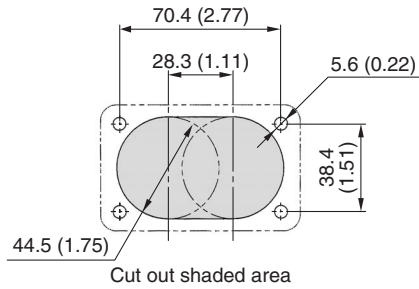
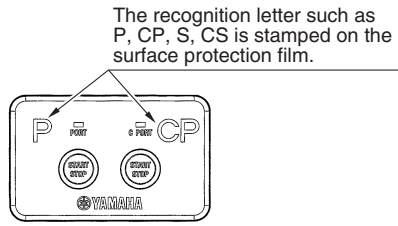
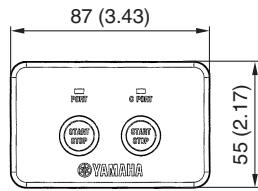
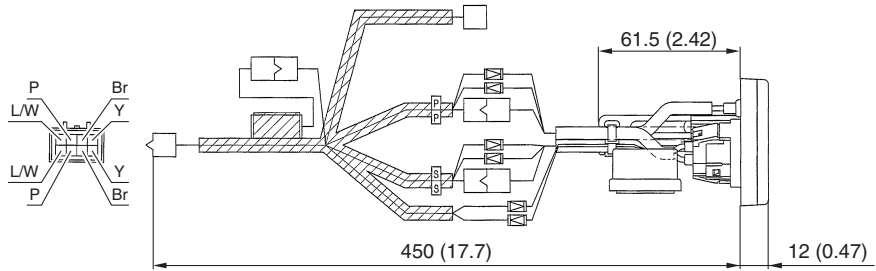
To be continued.

REMOTE SWITCH APPLICATIONS

QUAD IG SWITCH

2 EX: P/CP SW panel

mm (in.)



REMOTE SWITCH APPLICATIONS

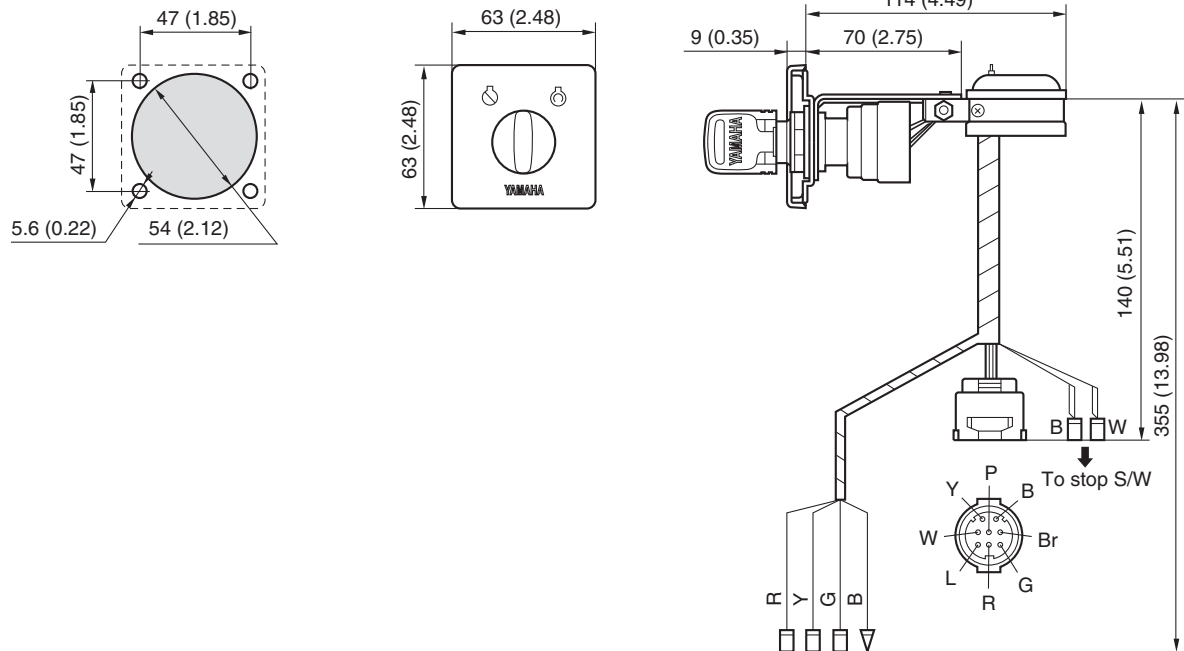
INDEPENDENT SWITCH PANEL

IG SWITCH W/ PANEL

Ref. No.	Part No.	Description
1	64D-82570-03	w/ bullet connectors for emergency stop SW
2	64D-82570-20	w/ 2P coupler for emergency stop SW, For 6X3 & 6X7 RC
3	6X6-82570-80	For Digital network system (6Y9), 2nd helm, Single engine
4	6X6-82570-C0	For Digital network system (6Y9), Multi-application (All engine start)

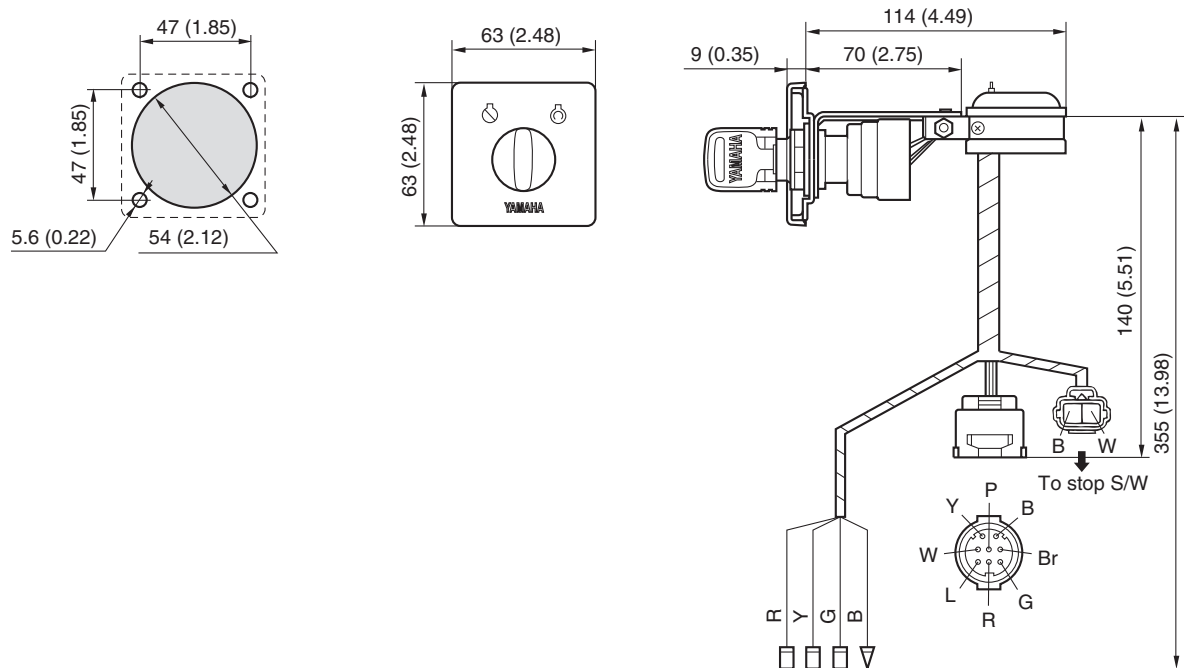
1

mm (in.)



2

mm (in.)

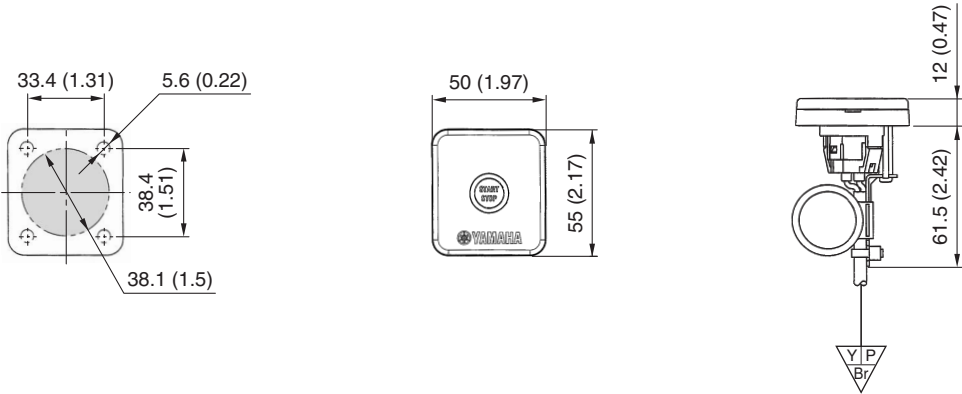


To be continued.

REMOTE SWITCH APPLICATIONS IG SWITCH W/ PANEL

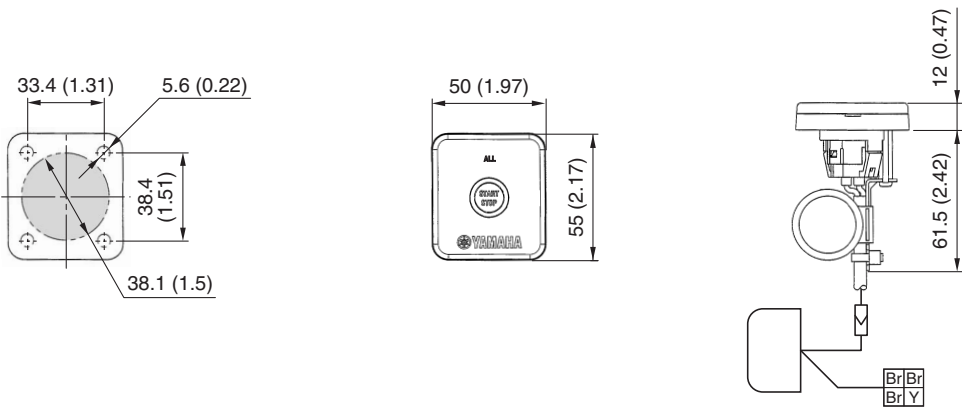
3

mm (in.)



4

mm (in.)



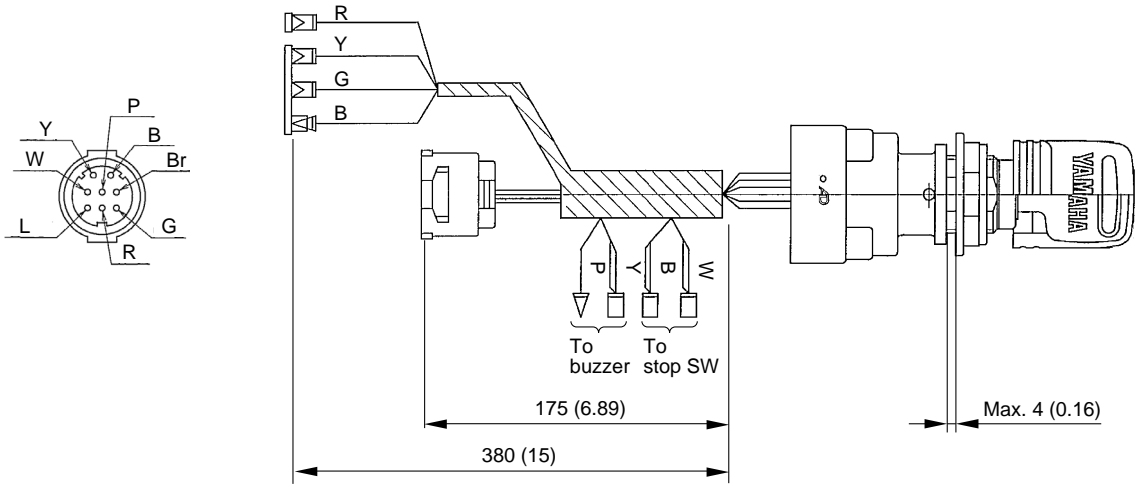
REMOTE SWITCH APPLICATIONS

IG SWITCH W/O PANEL

Ref. No.	Part No.	Description
1	704-82510-07	With bullet connectors for stop switch
2	6X3-8257B-00	With 2-pin coupler for stop switch, For 6X3 and 6X7 RC

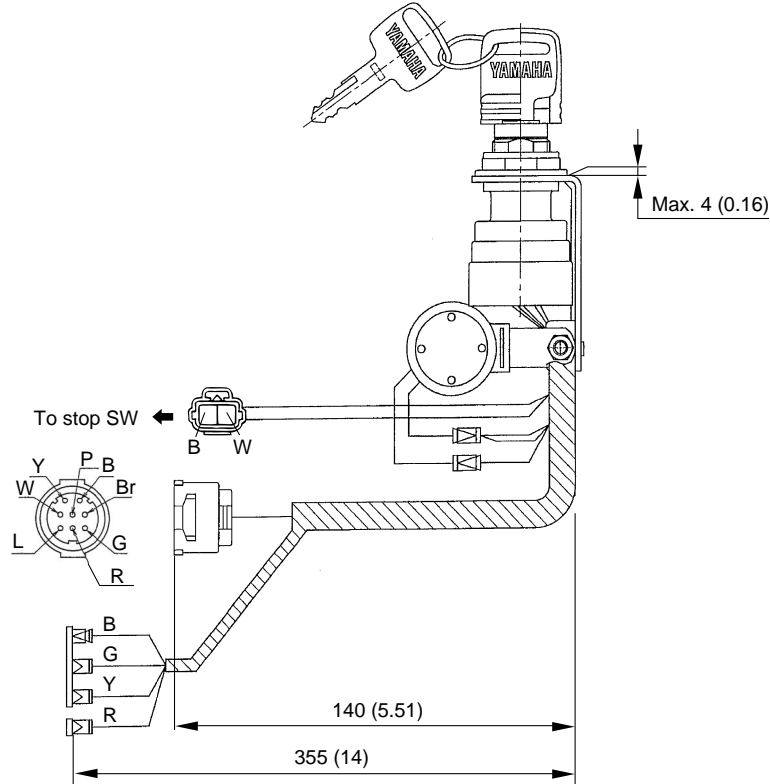
1

mm (in.)



2

mm (in.)

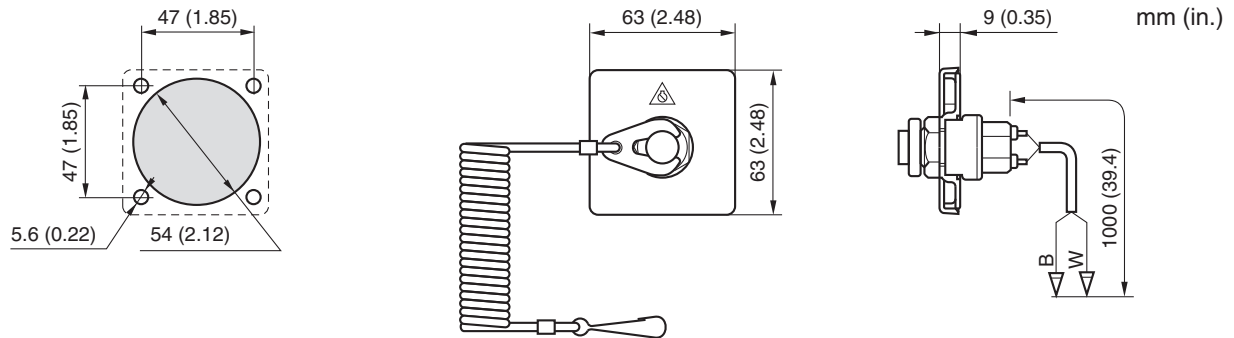


REMOTE SWITCH APPLICATIONS

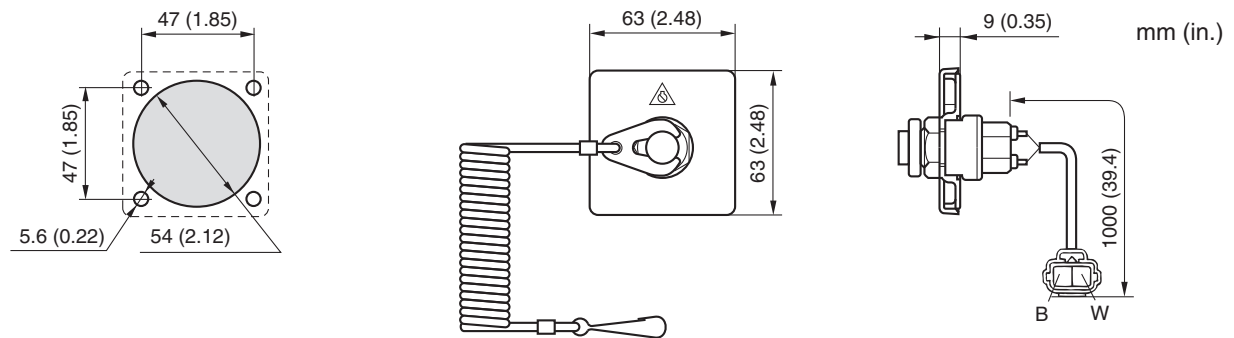
EMERGENCY STOP SWITCH W/ PANEL

Ref. No.	Part No.	Description
1	64D-82570-10	w/ bullet connectors for stop SW
2	64D-82570-30	w/ 2P coupler for stop SW
3	6X6-82570-90	For Digital network system (6Y9), 2nd helm, Single/Twin/Triple engine
4	6X6-82570-V0	For Digital network system (6Y9), Quad engine special

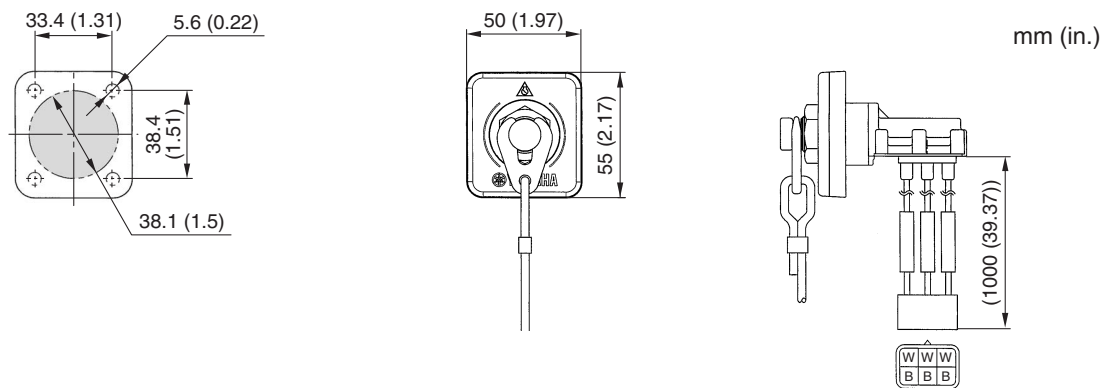
1



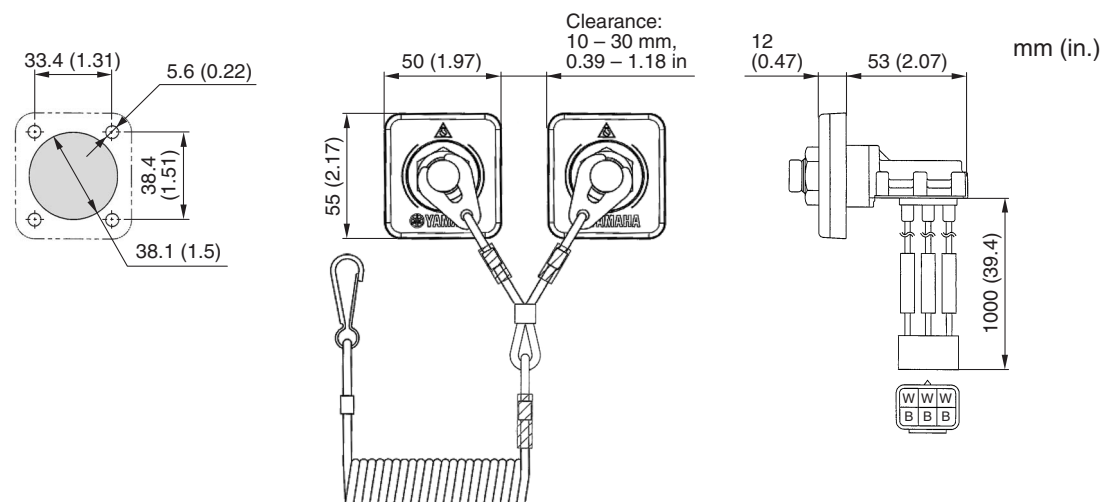
2



3



4

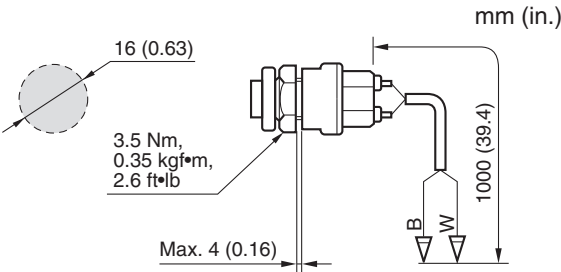


REMOTE SWITCH APPLICATIONS

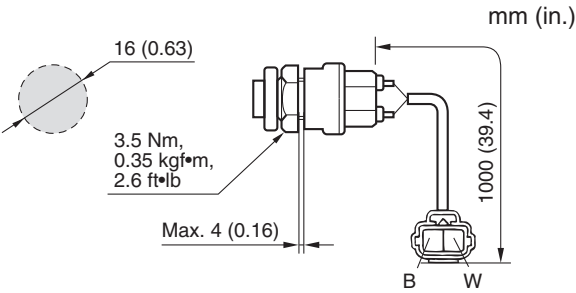
EMERGENCY STOP SWITCH W/O PANEL

Ref. No.	Part No.	Description
1	688-82575-10	With bullet connectors for stop switch
2	64D-82575-10	With 2-pin coupler for stop switch

1



2



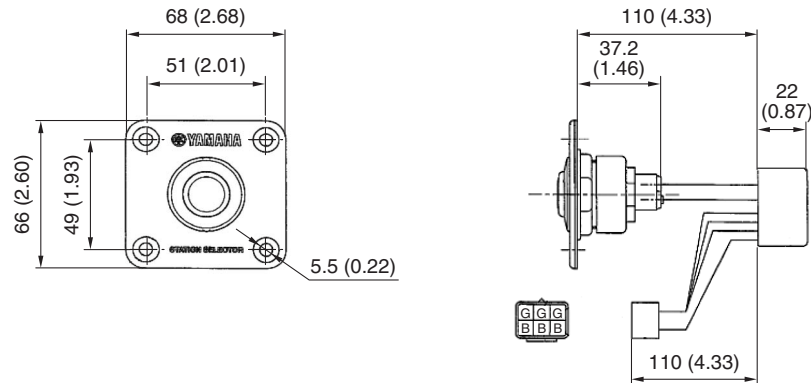
REMOTE SWITCH APPLICATIONS

STATION SELECTOR SWITCH

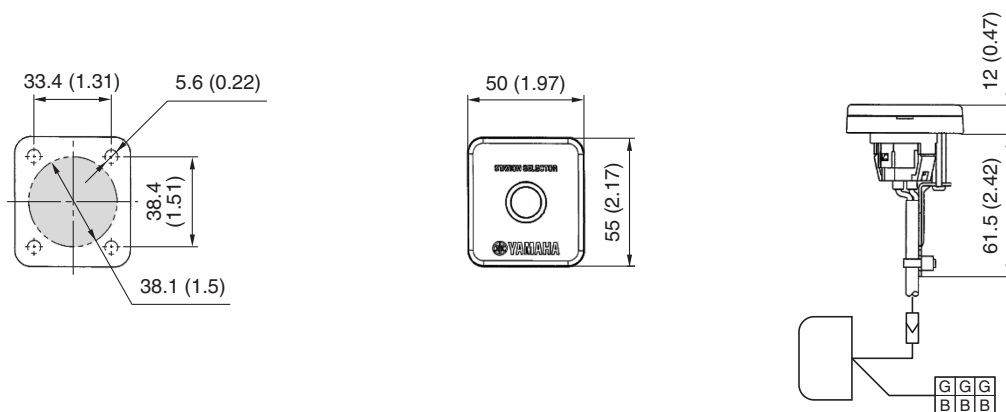
Ref. No.	Part No.	Description
1	6X6-82570-A0	For Digital network system (6Y8), Dual station
2	6X6-82570-B0	For Digital network system (6Y9), Dual station, Single/Twin/Triple engine
3	6X6-82570-L0	For Digital network system (6Y9), Dual station, Quad engine special

1

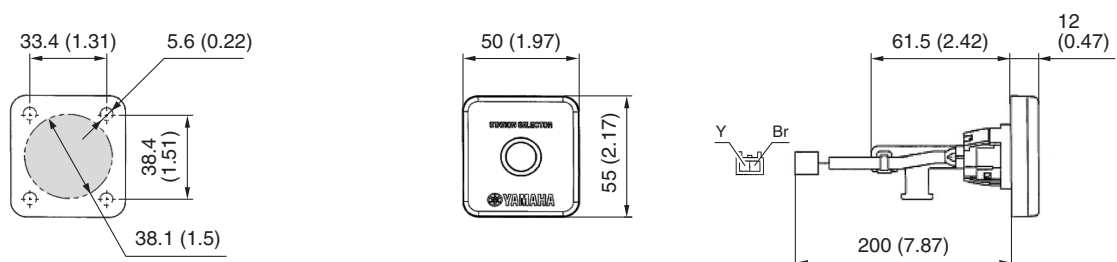
mm (in.)



2



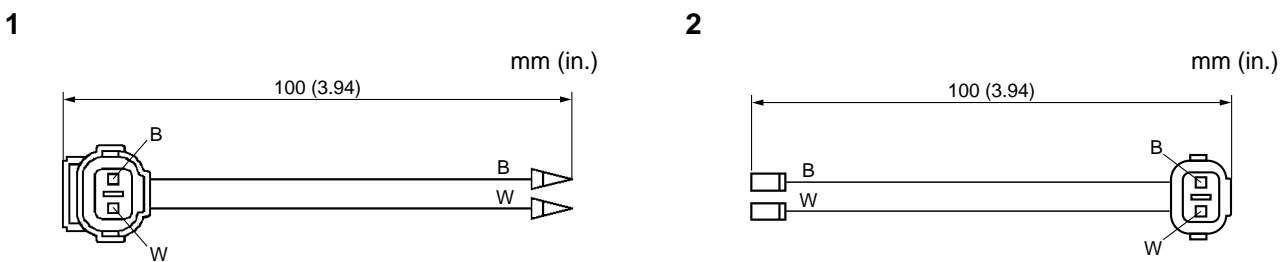
3



REMOTE SWITCH APPLICATIONS

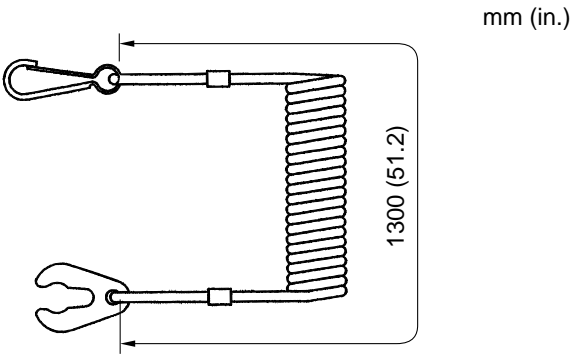
ADAPTER FOR EMERGENCY STOP SWITCH LEAD

Ref. No.	Part No.	Description
1	6X3-81971-00	2-pin coupler - bullet connector
2	6X3-81971-10	Bullet connector - 2-pin coupler



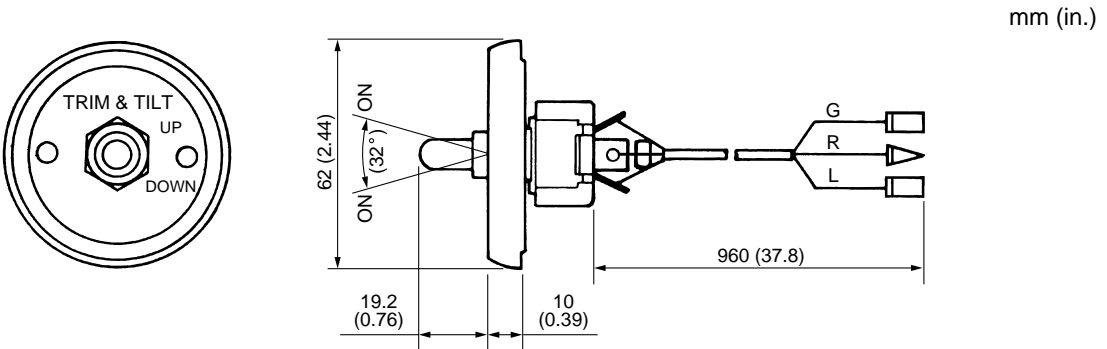
ENGINE SHUT-OFF LANYARD (CORD)

Part No.	Description
682-82556-00	



PT/T SWITCH PANEL

Part No.	Description
688-82563-10	For PT/T models



REMOTE CONTROL CABLES

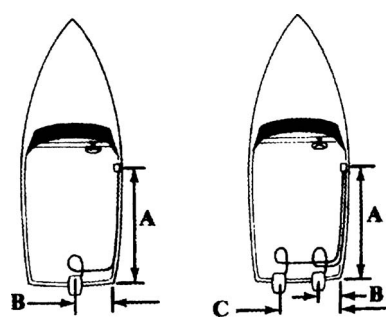
SELECTING THE CABLE LENGTH

Use the following examples as a guide for measurement. Obviously, different boats will require different routing, therefore different lengths are required.

1. Choose a mounting location for the remote control box which will provide comfortable operation and unobstructed movement of the hand lever and control mechanism.

* Minimum clearance below the binnacle control mounting surface for cables is 400 mm (16 in). Also, minimum clearance behind the 703 control box for the control cables is 400 mm (16 in).

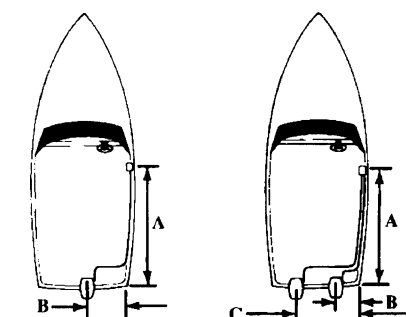
2. Measure from the control box position along an unobstructed path to shift and throttle connections in the motor. The cable lengths are overall length. When a measurement is in feet and inches, specify next whole foot. Add 3 feet for loop (see illustration below).



Cable length = $A + B + 3$ feet
 $A + C + 3$ feet

Obviously, different boats will require different routing, therefore different lengths are required.

For example, a thru-transom boat is shown in the illustration below.



Cable length = $A + B + 1$ foot
 $A + C + 1$ foot

* When the remote control cable has an extended length, the neutral adjustment may be difficult due to increase free play.

REMOTE CONTROL CABLES

APPLICATIONS

Yamaha remote control cables are available in lengths from 6 feet to 27 feet. The cables utilize 10 – 32 threaded ends.

Part No.	RC cable length	
	Feet	Meters
701-48310-10	6	1.8
701-48310-20	7	2.1
701-48310-40	8	2.4
701-48310-60	9	2.7
701-48310-80	10	3.0
701-48310-90	11	3.4
701-48320-00	12	3.7
701-48320-20	13	4.0
701-48320-30	14	4.3
701-48320-50	15	4.6
701-48320-60	16	4.9
701-48320-80	17	5.2
701-48320-90	18	5.5
701-48320-40	19	5.8
701-48320-70	20	6.1
701-48350-00	21	6.4
701-48350-10	22	6.7
701-48350-20	23	7.0
701-48350-30	24	7.3
701-48350-40	25	7.6
701-48350-50	26	7.9
701-48350-60	27	8.2

* If Yamaha remote control cable is not available, a Teleflex Morse CC3300 (BLK)/33C (RED) type cable is recommended.

REMOTE CONTROL CABLES

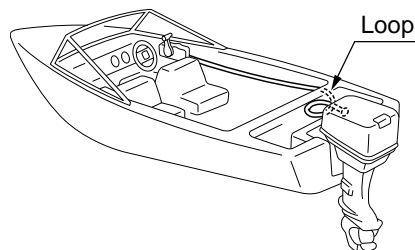
ROUTING THE REMOTE CONTROL CABLES

⚠ WARNING

Do not bend the remote control cable to the radius of 300 mm (1 foot) or smaller. Additional friction will impair the control ability.

1. Route the cable along an unobstructed path of the hull from the remote control box to the engine.
2. Take 3 feet (approximately 1 m) of cable to make a loop in the motor well. This is to prevent the cables from hard bend when the outboard motor is fully tilted up and steered. See the illustration below for a typical cable routing.

* Refer to the instruction manual packed in the remote control box for the installation and routing of the remote control cable.



REMOTE CONTROL THROTTLE CABLE FREE-PLAY ADJUSTMENT

The mechanical remote control cable free-play adjustment is required for proper remote throttle control operation.

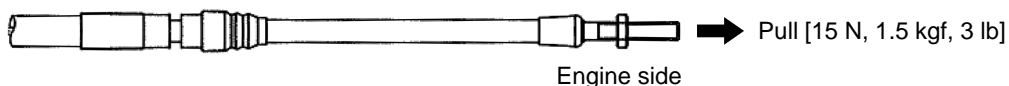
For the first, install the remote control cables to the remote control box, and put the remote control lever into the neutral/ idle position.

* For detail procedure to install the remote control cables to the remote control box, see the instruction which is supplied with the remote control unit, or applicable service literature.

Adjust the inner cable free-play as follows;

PUSH-TO-OPEN TYPE

1. Pull out the inner cable by the force of 15 N (1.5 kgf, 3 lb) to remove the cable free-play.
2. Set the throttle valve control arm to contact onto its stop plate.
3. Install the cable joint, and adjust it to align with the pin of throttle arm.
4. Connect the joint securely to the pin.
5. Check the throttle for proper operation.



PULL-TO-OPEN TYPE

1. Push in the inner cable by the force of 15 N (1.5 kgf, 3 lb) to remove the cable free-play.
2. Set the throttle valve control arm to the fully closed (idle) position.
3. Install the cable joint, and adjust it to align with the pin of throttle arm.
4. Connect the joint securely to the pin.
5. Check the throttle for proper operation.



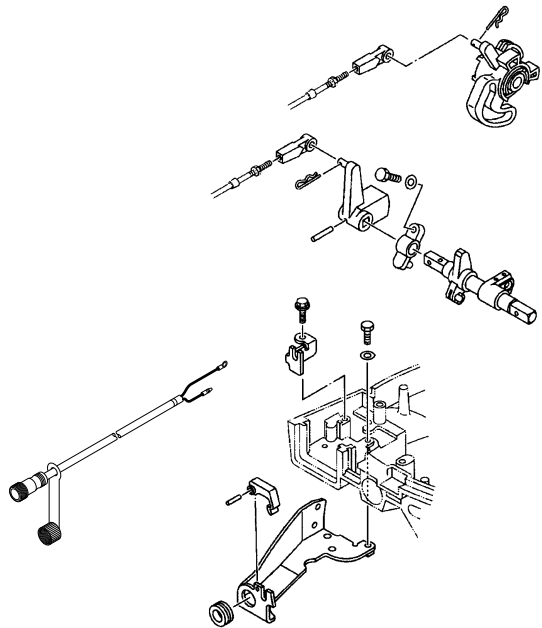
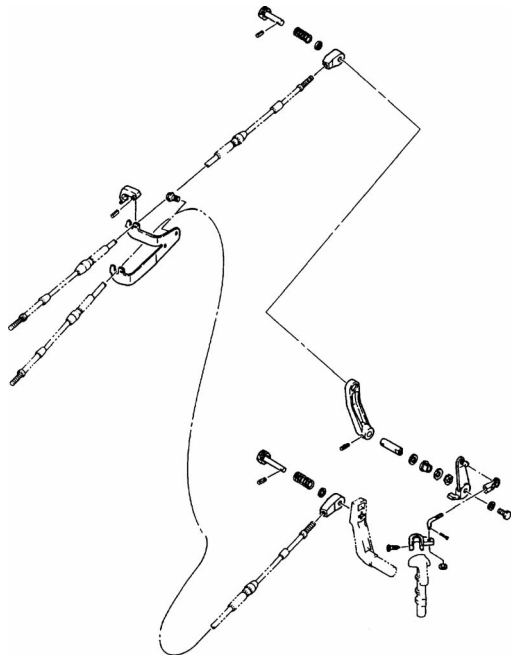
REMOTE CONTROL ATTACHMENT KIT

If the specified tightening torque for the bolts and nuts is not mentioned in the figure, use standard torque as follows.

General torque table			
Bolt size	N•m	kgf•m	lb•ft
M5	5	0.5	4
M6	8	0.8	6
M8	18	1.8	13

Part No.	6G1-48501-50				
Global model	6C	8C			
US model					
Canada model	6	8			

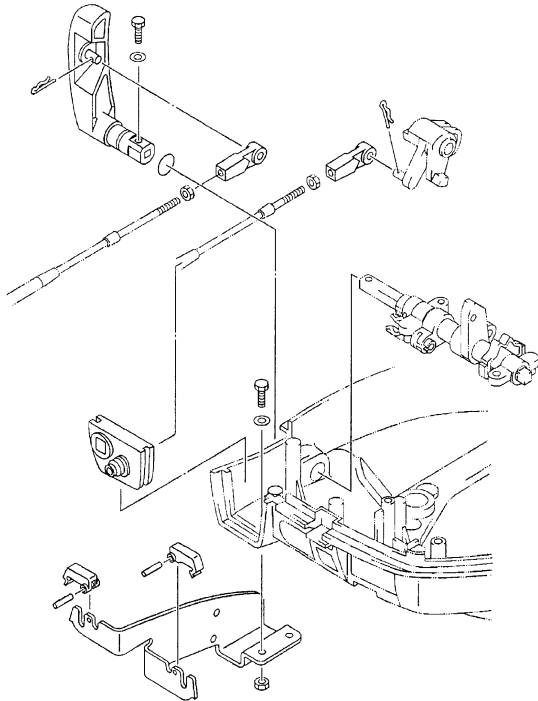
Part No.	6AH-48501-00				
Global model	F9.9H	F15C	F20B	F20C	
US model		F15A	F20A		
Canada model		F15A	F20A		



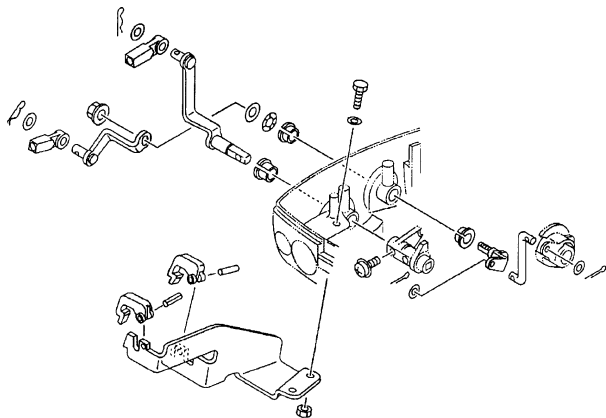
To be continued.

REMOTE CONTROL ATTACHMENT KIT

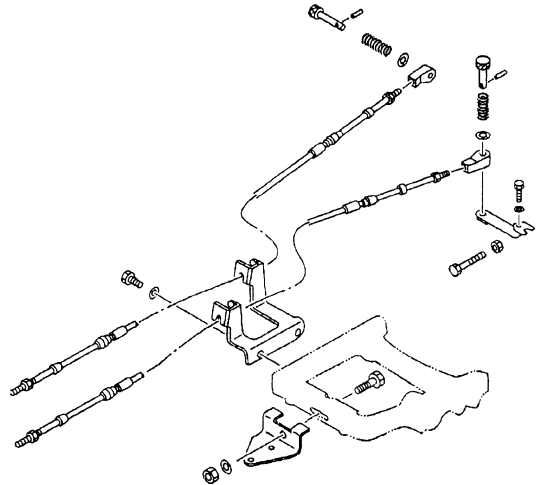
Part No.	60R-G8501-00				
Global model	F8C	FT8D	F9.9F	FT9.9G	
US model	F8A		F9.9A	T9.9A	
Canada model	F8A	T8A	F9.9A	T9.9A	



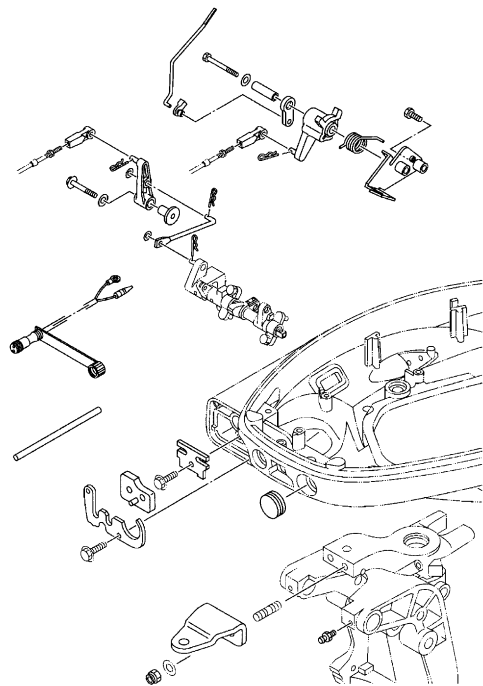
Part No.	63V-48501-00				
Global model	9.9F	15F			
US model					
Canada model	9.9	15			



Part No.	655-48501-10				
Global model	E8D	EK8D			
US model					
Canada model					
For ball post					



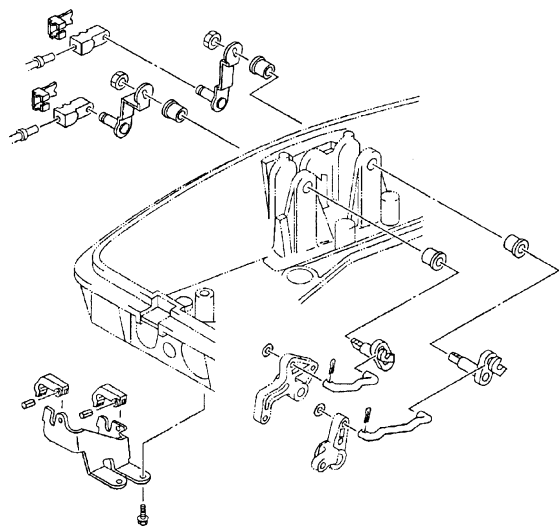
Part No.	6BL-48501-00				
Global model	F25D				
US model	F25A				
Canada model	F25A				



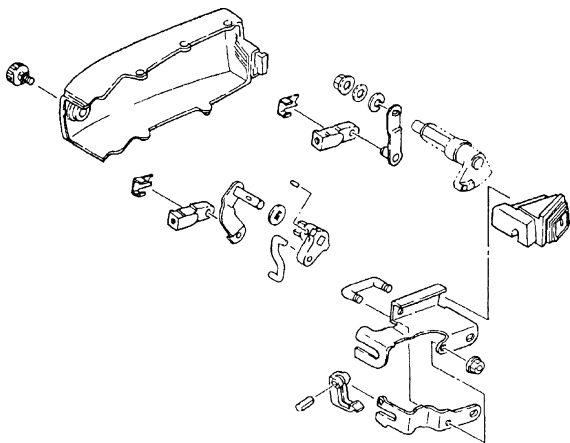
To be continued.

REMOTE CONTROL ATTACHMENT KIT

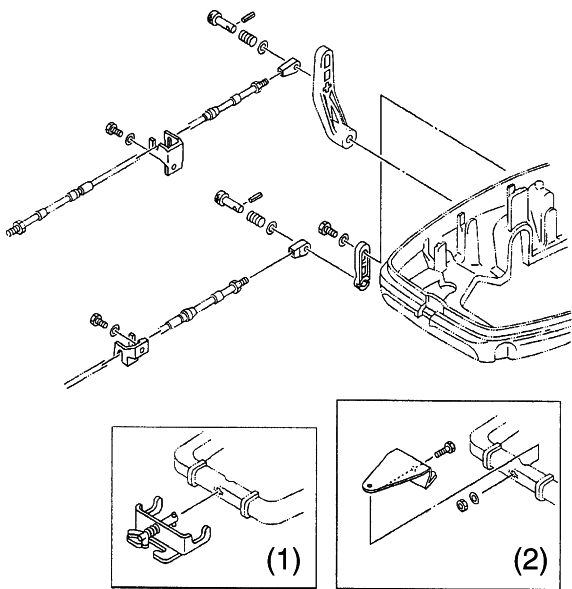
Part No.	6L2-48501-11				
Global model	20D	25N			
US model					
Canada model	20	25			



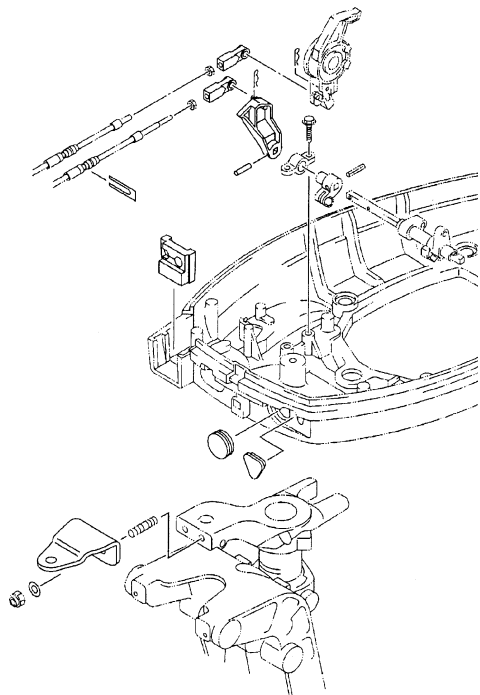
Part No.	6J8-48501-03				
Global model	30D				
US model					
Canada model					



Part No.	689-48501-01-4D (Ref.1)				
Part No.	689-48501-21-4D (Ref.2)				
Global model	E/25B	25X	E/30H		
US model					
Canada model					
Ref.1 for rope, Ref.2 for ball post/ STR guide					

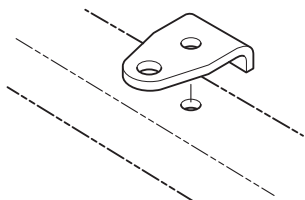


Part No.	66T-48501-01				
Global model	E/40X				
US model					
Canada model					

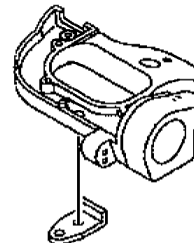


STEERING HOOK

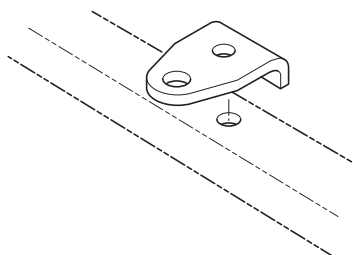
Part No.	69G-48511-20				
Global model	FT8D				
US model					
Canada model	T8A				
For STR guide					



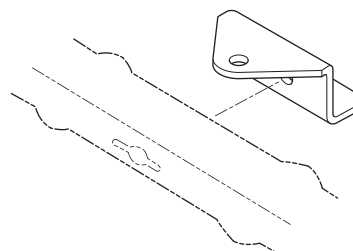
Part No.	6AH-48511-00				
Global model	F9.9H	F15C	F20B	F20C	
US model		F15A	F20A		
Canada model		F15A	F20A		
For STR guide					



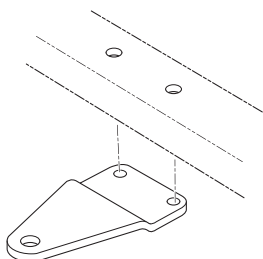
Part No.	63V-48511-01				
Global model	F8C	FT8D	9.9F	15F	
US model	F8A				
Canada model	F8A	T8A	9.9	15	
For STR guide					



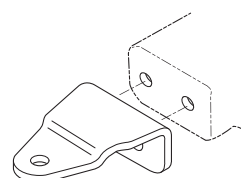
Part No.	6L2-48511-00				
Global model	20D	25N			
US model					
Canada model	20	25			
For STR guide					



Part No.	6G8-48511-10				
Global model	9.9F	15F	30D		
US model					
Canada model	9.9	15			
For ball post					



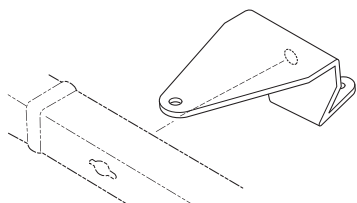
Part No.	65W-48511-00				
Global model	F20D	F25D	FT25F	F30B	F40F
US model		F25A	T25A		F40A
Canada model		F25A	T25A	F30A	F40A
Global model	F40D	F50F	FT50G	F60C	FT60D
US model		F50	T50	F60	T60
Canada model		F50A	T50A	F60A	T60A
Global model	F70A	F40G	E/40X		
US model	F70A				
Canada model	F70A				
For STR guide					



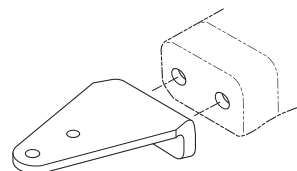
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STEERING HOOK

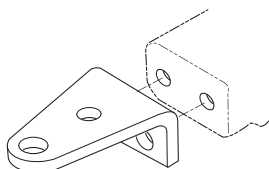
Part No.	676-48511-01				
Global model	E/40J	E40G	EK40J	EK40G	
US model					
Canada model					
For STR guide					



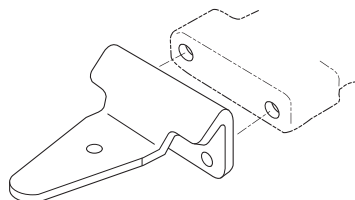
Part No.	688-48511-11				
Global model	75A	85A	75C	90A	
US model					
Canada model				90	
For STR guide					



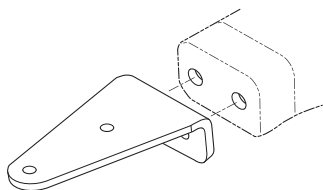
Part No.	63D-48511-00				
Global model	40V	50H	FT50C	F50D	
US model					
Canada model		50			
For STR guide					



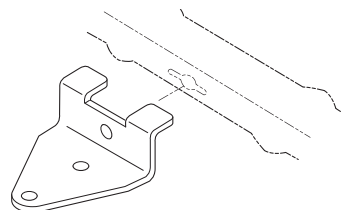
Part No.	68V-48511-00				
Global model	F75C	F80C	F95A	F100B	F115A
US model					F115A
Canada model					F115A
For STR guide					



Part No.	67F-48511-00				
Global model	F75B	F80B	F90B	F100D	
US model	F75		F90		
Canada model	F75A		F90A		
For STR guide					



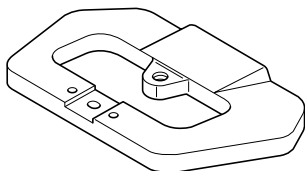
Part No.	676-48511-00				
Global model	6C	8C	E8D	EK8D	
US model					
Canada model	6	8			
For ball post					



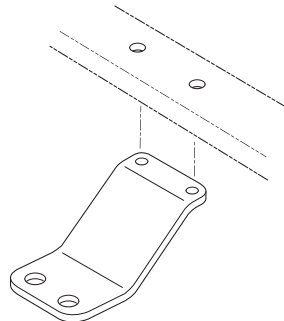
To be continued.

STEERING HOOK

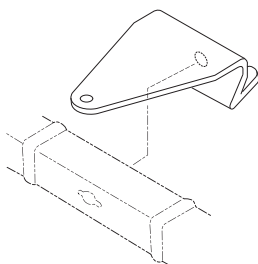
Part No.	6J8-48511-01				
Global model	30D				
US model					
Canada model					
For ball post/ STR guide					



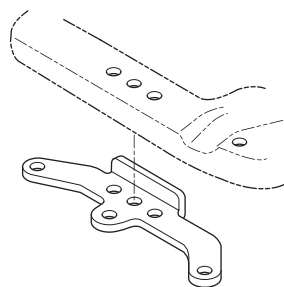
Part No.	6G8-48511-00				
Global model	30D				
US model					
Canada model					
For rope					



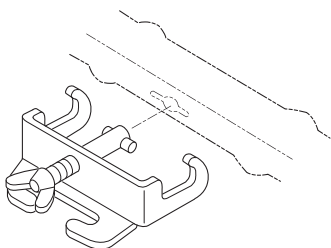
Part No.	689-48511-01				
Global model	E/25B	25X	E/30H		
US model					
Canada model					
For ball post/ STR guide					



Part No.	69G-48511-10				
Global model	FT8D	FT9.9G			
US model		T9.9A			
Canada model	T8A	T9.9A			
For linkage to main engine					



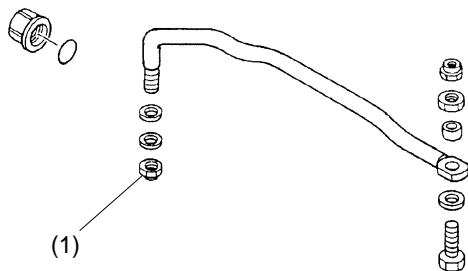
Part No.	700-48511-12				
Global model	6C	8C	E8D	EK8D	E/25B
US model					
Canada model	6	8			
Global model	25X	E/30H			
US model					
Canada model					
For rope					



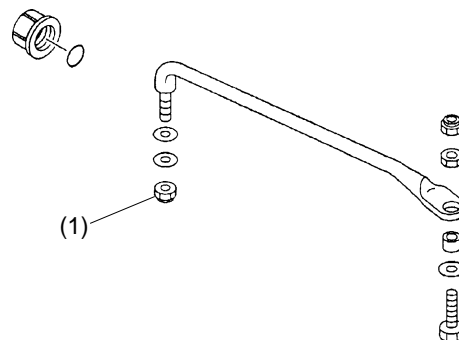
STEERING GUIDE ATTACHMENT KIT

The lock nut (1) for the steering cable joint should loosen 1/4 turns from its seated position. This is to prevent the joint from friction when the outboard motor is steered.

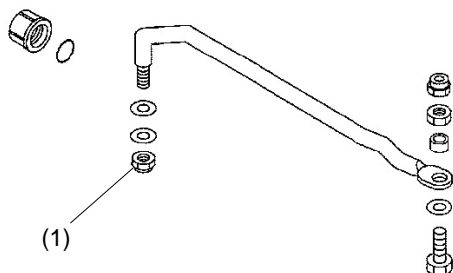
Part No.	63V-61350-00				
Global model	9.9F	15F	E9.9D	E15D	
US model					
Canada model	9.9	15			



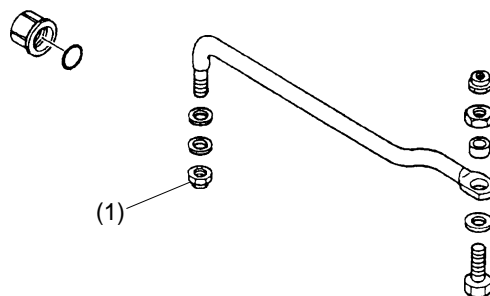
Part No.	689-61350-02				
Global model	E/25B	E/30H	30D	EK/40J	E40G
US model					
Canada model					



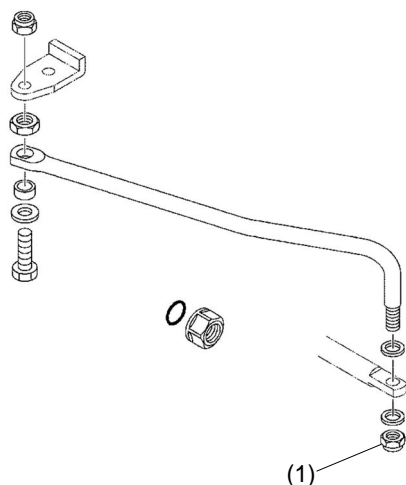
Part No.	68T-61350-10				
Global model	F8C	FT8D	F9.9F	FT9.9G	
US model	F8A		F9.9A	T9.9A	
Canada model	F8A	T8A	F9.9A	T9.9A	



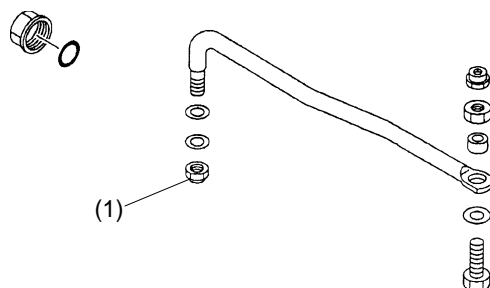
Part No.	63D-61350-00				
Global model	40V	50H	FT50C	F50D	
US model					
Canada model		50			



Part No.	6AH-61350-00				
Global model	F15C	F20B	F20C		
US model	F15A	F20A			
Canada model	F15A	F20A			



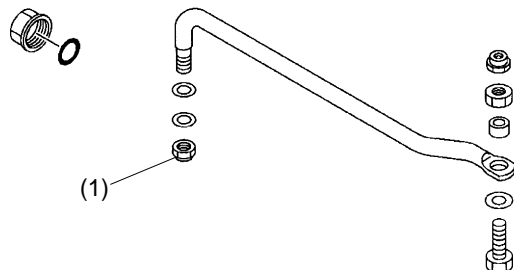
Part No.	65W-61350-00				
Global model	F40D	F50F	FT50G	F60C	FT60D
US model		F50	T50	F60	T60
Canada model		F50A	T50A	F60A	T60A
Global model	F70A	F40G			
US model	F70A				
Canada model	F70A				



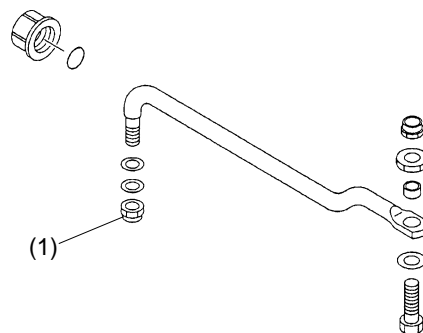
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STEERING GUIDE ATTACHMENT KIT

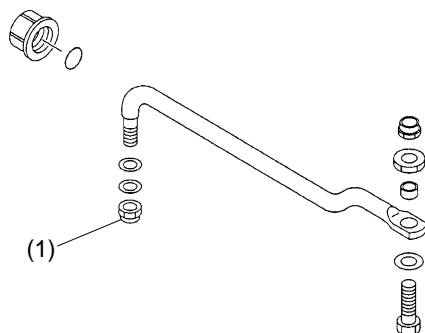
Part No.	6BG-61350-00				
Global model	F20D	F25D	FT25F	F30B	F40F
US model		F25A	T25A		F40A
Canada model		F25A	T25A	F30A	F40A



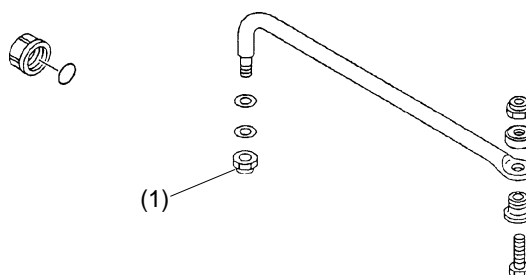
Part No.	688-61350-10				
Global model	60F	70B	75C	90A	75A
US model					
Canada model				90	
Global model	85A	E60H			
US model					
Canada model					



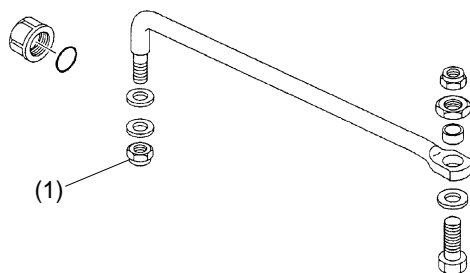
Part No.	697-61350-00				
Global model	55B				
US model					
Canada model					



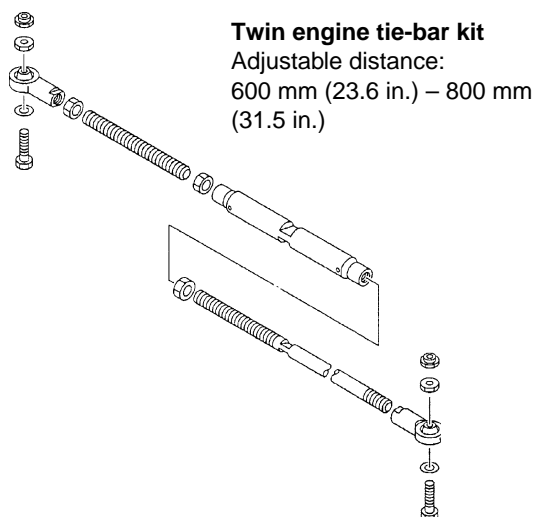
Part No.	6E5-61350-02				
Global model	F75C	F80C	F95A	F100B	
US model					
Canada model					
Global model	115 – 250 F115 – F300 (V6)				
US model					
Canada model					



Part No.	67F-61350-00				
Global model	F75B	F80B	F90B	F100D	
US model	F75		F90		
Canada model	F75A		F90A		



Part No.	6E5-61301-01				
Global model	40 – 250 F30 – F300 (V6)				
US model					
Canada model					



CONVENTIONAL WIRE HARNESS

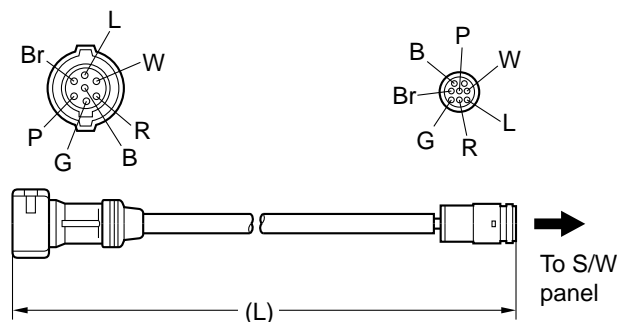
An optional wire-harness for the remote control is prepared. That will help any boats set up the remote control equipments. Choose a suitable wire-harness if necessary.

For the wire color code description, see the table on page 5-34.

SWITCH PANEL HARNESS

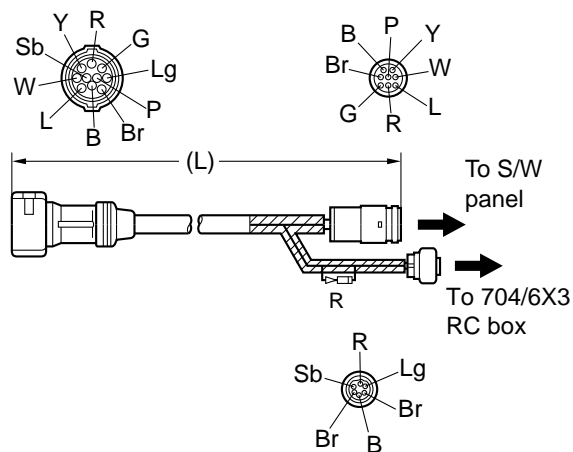
7-PIN MAIN HARNESS

Part No.	Length (L)	Remarks
688-82586-50	5 m (16.4 ft)	Without PTT



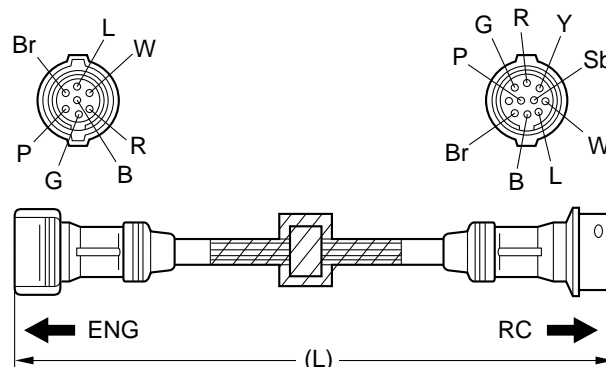
10-PIN MAIN HARNESS

Part No.	Length (L)	Remarks
688-8258A-50	5 m (16.4 ft)	
688-8258A-60	6 m (19.7 ft)	
688-8258A-70	7 m (23 ft)	
6K1-8258A-40	8 m (26 ft)	
61B-8258A-01	9.5 m (31.6 ft)	



7 TO 10-PIN ADAPTER

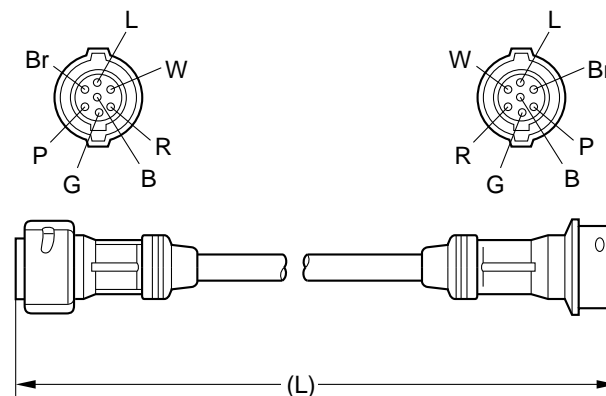
Part No.	Length (L)	Remarks
703-8258A-00	0.5 m (1.6 ft)	



MAIN HARNESS EXTENSION

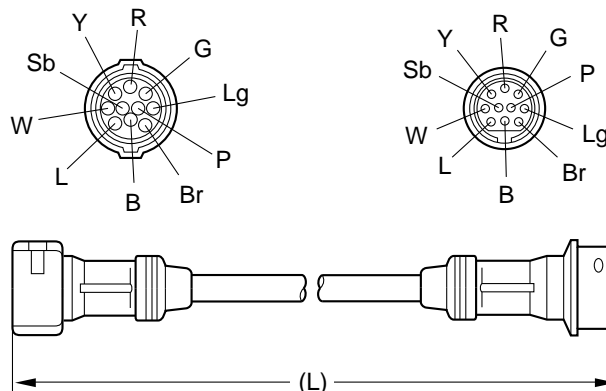
7-PIN EXTENSION HARNESS

Part No.	Length (L)	Remarks
688-82586-11	2 m (6.6 ft)	
688-82586-31	3 m (9.8 ft)	



10-PIN EXTENSION HARNESS

Part No.	Length (L)	Remarks
688-8258A-10	2 m (6.6 ft)	
688-8258A-30	3 m (9.8 ft)	

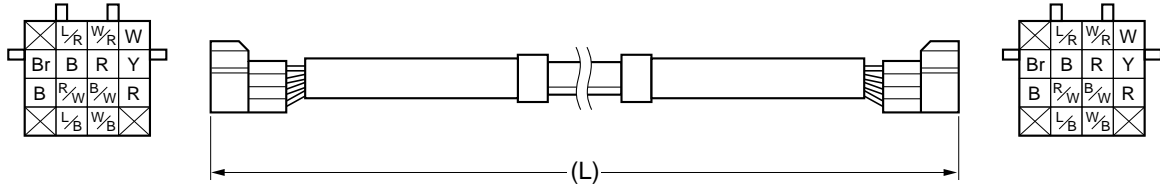


DIGITAL ELECTRONIC REMOTE CONTROL WIRE HARNESS

MAIN WIRE HARNESS

Between engine and remote control unit

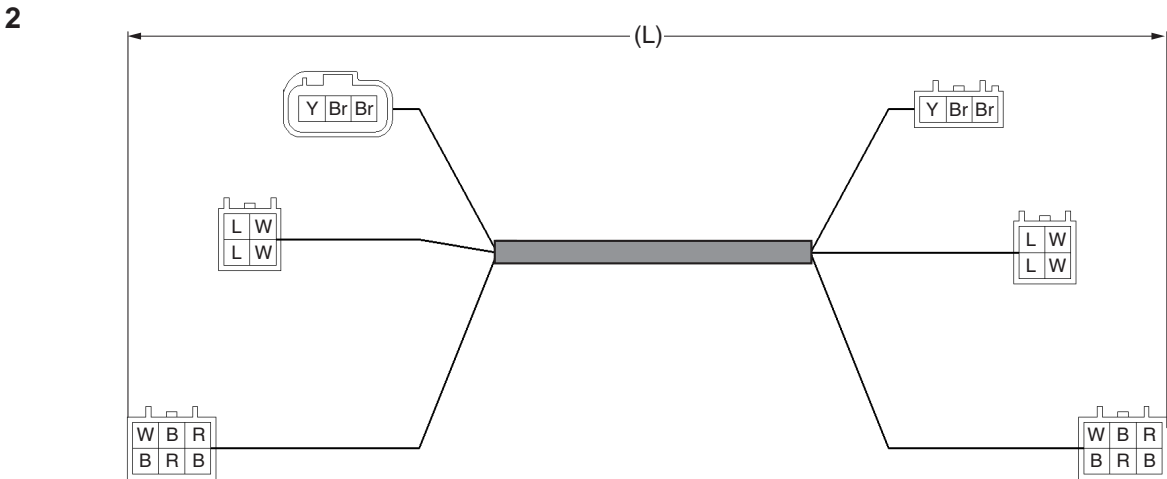
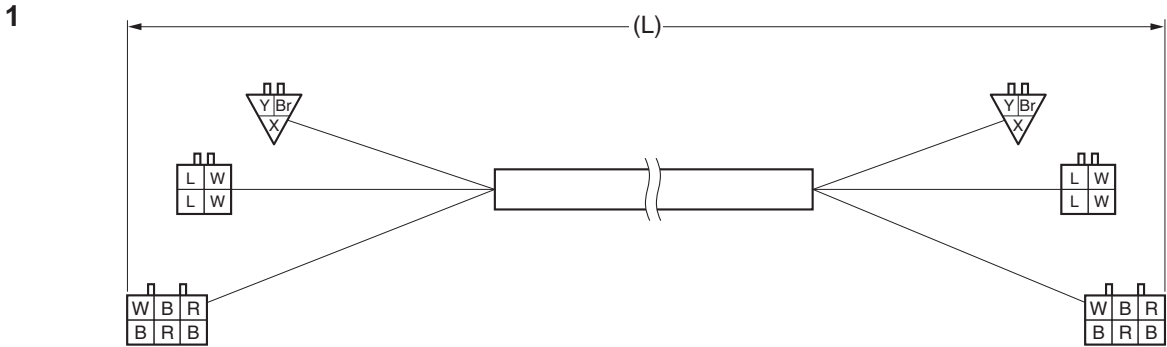
Part No.	Length (L)	Remarks
6X6-8258A-00	6 m, 20 ft	For DERC unit
6X6-8258A-10	7 m, 23 ft	
6X6-8258A-20	8 m, 26 ft	
6X6-8258A-30	10 m, 32 ft	
6X6-8258A-40	12 m, 38 ft	



DUAL STATION WIRE-HARNESS (3-4-6P)

Between main RC and 2nd RC

Ref. No.	Part No.	Length (L)	Remarks
1	6X6-8258A-A1	5 m, 16 ft	For previous DERC unit
	6X6-8258A-C1	8 m, 26 ft	
	6X6-8258A-E1	12 m, 38 ft	
2	6X6-8258A-G0	5 m, 16 ft	For new DERC unit
	6X6-8258A-H0	8 m, 26 ft	
	6X6-8258A-J0	12 m, 38 ft	

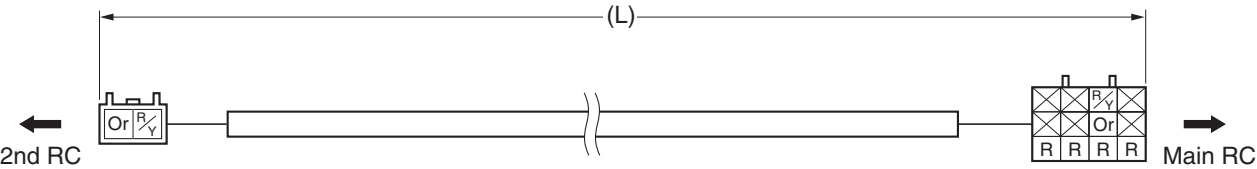


DIGITAL ELECTRONIC REMOTE CONTROL WIRE HARNESS

DUAL STATION WIRE-HARNESS (2-12P)

Between main RC and 2nd RC

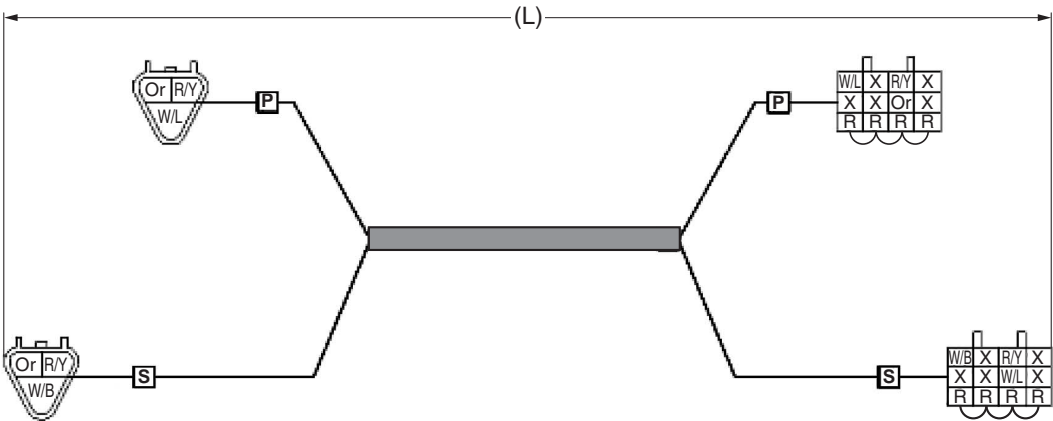
Part No.	Length (L)	Remarks
6X6-8258A-B1	5 m, 16 ft	For DERC unit
6X6-8258A-D1	8 m, 26 ft	
6X6-8258A-F1	12m, 38 ft	



DUAL STATION WIRE-HARNESS (3-12P)

Between main RC and 2nd RC (Quad engine special)

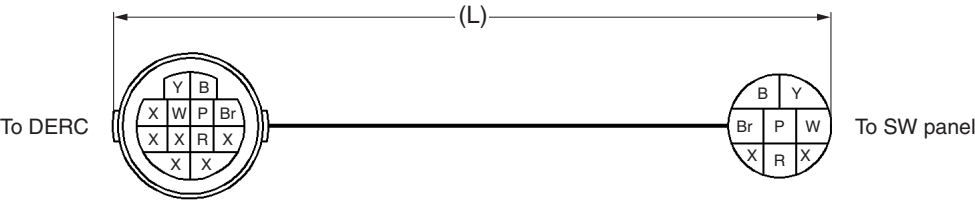
Part No.	Length (L)	Remarks
6X6-8258A-R0	5 m, 16 ft	For new DERC unit
6X6-8258A-S0	8 m, 26 ft	
6X6-8258A-T0	12 m, 38 ft	



CONVERSION HARNESS L

Uses to connect new DERC unit to the previous network system.

Part No.	Length (L)	Remarks
6X6-8258A-L0	150 mm, 6 in	For new DERC unit

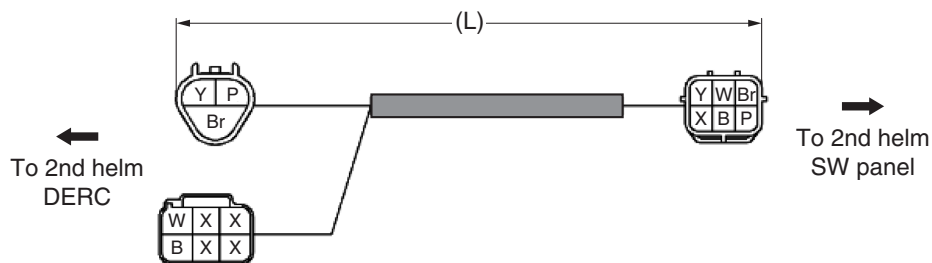


DIGITAL ELECTRONIC REMOTE CONTROL WIRE HARNESS

CONVERSION HARNESS M

Uses to connect between new DERC unit and previous 2nd helm single IG switch.

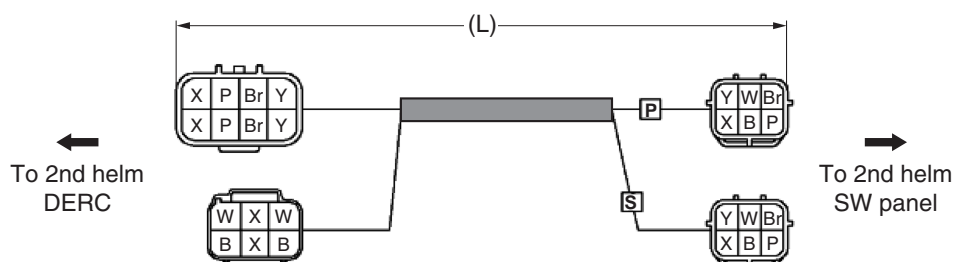
Part No.	Length (L)	Remarks
6X6-8258A-M0	200 mm, 8 in	For 2nd helm, Single engine



CONVERSION HARNESS N

Uses to connect between new DERC unit and previous 2nd helm twin IG switch.

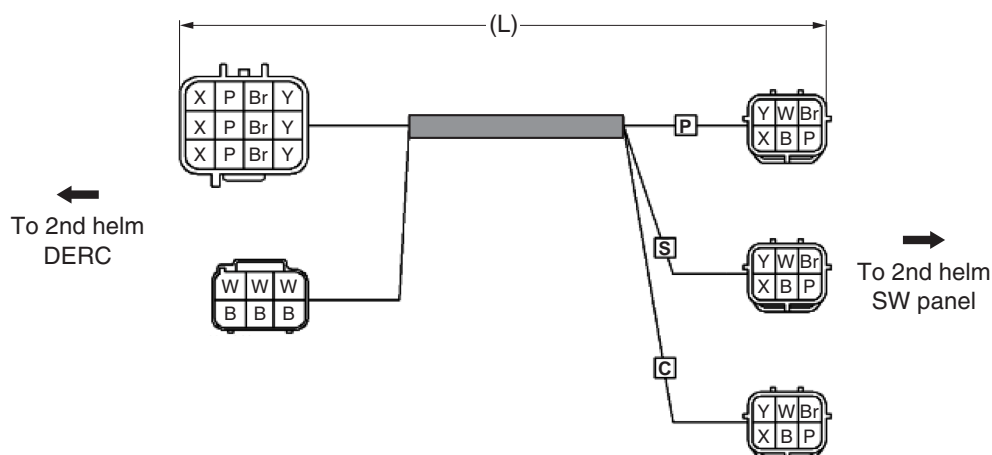
Part No.	Length (L)	Remarks
6X6-8258A-N0	240 mm, 9 in	For 2nd helm, Twin engine



CONVERSION HARNESS P

Uses to connect between new DERC unit and previous 2nd helm triple IG switch.

Part No.	Length (L)	Remarks
6X6-8258A-P0	240 mm, 9 in	For 2nd helm, Triple engine



MEMO



TILLER HANDLES

6X4 MULTI-FUNCTION TILLER HANDLE.....	4-2
MULTI-FUNCTION TILLER HANDLE KIT (FOR US).....	4-2
WIRING DIAGRAM (FOR US).....	4-7
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6X4 MULTI-FUNCTION TILLER HANDLE

Yamaha prepares the various multi-function tiller handle kits for F30 to F115 and 40 to 90 engines. For US, the tiller handle kit for F25 is specially prepared.

This handle has the electrical functions which are similar as that of 703 remote control box.

Engine IG switch, Emergency stop switch, PTT switch (top or side location), Neutral switch, Throttle friction adjuster, Shift lever, Throttle control grip, Variable troll RPM switch, LED warning indicators, and Warning buzzer are included into the handle.

The 10-pin main harness in the handle will allow to easily connect the electrical system to the engine.

MULTI-FUNCTION TILLER HANDLE KIT (FOR US)

Two kinds of the size for handle extension bracket, four kinds of the length for 10-pin wire harness and some kinds of the length for control cables are prepared to install the handle according to the various engine specifications.

The tiller handle kit (only one specification) is prepared for F40 to F115 and 50 to 90 engines.

The fitting kit is prepared for each engine.

Combine the tiller handle kit with the handle fitting kit due to the applicable model, except F25.

For installation procedure, see the instruction supplied with the kit.



Tiller handle assy

Setup manual

Tiller handle kit
(Common use for
50-90 & F40-F115)



Handle extension

Throttle cable

Shift cable

10-pin harness

Steering friction assy

Installation hardware

Troll PPM switch

Short shift lever

Fitting kit for each
model
(Differs on model)

6X4 MULTI-FUNCTION TILLER HANDLE

TILLER HANDLE KIT CONTENTS

50-90, F40-F115

KIT P/N:6X4-42103-50

Part name	Part No.	Q'ty	Remarks
Tiller handle assy	—	1	With PTT switch (Top), Required fitting kit.
Setup manual	6X4-2819K-13	1	English

F25A (6BP)

KIT P/N:6X4-42103-04

Part name	Part No.	Q'ty	Remarks
Tiller handle assy	6X4-42101-23	1	With PTT switch (Top)
Lock nut	90185-10051	2	M10
Steering friction assy	65W-42508-00	1	
Setup manual	6X4-2819K-13	1	English

HANDLE FITTING KIT CONTENTS

Select the fitting kit corresponding with the model.

F115A

KIT P/N:6X4-42102-00

Part name	Part No.	Q'ty	Remarks
Fuel pipe clamp 2	63D-24367-00	1	
Cable clamp 1	63D-48538-00	2	
Throttle cable	67G-26301-10	1	895 mm (35 in.)
Shift cable	67G-48321-20	1	965 mm (40 in.)
Grommet 2	68V-42725-10	1	
Corrugated tube	6G5-83557-00	1	85 mm (3.3 in.)
Corrugated tube	6K3-83557-00	1	65 mm (2.6 in.)
Stay	6X4-24364-00	1	
Ext. bracket	6X4-42121-11	1	92 mm (Long)
10-pin main harness	6X4-82586-20	1	1250 mm (49 in.)
Stud bolt	90116-10175	2	M10-40 mm
Lock nut	90185-10051	4	M10
Corrugated tube	90447-22007	1	230 mm (9.1 in.)
Clamp	90464-09M42	1	
Clamp	90465-13M24	5	
Clamp	90465-13M30	1	
Clip	90468-10005	2	
Bolt	97595-06516	2	
Protector	6X4-42735-00	1	
Steering friction assy	67G-42508-10	1	

6X4 MULTI-FUNCTION TILLER HANDLE

F75, F90

KIT P/N:6X4-42102-10

Part name	Part No.	Q'ty	Remarks
Fuel pipe clamp 2	63D-24367-00	1	
Cable clamp	63D-48538-00	2	
Throttle cable	67G-26301-10	1	895 mm (35 in.)
Shift cable	67G-48321-20	1	965 mm (40 in.)
Grommet 2	68V-42725-10	1	
Corrugated tube	6G5-83557-00	1	85 mm (3.3 in.)
Corrugated tube	6K3-83557-00	1	65 mm (2.6 in.)
Stay	6X4-24364-00	1	
Ext. bracket	6X4-42121-00-4D	1	45 mm (Short)
Troll RPM switch assy	6X4-81860-00	1	
10-pin main harness	6X4-82586-20	1	1250 mm (49 in.)
Stud bolt	90116-10031	2	M10-70 mm
Lock nut	90185-10051	2	M10
Corrugated tube	90447-22007	1	230 mm (9.1 in.)
Clamp	90464-09M42	1	
Clamp	90465-13M24	5	
Clamp	90465-13M30	1	
Clip	90468-10005	2	
Bolt	97595-06516	2	
Protector	6X4-42735-00	1	
Steering friction assy	67G-42508-10	1	

F50, T50, F60, T60, F70A

KIT P/N:6X4-42102-22

Part name	Part No.	Q'ty	Remarks
Cable clamp 2	63D-48538-00	2	
Shift cable	67C-48321-11	1	707 mm (28 in.)
Throttle cable	69W-26301-00	1	610 mm (24 in.)
Troll RPM switch assy	6X4-81860-00	1	
10-pin main harness	6X4-82586-10	1	950 mm (37 in.)
Lock nut	90185-10051	2	
Clamp	90464-09M42	1	
Clamp	90465-13M36	1	
Clip	90468-10005	2	
Steering friction assy	6C5-42508-00	1	

6X4 MULTI-FUNCTION TILLER HANDLE

F40A

KIT P/N:6X4-42102-70

Part name	Part No.	Q'ty	Remarks
Steering friction assy	67C-42508-03	1	
Lock nut	90185-10051	2	M10
Shift cable	67C-48321-11	1	687 mm (27 in.)
Clamp	90468-10005	2	
Cable clamp	63D-48538-00	2	
Throttle cable	69W-26301-00	1	610 mm (24 in.)
Clamp	90464-09M42	1	
10-pin main harness	6X4-82586-10	1	950 mm (37 in.)
Troll RPM switch assy	6X4-81860-00	1	
Clamp	90465-13M36	1	

90

KIT P/N:6X4-42102-41

Part name	Part No.	Q'ty	Remarks
Cable clamp	63D-48538-00	2	
Throttle cable	6H1-26301-01	1	610 mm (24 in.)
Shift cable	6H1-48321-11	1	726 mm (29 in.)
Ext. bracket	6X4-42121-00-4D	1	45 mm (Short)
Shift handle	6X4-44159-10-4D	1	Short type (exclusive), To replace original lever
Shift lever	6X4-44173-00	1	
Screw	97780-60920	2	
Bush	90386-26MA3	1	
10-pin main harness	6X4-82586-30	1	700 mm (26 in.)
Stud bolt	90116-10031	2	M10-70 mm
Clamp	90464-09M42	1	
Clamp	90464-15M11	1	
Clamp	90465-13M36	2	
Clip	90468-10005	2	
Bolt	97595-08540	1	
Steering friction assy	692-42508-01	1	Shaft type

6X4 MULTI-FUNCTION TILLER HANDLE

70

KIT P/N:6X4-42102-51

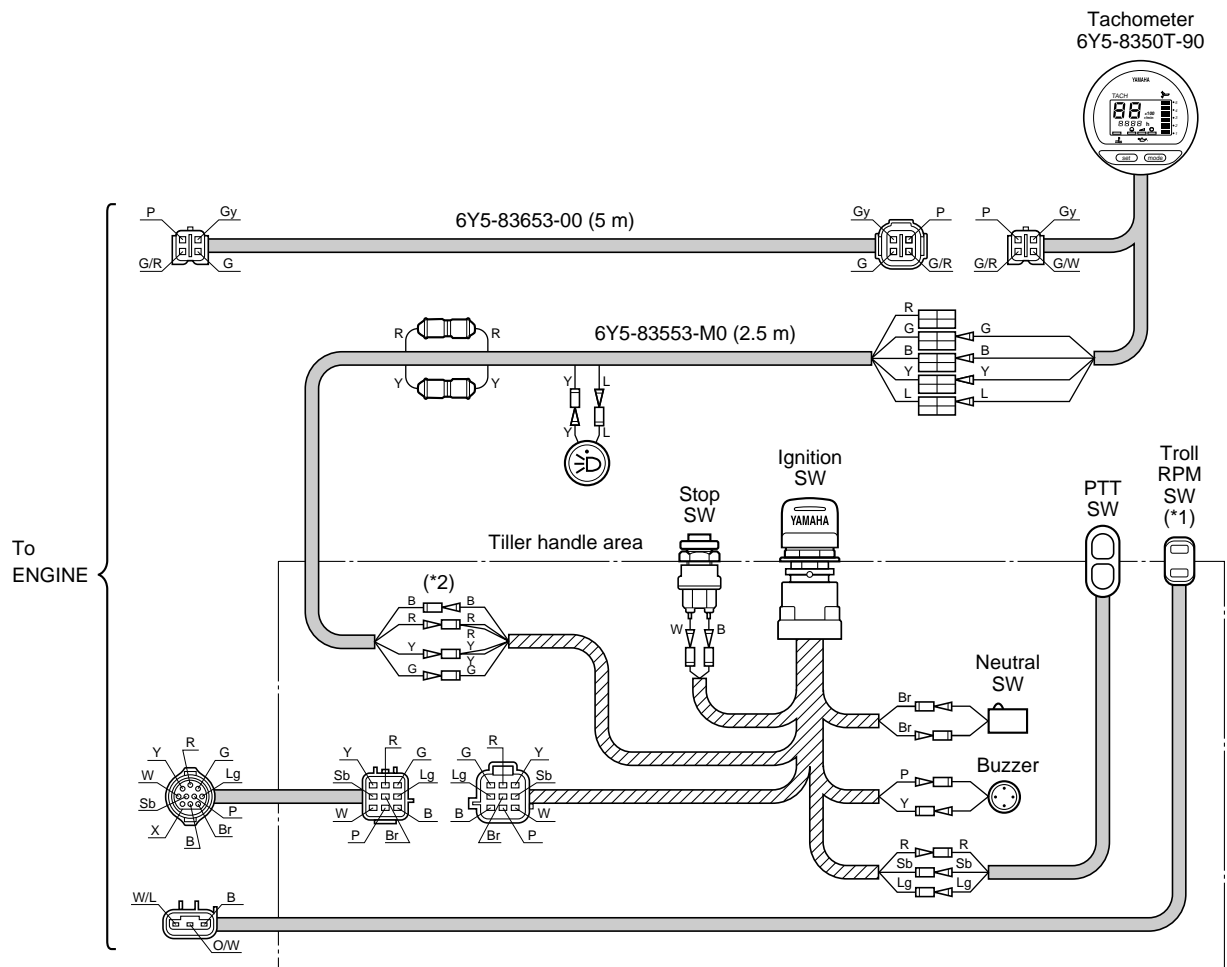
Part name	Part No.	Q'ty	Remarks
Throttle cable	6H3-26301-01	1	530 mm (21 in.)
Shift cable	6H3-48321-11	1	610 mm (24 in.)
Cable clamp	63D-48538-00	2	
Grommet 2	6H3-42725-30	1	
Ext. bracket	6X4-42121-00-4D	1	45 mm (short)
10-pin main harness	6X4-82586-30	1	600 mm (24 in.)
Stud bolt	90116-10031	2	M10-70 mm
Lock nut	90185-10051	2	M10
Clamp	90464-09M42	1	
Clamp	90465-13M36	2	
Clip	90468-10005	2	
Steering friction assy	692-42508-01	1	Shaft type

50

KIT P/N:6X4-42102-61

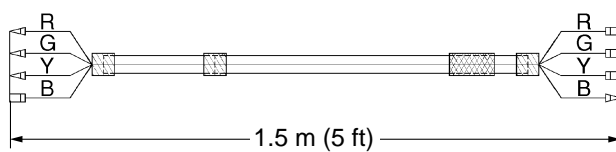
Part name	Part No.	Q'ty	Remarks
Stay	63D-24364-10	1	
Fuel pipe clamp 2	63D-24367-00	1	
Throttle cable	63D-26301-01	1	530 mm (21 in.)
Shift cable	63D-48321-11	1	610 mm (24 in.)
Clamp	63D-48538-00	2	
Clamp	63D-82361-00	1	
10-pin main harness	6X4-82586-00	1	700 mm (26 in.)
Screw	90161-06M00	1	M6-25 mm
Lock nut	90185-10051	2	M10
Collar	90387-06M26	1	
Clamp	90464-09M42	1	
Clamp	90465-13M36	2	
Clip	90468-10005	2	
Bolt	97595-06416	2	
Bolt	97595-06516	1	
Bolt	97595-06535	1	
Steering friction assy	63D-42508-00	1	

6X4 MULTI-FUNCTION TILLER HANDLE WIRING DIAGRAM (FOR US)



(*1) For fuel injected F40-F90.

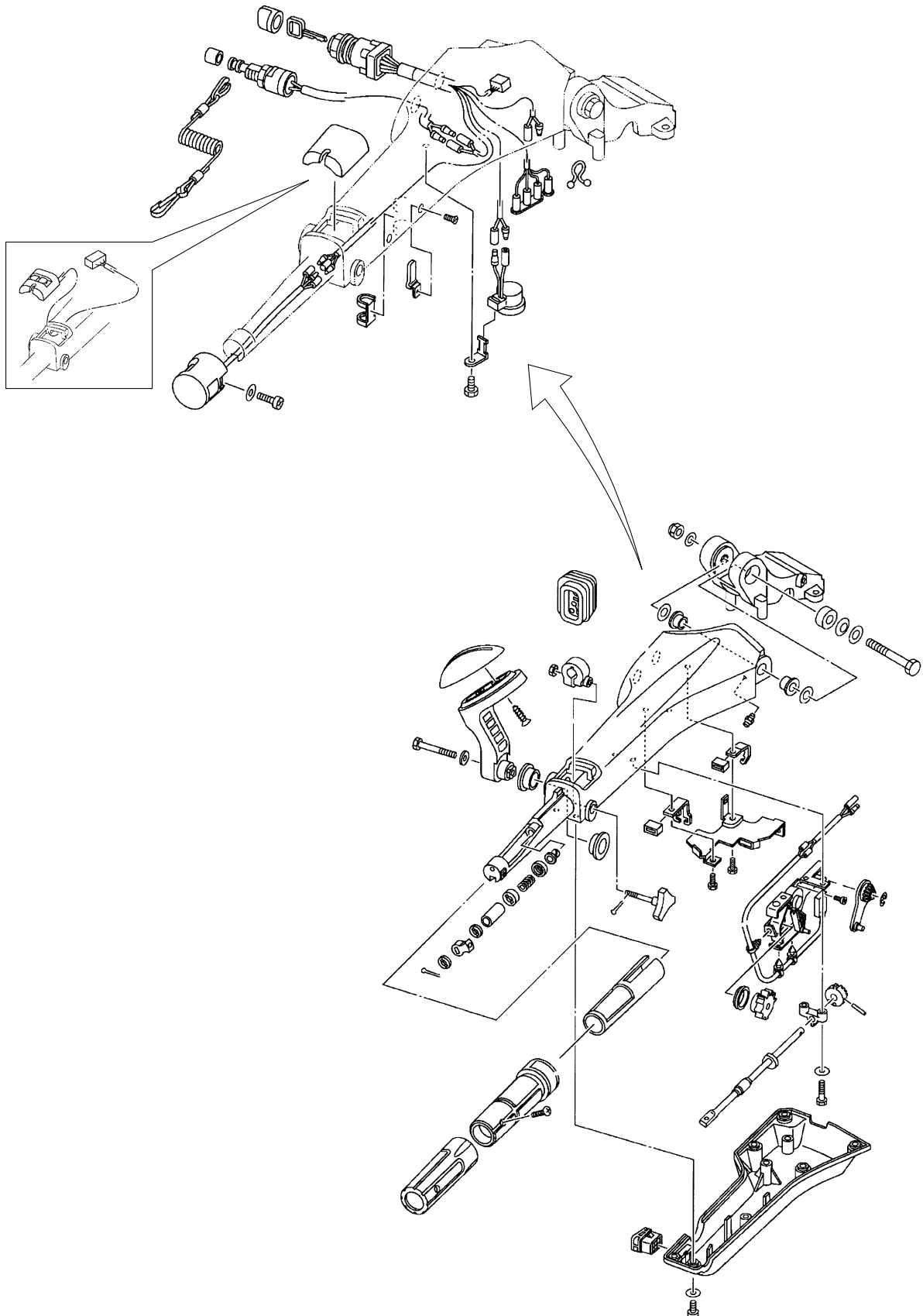
(*2) 1.5 m (5 ft) extension wire-harness (6Y5-8356N-00) is available.



6X4 MULTI-FUNCTION TILLER HANDLE

EXPLODED DIAGRAM (FOR US)

EX: F50/F60/F70A

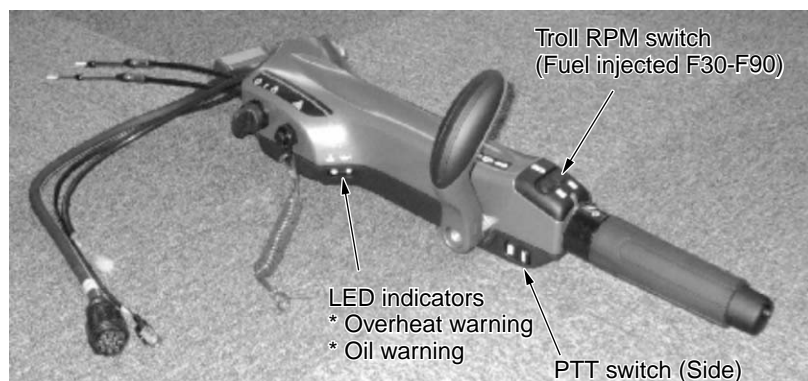


6X4 MULTI-FUNCTION TILLER HANDLE

MULTI-FUNCTION TILLER HANDLE KIT (FOR JAPAN)

The tiller handle kit is prepared for F50 to F90.

For installation procedure, see the instruction supplied with the kit.



TILLER HANDLE KIT CONTENTS

F80B, F90B

KIT P/N:6X4-42103-11

Part name	Part No.	Q'ty	Remarks
Pipe 1	67G-42541-00	1	
Grommet	68V-42725-10	1	
Corrugated tube	6G5-83557-00	1	85 mm (3.3 in.)
Corrugated tube	6K3-83557-00	1	65 mm (2.6 in.)
Stay	6X4-24364-00	1	
Tiller handle assy	6X4-42101-32	1	With PTT switch (Side), LED indicators
Ext. bracket	6X4-42121-00-4D	1	45 mm (Short)
Stud bolt	90116-10031	2	M10-70 mm
Lock nut	90185-10051	2	M10
Corrugated tube	90447-22007	1	230 mm (9.1 in.)
Clamp	90465-13M24	5	
Clamp	90465-13M30	1	
Bolt	97595-06516	2	
Fuel pipe clamp	63D-24367-00	1	
Protector	6X4-42735-00	1	
Steering friction assy	67G-42508-10	1	
Setup manual	6X4-2819K-01	1	Japanese

F50F, FT50G, F60C, FT60D, F70A

KIT P/N:6X4-42103-23

Part name	Part No.	Q'ty	Remarks
Grommet 2	6C5-42725-30	1	
Tiller handle assy	6X4-42101-V3	1	With PTT switch (Side), LED indicators
Lock nut	90185-10051	2	M10
Clamp	90465-13M36	1	
Steering friction assy	6C5-42508-00	1	
Setup manual	6X4-2819K-01	1	Japanese

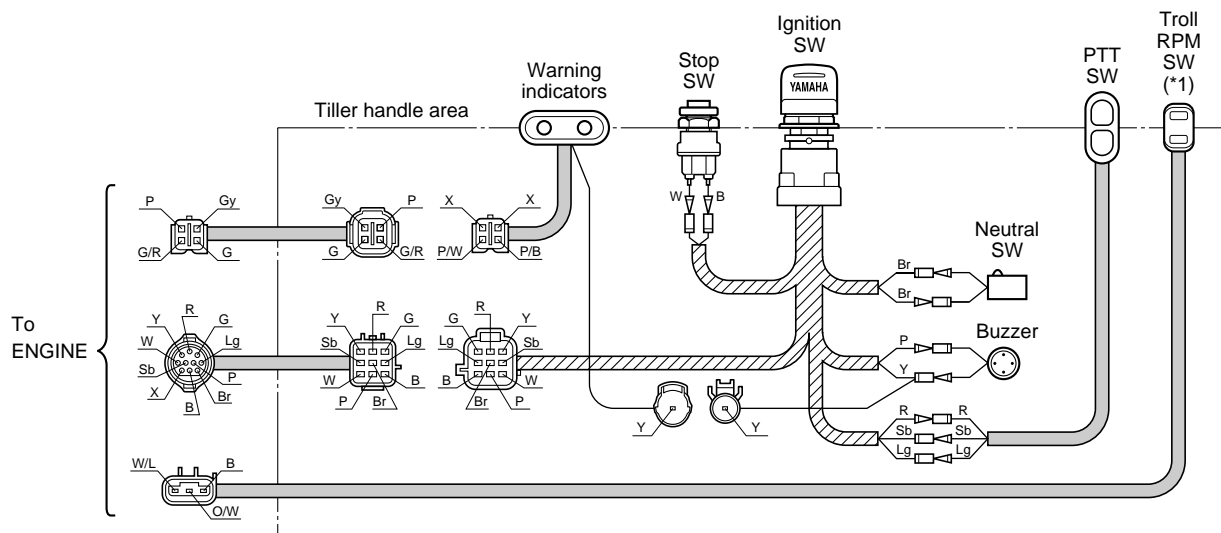
6X4 MULTI-FUNCTION TILLER HANDLE

FT50C,F50D

KIT P/N:6X4-42103-42

Part name	Part No.	Q'ty	Remarks
Grommet 2	62Y-42725-30	1	
Tiller handle assy	6X4-42101-43	1	With PTT switch (Side), LED indicators
Lock nut	90185-10051	2	M10
Clamp	90465-13M36	1	
Setup manual	6X4-2819K-01	1	Japanese

WIRING DIAGRAM (FOR JAPAN)

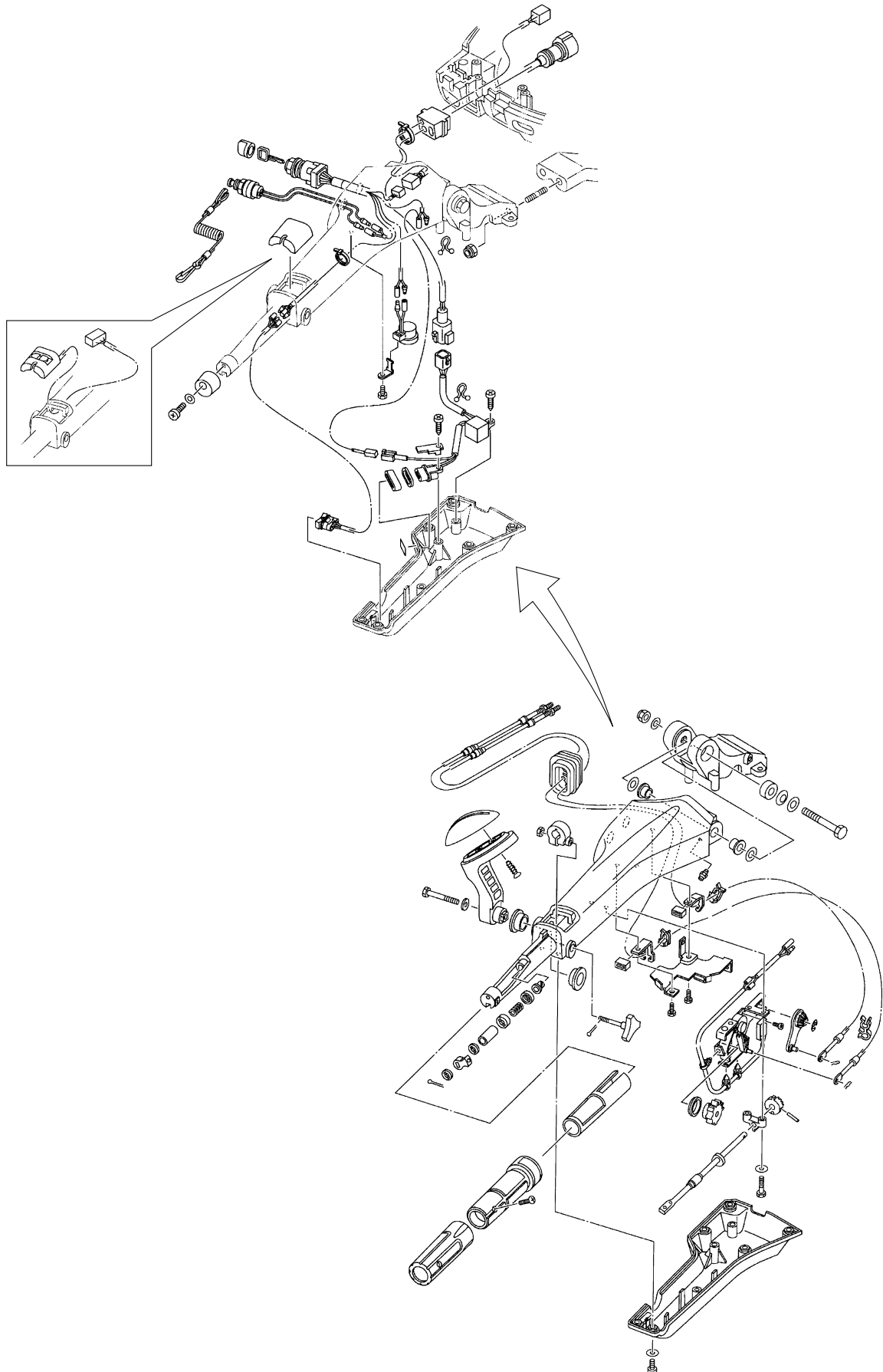


(*1) For fuel injected F30-F90.

6X4 MULTI-FUNCTION TILLER HANDLE

EXPLODED DIAGRAM (FOR JAPAN)

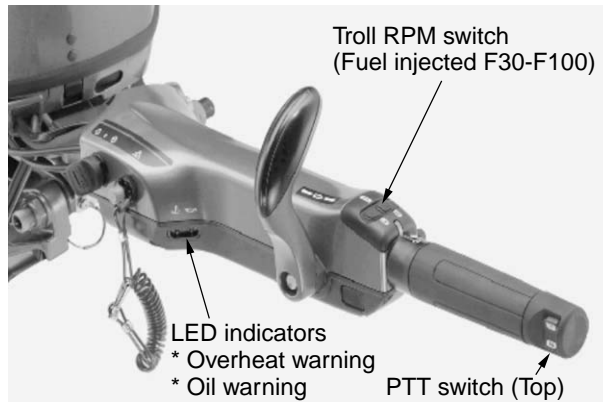
EX: F50/F60/F70A



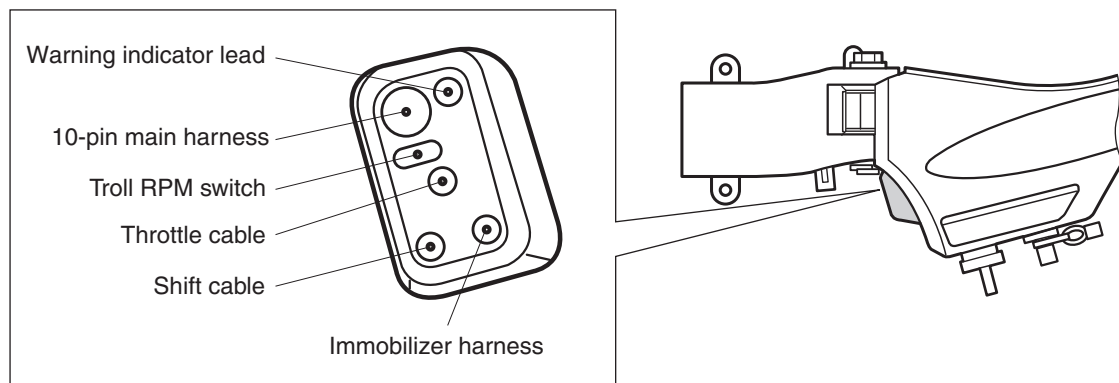
6X4 MULTI-FUNCTION TILLER HANDLE

MULTI-FUNCTION TILLER HANDLE CONTENTS (FOR OTHERS)

The tiller handle kit is not prepared for other market, except some region.
Regarding the tiller handle component parts information, see the applicable years model parts catalog.



TILLER HANDLE GROMMET DESCRIPTION



6X4 MULTI-FUNCTION TILLER HANDLE

MULTI-FUNCTION TILLER HANDLE KIT (FOR EU & ANZ)

Both tiller handle kit and fitting kit are required for installation.

TILLER HANDLE KIT CONTENTS

F30 – F115

KIT P/N: 6X4-42103-61

Part name	Part No.	Q'ty	Remarks
Tiller handle assy	6BC-42101-21	1	w/o troll rpm SW. Required fitting kit.
Setup manual	6X4-2819K-K5	1	English, French, Spanish

HANDLE FITTING KIT CONTENTS

F30 – F40

KIT P/N: 6X4-42102-80

Part name	Part No.	Q'ty	Remarks
Nut	90185-10051	2	
Shift cable	67C-48321-11	1	
Clamp	63D-48538-00	2	
Clip	90468-10005	2	
Throttle cable	69W-26301-00	1	
Clamp	90464-09M42	1	
Wire harness	6X4-82586-10	1	
Troll rpm SW assy	6X4-81860-00	1	
Clamp	90465-13M36	1	
STR friction assy	67C-42508-04	1	
Wire lead	6X4-83653-20	1	L=700 mm
Cap	6X4-42728-00	1	For PTT SW

F50 – F70

KIT P/N: 6X4-42102-90

Part name	Part No.	Q'ty	Remarks
Nut	90185-10051	2	
Shift cable	67C-48321-11	1	
Clamp	63D-48538-00	2	
Clip	90468-10005	2	
Throttle cable	69W-26301-00	1	
Clamp	90464-09M42	1	
Wire harness	6X4-82586-10	1	
Troll rpm SW assy	6X4-81860-00	1	
Clamp	90465-13M36	1	
STR friction assy	6C5-42508-01	1	
Wire lead	6X4-83653-20	1	L=700 mm
Cap	6X4-42728-00	1	For PTT SW

6X4 MULTI-FUNCTION TILLER HANDLE

MULTI-FUNCTION TILLER HANDLE KIT (FOR EU & ANZ)

HANDLE FITTING KIT CONTENTS

F80 – F100

KIT P/N: 6X4-42102-A0

Part name	Part No.	Q'ty	Remarks
Grommet	68V-42725-10	1	
Bracket	6X4-42121-00	1	
Nut	90185-10051	2	
Stud bolt	90116-10031	2	
Shift cable	67G-48321-20	1	
Cable clamp	63D-48538-00	2	
Clip	90468-10005	2	
Throttle cable	67G-26301-10	1	
Clamp	90464-09M42	1	
Wire harness	6X4-82586-20	1	
Troll rpm SW assy	6X4-81860-00	1	
STR friction assy	67G-42508-10	1	
Tube	90447-22007	1	
Tube	6G5-83557-00	1	
Tube	6K3-83557-00	1	
Protector	6X4-42735-00	1	
Clamp	63D-24367-00	1	
Stay	6X4-24364-00	1	
Bolt	97595-06516	2	
Clamp	90465-13M24	5	
Clamp	90465-13M30	1	
Wire lead	6X4-83653-00	1	L=1250 mm

F115

KIT P/N: 6X4-42102-B0

Part name	Part No.	Q'ty	Remarks
Grommet	68V-42725-10	1	
Bracket	6X4-42121-11	1	
Stud bolt	90116-10175	2	
Nut	90185-10051	4	
Shift cable	67G-48321-20	1	
Cable clamp	63D-48538-00	2	
Clip	90468-10005	2	
Throttle cable	67G-26301-10	1	
Clamp	90464-09M42	1	
Wire harness	6X4-82586-20	1	
STR friction assy	67G-42508-10	1	
Tube	90447-22007	1	
Tube	6G5-83557-00	1	
Tube	6K3-83557-00	1	
Protector	6X4-42735-00	1	
Clamp	63D-24367-00	1	
Stay	6X4-24364-00	1	
Bolt	97595-06516	2	
Clamp	90465-13M24	5	
Clamp	90465-13M30	1	
Wire lead	6X4-83653-00	1	L=1250 mm

6X4 MULTI-FUNCTION TILLER HANDLE

HANDLE IMMOBILIZER KIT CONTENTS

F30B – F115A

KIT P/N: 6Y8-W0035-C0

Part name	Part No.	Q'ty	Remarks
Wire-harness	6Y5-83553-M0	1	2.5 m
Single hub	6Y8-81920-11	2	
Wire-lead	6Y8-82117-00	1	For system PWR
Pigtail bus wire	6Y8-82521-51	1	3.6 m
Main bus wire	6Y8-82553-01	1	0.3 m

* Requires to replace the rigging grommet as follows.

F50 up to F60: 6C5-42725-50

F75 up to F115: 68V-42725-20

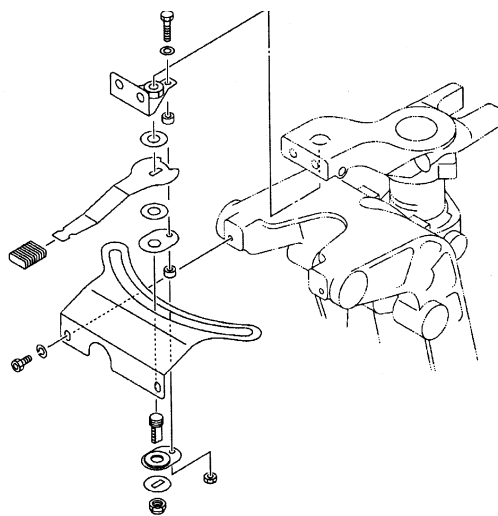
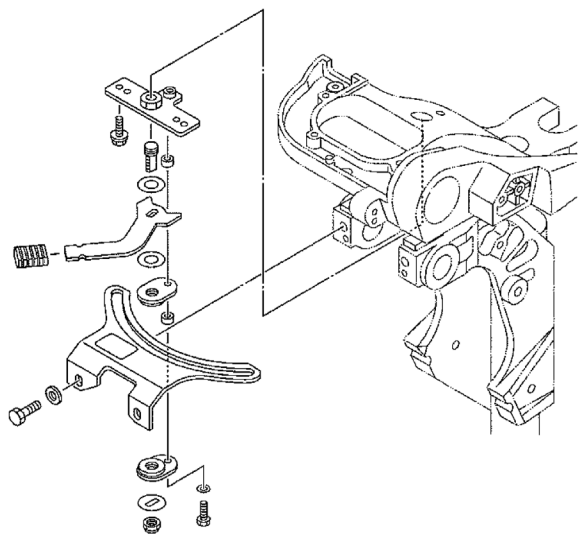
STEERING FRICTION CONTENTS

For detail installation information, see the instruction manual packed in the tiller handle kit and/or the steering friction kit.

General torque table			
	N•m	kgf•m	lb•ft
M10 lock nut	4	0.4	3
M6 bolt	8	0.8	6
M5 bolt	5	0.5	4

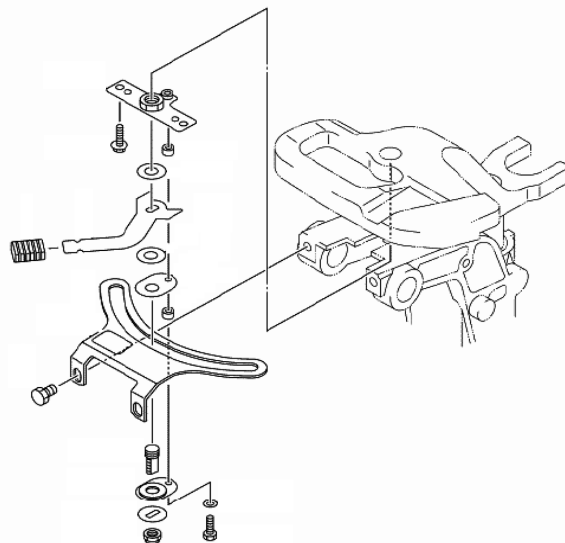
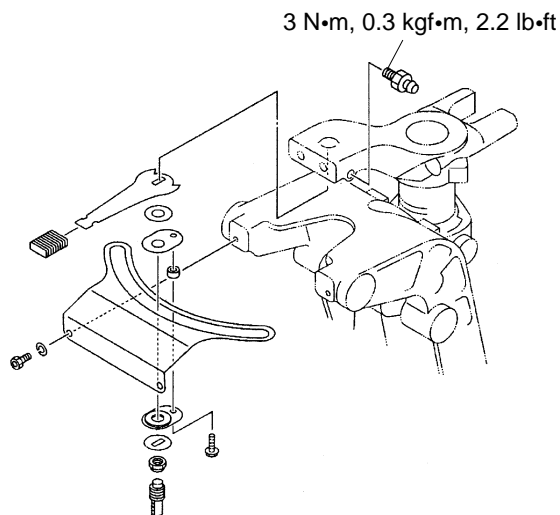
Part No.	6AH-42508-01 (for manual tilt)				
	6AH-42508-11 (for power tilt)				
Global model	F9.9H	F15C	F20B	F20C	
US model		F15A	F20A		
Canada model		F15A	F20A		

Part No.	67C-42508-04				
Global model	F30B	F40F			
US model		F40A			
Canada model	F30A	F40A			



Part No.	65W-42508-00				
Global model	F25D	FT25F			
US model	F25A	T25A			
Canada model	F25A	T25A			

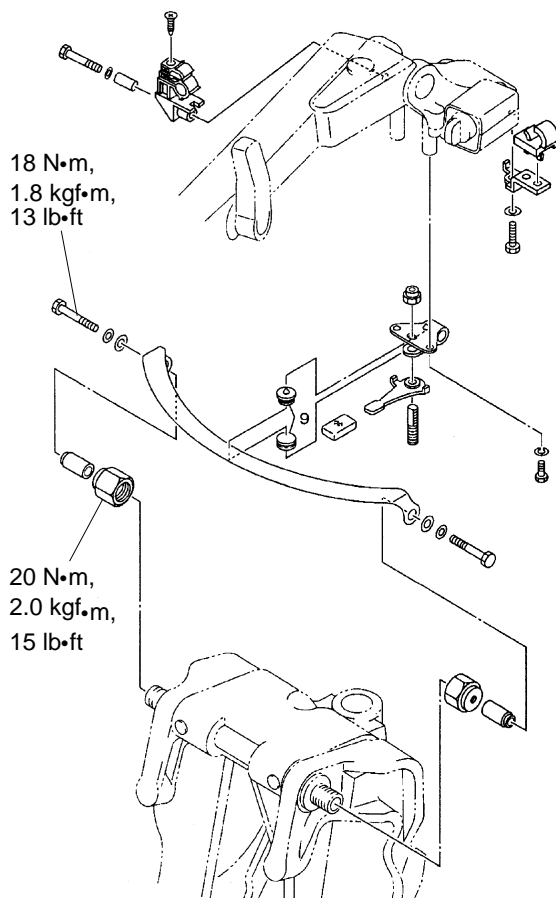
Part No.	68T-42508-02				
Global model	F8C	FT8D			
US model	F8A				
Canada model	F8A	T8A			



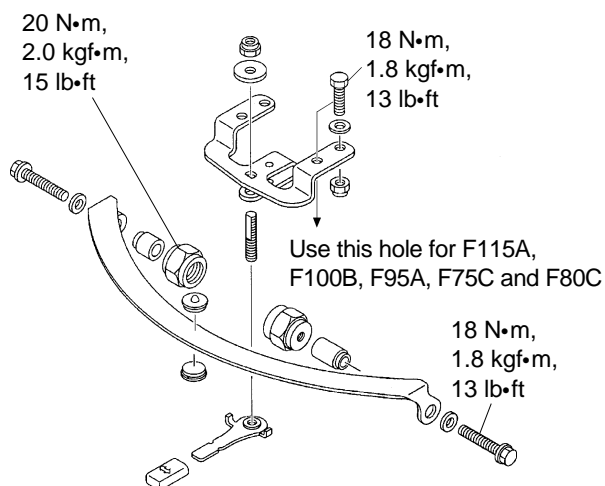
To be continued.

STEERING FRICTION CONTENTS

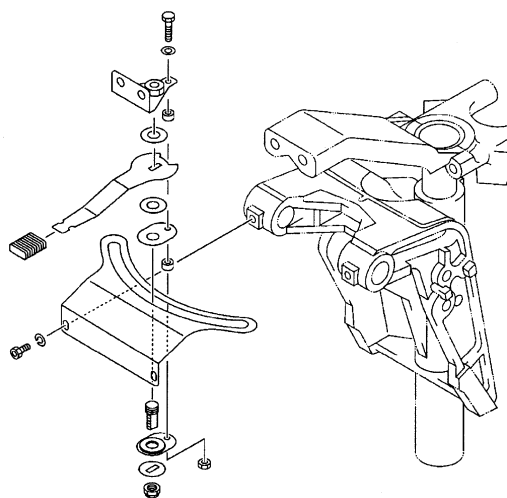
Part No.	63D-42508-00				
Global model	40V	50H	FT50C	F50D	
US model					
Canada model		50			



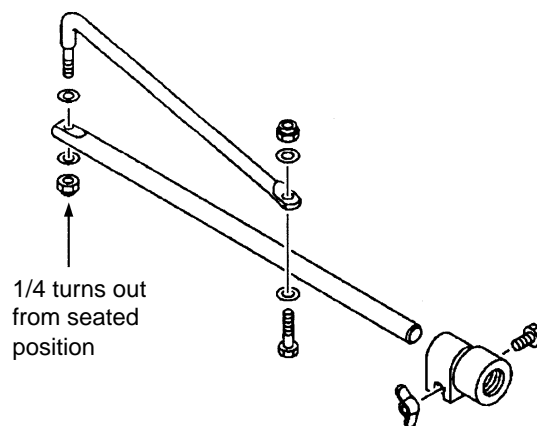
Part No.	67G-42508-10				
Global model	F75B	F80B	F90B	F100D	F75C
US model	F75		F90		
Canada model	F75A		F90A		
Global model	F80C	F95A	F100B	F/FL115A	
US model				F/LF115A	
Canada model				F/LF115A	



Part No.	6C5-42508-01				
Global model	F40D	F50F	FT50G	F60C	FT60D
US model		F50	T50	F60	T60
Canada model		F50A	T50A	F60A	T60A



Part No.	692-42508-01				
Global model	60F	70B	75C	90A	
US model					
Canada model				90	



MEMO



CONVENTIONAL GAUGE (6Y5 & 6Y7)

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To be continued.

CONVENTIONAL GAUGE (6Y5 & 6Y7)

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To be continued.

CONVENTIONAL GAUGE (6Y5 & 6Y7)

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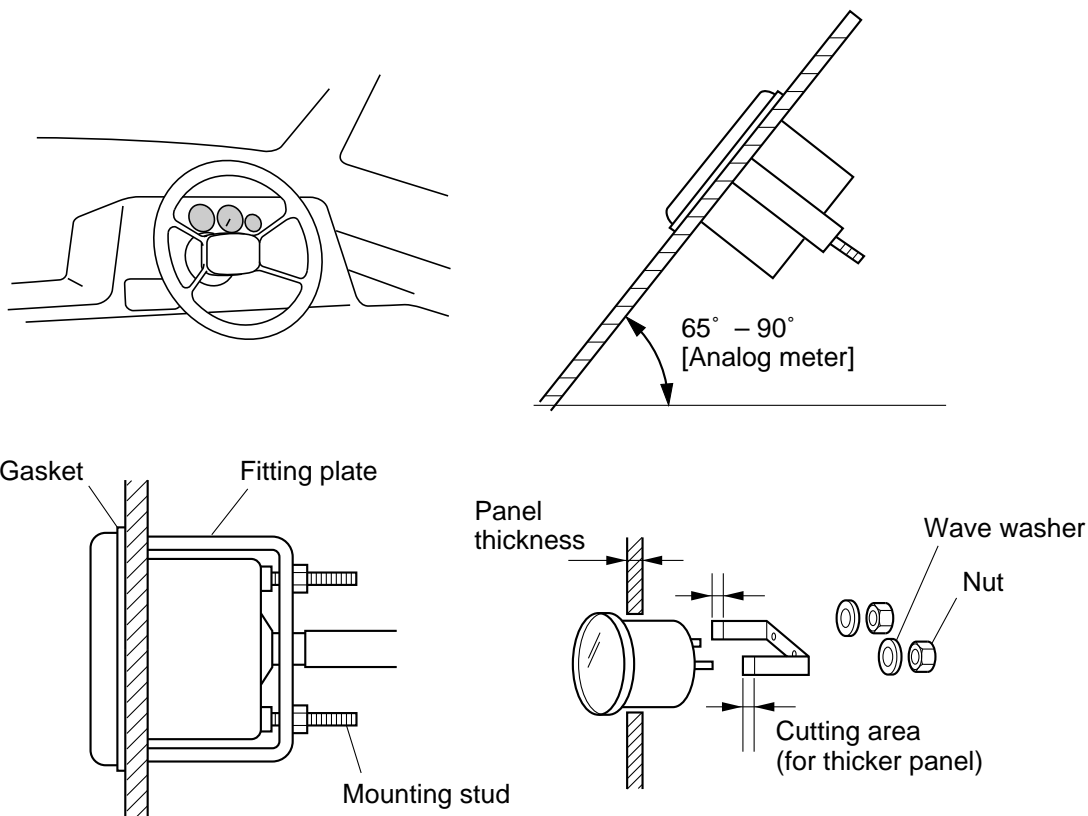
MOUNTING THE METERS

The meters can be installed with an electrical start model because power source is required for its operation.

METER MOUNTING PROCEDURE

Follow the procedures below for mounting the gauges.

1. Select a mounting location so that the meter is easy to read from the operating position.
Be sure that there is sufficient clearance behind the panel for the meter.
For analog meters, be sure that the angle for mounting the meter is 65 to 90 degrees.
If the analog gauge is mounted onto horizontal surface, the pointer may not return to the zero position after the engine has stopped.
2. Make a hole in the desired position.
3. Remove the fitting plate from the meter, fit the meter into the panel, and install the fitting plate over the mounting studs.
4. Place the washers over the studs, and then evenly tighten the mounting nuts until the meter can no longer be rotated by hand.
5. Connect the wire-harnesses to the gauges, and secure them into a boat.



* If the gauge is mounted onto 13 mm (0.5 in) or thicker board, cut out the fitting plate end so that the mount nut is enough tightened.

ANALOG GAUGE ILLUMINATION (6Y7 TYPE)

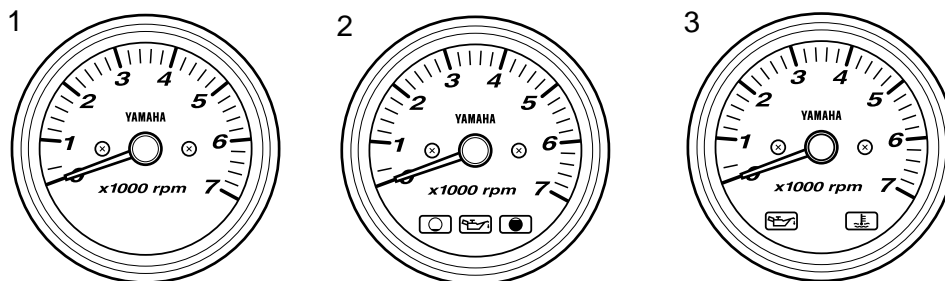
For black-face analog gauge, the faceplate illuminated with permeation light for nighttime operation. The white-face analog gauge used an indirect clear lighting.

ANALOG TACHOMETER

A tachometer is essential for suitable outboard performance.

The engine speed can be monitored for most efficient operation.

In twin motors applications, the tachometers can be used to set the throttle of each engine accurately.



ANALOG TACHOMETER APPLICATIONS

Ref. No.	Description	Part No.	Applicable model
1	Without indicators BLK panel	6Y7-83540-20	Pre-mixed 9.9 – 225 FT8 (T8), F9.9 – F25 (FT/T25)
	Without indicators WHT panel	6Y7-83540-30	
2	With 3 oil indicators BLK panel	6Y7-83540-00	250G, L250G
	With 3 oil indicators WHT panel	6Y7-83540-10	
3	With overheat & oil indicators BLK panel	6Y7-83540-80	Above 40 (3-cyl) w/ oil injection (except 250G/ L250G) Above F30 [Mechanical RC]
	With overheat & oil indicators WHT panel	6Y7-83540-90	

* Tachometer with triple oil indicators (Ref. No.2) requires the relay to light the indicators.

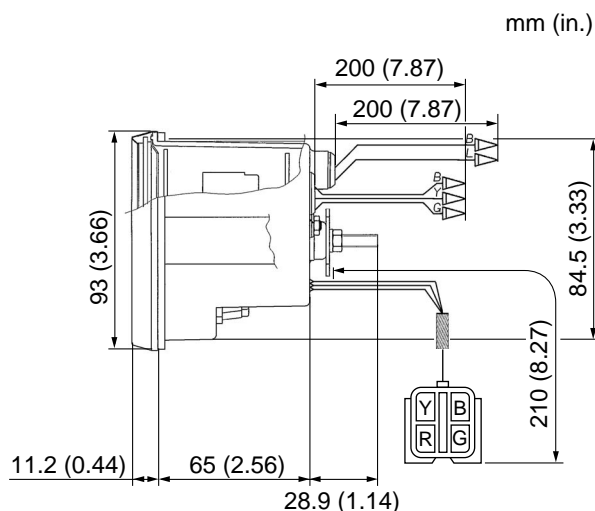
See the wiring-diagram to connect the relay (P/N: 6Y5-81950-02).

* If the current tachometer does not fit the older engine, use the wire-harness adapter which is shown in page 5-42.

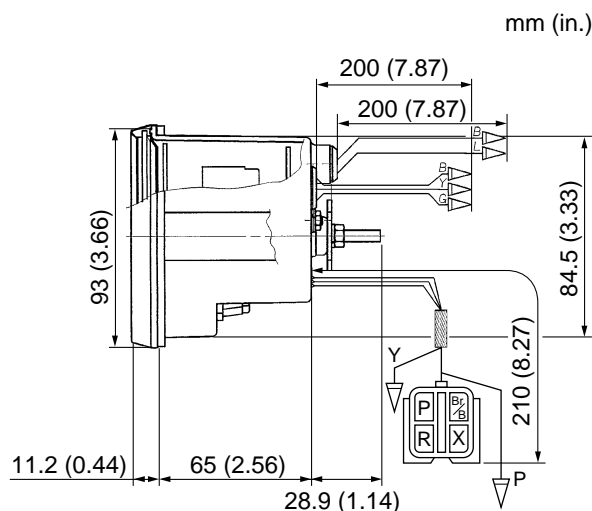
ANALOG TACHOMETER

ANALOG TACHOMETER DIMENSIONS

3-indicator for 250G & L250G



2-indicator for 4-stroke and oil injected 2-stroke engines (except 250G & L250G)



POLE NUMBER SET UP

Yamaha tachometer shows the engine RPM by receiving the pulse signal from lighting coil.

The flywheel magneto used on Yamaha outboard motors varies in number of poles used: 4-pole, 6-pole and 12-pole.

It is necessary to adjust the calibration switch on the back of gauge to correspond to the particular motor being used.

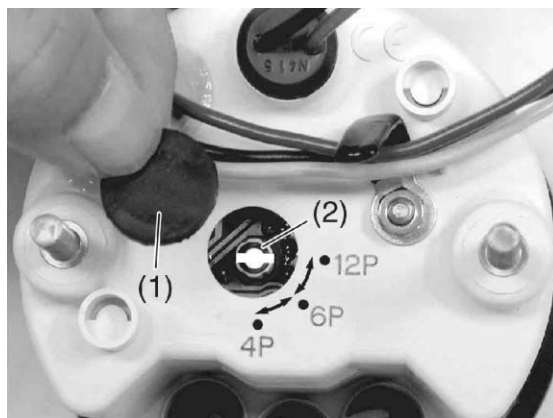
The initial setting is 12-pole. Adjust if necessary.

Description	Applicable model
4-pole	6 – 15, 55B, E/40G, E/40J, E48C, E55C, EK40G, EK40J
6-pole	20D (20), 25N (25), 30D, 40V, 50H (50), 60F 70B, E/25B, EK25B, E/30H, E/40X, E60H, F8C (F8A), FT8D (T8A), F9.9F (F9.9A)
12-pole	55D, 75A, 75C, 85A, 90A (90), V4, V6, E60J, E65A, E75B, F15 [6AG] – F250 ^(*)

(*) Mechanical RC

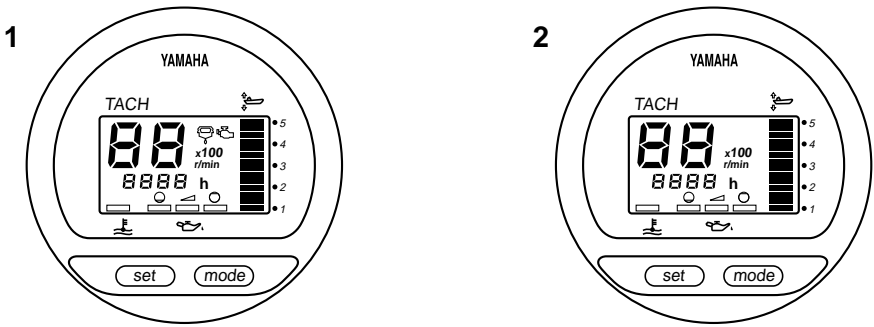
POLE NUMBER ADJUSTMENT

1. Remove the rubber grommet (1) from the back of meter.
2. Turn the rotating switch (2) with a slotted-head screwdriver to the required position.
3. Reinstall the grommet.



DIGITAL TACHOMETER

A tachometer is essential for suitable outboard performance.
The engine speed can be monitored for most efficient operation.
In dual-engine applications, the tachometers can be used to set the throttle of each engine accurately.
The digital tachometer includes the elapsed hour meter, the trim meter and the oil warning indicator.
Also, this meter can be used for both 2 and 4 stroke models by the switch settings.



DIGITAL TACHOMETER APPLICATIONS

Ref. No.	Description	Part No.	Applicable model
1	Multifunction	6Y5-8350T-04	250G,L250G
2	Multifunction w/o "Check engine" and "Water in fuel" indicators	6Y5-8350T-91	Above 40 (3-cyl) w/ oil injection & PTT (except 250G/L250G), Above F30 w/ PTT (*1)

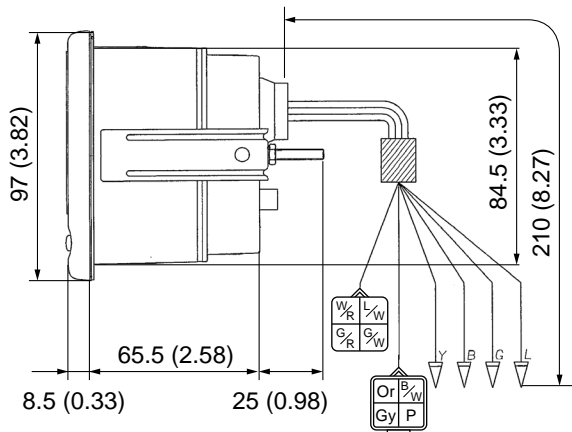
(*1) Mechanical RC

* If the current tachometer does not fit the older engine, use the wire-harness adapter which is shown in page 5-42.

DIGITAL TACHOMETER DIMENSIONS

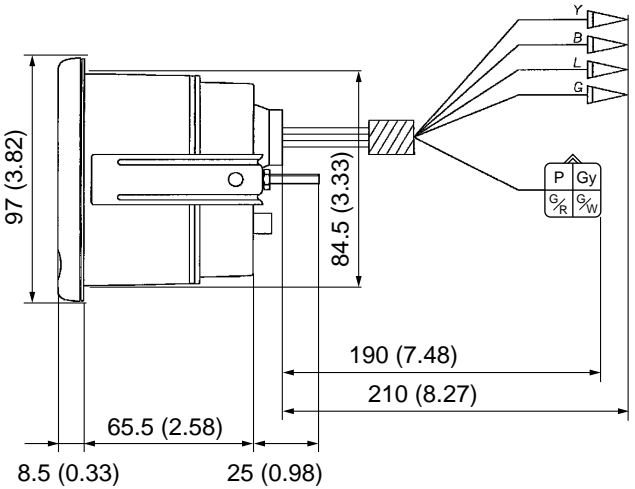
1. With twin 4-pin couplers

mm (in.)



2. With single 4-pin coupler

mm (in.)



DIGITAL TACHOMETER

POLE NUMBER SET UP

The tachometer indicates the engine speed by receiving the pulses from the lighting coil.

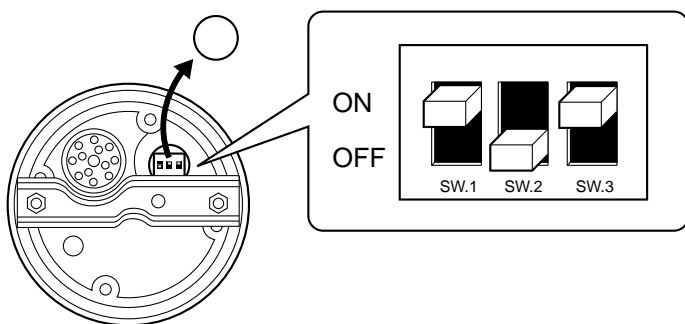
The flywheel magnets used in Yamaha outboards vary in number of poles used: 6-pole and 12-pole. It is necessary to change the calibration switch on the back of the meter to correspond to the particular motor being used.

Also, the selection of the engine type and the trim sensor type is required.

Description	Applicable model
6-pole	40V, 50H (50), 60F, 70B
12-pole	75C, 90A (90), V4, V6, F30 – F250 [Mechanical RC]

POLE NUMBER ADJUSTMENT

1. Remove the rubber grommet from the back the meter.
2. Set the toggle dipswitches on the chart as shown.
3. Reinstall the grommet.



No.	SW.1	SW.2	SW.3
Dipswitch function	Trim sensor type	Generator type	Engine type
ON	2 lead	6-pole	4-stroke
OFF	3 lead	12-pole	2-stroke

* The switch position in the illustration shows the initial setting.

SPEEDOMETER

The speedometer indicates an approximate speed of the boat through the water by measuring the impact force of the water with a pressure gauge.

This impact force will vary with the density of the water and the speed of the impact.

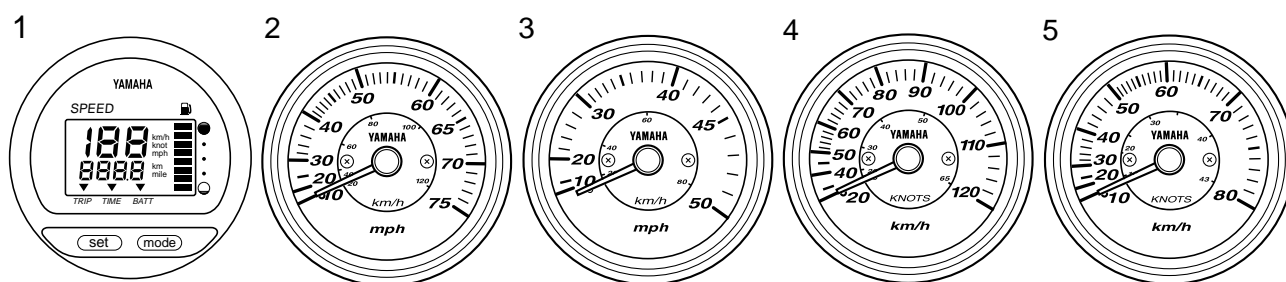
The density can be vary by the purity of the water and the temperature of water.

The speed of water impact can vary by the location of the speed sensor and its relation to the water flow off the area of the boat in front of the sensor.

Because of these variables, the true speed of a boat can vary from the indicated speed on the meter.

Especially, the digital speedometer uses LCD readouts for speed, clock, trip distance, fuel tank level, and warning information for low fuel level and abnormal battery voltage.

The speed can be calibrated for mph, km/h, and knots.



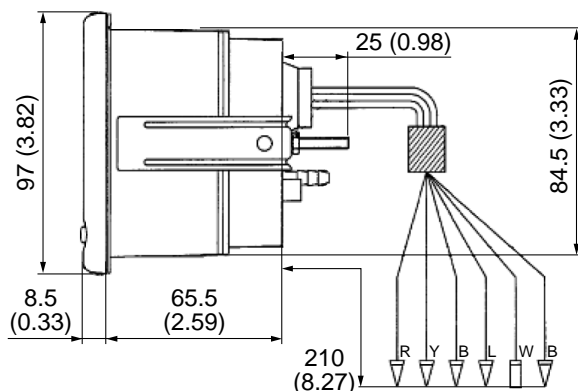
SPEEDOMETER APPLICATIONS

Ref. No.	Description	Part No.	Applicable model
1	Digital multifunction	6Y5-83570-S6	Above 40 (3-cyl)
		6Y5-83500-30	Above F30 [Mechanical RC] For Yamaha manufactured boats (Japan)
2	Analog, BLK panel 0 – 75 mph (20 – 120 km/h)	6Y7-83510-00	Above 40 (3-cyl) Above F30 [Mechanical RC]
	Analog, WHT panel 0 – 75 mph (20 – 120 km/h)	6Y7-83510-10	
3	Analog, BLK panel 0 – 50 mph (20 – 80 km/h)	6Y7-83510-20	
	Analog, WHT panel 0 – 50 mph (20 – 80 km/h)	6Y7-83510-30	
4	Analog, BLK panel 0 – 120 km/h (15 – 65 knot)	6Y7-83510-40	
	Analog, WHT panel 0 – 120 km/h (15 – 65 knot)	6Y7-83510-50	
5	Analog, BLK panel 0 – 80 km/h (10 – 43 knot)	6Y7-83510-60	
	Analog, WHT panel 0 – 80 km/h (10 – 43 knot)	6Y7-83510-70	

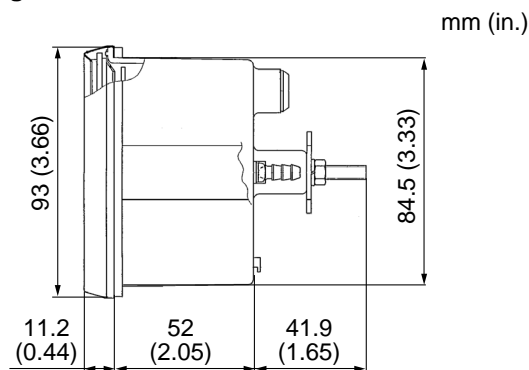
SPEEDOMETER

SPEEDOMETER DIMENSIONS

Digital



Analog

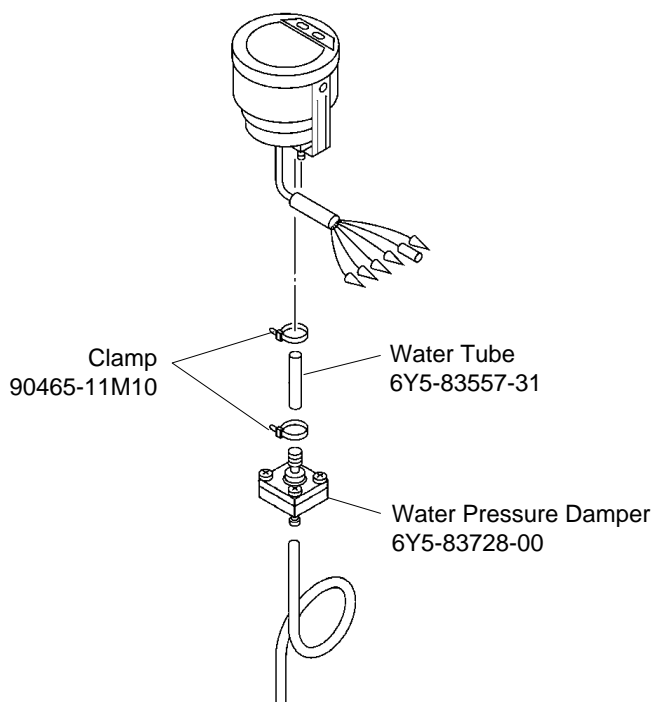


* A 6 m (19.7 ft) water tube (P/N: 688-83557-00) is included with all speedometer units, (except digital speedometer unit P/N: 6Y5-83570-S5).

WATER PRESSURE DAMPER (OP)

Installing the water pressure damper between the gauge and water tube is recommended under following condition.

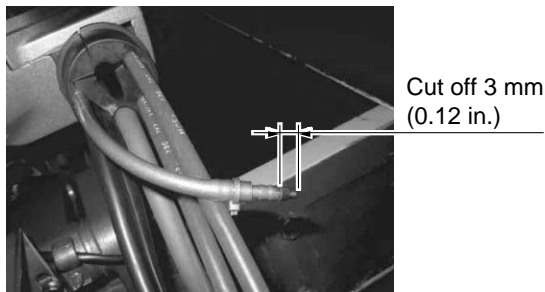
- The pointer of analog gauge is wiggled if water pressure pulsates.
- To reduce a risk if water has leaked at connector end causing the gauge damage.



SPEEDOMETER

SPEEDOMETER TUBE ROUTING

1. Cut off about 3 mm (0.12 in.) from the end of the nipple of the speedometer tube to open it.



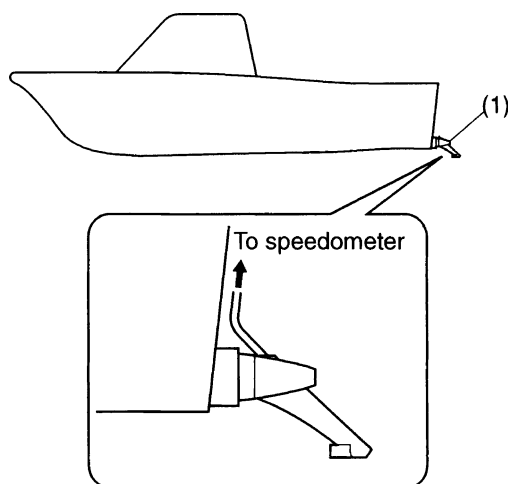
2. Route the speedometer tube carefully to avoid crimping or damage.



3. Connect the tube to the nipple.

* The optional speed sensor (P/N: 688-83556-01) is required if the speedometer tube is not equipped to the clamp bracket area.

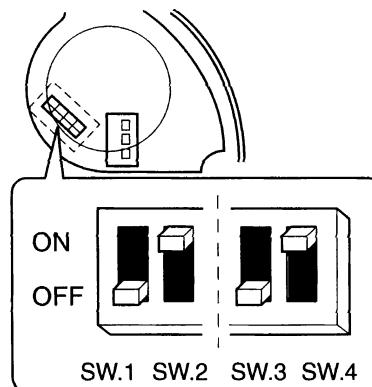
* In high-performance applications where the engine has been mounted in an elevated position, it may be necessary to use the optional speed sensor to obtain a correct reading.



(1) Optional speed sensor

DIGITAL SPEEDOMETER SET UP

1. Remove the rubber grommet from the back the meter.
2. Set the toggle dipswitches on the chart as below.
3. Reinstall the grommet.



SW.1	ON	OFF	OFF
SW.2	ON	ON	OFF
Display	km/h	mph	knot/h

SW.3	ON	OFF	OFF
SW.4	ON	ON	OFF
Fuel sensor	Yamaha original 5 – 105 Ω	ABYC (US) 30 – 240 Ω	Europe 180 – 0 Ω

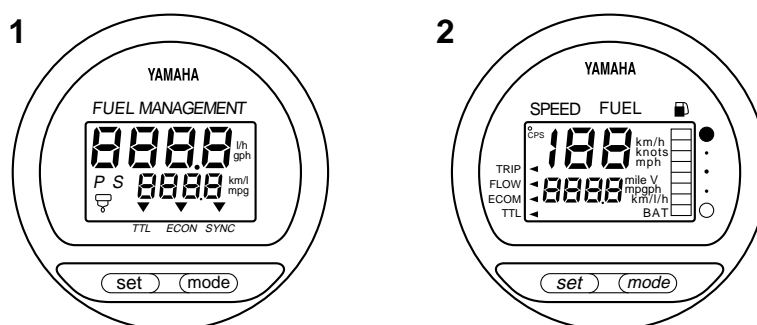
* The switch position in the illustration shows the initial setting, which is the mph display and ABYC fuel sensor.

FUEL MANAGEMENT GAUGE

The fuel management gauge has the functions as a fuel flow gauge, fuel consumption gauge, fuel economy gauge, twin engine RPM synchronizer for dual installations, and an optional water separator warning indicator that detects water in the fuel filter.

The gauge can display by receiving data from the fuel flow sensor and either a NMEA 0183 compatible GPS unit or the digital speedometer.

* Fuel management gauge with speedometer does not have the function as twin engine RPM synchronizer, water detection warning, and each engine's fuel measurement.



FUEL MANAGEMENT GAUGE APPLICATIONS

Ref. No.	Description	Part No.	Applicable model
1	Fuel mgt gauge kit 1 For single-engine	6Y5-W0088-54	Above 115 Above F115 [Mechanical RC]
	Fuel mgt gauge kit 2 For twin-engine	6Y5-W0088-65	
2	Fuel mgt gauge with speedometer	6Y5-83500-40	

FUEL MGT GAUGE KIT CONTENTS

Description	Part No.	Q'ty		Remarks
		Kit 1	Kit 2	
Fuel mgt gauge	6Y5-83500-F2	1	1	
3-prong connector	6Y5-87122-S0	1	1	Between digital speedometer and fuel mgt gauge
EXT wire-harness	6Y5-83553-F1	1	1	8 m, 26 ft
Fuel flow sensor	6Y5-85752-02	1	2	
EXT wire-lead	6Y5-82117-00	1	1	30 cm, 1 ft (BLK)
Screw	90158-06003	2	4	
Wire-lead	703-82531-00	—	1	70 cm, 2.3 ft (BLK)
Installation manual	6Y5-2819K-F0	1	1	

ADDITIONAL PARTS REQUIREMENTS (FOR FUEL MGT w/ speedometer)

Description	Part No.	Q'ty	Remarks
Fuel flow sensor	6Y5-85752-02	1	
EXT wire-harness	6Y5-83553-F1	1	8 m, 26 ft
Screw	90158-06003	2	

OPTIONAL WIRE-HARNESS

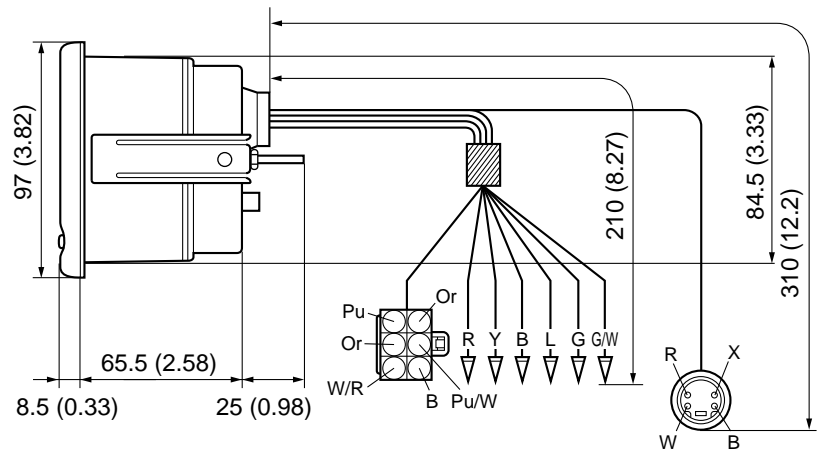
Description	Part No.	Remarks
GPS signal lead	6Y5-85721-F0	To connect a NMEA0183 compatible GPS unit

FUEL MANAGEMENT GAUGE

FUEL MANAGEMENT GAUGE DIMENSIONS

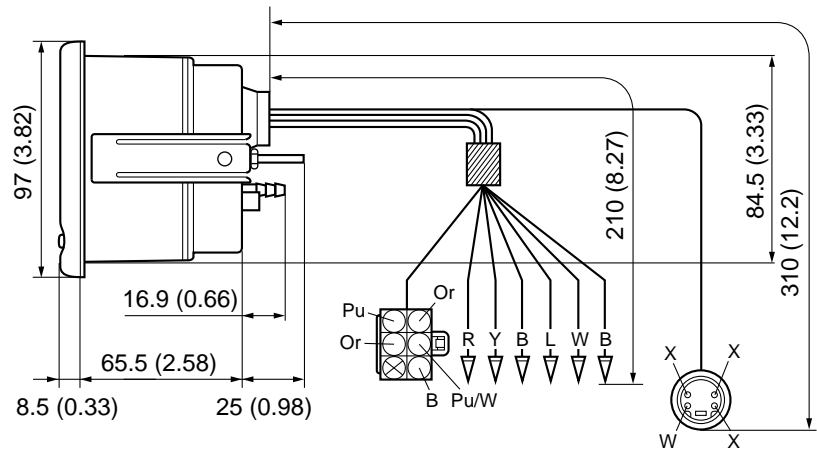
Fuel management gauge (Ref. No. 1)

mm (in.)



Fuel mgt gauge with speedometer (Ref. No. 2)

mm (in.)



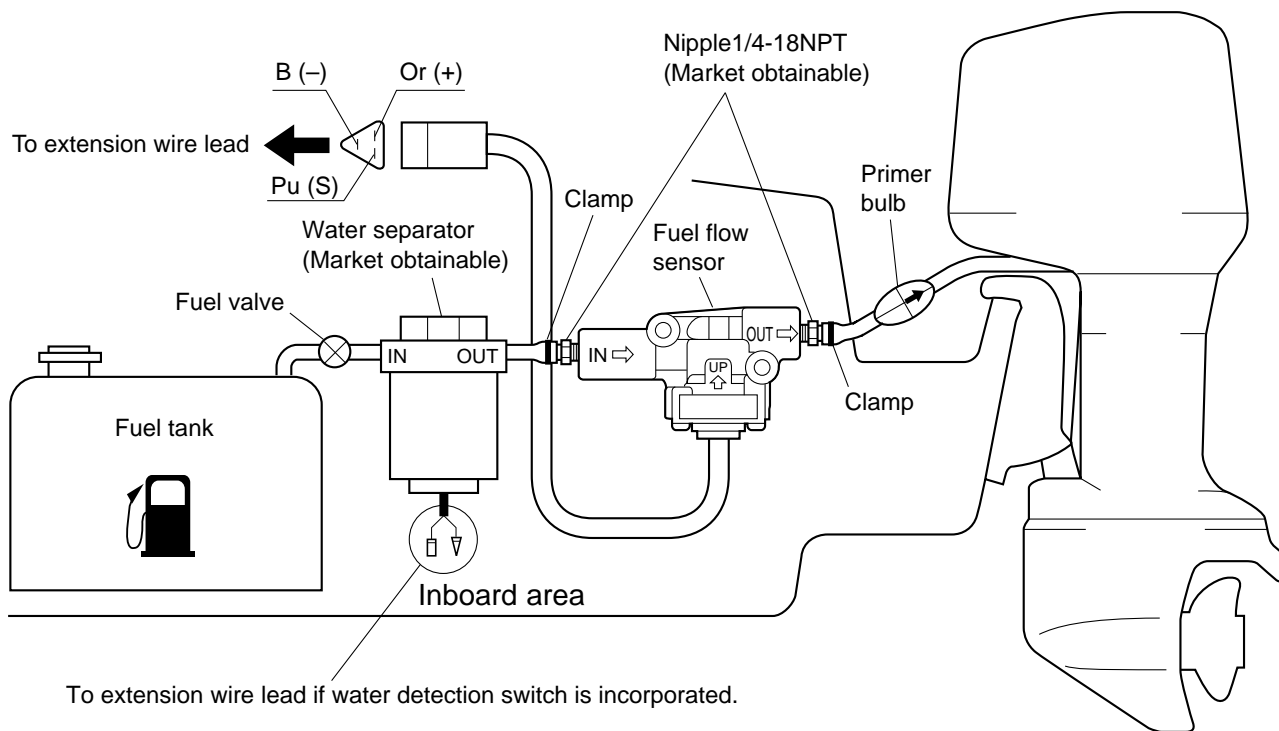
FUEL MANAGEMENT GAUGE

FUEL SENSOR INSTALLATION

Follow the notifications below.

1. Locate the sensor in a well ventilated area in boat between the engine and a water separator.
2. Place the sensor with the “UP” mark facing upward.
3. Use a fuel joint that is fitted to the fuel hose of the outboard motor.
4. Secure all fuel hose ends with a good quality hose clamp.

* For twin-application, refer to Wiring diagram in this chapter.
See the installation manual in the package for further information.

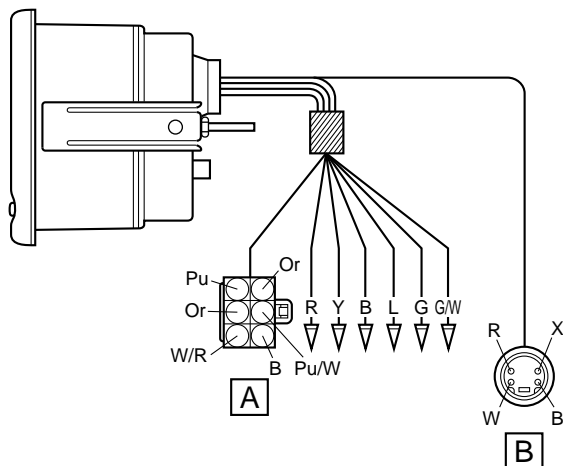


FUEL MANAGEMENT GAUGE

WIRING DESCRIPTION

Fuel management gauge

Be sure that both the fuel management gauge and speedometer yellow wires are connected to the same power source and activated at the same time.



R: 12 volt

G: To the green wire from "STBD" digital tachometer

G/W: To the green wire from "PORT" digital tachometer for twin motor installations

B: To the ground

L: To the blue wire from digital speedometer

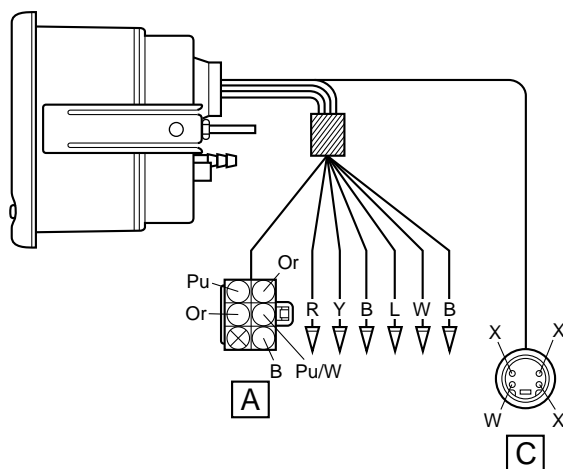
Y: To digital speedometer to the same power source

Coupler [A]: To the extension wire lead for the fuel flow sensor

Coupler [B]: To the digital speedometer or a NMEA 0183 compatible GPS unit

Fuel mgt gauge with speedometer

The speed data is automatically picked up, therefore wiring to the speedometer is not needed.



R: 12 volt

W: To fuel level sensor (Fuel tank)

B: To the ground

L: To light switch

Y: To power source

Coupler [A]: To the extension wire lead for the fuel flow sensor

Coupler [C]: To a NMEA 0183 compatible GPS unit

FUEL MANAGEMENT GAUGE

CONNECTING TO THE DIGITAL SPEEDOMETER (FOR FUEL MANAGEMENT GAUGE)

This calculates the fuel economy and fuel consumption, inputting the speed data to the fuel management gauge from the digital speedometer.

1. Remove the black grommet in the back of the digital speedometer.
2. Install the 3-prong connector (P/N: 6Y5-87122-S0) to the digital speedometer.
3. Connect the 3-prong connector to the fuel management meter.

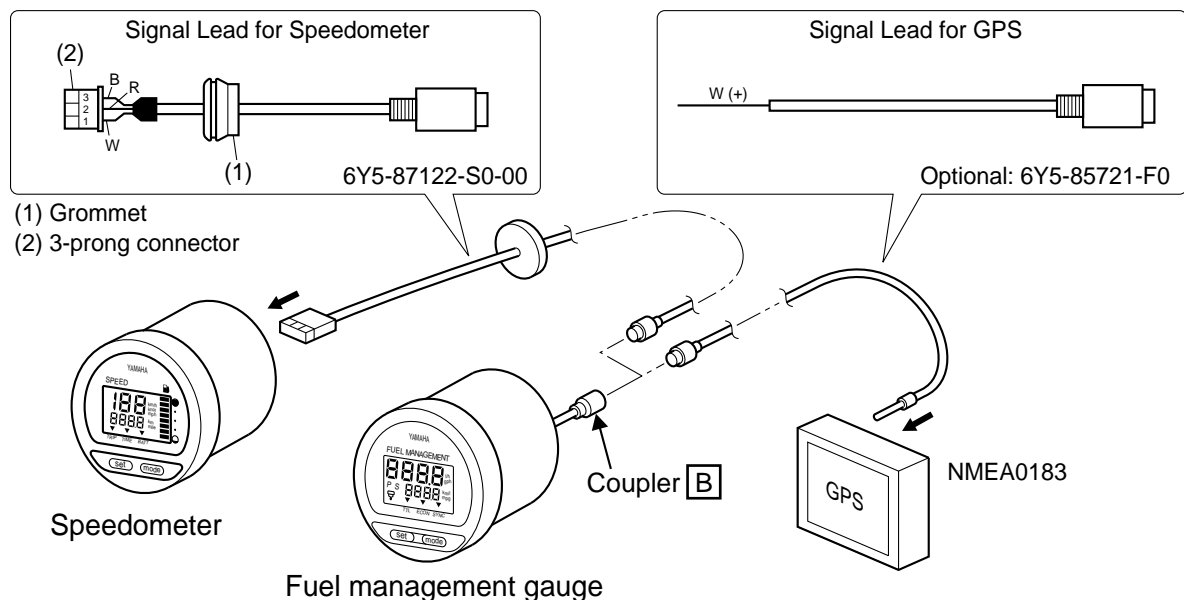
CONNECTING SPEEDOMETER TUBE (FOR FUEL MGT GAUGE WITH SPEEDOMETER)

See the speedometer section.

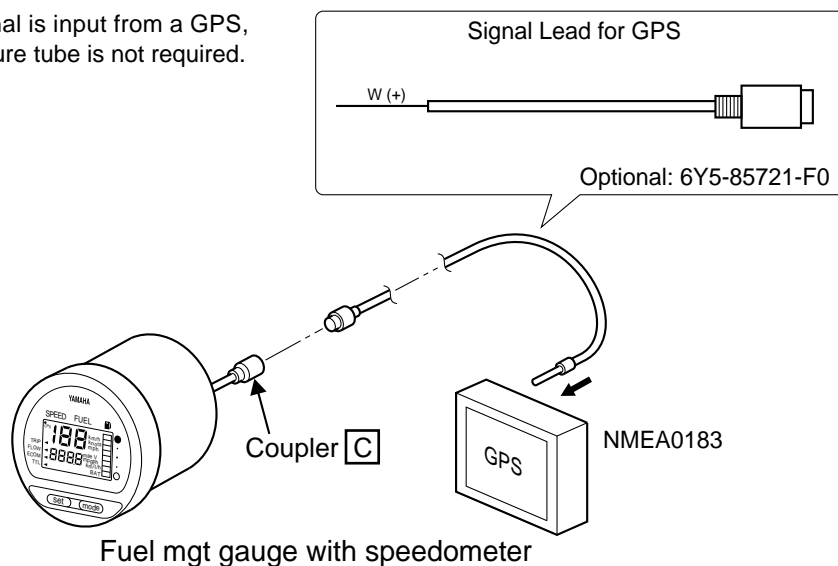
CONNECTING TO A GPS

This is to input the speed data to the fuel management gauge (with speedometer) from a GPS unit.

1. Connect the optional signal lead (P/N: 6Y5-85721-F0) to a NMEA 0183 compatible GPS unit.
2. Connect the signal lead to the fuel management gauge.
3. Connect the ground lead for GPS and fuel management meter (with speedometer) to the same ground.



If the speed signal is input from a GPS, the speed pressure tube is not required.



FUEL MANAGEMENT GAUGE

FUEL MANAGEMENT GAUGE SET UP

Follow the procedure below.

1. Remove the grommet (1) on the back of the meter.
2. Select the fuel measurement switch 4 for either gallons per hour (gph) or liters per hour (L/h).
3. Select the signal input switch 5 and 6 for either the digital speedometer or a GPS.
4. Set the compensator switch 1, 2 and 3 if there is a difference of fuel consumption between the actual amount and meter reading.

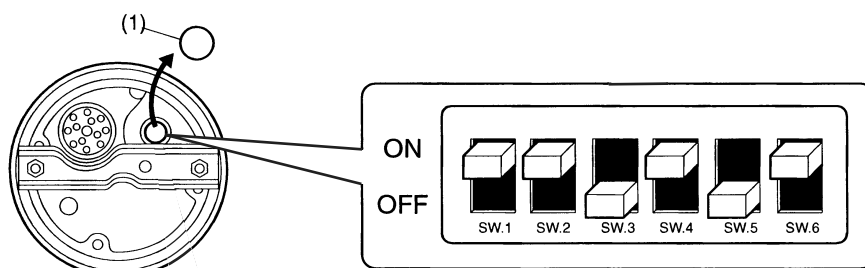
For example:

Actual amount of fuel used: 50 gallons

Fuel management gauge indicates: 51 gallons

Different = + 1 gallon

1 gallon / 50 gallons = 0.02 or 2%

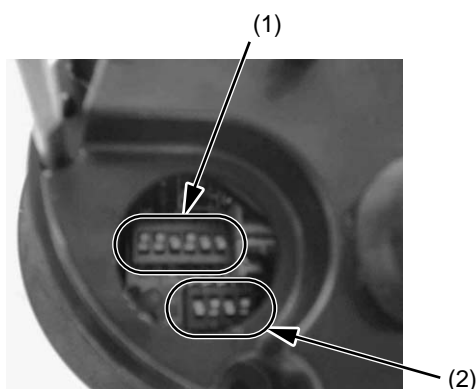


SW.1	ON	OFF	ON	OFF	ON	OFF	ON	OFF
SW.2	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW.3	ON	ON	ON	ON	OFF	OFF	OFF	OFF
Compensation	-4%	-3%	-2%	-1%	0	+1%	+2%	+3%

SW.4	OFF	ON
Unit	L/h	gph

SW.5	OFF	ON
SW.6	ON	OFF
Input source	Speedometer	GPS

FUEL MGT GAUGE WITH SPEEDOMETER SET UP



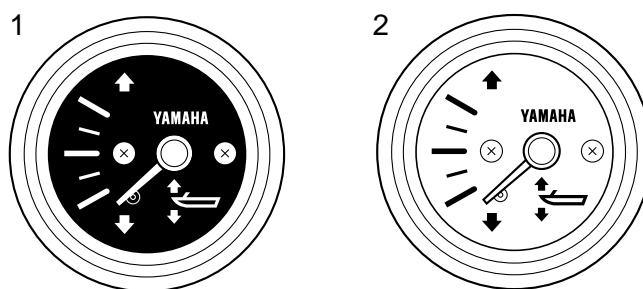
For 6 line switches (1), see the above instruction.

Switch 6 is not used.

For 4 line switches (2), see DIGITAL SPEEDOMETER SET UP on page 5-11.

ANALOG TRIM METER

The trim meter shows the trim angle of the outboard motor.



ANALOG TRIM METER APPLICATIONS

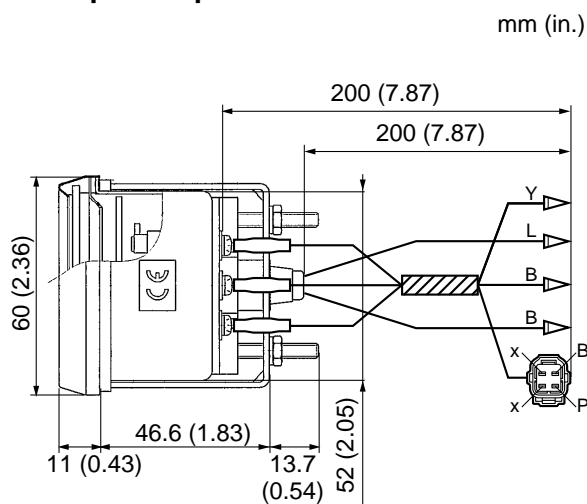
Ref. No.	Description	Part No.	Applicable model
1	4-pin coupler BLK panel	6Y7-83670-00	Above premixed 40 (3-cyl) w/ PTT, 250G, L250G
	Bullet connector BLK panel	6Y7-83670-40	Above 40 (3-cyl) w/ oil injection & PTT (except 250G & L250G), Above F30 w/ PTT (*1), T25 (*2) Using as a set with tachometer, 6Y7-83540-80
2	4-pin coupler WHT panel	6Y7-83670-20	Premixed 40 (3-cyl)-225 w/ PTT, 250G, L250G
	Bullet connector WHT panel	6Y7-83670-50	Above 40 (3-cyl) w/ oil injection & PTT (except 250G & L250G), Above F30 w/ PTT (*1), T25 (*2) Using as a set with tachometer, 6Y7-83540-90

(*1) Mechanical RC

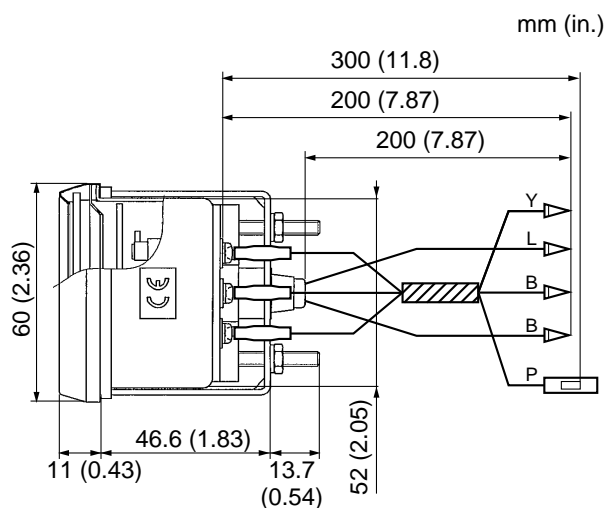
(*2) T25 for US/CA

ANALOG TRIM METER DIMENSIONS

With 4-pin coupler



With bullet connector



TRIM SENSOR ADJUSTMENT

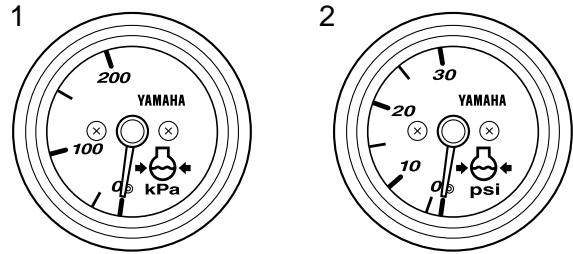
For a down position adjustment, loosen the trim sensor screw and make an adjustment so that the needle aligns with the marking line indicating "DOWN".

COOLANT PRESSURE METER

The coolant pressure meter shows the water pressure of cooling water passage, and provides a warning for the operator when there is a problem with the cooling system.

* For all in-line cylinder models, the position for installing the sensor shares the coolant temperature output. Therefore, either the coolant temperature meter or the coolant pressure meter can be used for one engine.

* However, on V4, V6, and F150 models, both meters can be used for one engine.



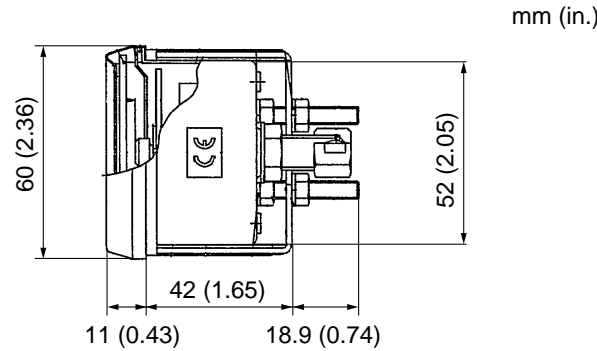
COOLANT PRESSURE METER APPLICATIONS

Ref. No.	Description	Part No.	Applicable model
1	kPa, Black panel	6Y7-83660-00	Above 40 [3-cyl] Above F25 (FT/T25) [Mechanical RC]
	kPa, White panel	6Y7-83660-20	
2	psi, Black panel	6Y7-83660-10	
	psi, White panel	6Y7-83660-30	

ADDITIONAL PARTS REQUIREMENTS

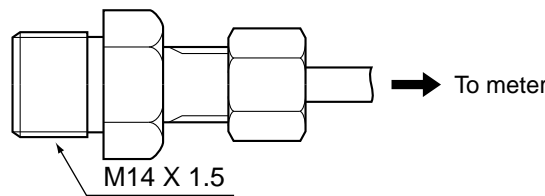
Description	Part No.	Remarks
Coolant pressure attachment	688-83667-00	With 10 m (32.8 ft) tube

COOLANT PRESSURE METER DIMENSIONS



COOLANT PRESS. ATTACHMENT INSTALLATION

The method for installing the coolant pressure attachment is the same as the coolant temperature sensor. See the installation instruction to the sensor in the coolant temperature meter on page 5-21.



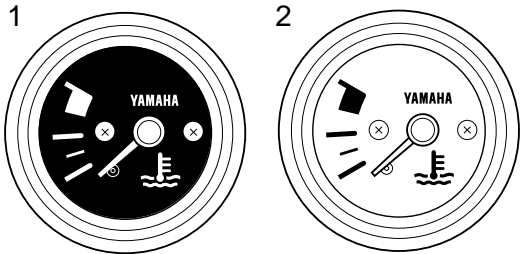
COOLANT TEMP. METER

The coolant temperature meter uses a sensor on the engine unit to indicate the temperature of the cooling water inside the powerhead.

The meter has a red zone to indicate overheating so problems can be corrected before severe damage occurs.

* For all in-line cylinder models, the position for installing the sensor shares the coolant pressure output. Therefore, either the coolant temperature meter or the coolant pressure meter can be used for one engine.

* However, on V4, V6, and F150 models, both meters can be used for one engine.

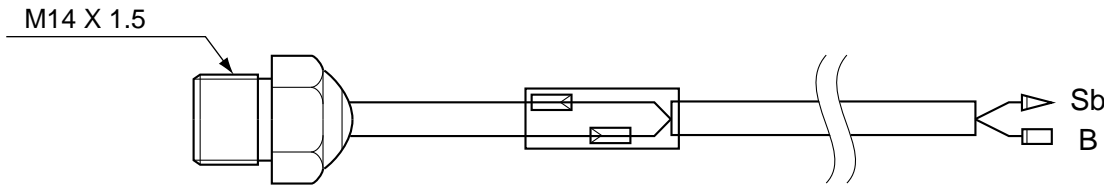


COOLANT TEMP. METER APPLICATIONS

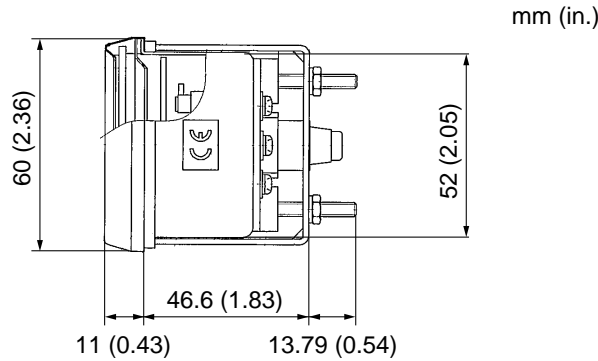
Ref. No.	Description	Part No.	Applicable model
1	Black panel	6Y7-83590-00	Above 40 [3-cylinder]
2	White panel	6Y7-83590-10	Above F25 (FT/T25) [Mechanical RC]

ADDITIONAL PARTS REQUIREMENTS

Description	Part No.	Remarks
Coolant temp. sensor	688-83591-00	With 7 m (23 ft) leads



COOLANT TEMP. METER DIMENSIONS



COOLANT TEMP. METER

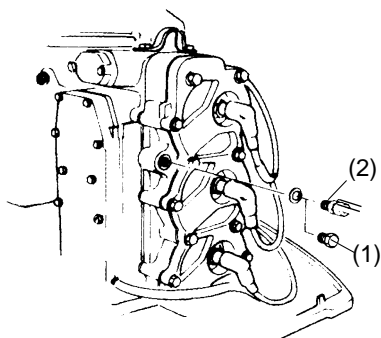
COOLANT PRESS. ATTACHMENT AND/OR COOLANT TEMP. SENSOR INSTALLATION (FOR 2-STROKE MODELS)

Remove the screw plug (1) from the cylinder head and install the sensor (2) with gasket.

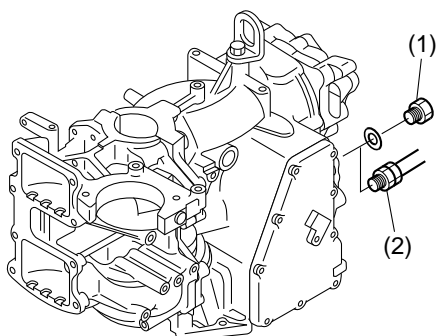
After installing the sensor/ attachment, check for water leakage.

[Sensor/ attachment (2): 20 Nm, 2.0 kgf•m,
15 ft•lb]

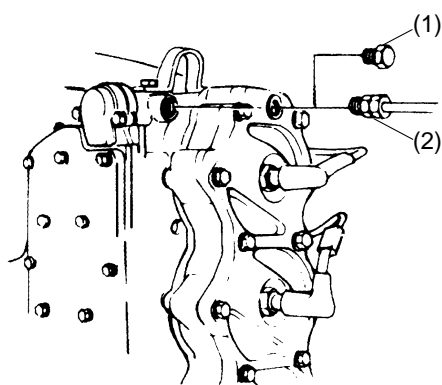
40V, 50H (50)



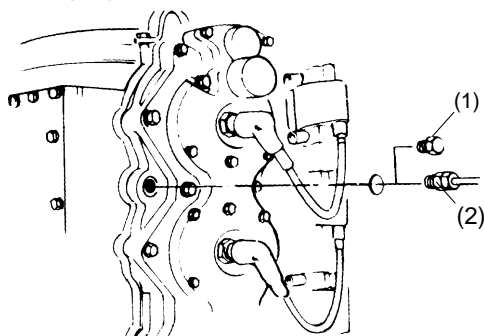
E48C, 55B



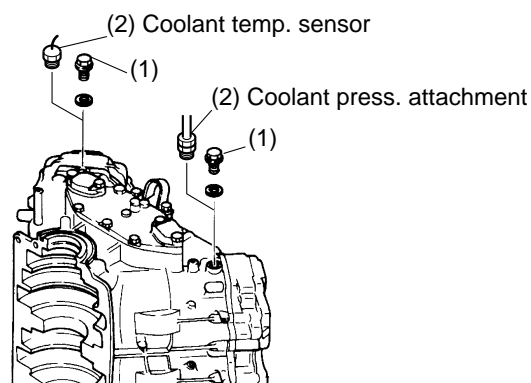
60F, 70B



75C, 90A (90), 75A, 85A



V4, V6

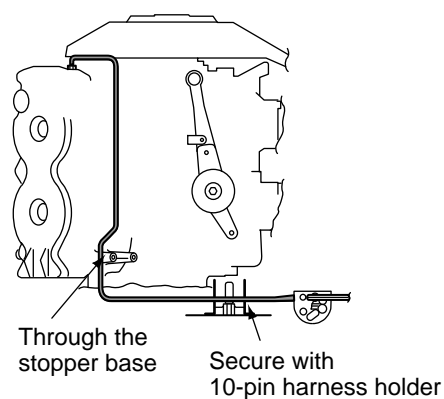


NOTICE

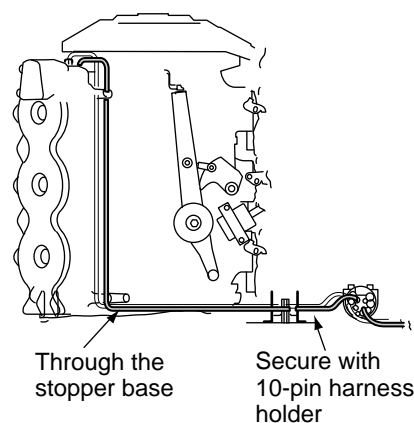
Install the coolant pressure attachment on the port side. If it is installed on the starboard side, the tube could cause a damage by hard bending.

ROUTING COOLANT TEMP. LEAD

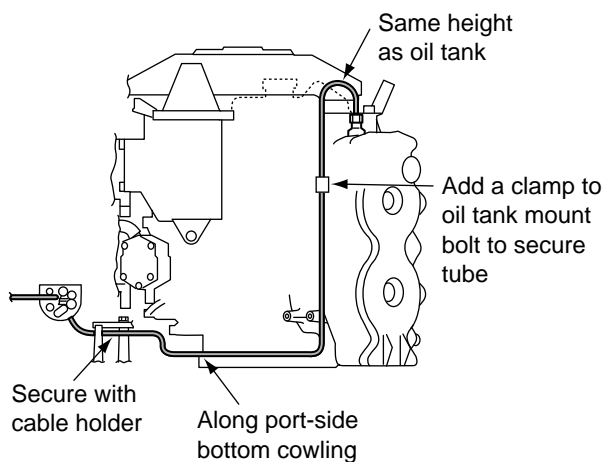
V4



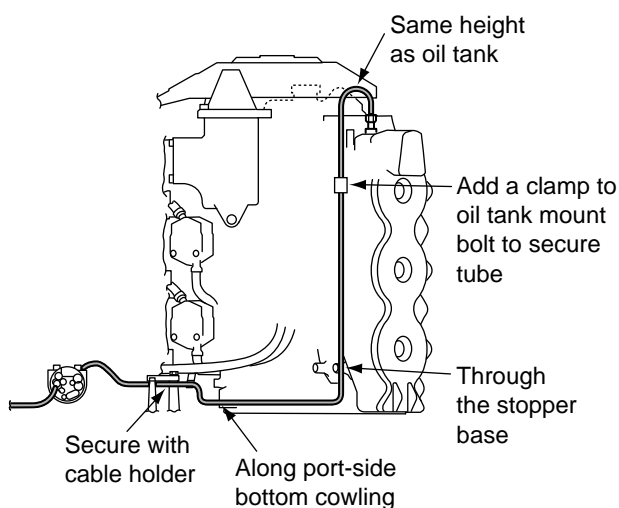
V6 (2.6)



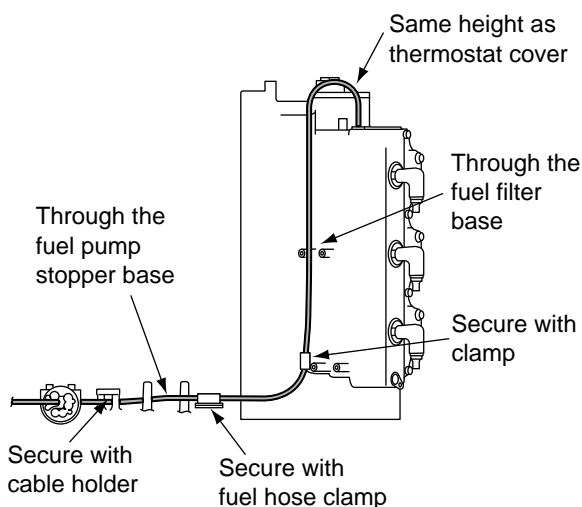
COOLANT TEMP. METER ROUTING THE COOLANT PRESS. TUBE V4



V6 (2.6)



V6 (3.1)



COOLANT PRESS. ATTACHMENT AND/ OR COOLANT TEMP. SENSOR INSTALLATION (FOR 4-STROKE MODELS) F25D (F25A), FT25F (T25A), F30B (F30A), F40F (F40A)



Coolant temp. sensor

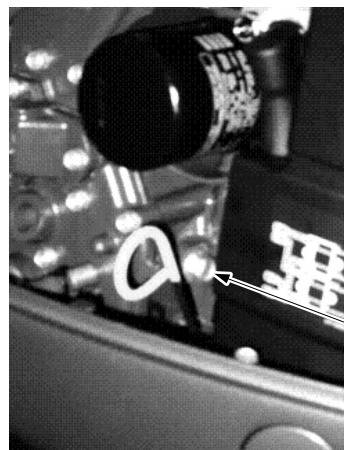
Coolant pressure attachment

FT50C, F50D



Coolant temp. sensor, or
coolant pressure attachment

F95A, F100B, F115A

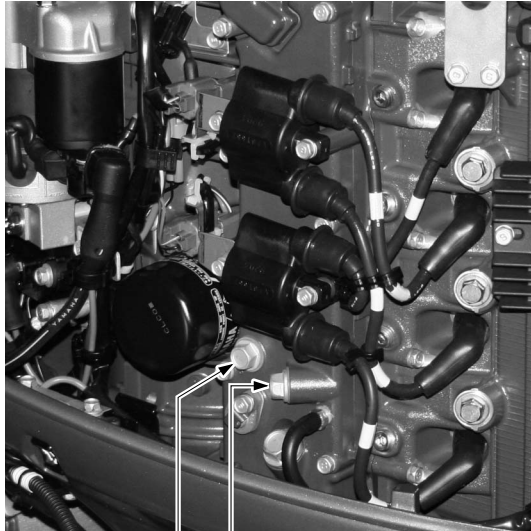


Coolant temp.
sensor, or
coolant pressure
attachment

COOLANT TEMP. METER

F40D, F50F (F50), FT50G (T50), F60C (F60), FT60D (T60), F70A (F70A)

Only one of coolant press. attachment and coolant temp. sensor can be installed, even if the engine has two points for taking out it.



Coolant pressure attachment

Coolant temp. sensor

F75B (F75), F80B, F90B (F90), F100D, F75C, F80C

Remove the negative battery cable and oil dipstick, then put a rag on the oil filler hole to avoid dusts falling into the oil sump.



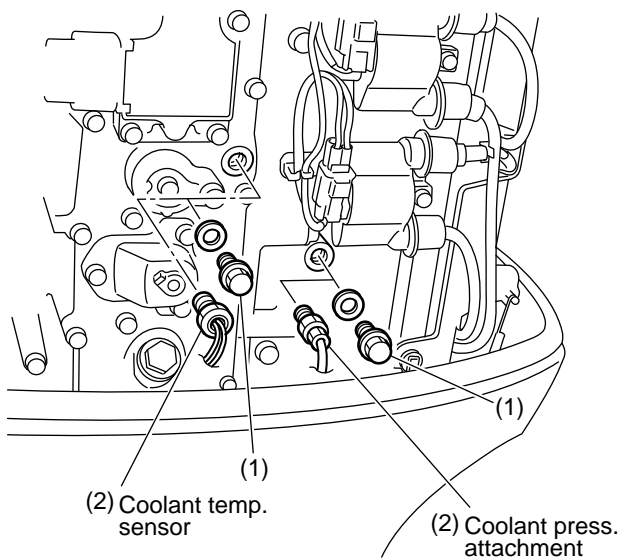
Coolant temp. sensor



Coolant press. attachment

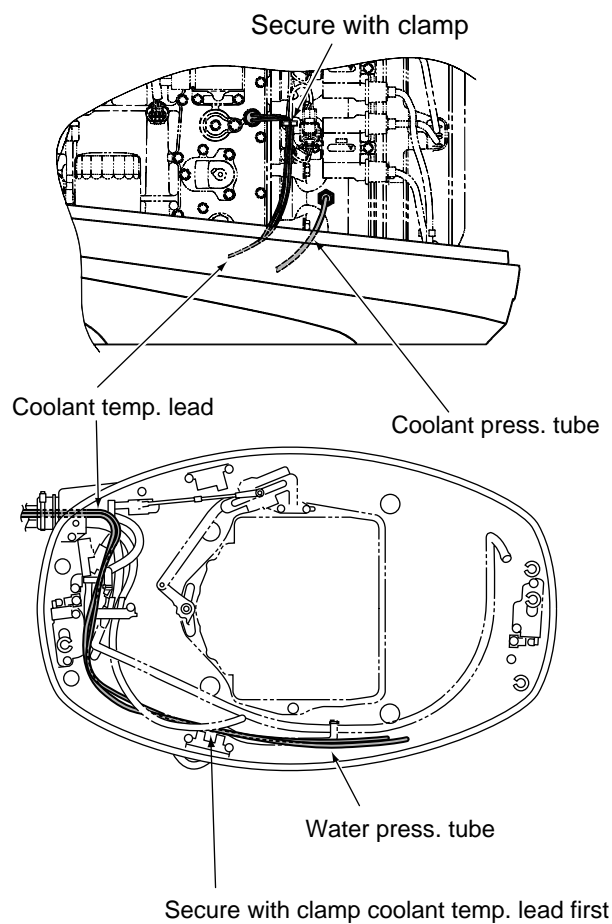
COOLANT TEMP. METER

F150

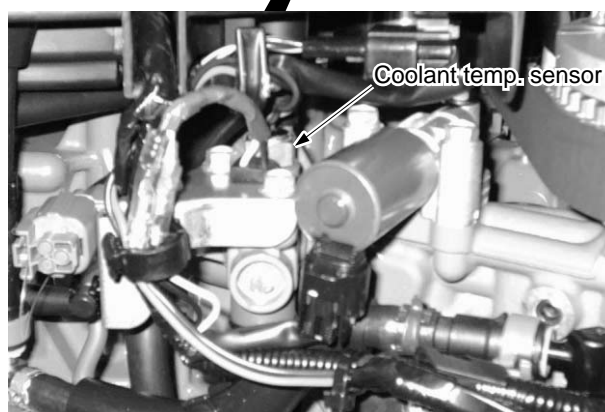
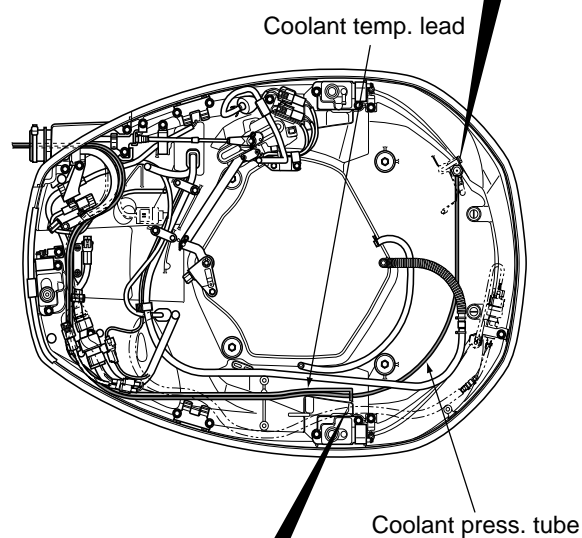


ROUTING THE COOLANT TEMP. LEAD & COOLANT PRESS. TUBE

F150

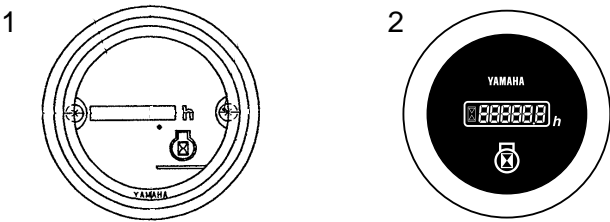


SENSOR/ ATTACHMENT INSTALLATION AND ROUTING F200, F225, F250 [Mechanical RC] w/ Variable Camshaft Timing

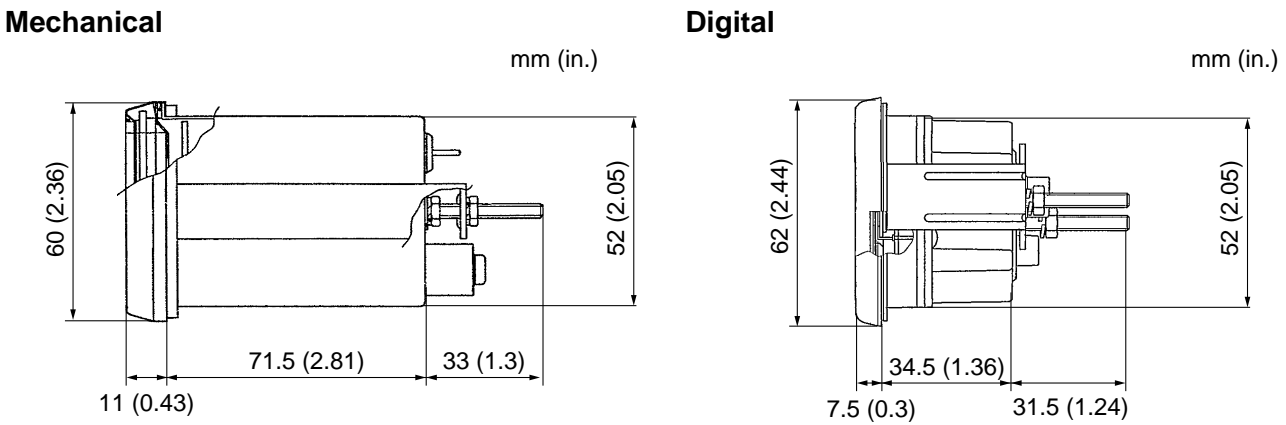


The hour meter provides the operator with useful at-a-glance information. It monitors the number of hours a motor has been used since original installation.

* The transaction of time count when the engine is stopped differs on each hour-meter and YDIS, therefore the elapsed time is not always equal on their equipments.



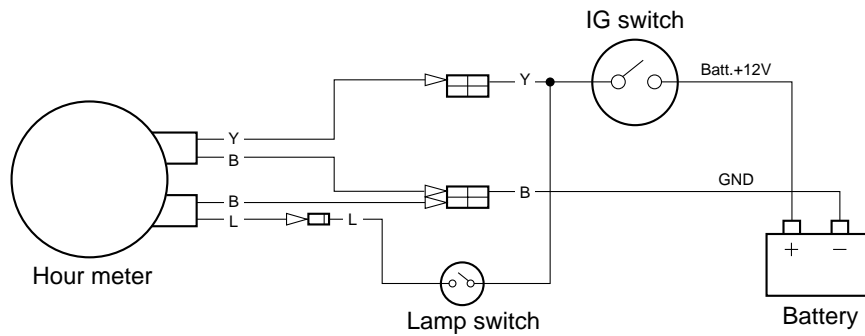
Ref. No.	Description	Part No.	Applicable model
1	Mechanical	6Y5-83504-01	All electrical start models
2	Digital, Black panel	6Y7-83504-00	
	Digital, White panel	6Y7-83504-10	



HOURL METER

WIRING THE MECHANICAL HOURL METER

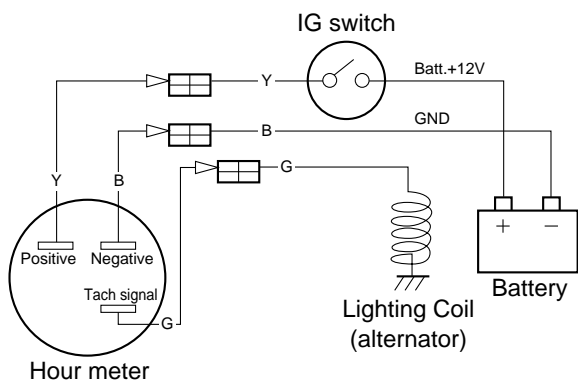
The hour meter can be counted while the ignition switch is “ON”.



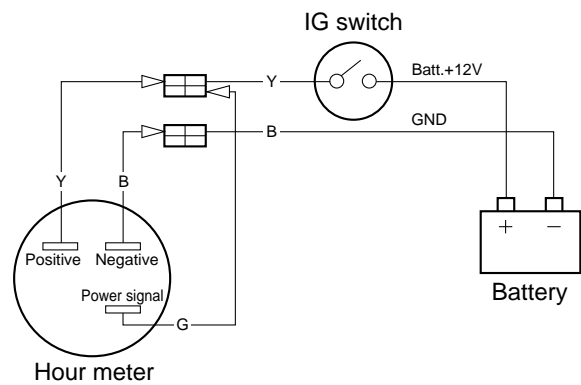
WIRING THE DIGITAL HOURL METER

Two counting method can be selected by connecting wires.

COUNTING TIME WHILE ENGINE IS RUNNING

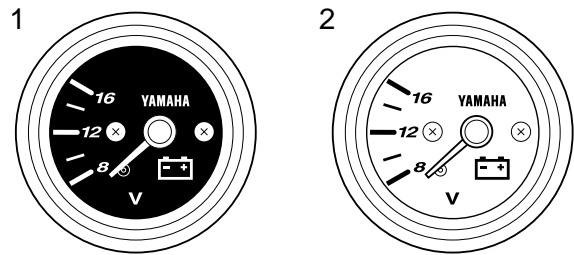


COUNTING TIME WHILE IG SWITCH IS “ON”



VOLTAGE METER

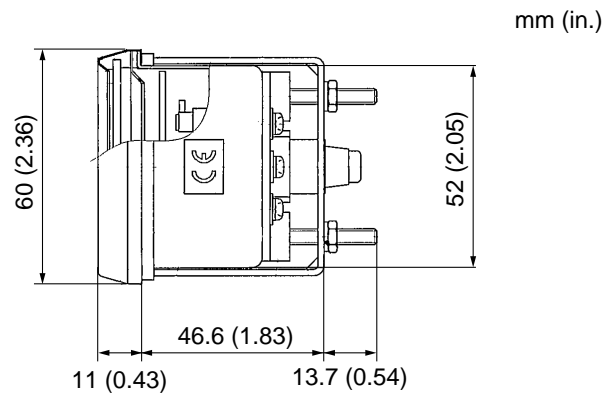
The voltage meter provides information about the charging condition of the battery.



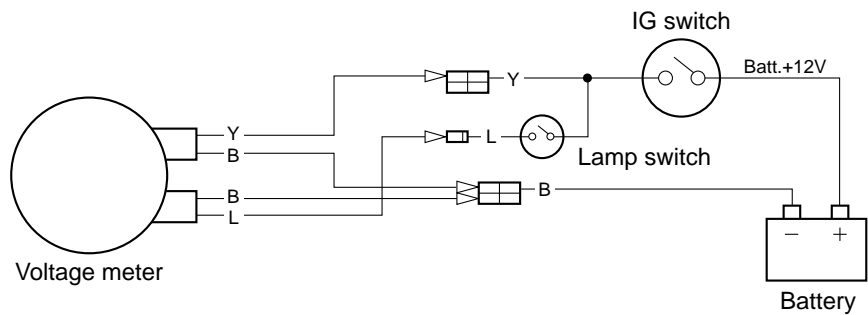
VOLTAGE METER APPLICATIONS

Ref. No.	Description	Part No.	Applicable model
1	DC 12 volts power supply Black panel	6Y7-83503-00	All electrical start models
2	DC 12 volts power supply White panel	6Y7-83503-10	

VOLTAGE METER DIMENSIONS

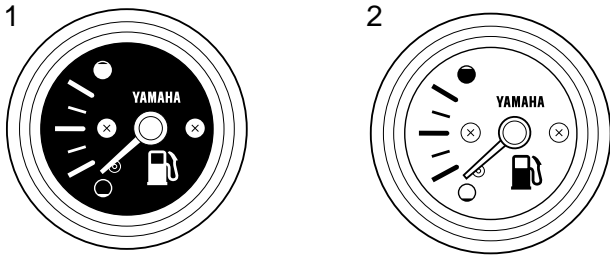


WIRING THE VOLTAGE METER



FUEL METER

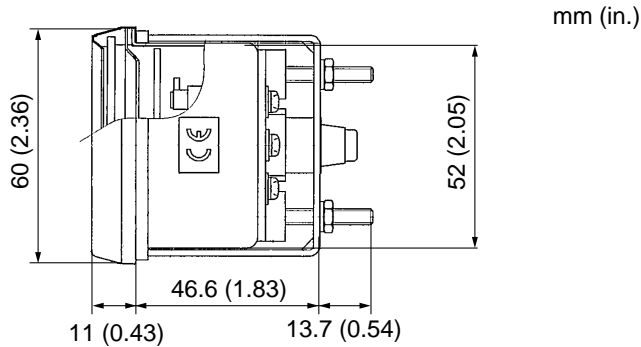
The fuel meter indicates the amount of fuel remaining in the fuel tank. However, the difference between the indication and actual remaining fuel may occur due to a fuel tank shape, design, etc.



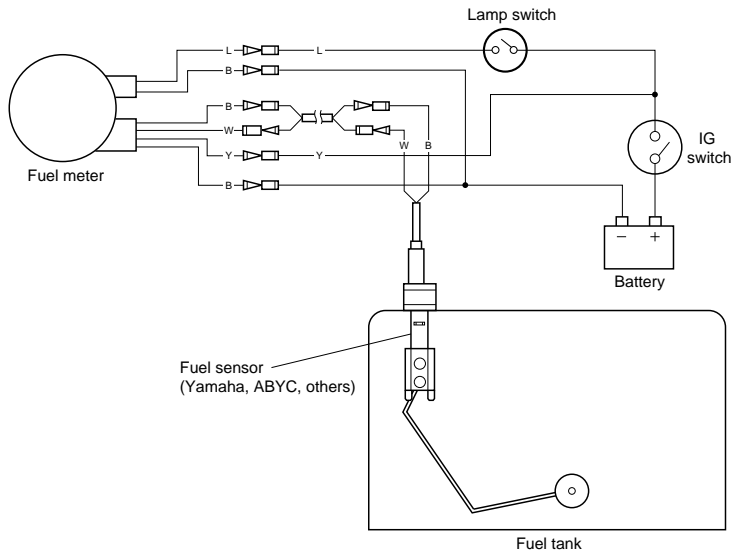
FUEL METER APPLICATIONS

Ref. No.	Description	Part No.	Applicable model
1	For Yamaha sensor (5 – 105 Ω) Black panel	6Y7-85750-00	All electrical start models
	For ABYC sensor (30 – 240 Ω) Black panel	6Y7-85750-10	
2	For Yamaha sensor (5 – 105 Ω) White panel	6Y7-85750-20	
	For ABYC sensor (30 – 240 Ω) White panel	6Y7-85750-30	

FUEL METER DIMENSIONS

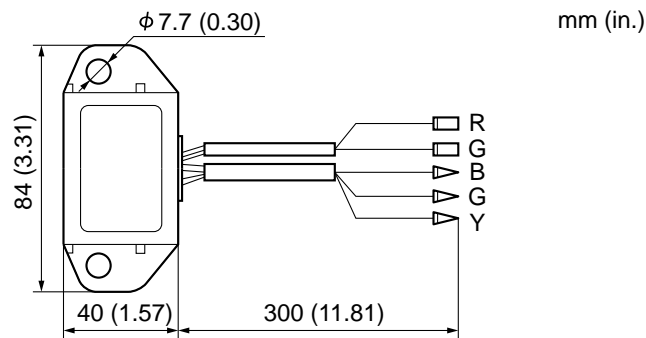


WIRING THE FUEL METER



CHARGE WARNING UNIT

The lamp of the charge warning unit indicates the status of charging the battery.
When the main switch is put into “ON” position, the red lamp lights.
After the engine starts, the lamp will go off.
If the charging system has malfunctioned, the lamp will light.

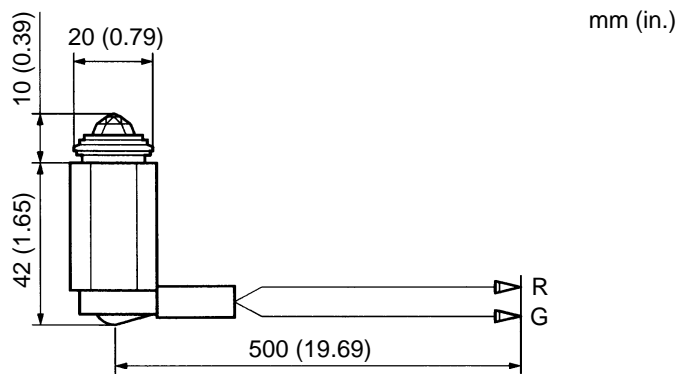


CHARGE WARNING UNIT APPLICATIONS

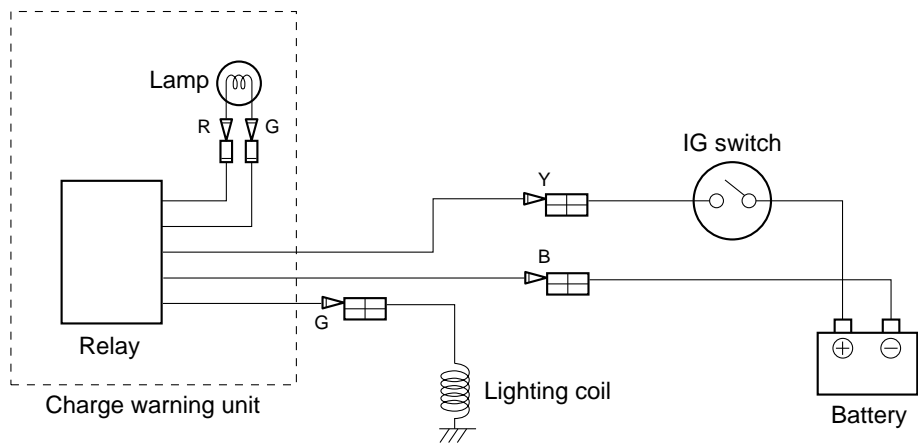
Description	Part No.	Remarks
Relay	697-81901-60	All electrical start models with a rectifier/regulator

ADDITIONAL PARTS REQUIREMENTS

Description	Part No.	Remarks
Red lamp	663-84301-01	12V



WIRING THE CHARGE WARNING UNIT



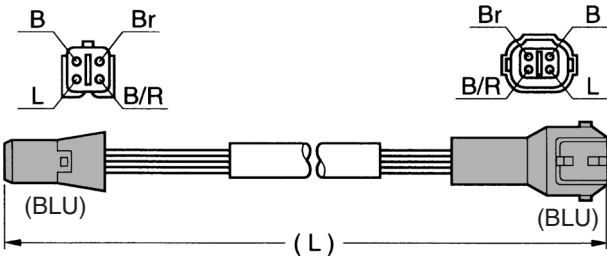
WIRE HARNESSES

An optional wire harness for the instruments is prepared. That will help any boats set up instruments. Choose a suitable wire-harness if necessary.

For the wire color description, see the table on page 5-34.

REMOTE-OIL TANK HARNESS

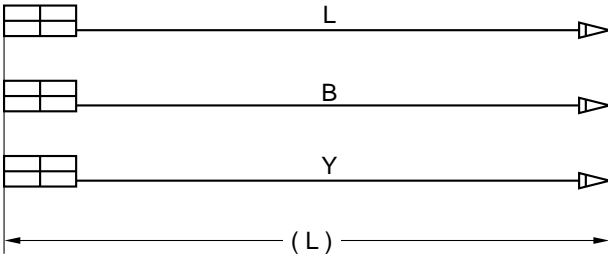
Part No.	Length (L)	Remarks
6R3-85721-30	3 m (9.8 ft)	For V4, V6 oil injection model.
6R3-85721-50	5 m (16.4 ft)	
6R3-85721-80	8 m (26.2 ft)	



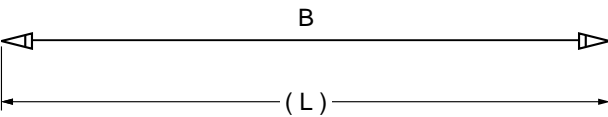
* On a model, 8 m wire harness is accompanied in the engine crate.

ADDITIONAL ACCESSORY LEAD

Part No.	Length (L)	Remarks
6Y5-82149-00	30 cm (1 ft)	Blue
6Y5-82117-00	30 cm (1 ft)	Black
6R3-82521-80	30 cm (1 ft)	Yellow



Part No.	Length (L)	Remarks
703-82531-00	0.7 m (28 in)	L/H model GND for gauges

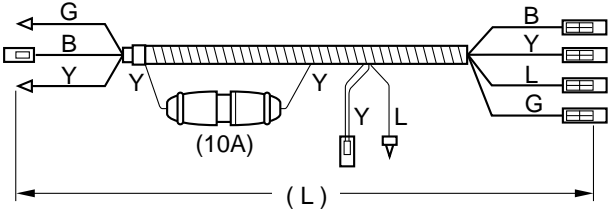


WIRE HARNESSSES

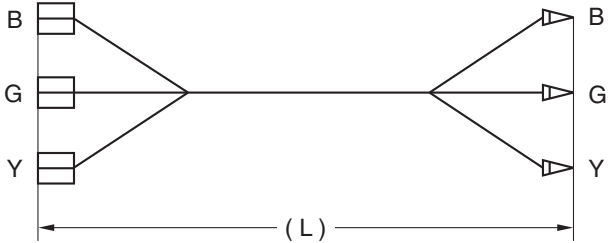
METER HARNESS

For analog meter

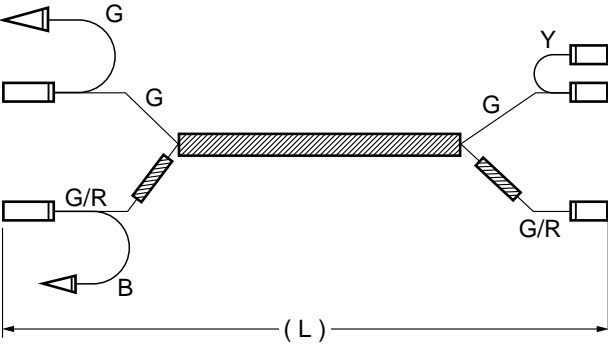
Part No.	Length (L)	Remarks
6Y5-83553-00	2.5 m (8.2 ft)	



Part No.	Length (L)	Remarks
6Y5-8350U-00	200 mm (8 in)	

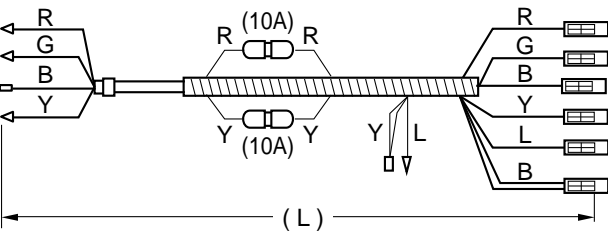


Part No.	Length (L)	Remarks
6Y5-83553-10	5 m (16.7 ft)	For pre-mixed model

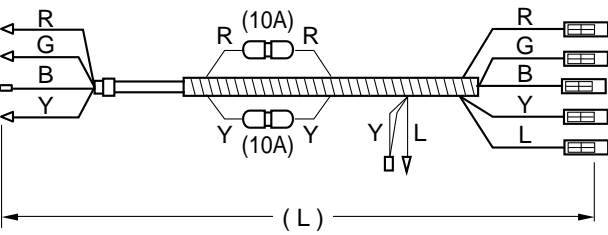


For digital meter

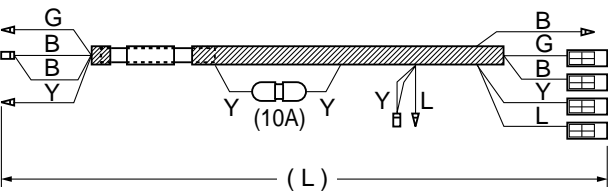
Part No.	Length (L)	Remarks
6Y5-83553-N0	2.5 m (8.2 ft)	For twin application



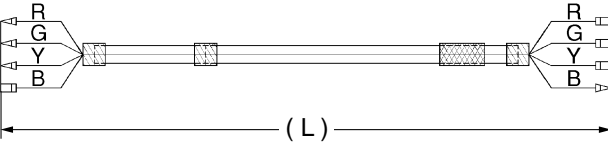
Part No.	Length (L)	Remarks
6Y5-83553-M0	2.5 m (8.2 ft)	For single application



Part No.	Length (L)	Remarks
6Y5-83553-20	2.5 m (8.2 ft)	L/H model



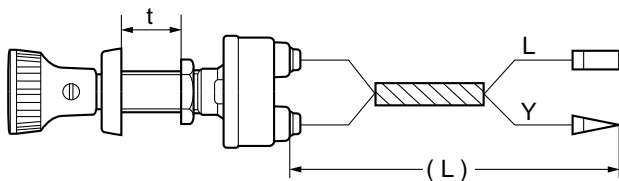
Part No.	Length (L)	Remarks
6Y5-8356N-00	1.5 m (5 ft)	Extension harness



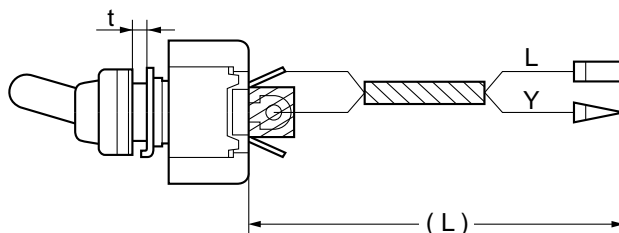
WIRE HARNESSES

LAMP SWITCH

Part No.	Length (L)	Remarks
688-82520-00	10 cm (4 in)	t = Max.15 mm

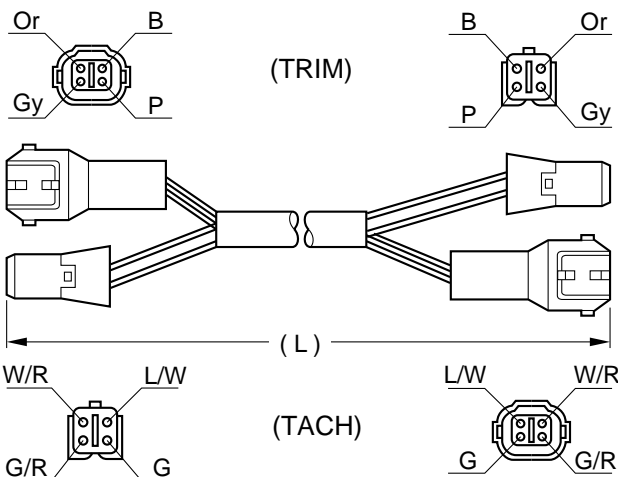


Part No.	Length (L)	Remarks
688-82526-00	10 cm (4 in)	t = Max.3 mm



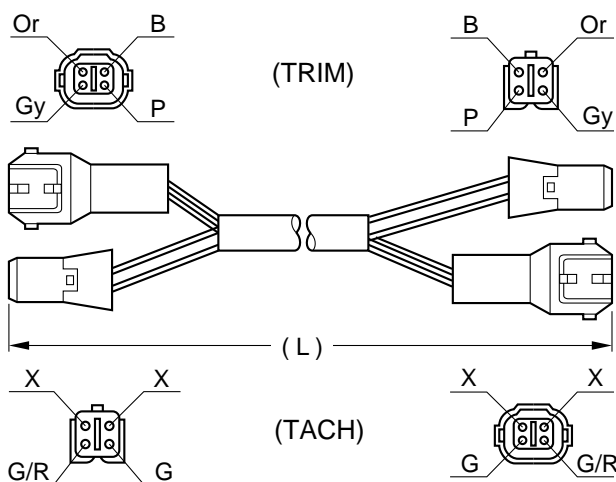
COMBINATION TRIM AND OIL LEAD 2

Part No.	Length (L)	Remarks
68F-82553-50	5 m (16.4 ft)	250G, L250G
68F-82553-70	7 m (23 ft)	
68F-82553-80	8 m (26.3 ft)	
68F-82553-90	9 m (31.2 ft)	
68F-82553-A0	10.5 m (32.8 ft)	



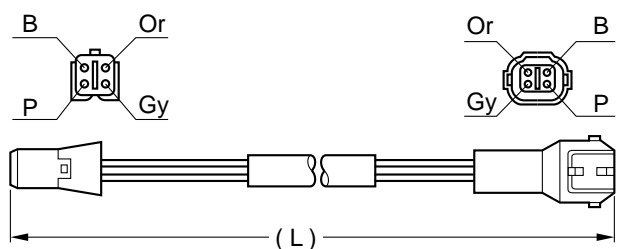
COMBINATION TRIM AND OIL LEAD 1

Part No.	Length (L)	Remarks
64D-82553-50	5 m (16.4 ft)	250G, L250G
64D-82553-70	7 m (23 ft)	
64D-82553-80	8 m (26.3 ft)	
64D-82553-90	9 m (31.2 ft)	



TRIM METER LEAD

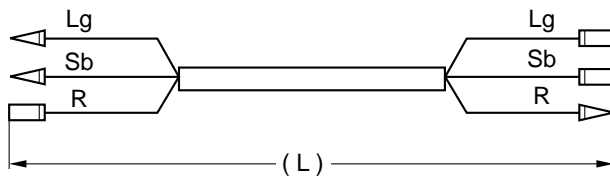
Part No.	Length (L)	Remarks
6R3-82553-30	3 m (9.8 ft)	Premixed models w/ PTT (Flat type harness)
6R3-82553-50	5 m (16.4 ft)	
6R3-82553-70	7 m (23 ft)	
6R3-82553-80	8 m (26.3 ft)	
6R3-82553-90	9 m (31.2 ft)	



WIRE HARNESSSES

PT/T SWITCH LEAD EXTENSION

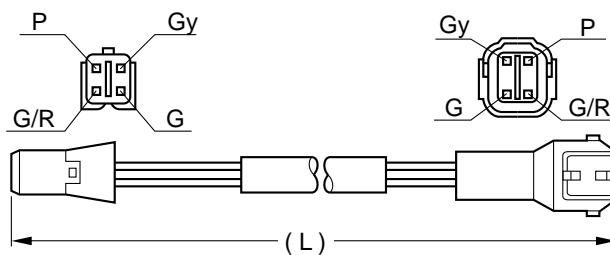
Part No.	Length (L)	Remarks
688-82586-11	2 m (6.6 ft)	



TRIM AND OIL LEAD

Part No.	Length (L)	Remarks
6Y5-83653-00	5 m (16.4 ft)	Above F30 (*1), Above 40 (3-cyl) w/ oil injection (Unified 4-pin cou- pler)
6Y5-83653-10	6 m (19.8 ft)	
6Y5-83653-20	7 m (23 ft)	
6Y5-83653-30	8 m (26.3 ft)	
6Y5-83653-40	9 m (31.2 ft)	
6Y5-83653-50	10.5 m (32.8 ft)	

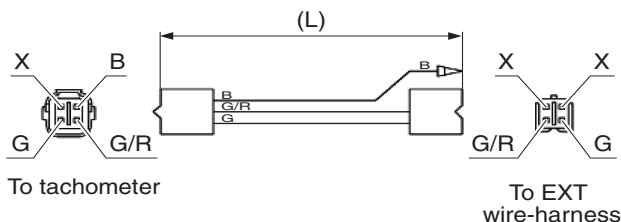
(*1) Mechanical RC



CONVERSION HARNESS 1

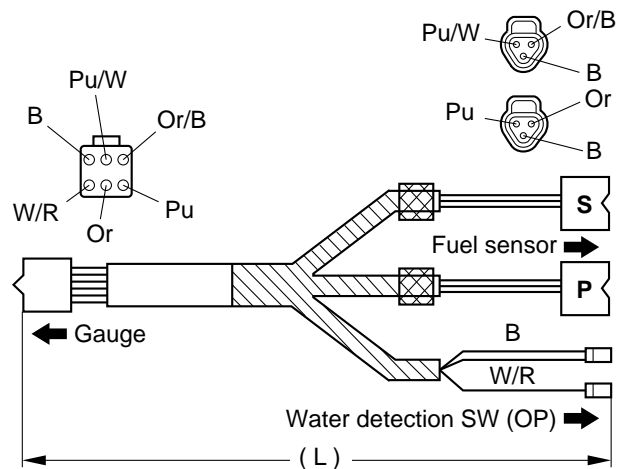
Part No.	Length (L)	Remarks
6Y5-8350U-10	150 mm (6 in)	To freeze trim- gauge (*1) for hydro- tilt model

(*1) For tachometer 6Y5-8350T-90



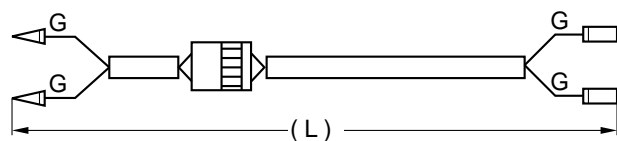
FUEL MANAGEMENT GAUGE HARNESS

Part No.	Length (L)	Remarks
6Y5-83553-F1	8 m (26 ft)	



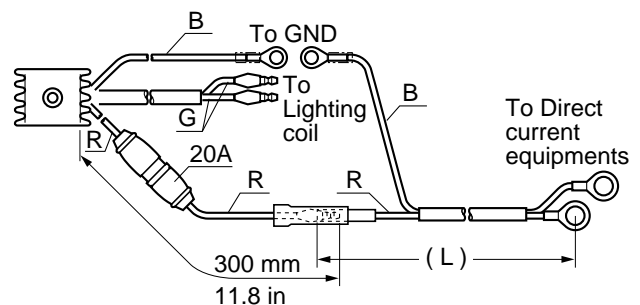
LIGHTING COIL EXTENSION HARNESS

Part No.	Length (L)	Remarks
682-84380-00	6 m (19.8 ft)	M-start model with lighting coil



RECTIFIER KIT

Part No.	Length (L)	Remarks
676-81970-01	2 m (6.6 ft)	M-start model with lighting coil



WIRING DIAGRAMS

Some representative wiring diagram samples for Yamaha genuine remote controls and instruments are shown here. These diagrams will cover most common configurations.

WIRE COLOR CODE

The wiring color code and the main usage for the electric wires are shown as below.











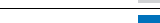
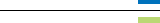
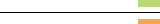
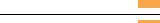











The wire color and its main usage are difference between Yamaha standard and ABYC standard.

* For the wires which use tracer stripes, the main color is followed by a slash then the tracer color.

For example:

R/G = Red wire with a green tracer stripe

Pu/W = Purple wire with a white tracer stripe

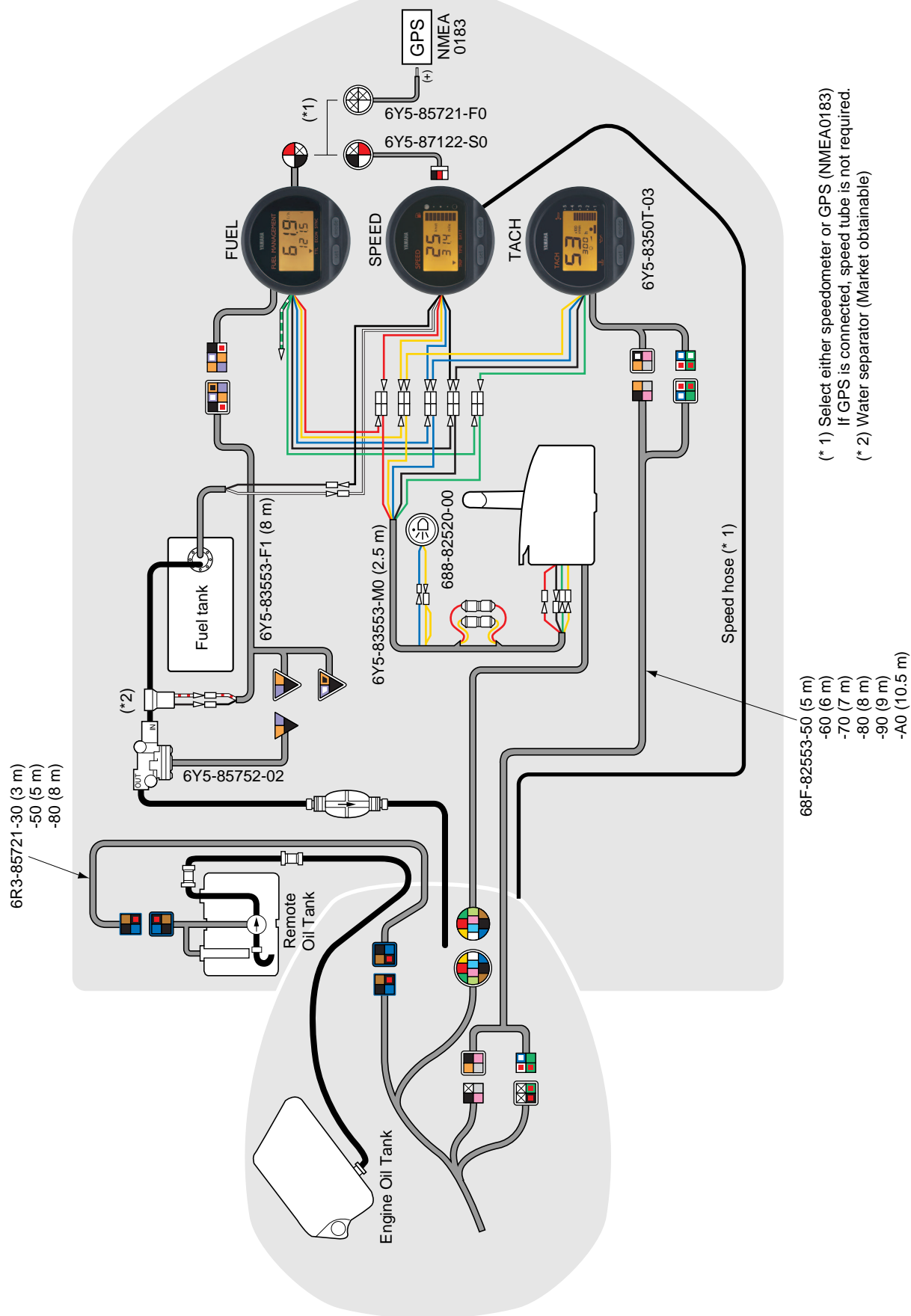
Color code	Wire color	Color sample	Main usage	
			Yamaha standard	ABYC standard
B	Black		Ground, Battery (–)	Ground
B/R	Black/Red		Remote-oil tank	
B/W	Black/White		Ignition coil primary	
Br	Brown		Neutral switch	Generator
Ch	Chocolate			
Dg	Dark green			
G	Green		Lighting coil 1 (tach signal 1)	
G/R	Green/Red		Oil warning	
G/W	Green/White		Lighting coil 2 (tach signal 2)	
Gy	Gray		Warning signal	Tacho signal
L	Blue		Instrument light, Remote choke	Instrument light
Lg	Light green		Trim down	
Or	Orange			Accessory feed
Or/B	Orange/Black			
P	Pink		Overheat warning, Trim signal	Fuel sensor
Pu	Purple		ECM	Ignition
Pu/W	Purple/White			
R	Red		Battery (+)	Battery (+)
Sb	Sky blue		Trim up	Oil pressure
V	Violet			
W	White		Engine stop switch	
W/R	White/Red		Pulser coil	
X	N/A		Not used	
Y	Yellow		Accessory feed	
Y/R	Yellow/Red		Diagnosis	Starting motor

WIRING DIAGRAMS

DIGITAL METER

SINGLE-MOTOR

250G

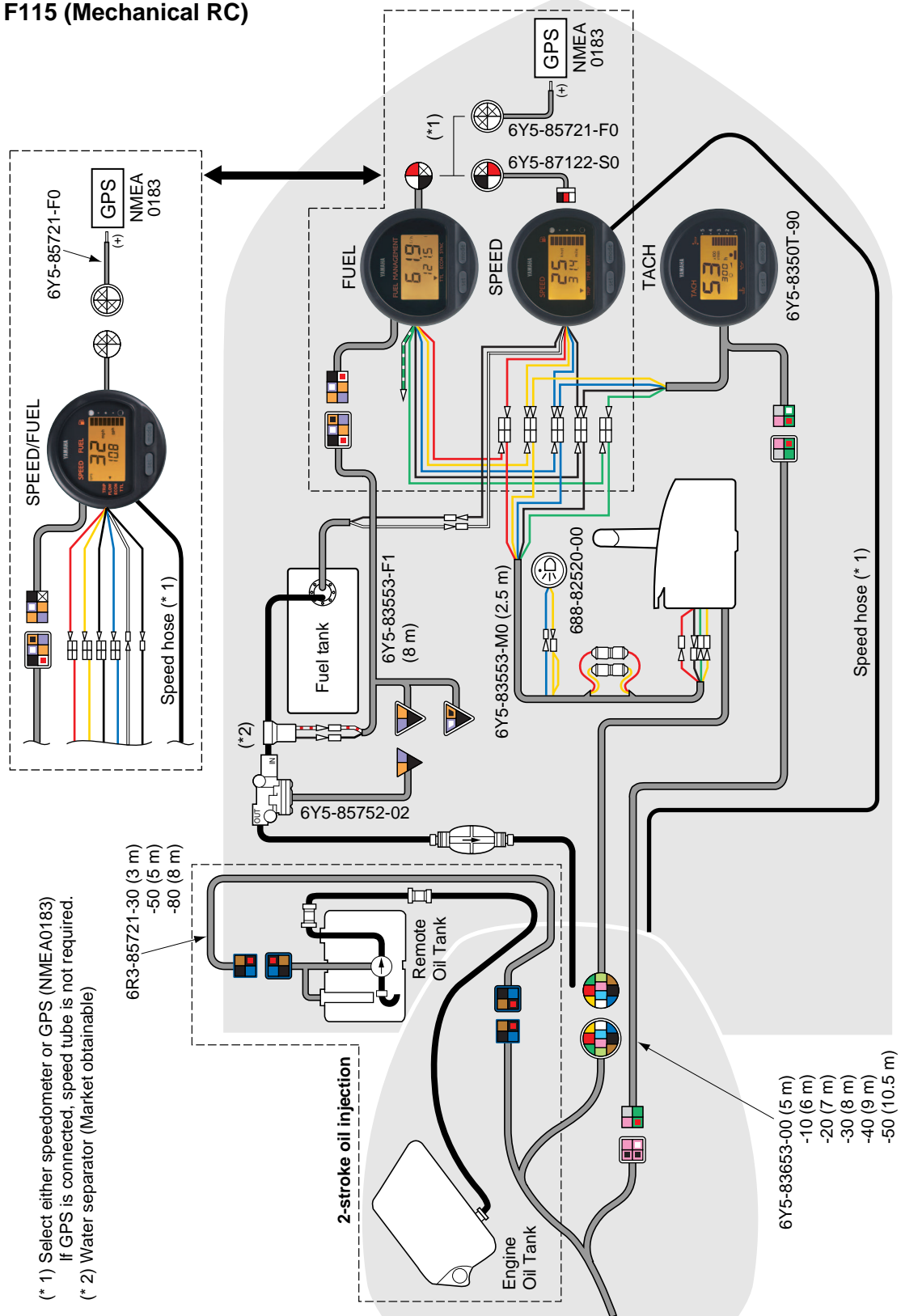


WIRING DIAGRAMS

DIGITAL METER

SINGLE-MOTOR w/ SIDE-MOUNT RC

Above 115 w/ oil injection (except 250G),
Above F115 (Mechanical RC)



**Above 115 w/ oil injection (except 250G),
Above F115 (Mechanical RC)**

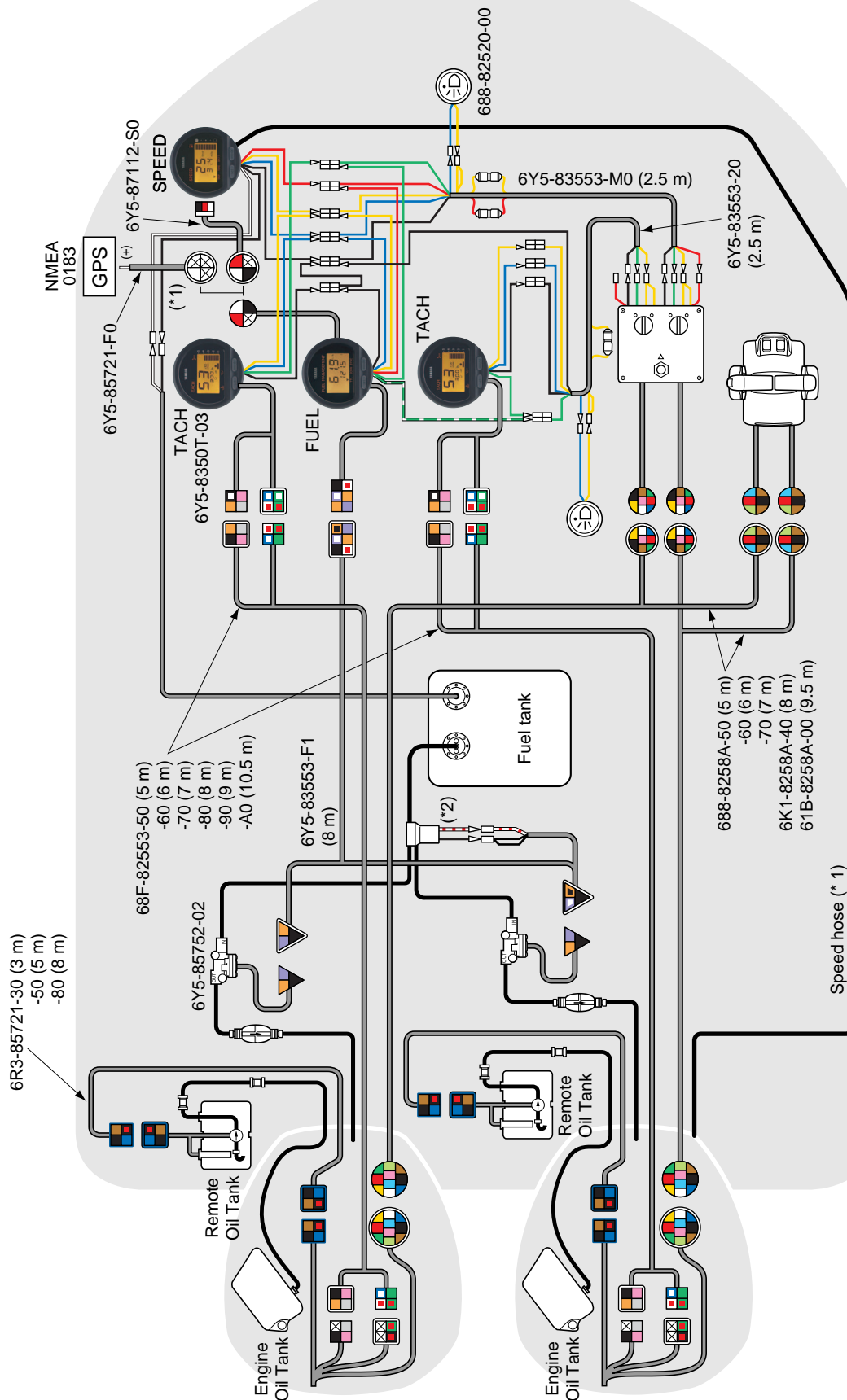


WIRING DIAGRAMS

DIGITAL METER

TWIN-MOTOR W/ BINNACLE RC

250G/L250G



WIRING DIAGRAMS

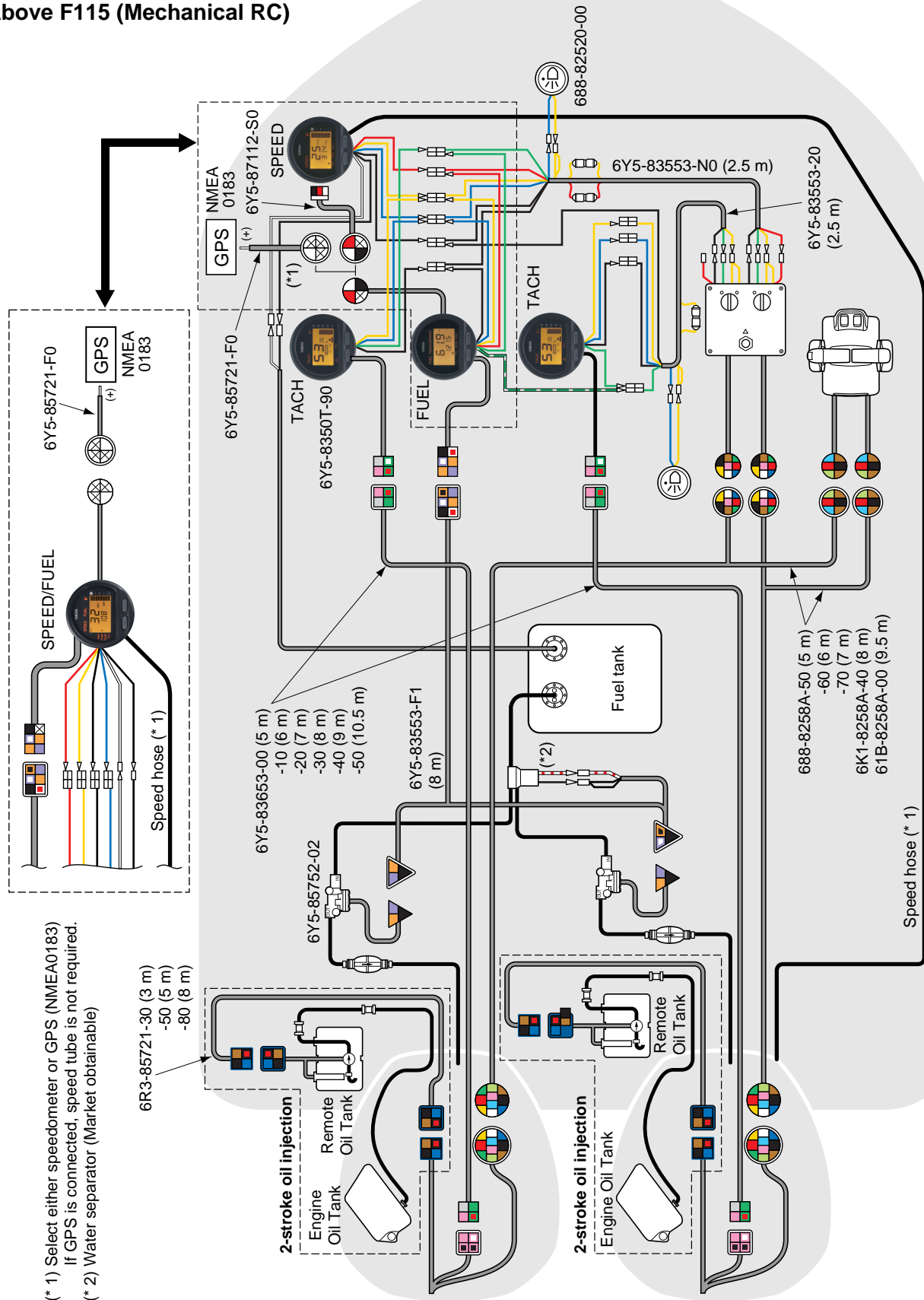
DIGITAL METER

TWIN-MOTOR W/ BINNACLE RC

Above 115 w/ oil injection

(except L/250G),

Above F115 (Mechanical RC)

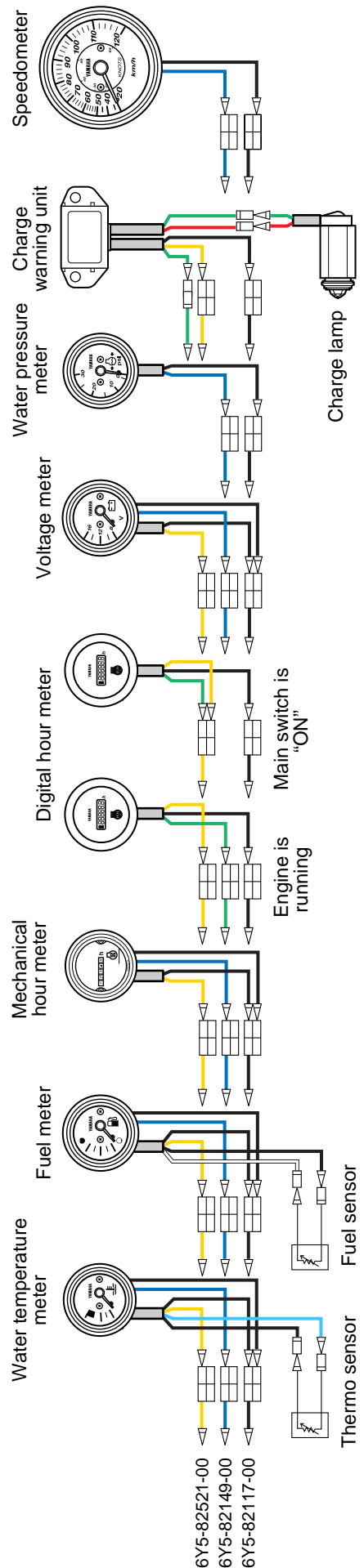
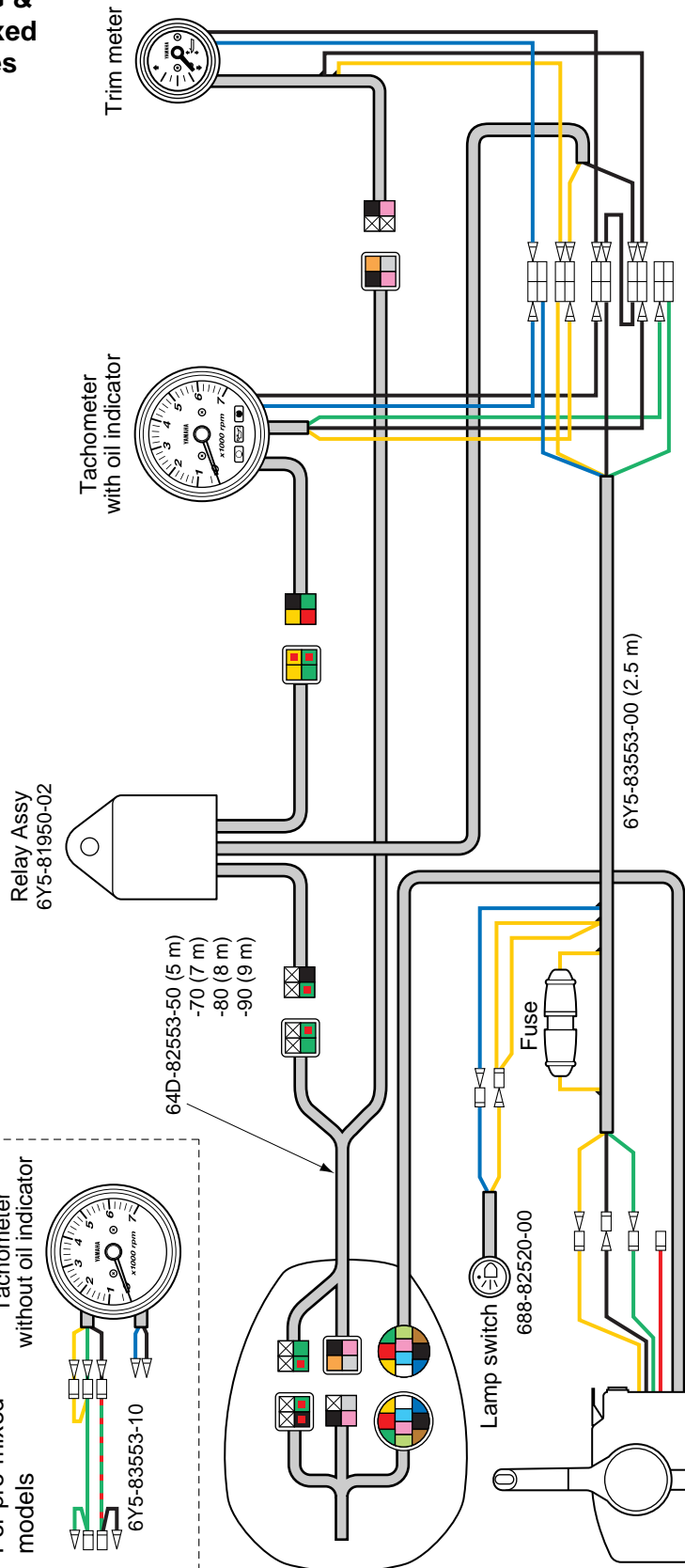
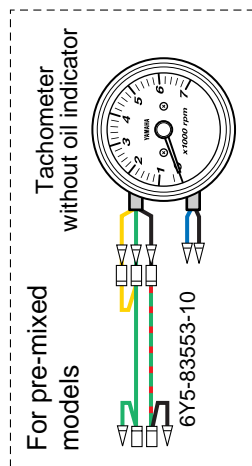


WIRING DIAGRAMS

ANALOG METER (6Y7)

2-STROKE ENGINES

L/250G & Premixed engines

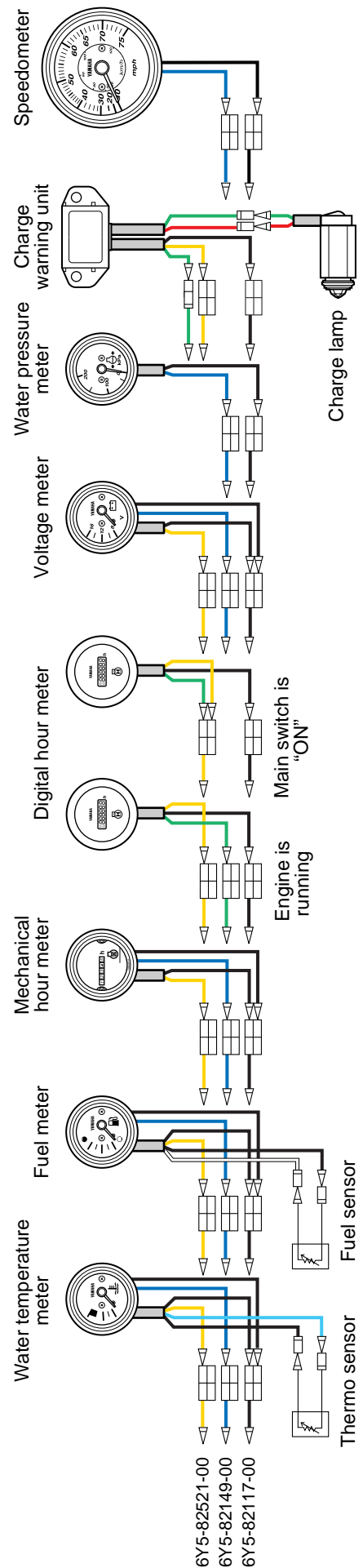
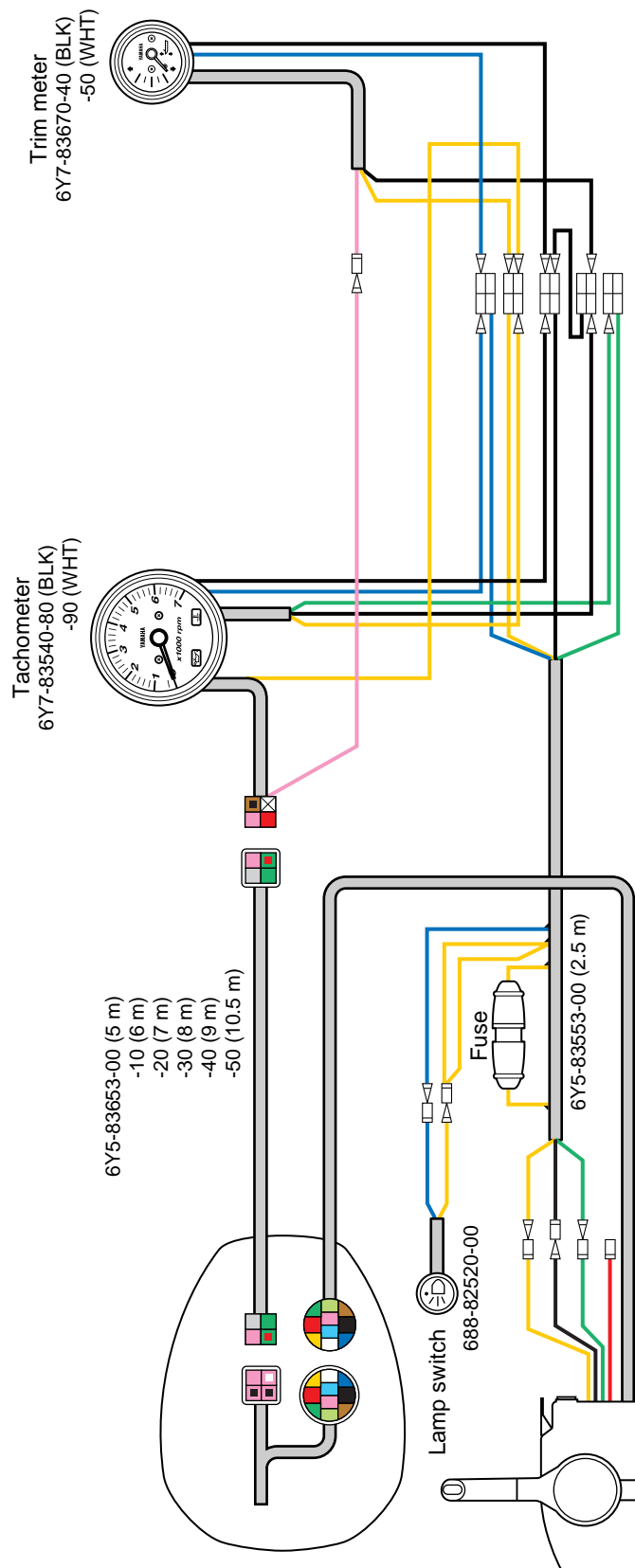


WIRING DIAGRAMS

ANALOG METER (6Y7)

2- AND 4-STROKE ENGINES

Above 40 [3-cyl.] w/ oil injection (except L/250G),
Above F30 (Mechanical RC)



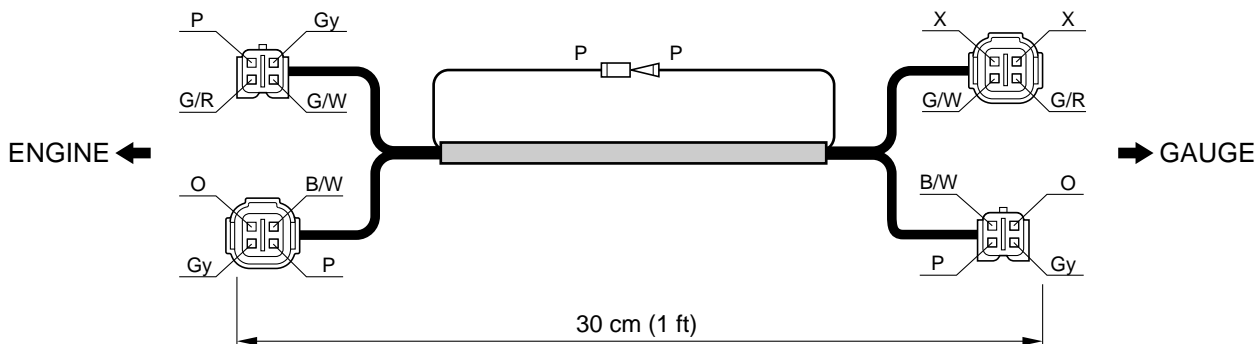
WIRING DIAGRAMS

INTERCHANGEABILITY BETWEEN TACHOMETER AND ENGINE

The wire-harness adapter is available for connection between 2006 former engine and 2007 later gauge or between 2006 former gauge and 2007 later engine. The water detection warning and check engine warning are no longer activated if either 2007 later engine or 2007 later gauge is installed.

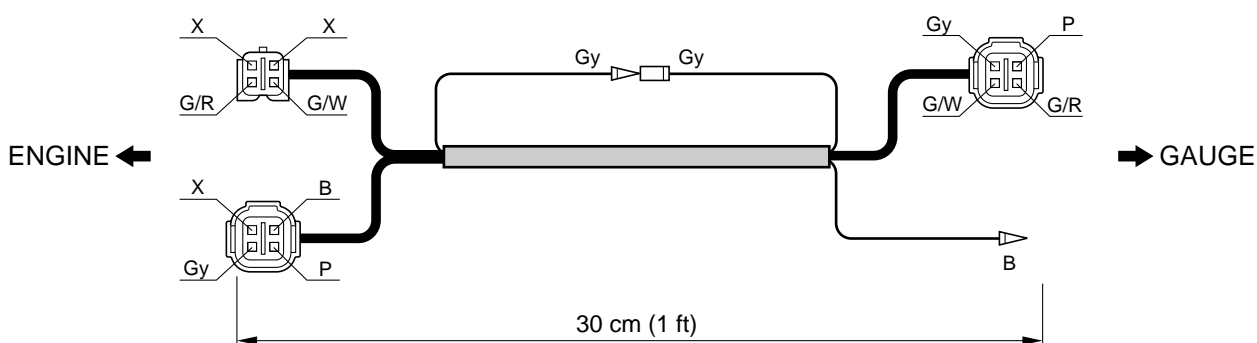
Wire-harness adapter 1

P/N: 6Y5-85335-00



Wire-harness adapter 2

P/N: 6Y5-85335-10



For US and Canada,

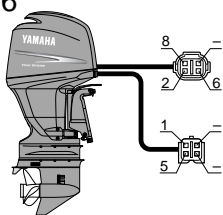
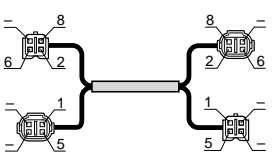
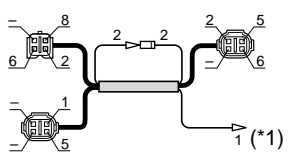
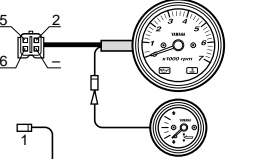
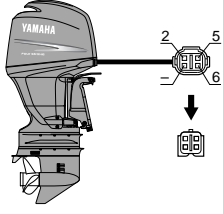
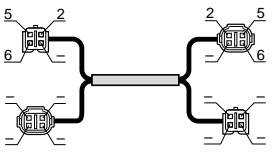
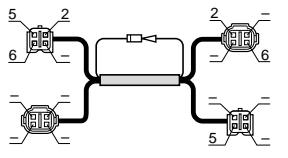
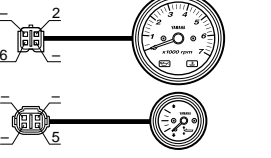
The interchangeability between engine and gauge for model year is shown in the table below,

Engine	Gauge	Interchangeability
- 2003	- 2003	OK
	2004 - 2006	OK
	2007 -	Requires 6Y5-85335-10
2004 -	- 2003	Requires 6Y5-85335-00
	2004 - 2006	OK
	2007 -	OK

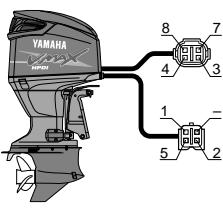
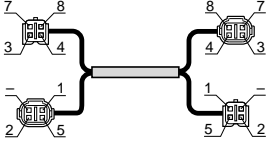
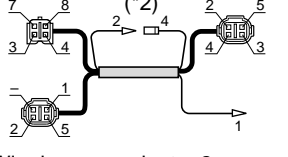
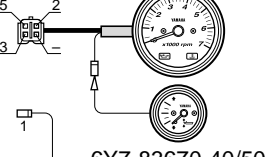
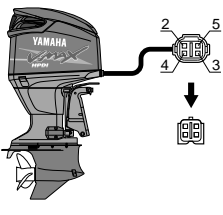
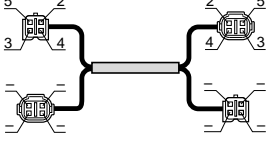
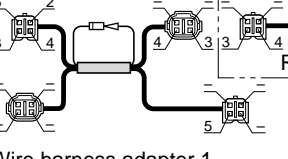
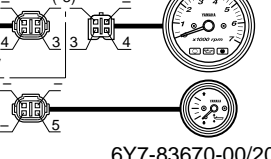
WIRING DIAGRAMS

ANALOG TACHOMETER

4-stroke engine (Fuel injected engines, F30A (F30), F40B (F40), FT50C, F50D, F95A and F100B)

Engine	Conventional EXT wire harness	Wire harness adapter	Gauge
-2006 		 Wire harness adapter 2 6Y5-85335-10 (30 cm, 1 ft)	2007- 6Y7-83540-80/90  6Y7-83670-40/50
2007- 		 Wire harness adapter 1 6Y5-85335-00 (30 cm, 1 ft)	-2006 6Y7-83540-40/50  6Y7-83670-00/20
Signal description (1) Trim GND (2) Overheat signal (3) Oil level signal (RED) (4) Oil level signal (GRN) (5) Trim signal (6) Oil press. signal (7) Water detection signal (8) Check engine signal (–) Not used	Conventional EXT wire harness 68F-82553-50 (5 m, 16 ft) 68F-82553-60 (6 m, 20 ft) 68F-82553-70 (7 m, 23 ft) 68F-82553-80 (8 m, 26 ft) 68F-82553-90 (9 m, 31 ft) 68F-82553-A0 (10.5 m, 33 ft)	(*1) Connect to the ground wire.	

2-stroke engine (HPDI engines: 2007-, carbureted engines w/ oil injection: 2008-)

Engine	Conventional EXT wire harness	Wire harness adapter	Gauge
-2006 		 Wire harness adapter 2 6Y5-85335-10 (30 cm, 1 ft)	2007- 6Y7-83540-80/90  6Y7-83670-40/50
2007- 		 Wire harness adapter 1 6Y5-85335-00 (30 cm, 1 ft)	-2006 6Y7-83540-00/10  6Y7-83670-00/20
Signal description (1) Trim GND (2) Overheat signal (3) Oil level signal (RED) (4) Oil level signal (GRN) (5) Trim signal (6) Oil press. signal (7) Water detection signal (8) Check engine signal (–) Not used	Conventional EXT wire harness 68F-82553-50 (5 m, 16 ft) 68F-82553-60 (6 m, 20 ft) 68F-82553-70 (7 m, 23 ft) 68F-82553-80 (8 m, 26 ft) 68F-82553-90 (9 m, 31 ft) 68F-82553-A0 (10.5 m, 33 ft)	(*2) Disconnect the gray wire and insulate the terminals.	(*3) Oil level signal (YLW)

WIRING DIAGRAMS

DIGITAL TACHOMETER

4-stroke engine (Fuel injected engines, F30A (F30), F40B (F40), FT50C, F50D, F95A and F100B)

Engine	Conventional EXT wire harness	Wire harness adapter	Gauge
-2006 		<p>Wire harness adapter 2 6Y5-85335-10 (30 cm, 1 ft)</p>	2007- <p>6Y5-8350T-90</p>
2007- 		<p>Wire harness adapter 1 6Y5-85335-00 (30 cm, 1 ft)</p>	-2006 <p>6Y5-8350T-03</p>
Signal description (1) Trim GND (2) Overheat signal (3) Oil level signal (RED) (4) Oil level signal (GRN) (5) Trim signal (6) Oil press. signal (7) Water detection signal (8) Check engine signal (–) Not used	Conventional EXT wire harness 68F-82553-50 (5 m, 16 ft) 68F-82553-60 (6 m, 20 ft) 68F-82553-70 (7 m, 23 ft) 68F-82553-80 (8 m, 26 ft) 68F-82553-90 (9 m, 31 ft) 68F-82553-A0 (10.5 m, 33 ft)	(*1) Connect to the ground wire.	

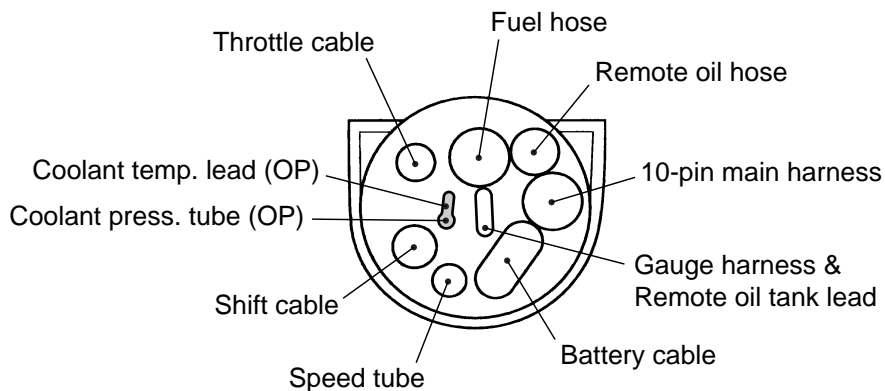
2-stroke engine (HPDI engines: 2007-, carbureted engines w/ oil injection: 2008-)

Engine	Conventional EXT wire harness	Wire harness adapter	Gauge
-2006 		<p>Wire harness adapter 2 6Y5-85335-10 (30 cm, 1 ft)</p>	2007- <p>6Y5-8350T-90</p>
2007- 		<p>Wire harness adapter 1 6Y5-85335-00 (30 cm, 1 ft)</p>	-2006 <p>6Y5-8350T-03</p>
Signal description (1) Trim GND (2) Overheat signal (3) Oil level signal (RED) (4) Oil level signal (GRN) (5) Trim signal (6) Oil press. signal (7) Water detection signal (8) Check engine signal (–) Not used	Conventional EXT wire harness 68F-82553-50 (5 m, 16 ft) 68F-82553-60 (6 m, 20 ft) 68F-82553-70 (7 m, 23 ft) 68F-82553-80 (8 m, 26 ft) 68F-82553-90 (9 m, 31 ft) 68F-82553-A0 (10.5 m, 33 ft)	(*2) Disconnect the gray wire and insulate the terminals.	

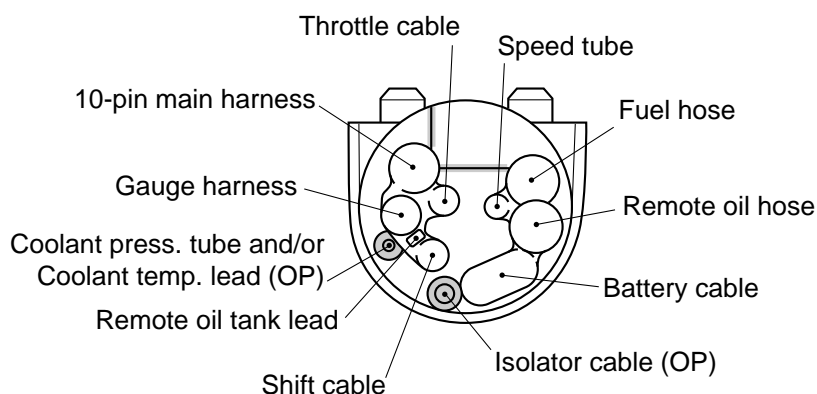
RIGGING GROMMET DESCRIPTION

* If the optional equipment will be installed, cut out the surface skin of rigging grommet on the prescribed position.

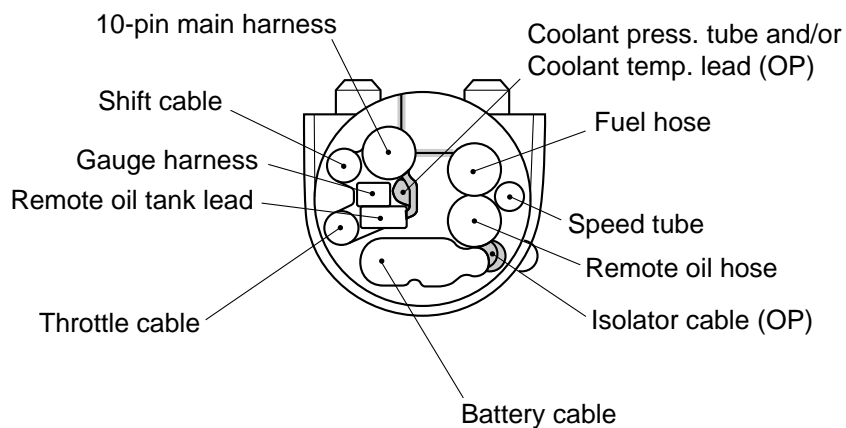
2-STROKE V4 OIL INJECTION



2-STROKE V6 (2.6L) OIL INJECTION

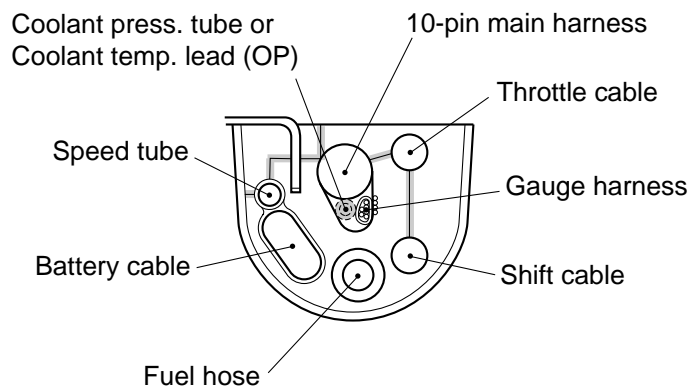


2-STROKE V6 (3.1L & 3.3L)

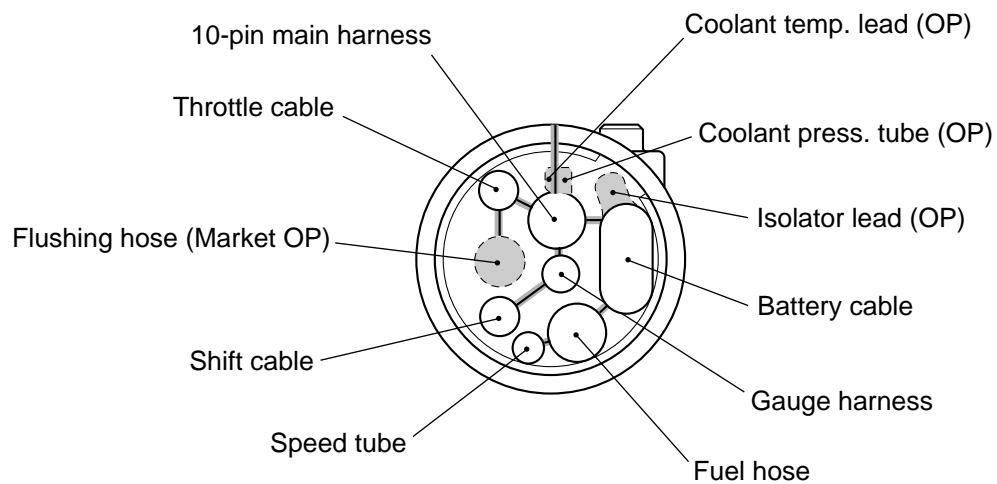


RIGGING GROMMET DESCRIPTION

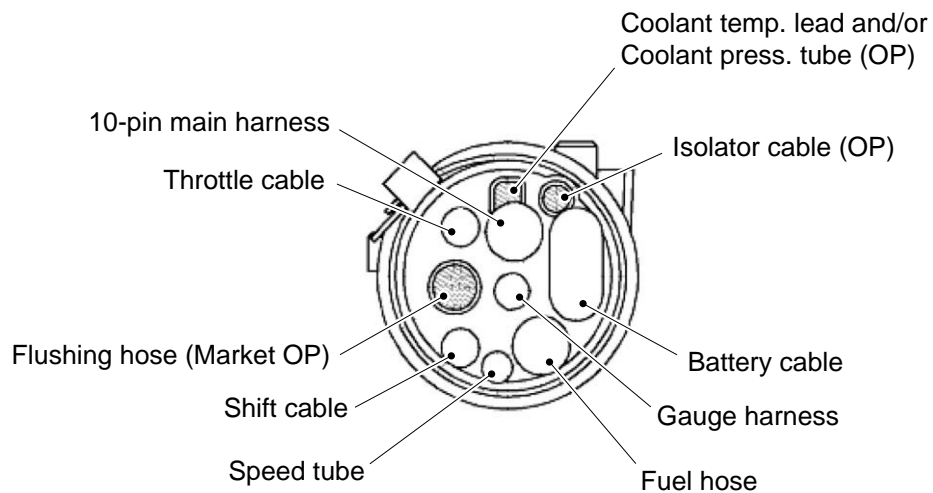
F75, F80, F90, F100, F115



F150

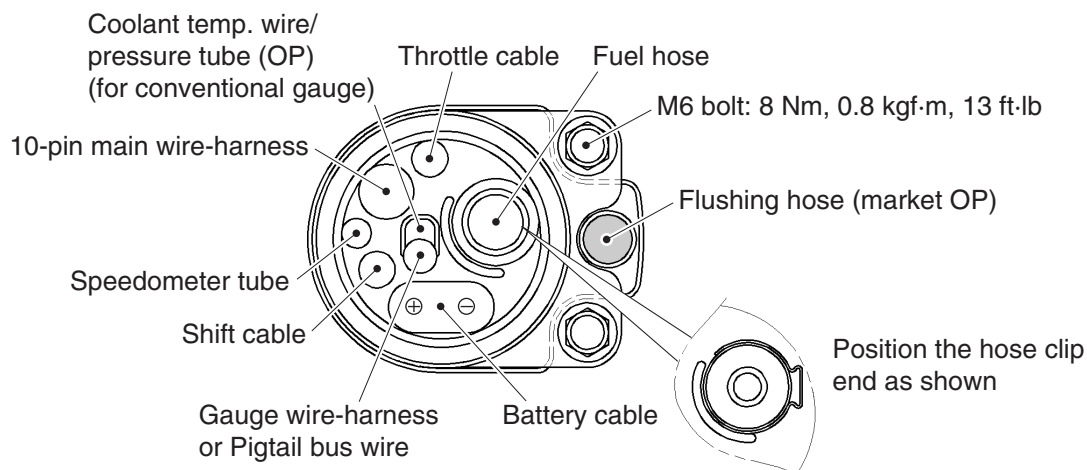


F200, F225, F250 w/ Variable Camshaft Timing
[Mechanical RC]

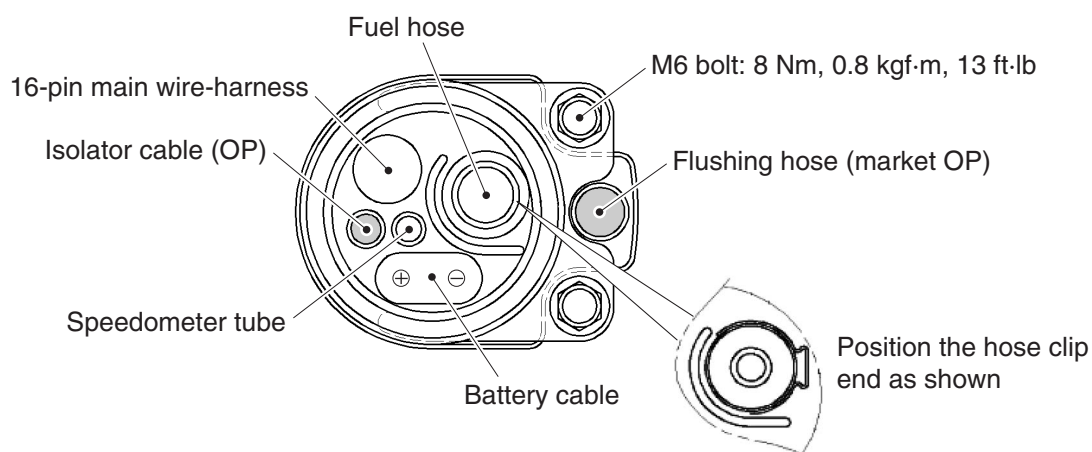


RIGGING GROMMET DESCRIPTION

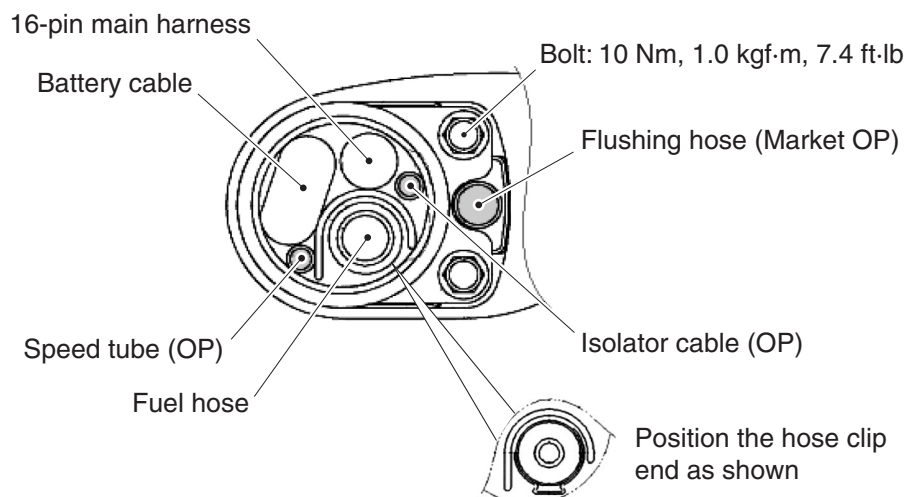
F200, F225, F250, F275 VMAX (SHO)



F225, F250, F300 (V6-4.2L) [DERC]



F350, F300 (V8) [DERC]



MEMO



DIGITAL NETWORK GAUGE (6Y8)

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ROUND STYLE GAUGE APPLICATION	6-3
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DIGITAL NETWORK GAUGE COMPATIBLE MODEL

The following models can accept the digital network gauges.

Electronic fuel injected 4-stroke engines

HPDI engines

* US & Canada: 2006 and later models

* Others: 2007 and later models

Also, those engines can accept the conventional gauges 6Y5 and 6Y7 (except DERC engines).

Therefore, you must select one of two gauge systems.

If you select the digital network gauge system, see the information below.

For further information, see the applicable service guide, installation manual, etc.

DIGITAL NETWORK GAUGE APPLICATION

SQUARE STYLE GAUGE APPLICATION

Large digital display and dot matrix expression design.



Ref. No.	Part name	Part No.	Remarks
1	Tachometer	6Y8-8350T-01	
2	Speedometer	6Y8-8350S-01	Requires optional speed sensor, or NMEA compatible GPS
3	Fuel management gauge	6Y8-8350F-01	
4	Fuel mgt gauge w/speedometer	6Y8-83500-01	Requires optional speed sensor, or NMEA compatible GPS

DIGITAL NETWORK GAUGE APPLICATION

ROUND STYLE GAUGE APPLICATION

Similar shape design as conventional 6Y5 digital gauges.

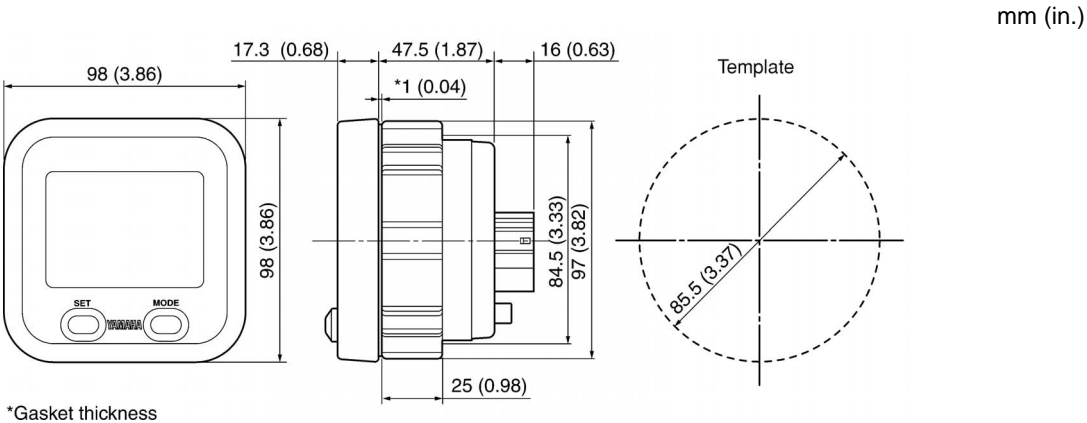


Ref. No.	Part name	Part No.	Remarks
1	Tachometer	6Y8-8350T-11	
2	Fuel mgt gauge w/ speedometer	6Y8-83500-11	Requires optional speed sensor, or NMEA compatible GPS

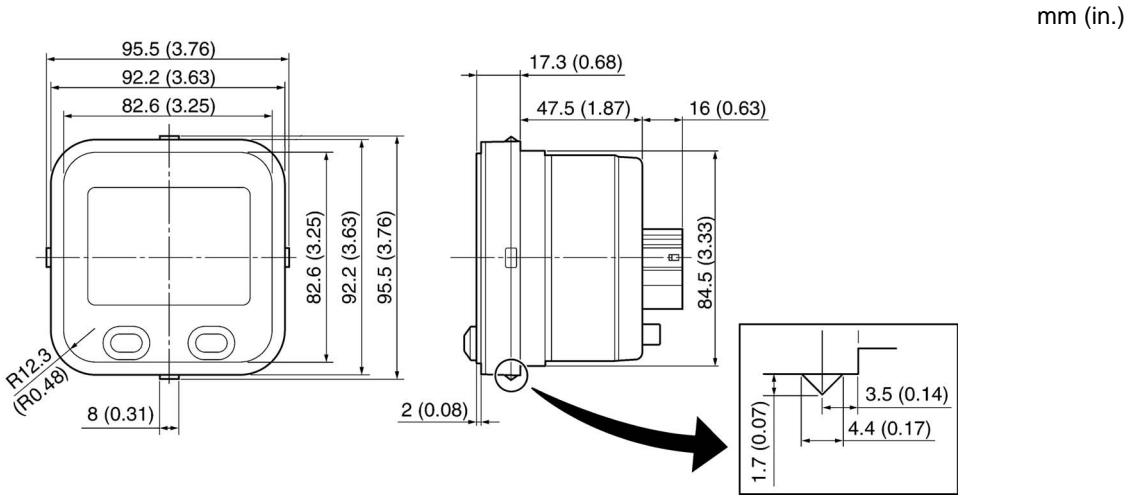
DIGITAL NETWORK GAUGE DIMENSIONS

SQUARE STYLE GAUGE DIMENSIONS

SURFACE MOUNT



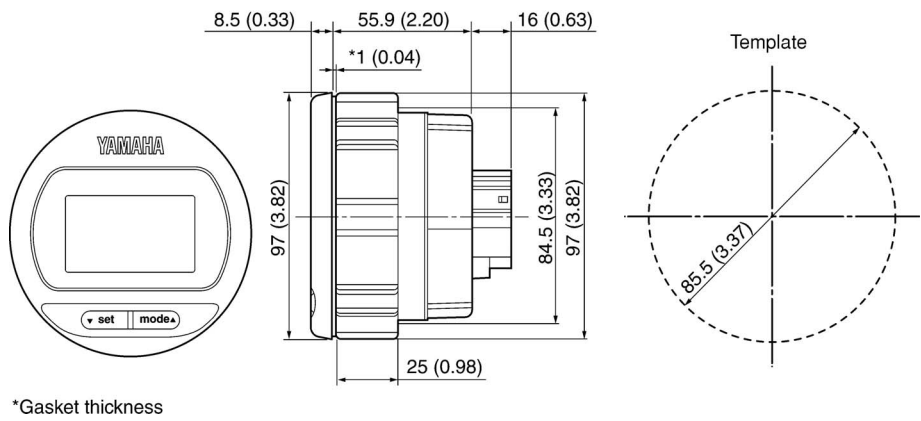
FLUSH MOUNT



DIGITAL NETWORK GAUGE DIMENSIONS

ROUND STYLE GAUGE DIMENSIONS

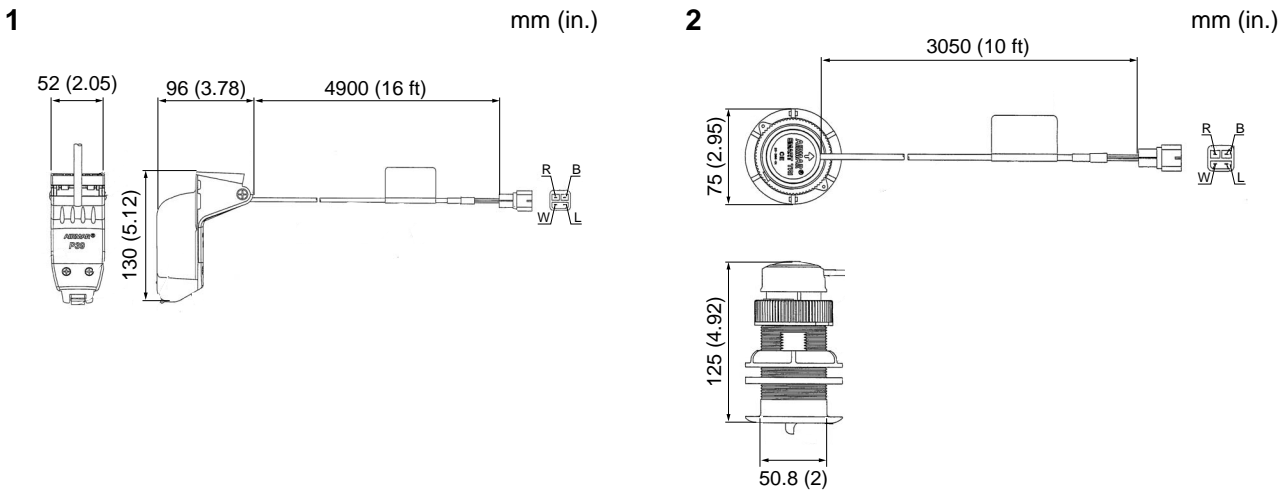
mm (in.)



OPTIONAL EQUIPMENTS

MULTI-SENSOR APPLICATION

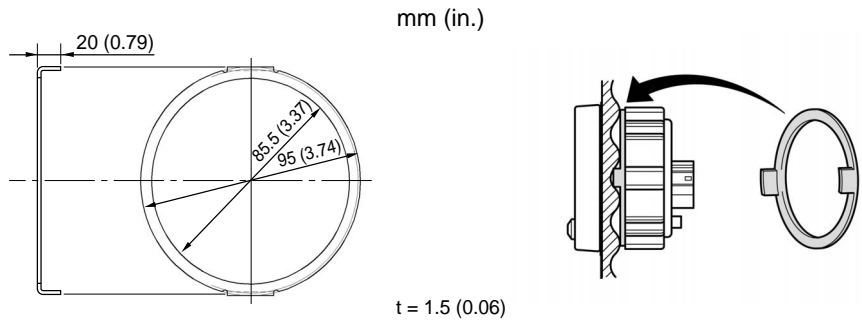
Boat speed, water depth and water surface temperature can be obtained.
For installation, see the instruction which is accompanied with the sensor.



Ref. No.	Part name	Part No.	Remarks
1	Transom multi-sensor	6Y8-83688-01	
2	Thru-hull multi-sensor 1	6Y8-83688-11	Plastic body
	Thru-hull multi-sensor 2	6Y8-83688-20	Bronze body

FITTING PLATE

If the fitting surface is rough, insert the plate between a board and the ring nut of gauge.



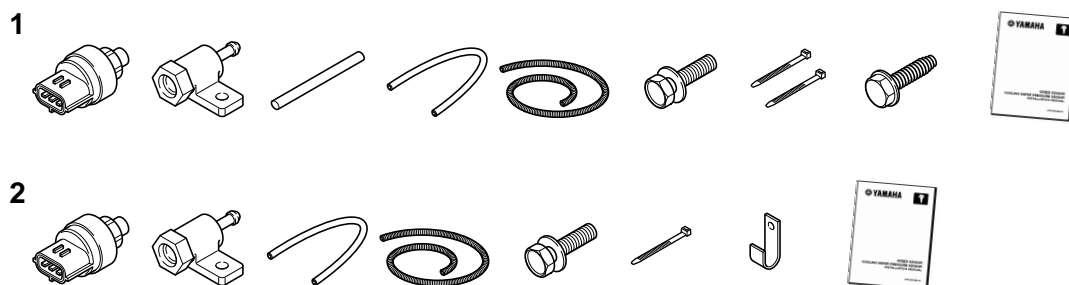
Part No.	Remarks
6Y8-83514-00	

OPTIONAL EQUIPMENTS

SPEED SENSOR KIT

Uses to pick up the pitot tube pressure for water speed. For installation and connection, see the instruction in the kit.

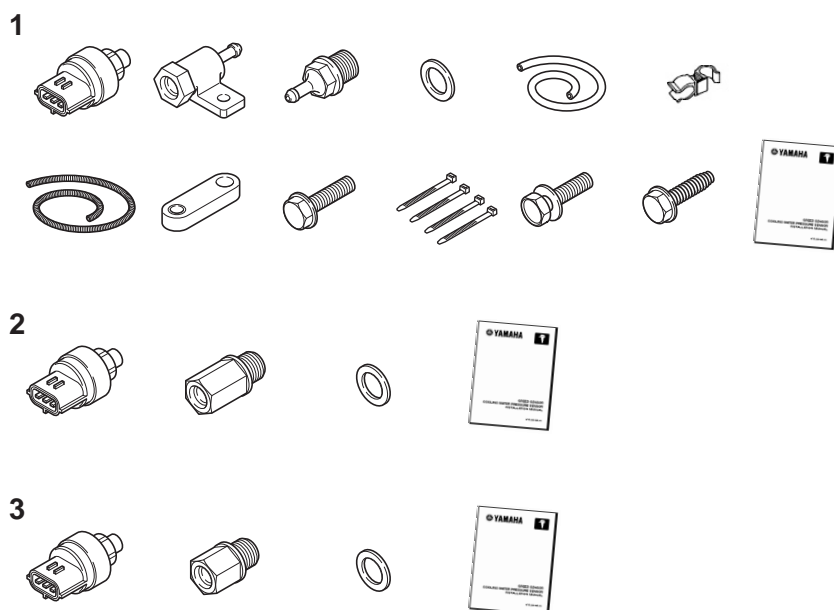
The speed sensor kit may include in the rigging kit.



Ref. No.	Kit Part No.	Remarks
1	60V-8A4L1-11	Fuel injected F30-F300 (V6), HPDI
2	6AW-8A4L1-01	F350/F300 (V8), additional transom pitot tube (688-83556-01) and pressure tube (688-83557-00) required.

COOLANT PRESSURE SENSOR KIT

Uses to pick up the coolant pressure of engine. For installation and connection, see the instruction in the kit.



Ref. No.	Kit Part No.	Remarks
1	60V-8A4L0-12	Fuel injected F30-F115, HPDI
2	69J-8A4L0-20	F200-F225 (3.3L)
3	63P-8A4L0-00	F150, F200-F250 (3.3L-VCT), F225-F300 (4.2L)

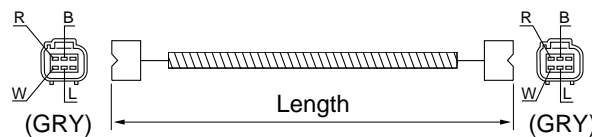
* For F350/F300 (V8), standard installed from factory.

WIRE HARNESS

MAIN BUS WIRE

Uses to connect between the hub and hub.

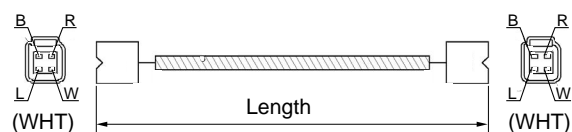
Part No.	Length	Remarks
6Y8-82553-41	30 ft, 9.1 m	
6Y8-82553-31	25 ft, 7.6 m	
6Y8-82553-21	20 ft, 6.1 m	
6Y8-82553-11	15 ft, 4.6 m	
6Y8-82553-50	10 ft, 3.0 m	
6Y8-82553-01	1 ft, 0.3 m	



PIGTAIL BUS WIRE

Uses to connect between the hub and gauge and/or between the engine and the hub.

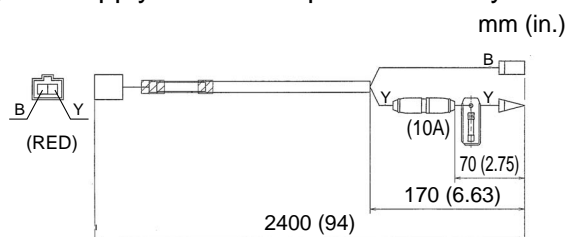
Part No.	Length	Remarks
6Y8-82521-51	12 ft, 3.6 m	
6Y8-82521-41	9 ft, 2.7 m	
6Y8-82521-31	6 ft, 1.8 m	
6Y8-82521-21	3 ft, 0.9 m	
6Y8-82521-11	2 ft, 0.6 m	
6Y8-82521-01	1 ft, 0.3 m	



SYSTEM POWER SUPPLY WIRE

Uses to connect between the switch panel and the hub, and supply the electric power to the system.

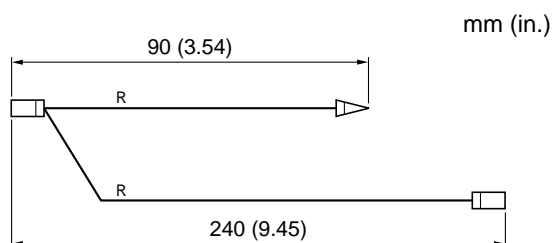
Part No.	Remarks
6Y8-83553-01	With 10 amps fuse



IMMOBILIZER POWER DISTRIBUTION WIRE 1

This wire lead is used to supply the permanent electric power to the immobilizer unit, in case of multi-application.

Part No.	Remarks
6H5-81315-00	For fuel injection F30 – F/FL115A multi-application w/ immobilizer

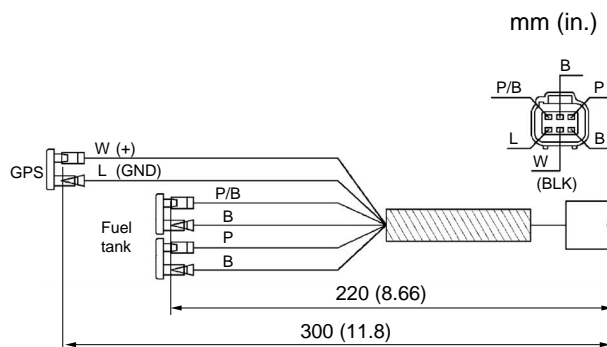


WIRE HARNESS

FUEL TANK / GPS WIRE

Uses to connect between a fuel tank level sensor and/or a MNEA0183 compatible GPS and the speedometer (with fuel mgt gauge).

Part No.	Remarks
6Y8-8356N-01	Twin fuel tanks acceptable



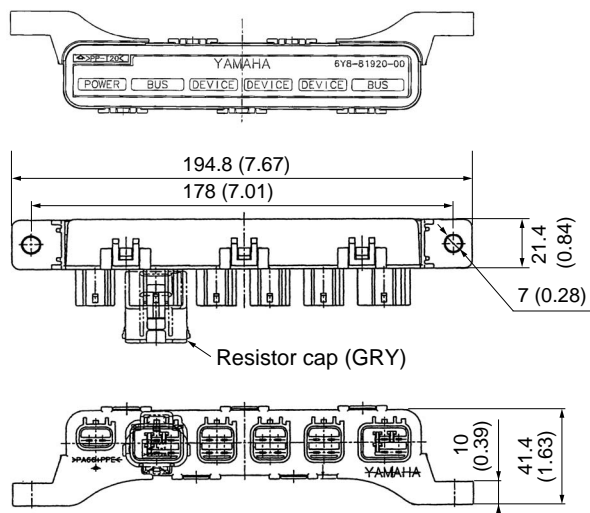
NETWORK HUB

Uses to distribute the digital signal and electric power to the gauges and the other hubs.

Ref. No.	Part name	Part No.	Remarks
1	Multi-hub	6Y8-81920-01	With ending resistor cap (P/N: 6Y8-85371-01)
2	Single hub (Inline hub)	6Y8-81920-11	Included ending resistor
3	2-pin sealing cap, RED	6Y8-82582-01	
4	4-pin sealing cap, WHT	6Y8-82582-11	Same as bus wire cap of engine wire harness

1

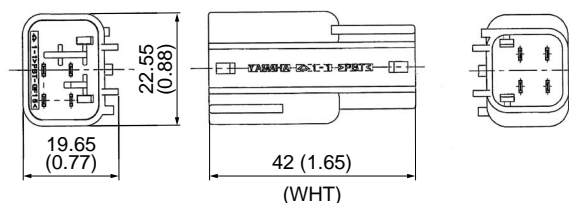
mm (in.)



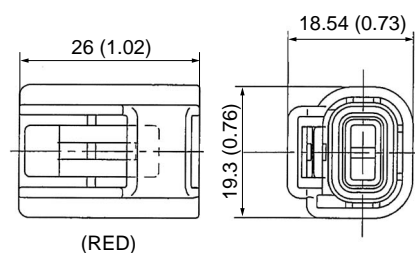
* Face the connectors downward for installation.

2

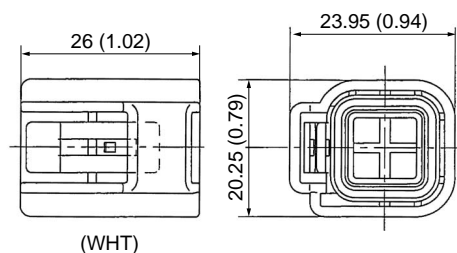
mm (in.)



3



4



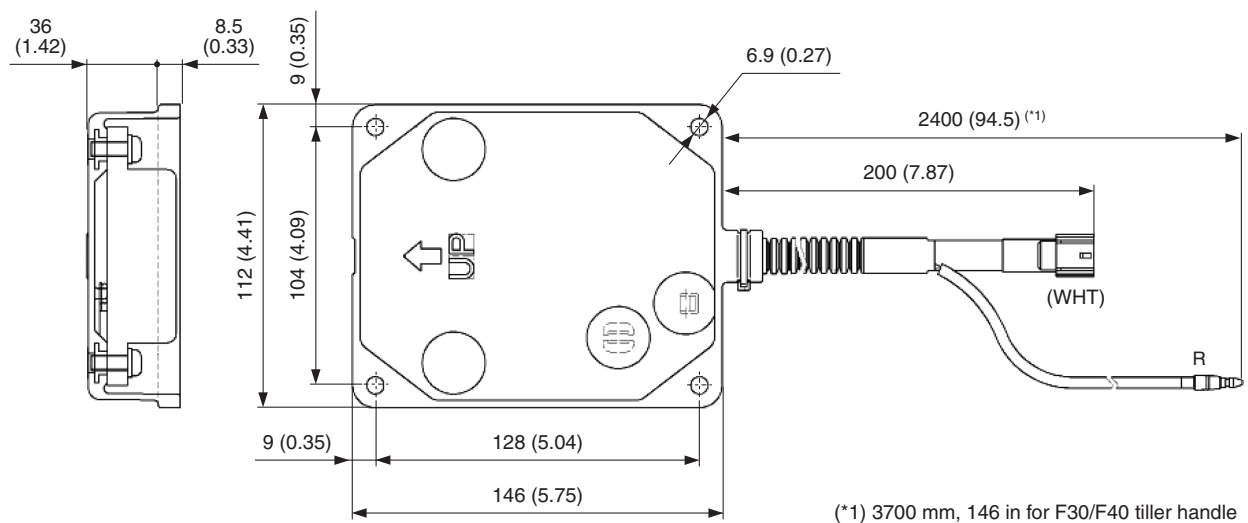
IMMOBILIZER UNIT

Immobilizer acceptable model:

Fuel injection F30 and F40
Fuel injection F40(4-cyl) up to F100 (RC) (2010 and later model)
F/FL115 (2011 and later model)
F/FL225, F/FL250, F/FL300 offshore (V6-4.2L)
F/FL350 (2011 and later model)

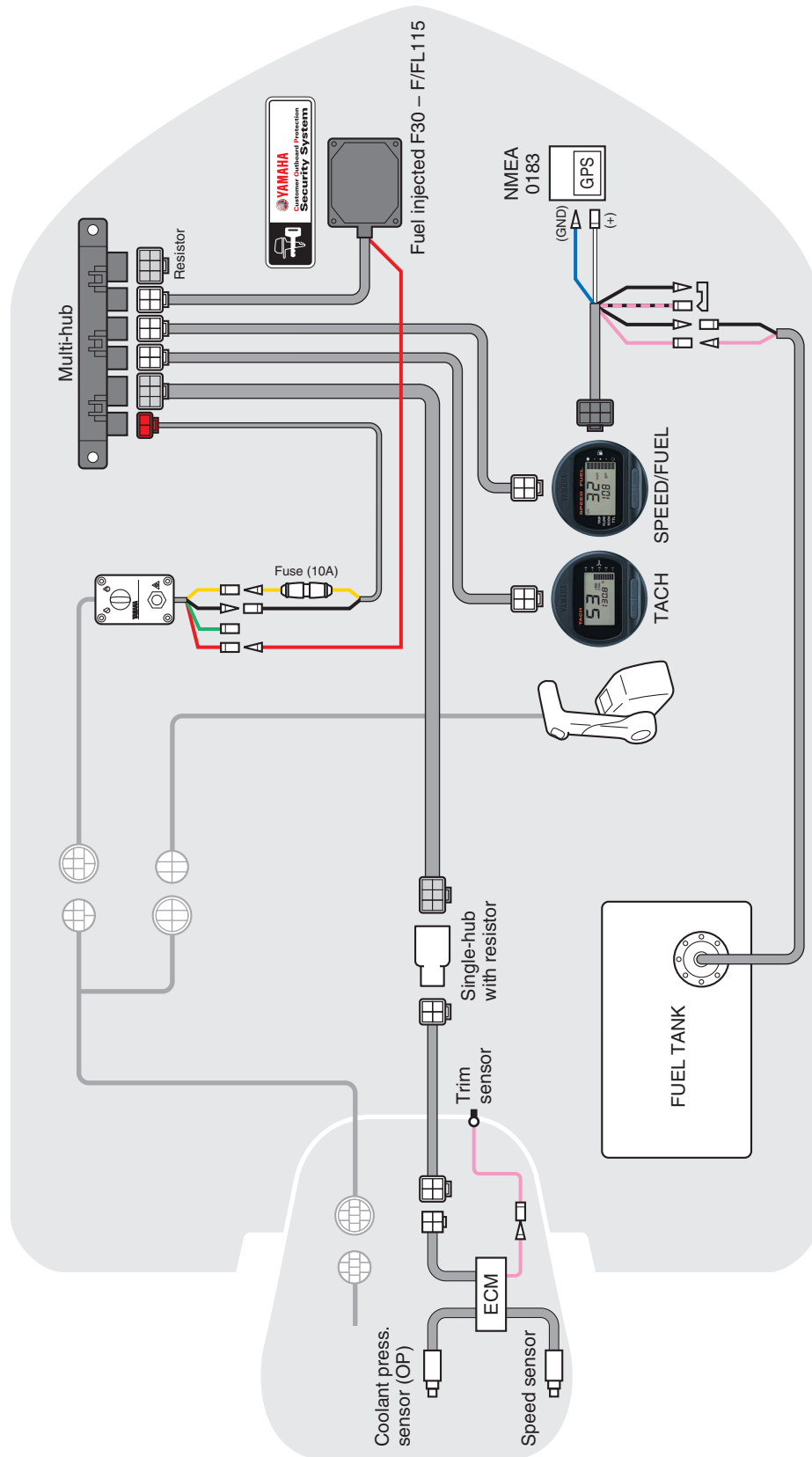
Yamaha Security System locks the engine when starting.

Part No.	Remarks
6Y8-86254-02	For EU, RC
6Y8-86254-12	For EU, F30/F40 tiller handle
6Y8-86254-20	For US/ANZ, RC
6Y8-86254-30	For JPN, RC



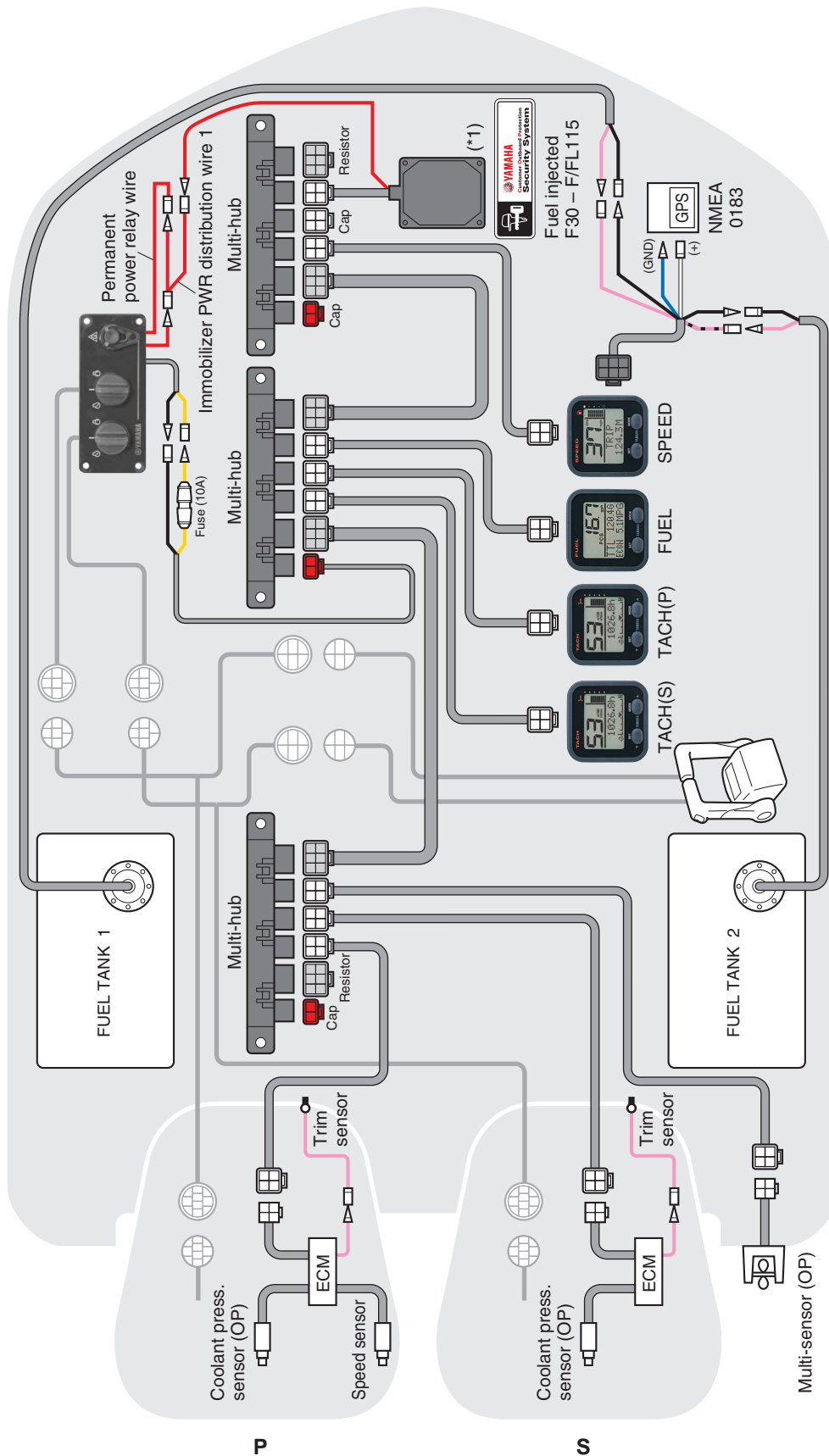
NETWORK WIRING DIAGRAMS

FUEL INJECTED F30-F250 [Mechanical RC] & HPDI ENGINES SINGLE ENGINE



NETWORK WIRING DIAGRAMS

FUEL INJECTED F30-F250 [Mechanical RC] & HPDI ENGINES TWIN ENGINE

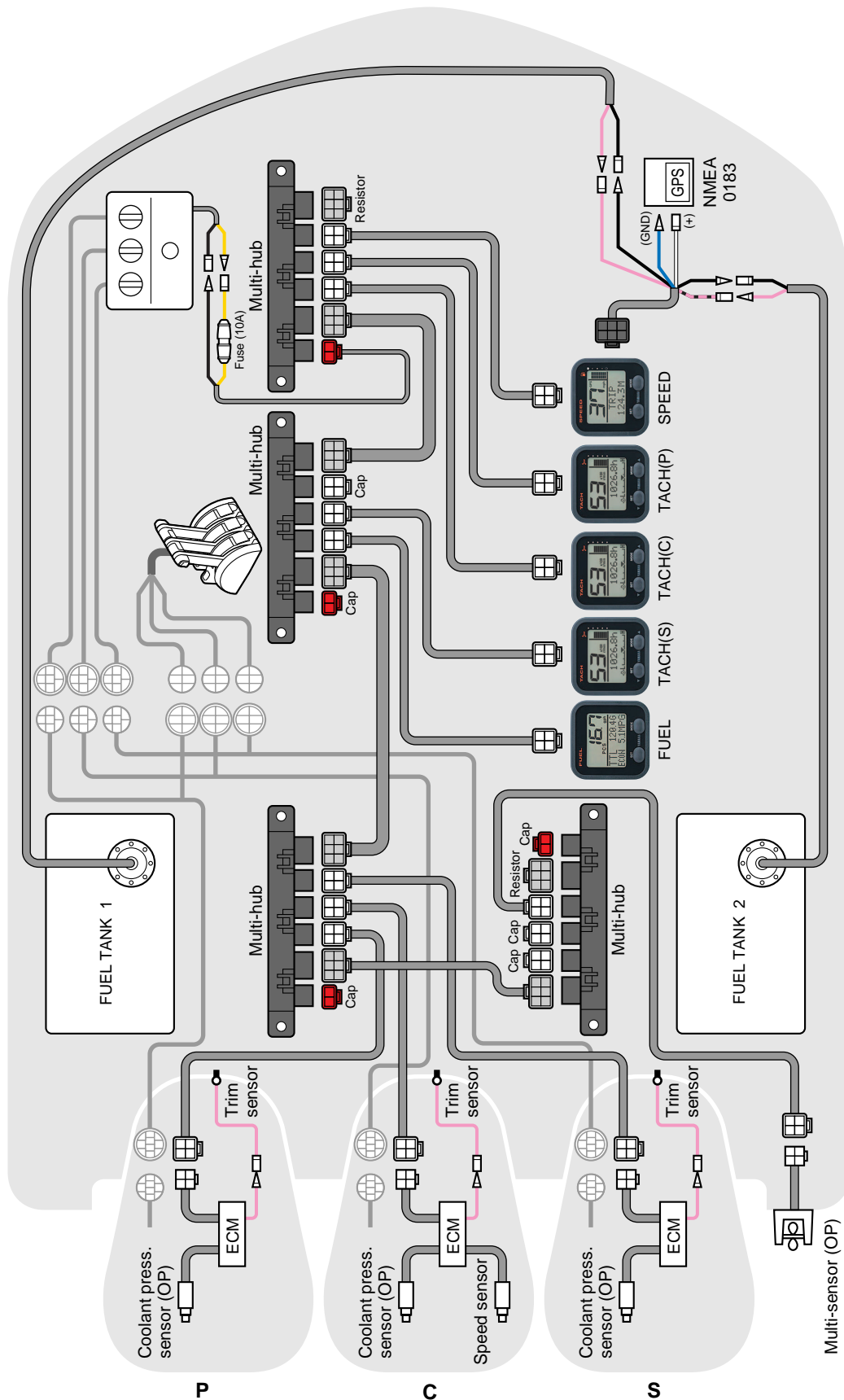


(* 1) Only one immobilizer is required.

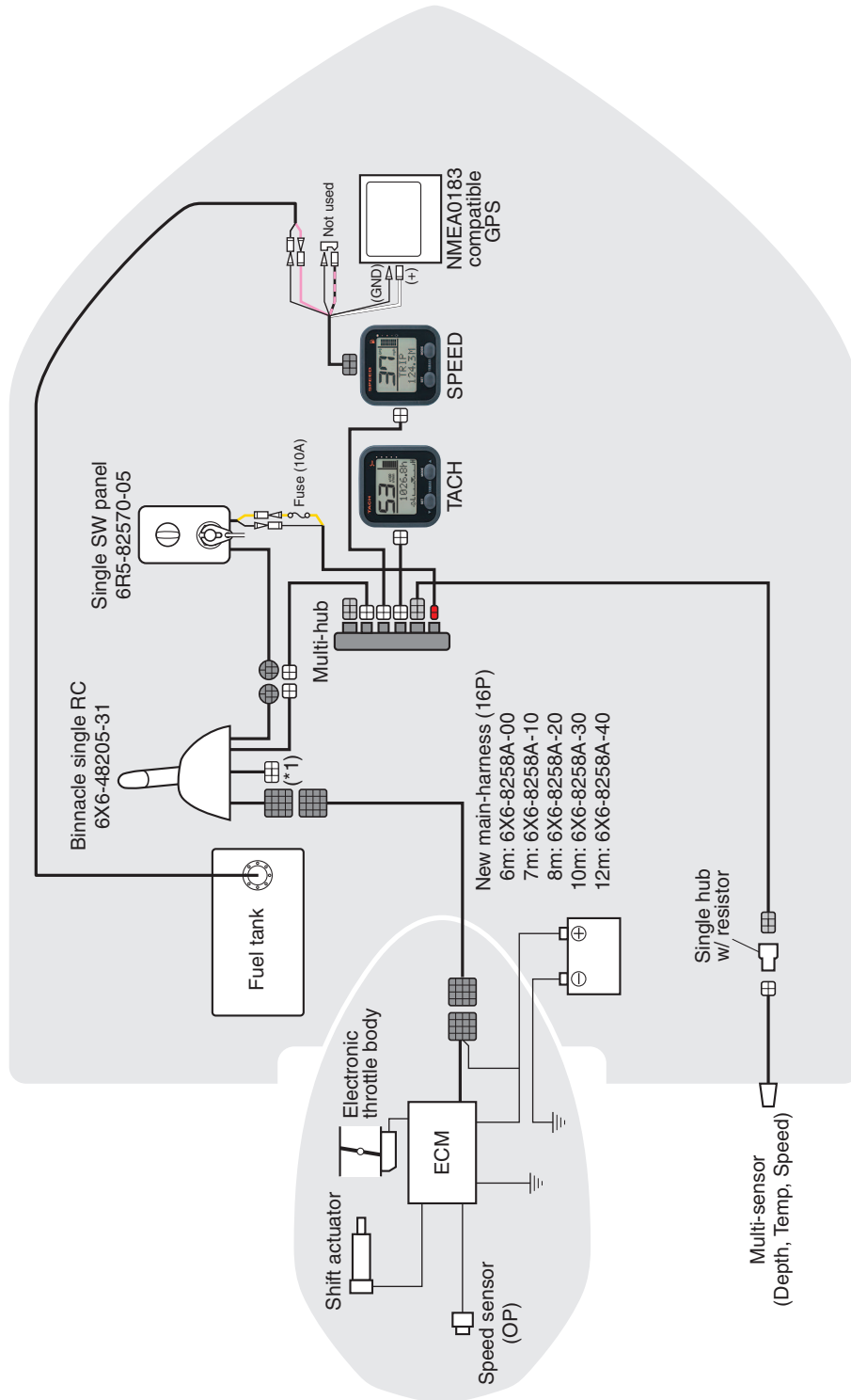
NETWORK WIRING DIAGRAMS

FUEL INJECTED F30-F250 [Mechanical RC] & HPDI ENGINES

TRIPLE ENGINE

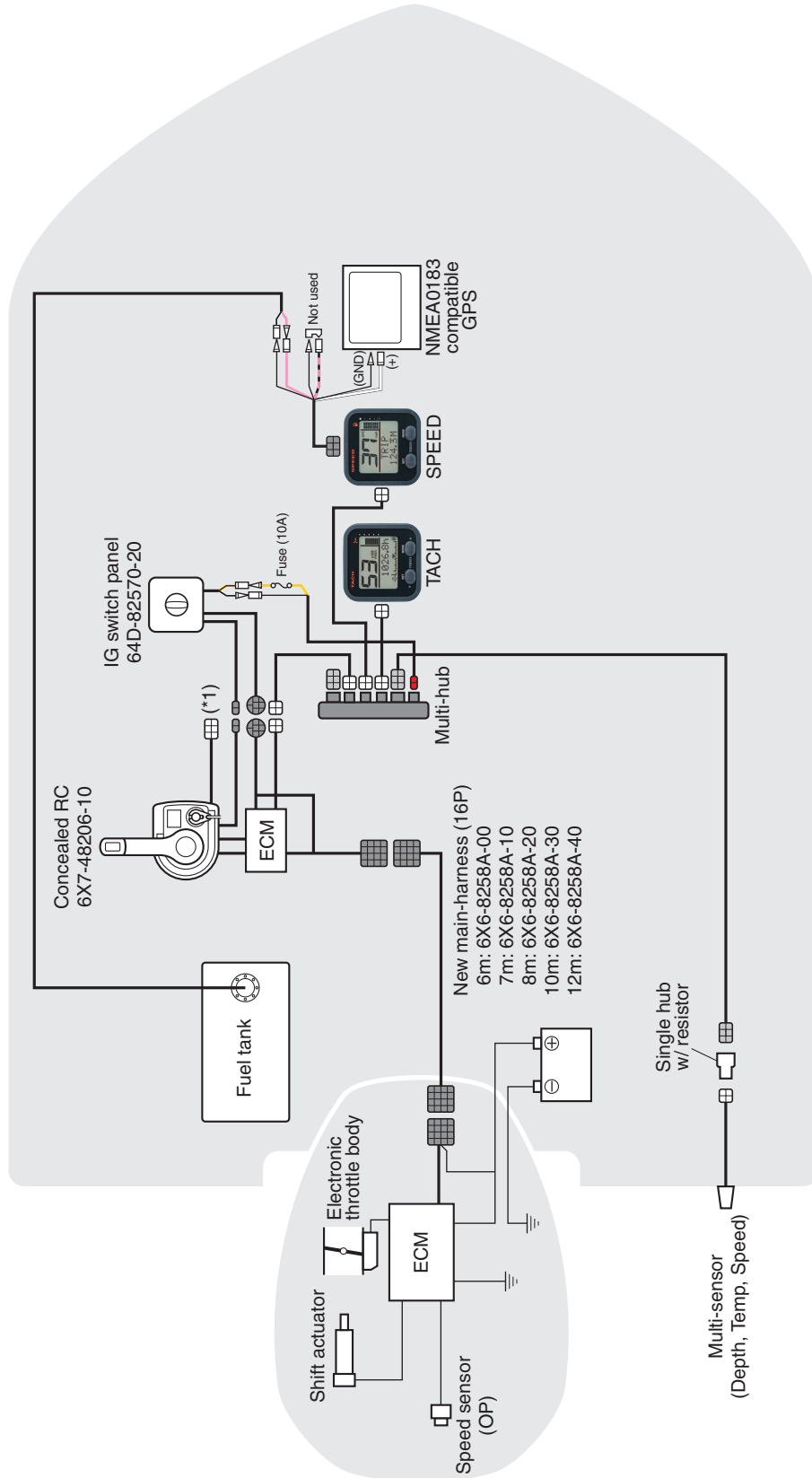


NETWORK WIRING DIAGRAMS **F250B, F300A (V8) [DERC] (2011 MODEL)** **SINGLE ENGINE W/ BINNACLE RC**



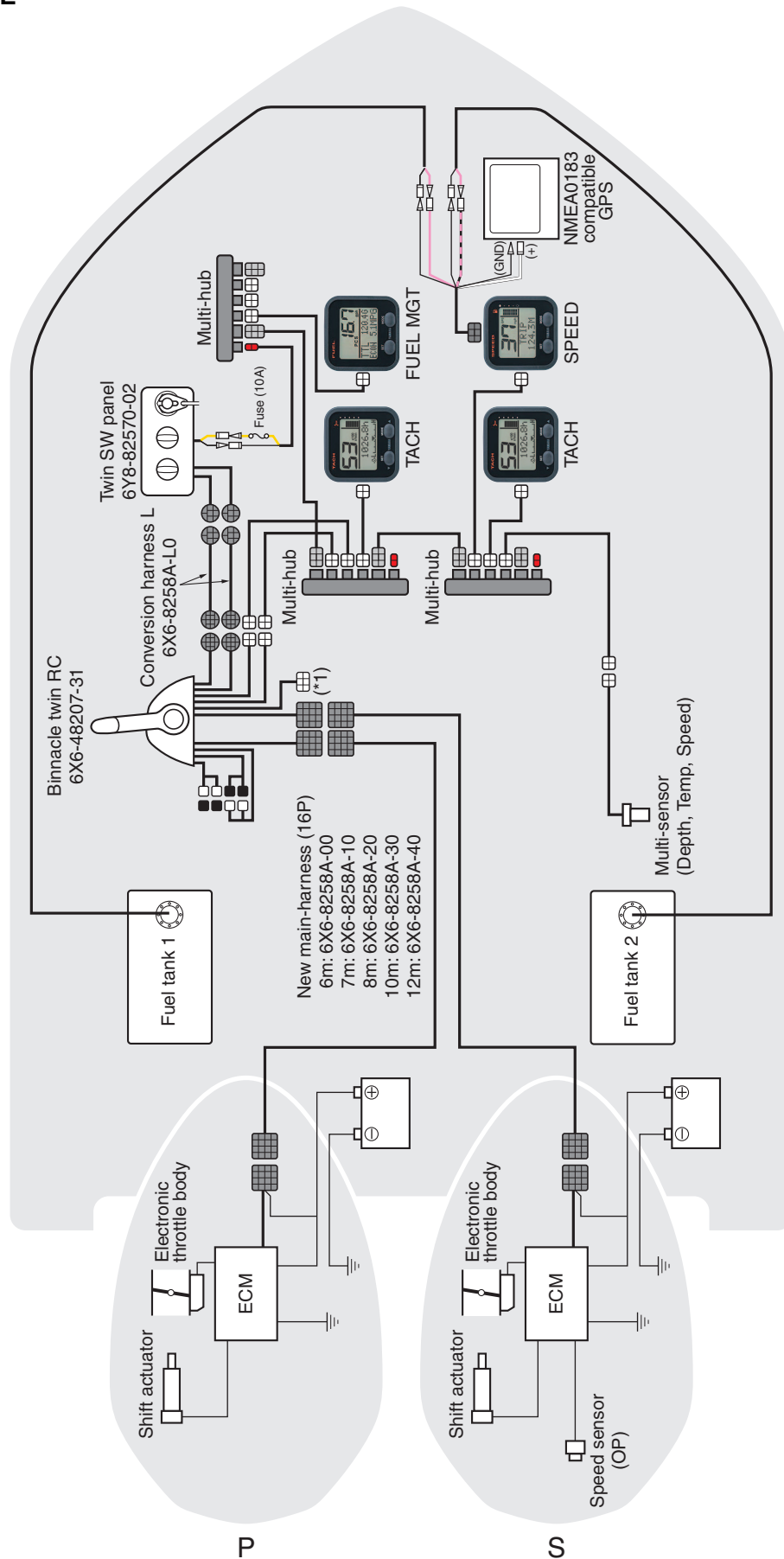
(*1) For 6Y9 network system

NETWORK WIRING DIAGRAMS **F250B, F300A (V8) [DERC] (2011 MODEL)** **SINGLE ENGINE W/ CONCEALED RC**



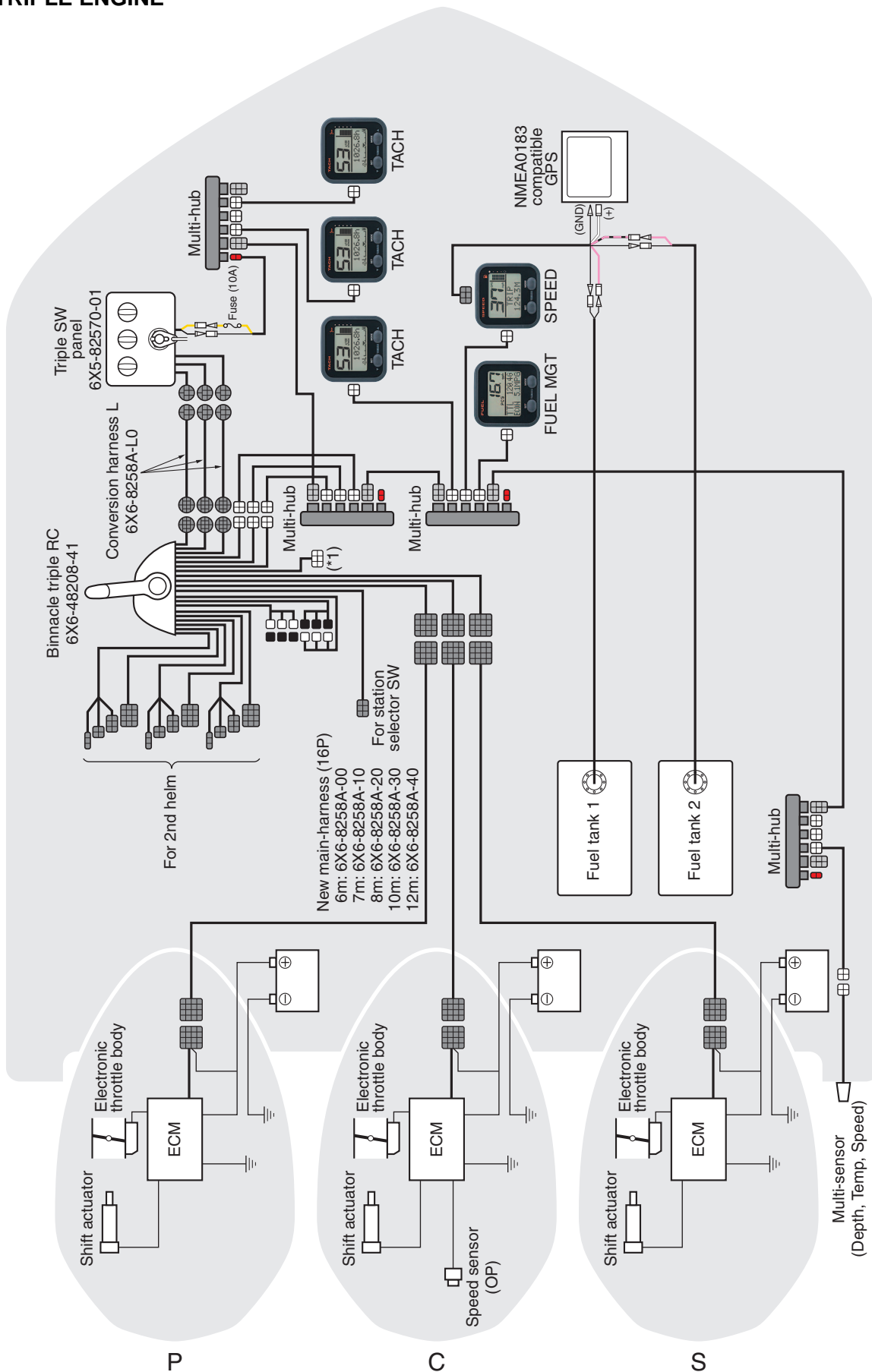
(*1) For 6Y9 network system

NETWORK WIRING DIAGRAMS **F250B, F300A (V8) [DERC] (2011 MODEL)** **TWIN ENGINE**



(*1) For 6Y9 network system

NETWORK WIRING DIAGRAMS **F250B, F300A (V8) [DERC] (2011 MODEL)** **TRIPLE ENGINE**

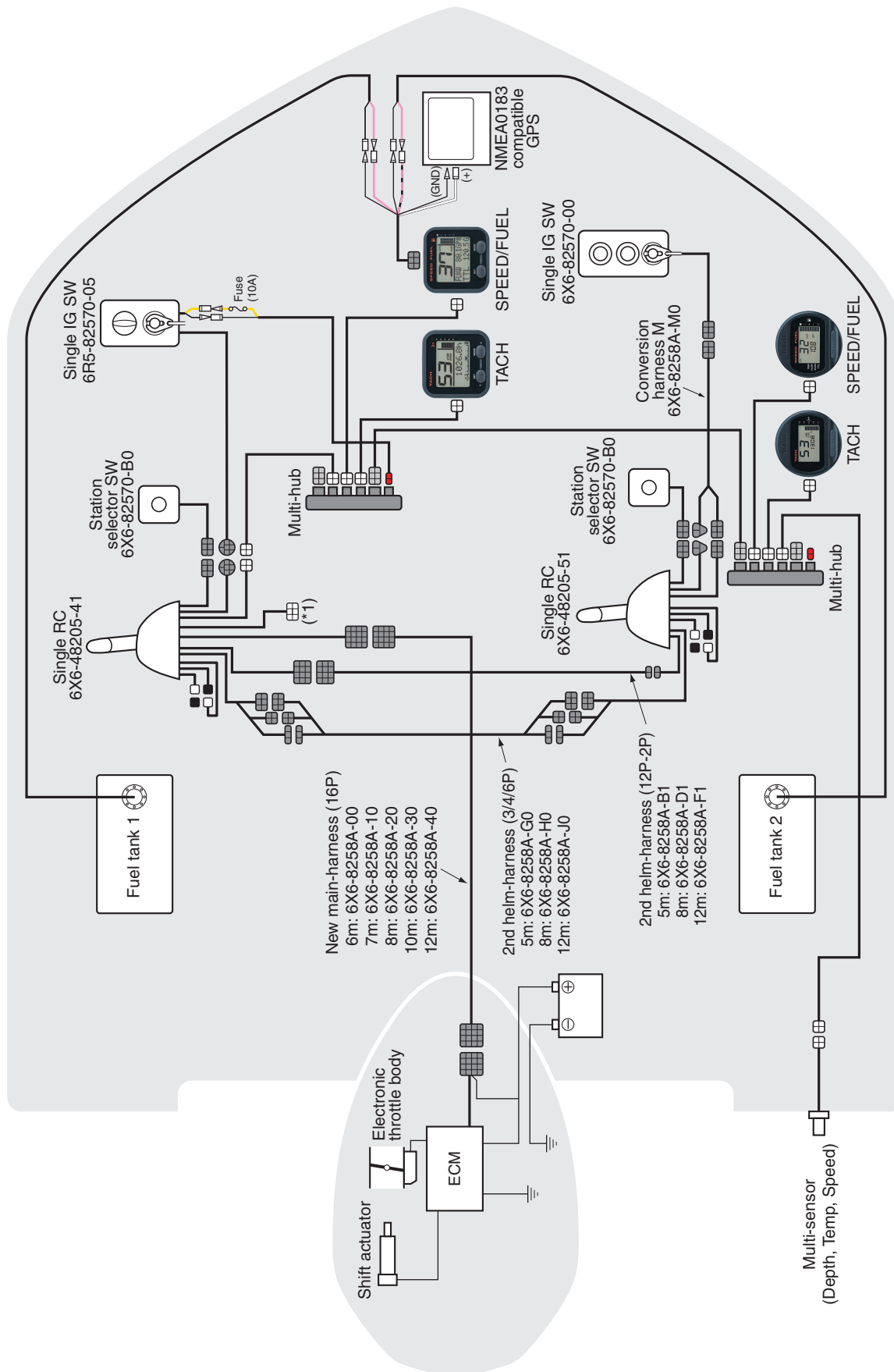


(*1) For 6Y9 network system

NETWORK WIRING DIAGRAMS

F250B, F300A (V8) [DERC] (2011 MODEL)

DUAL STATION/ SINGLE ENGINE

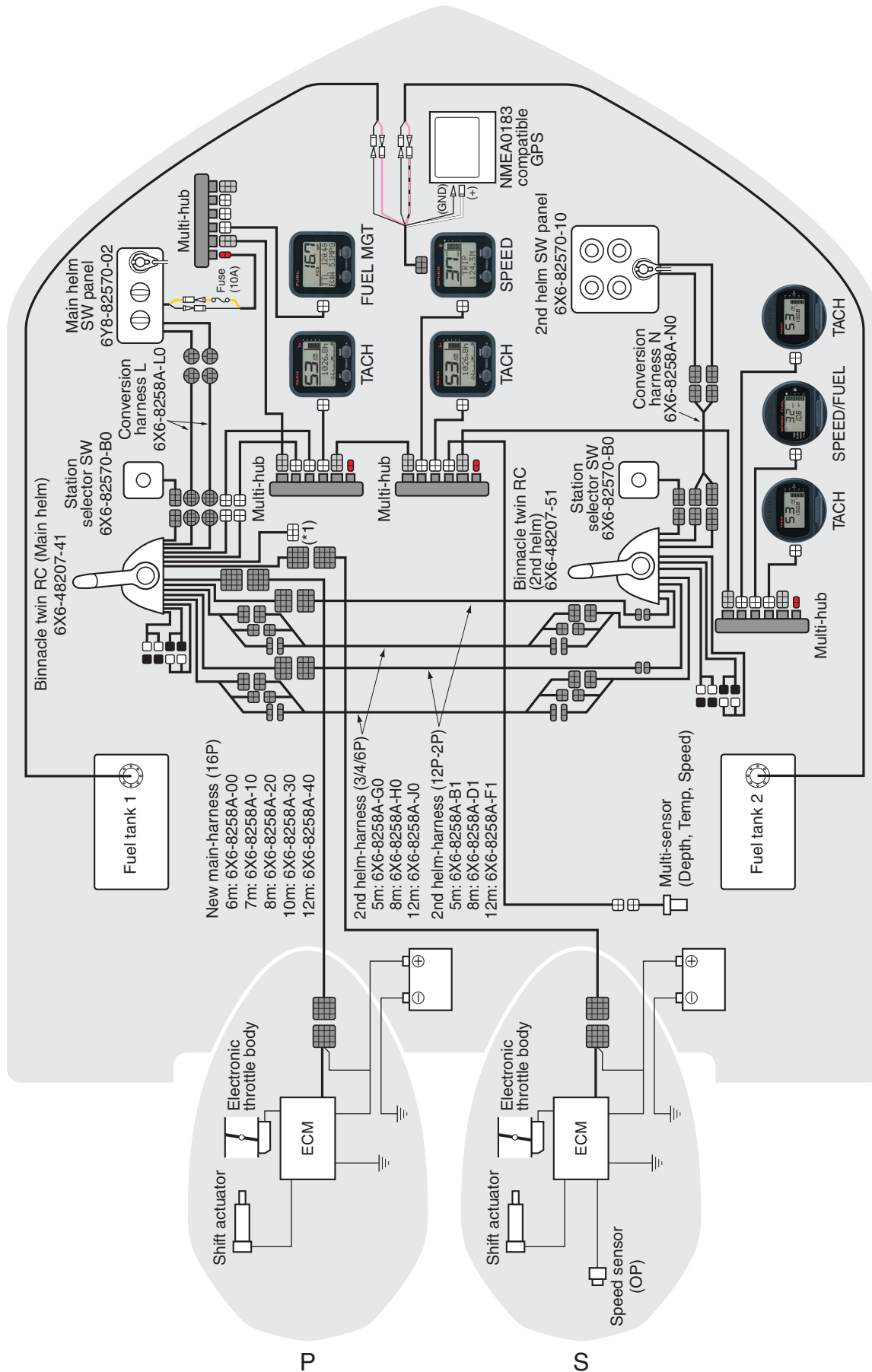


(*1) For 6Y9 network system

NETWORK WIRING DIAGRAMS

F250B, F300A (V8) [DERC] (2011 MODEL)

DUAL STATION/ TWIN ENGINE



(*1) For 6Y9 network system

INITIAL GAUGE SETUP

If two or more engines with digital network gauges are installed, the initial setup is required for proper gauge operation.

The ignition switches have to be turned to ON in order from Port to Starboard in 2 seconds or more interval, which can memorize the engine number into each ECM by a rule.

The 1st turned on ignition switch is memorized as No.1 engine.

The 2nd turned on is memorized as No.2 engine.

This can obtain easier engine number recognition for gauge setup.

When the initial recognition setup has been stumbled, reset the engine number and perform it again with the tachometer.

For further information, see the installation manual in the rigging kit.

For DERC engines, the digital electronic control system recognizes the engine number automatically, therefore the key switch ON in number order is not required.

TROUBLESHOOTING

The following table shows the main presumed troubles if the system or gauge is incorrectly set up, incorrectly operated, or malfunctioned.

For detail information, see the applicable installation manual and/or the troubleshooting guide.

Symptom	Cause	Measure	Note
Tachometer shows incorrect engine RPM.	Engine recognition is wrong. (for multi-applications)	Push SET for 10 seconds to default the engine number. Memorize each engine number again.	See Custom Mode for procedure to set the engine number.
Speedometer or Comb. Speedometer & Fuel mgt gauge shows incorrect fuel level.	Fuel sensor selection is wrong.	Setup the fuel sensor to correctly resistance.	ABYC sensor: 33-240 Ω (Default) Europe sensor: 0-180 Ω YAMAHA sensor: 5-105 Ω
Fuel mgt gauge shows incorrect remaining fuel	Fuel capacity setting is wrong. (for SQR Fuel mgt Gauge)	Fill the tank with fuel, and set fuel tank capacity.	Default setting is 50 gallons.
Fuel mgt gauge shows incorrect fuel consumption	Engine recognition is wrong. (for multi-applications)	Default the engine number, and turn the key switch on in order from portside engine to rememorize each engine number.	See Custom Mode of Tachometer for procedure to setup the engine number.
Gauge display does not wakeup.	Electric power is not supplied. Gauge is damaged.	Replace fuse. Connect the couplers securely. Replace the damaged wire or hub. Replace the gauge.	Be sure to use 10 amps fuse.
Illumination does not light.	Electric power is not supplied. Gauge is damaged.	Replace fuse. Connect the couplers securely. Replace the damaged wire or hub. Replace the gauge.	Be sure to use 10 amps fuse.
Gauge shows "----".	Digital signal is not received.	Connect the couplers securely. Replace the damaged bus wire or hub.	Verify the system with the optional checker.
Gauge unstably operates.	Resistor is not connected to the ending hubs.	Connect the gray 6-pin cap to the ending multi-hubs.	Single hub is included resistor.
Gauge response is poor or down.	Market obtainable unit connected to the system is failed. Signal volume has exceeded 50% of the capacity.	Replace the unit. Remove the heavy signal output unit.	Verify the system with the optional checker.
Trim gauge always shows fully tilted up position.	Trim sensor signal is not received.	Connect pink lead connectors each other.	See the installation manual.
Trim gauge shows incorrect position.	Initial position setting is wrong. Trim sensor is damaged.	Put the motor in the fully trimmed-in position, and reset the initial (zero) trim angle. Replace the trim sensor.	See Custom Mode for procedure to set the fully trimmed-in angle.
Boat speed and/or Coolant pressure gauge does not show.	Optional sensor has not installed.	Install the optional sensor.	See the instruction supplied with the sensor kit.
	Monitor display of tachometer remains in the default setting.	Select the coolant pressure display.	See Custom Mode for procedure to select the display.
Oil pressure is not shown.	Engine does not have the oil pressure sensor.	NA	F30-F100 cannot show the oil pressure.
	Tachometer does not setup to show the oil pressure.	Select the oil press. display.	See Custom Mode to setup display.

BASIC REQUIREMENTS

The following basic conditions are required for the digital network gauge system to install its components onto a boat.

Item	Conditions	Symptom	Note
Total amount quantity of unit for connecting to the system	50 units or less (Including market obtainable units, exclusive gauges and engine ECMs).	Gauge unstably shows. Gauge response is poor.	Check the system with the optional checker. Verify the conditions of system.
Total amount length of the main bus wires.	50 meter (164 feet) or less		
Acceptable volume of digital communication signals	50% or less of overall signal capacity		
Bus wires distance from electrical noise equipments (Antenna cable, Generator, Radio, etc.)	30 cm (1 ft) and more		
Temperature for performing bus wires and hubs	80°C (176°F) or less		

NMEA0183 COMPATIBLE EQUIPMENTS CONNECTION

The digital network gauge system accepts the signal of NMEA0183 version 2.0, 2.1, or 3.01 with following sentence.

Date	Sentence
Speed and Time	RMC
Water depth	DBT
Water surface temp.	MTW

* If the signal sentence is not shown on an electric unit or its instruction, ask to the manufacturer.

MEMO



DIGITAL NETWORK PREMIUM GAUGE (6Y9)

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To be continued.

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(FOR F/LF225CA, F/LF250CA, F/LF300CA, F/LF350CA).....	7-44

DIGITAL NETWORK PREMIUM GAUGE COMPATIBLE MODEL

The following models can accept Digital Network Premium Gauge (6Y9 new network system).

Global model	US model	Canada model	Remarks
F/FL225F	F/LF225CA	F/LF225CA	
F/FL250D	F/LF250CA	F/LF250CA	
F/FL300B	F/LF300CA	F/LF300CA	
F/FL350A	F/LF350CA	F/LF350CA	For 2011 and later models

These engines can accept the conventional Digital Network Gauges (6Y8) as well.
For further information, see the applicable models service guide, installation manual, etc.

DIGITAL NETWORK PREMIUM GAUGE APPLICATION

TFT-LCD color screen, arrow key, USB port, triple engine acceptable.

Ref. No.	Part name	Part No.	Remarks
1	Premium color gauge assy	6Y9-83710-01	w/ screen cover (6Y9-87278-00)

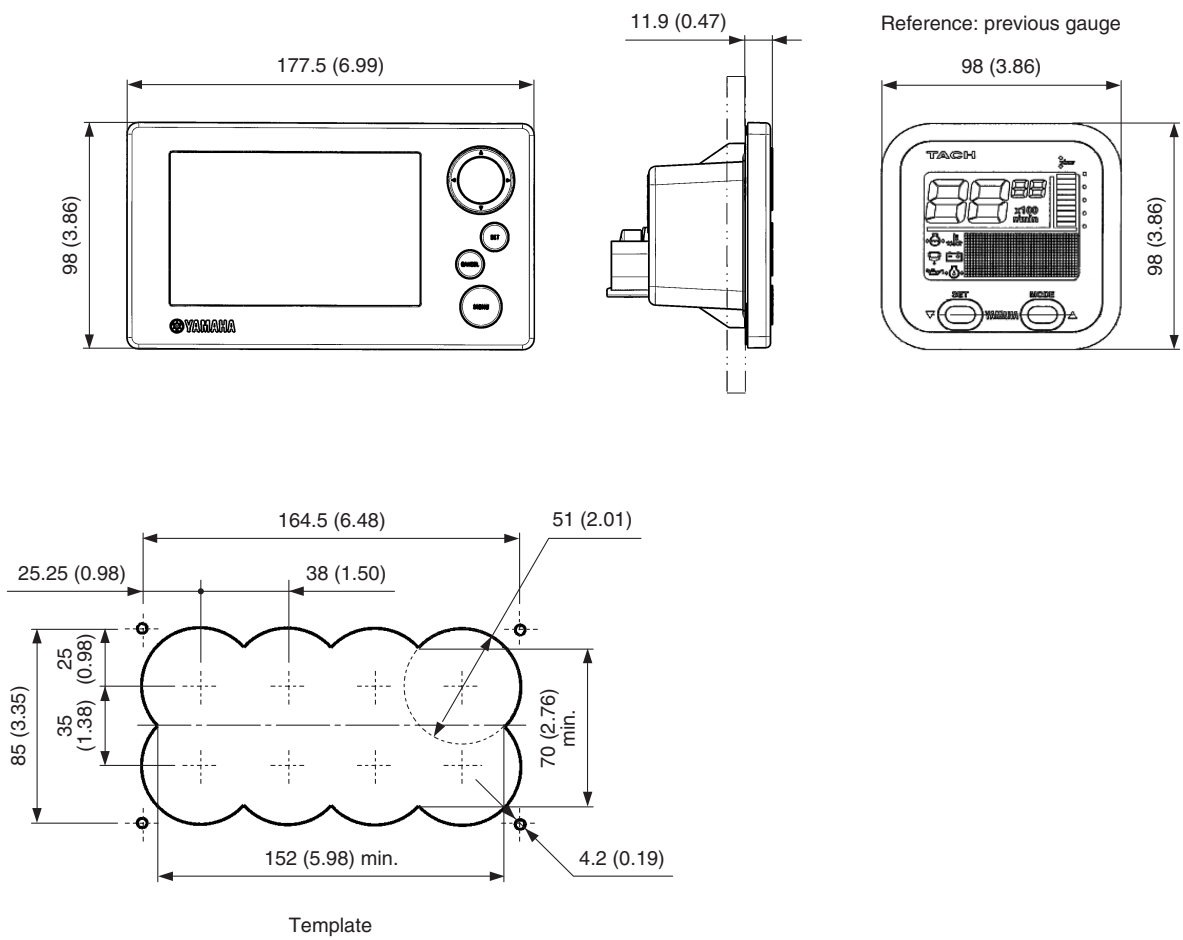
1



DIGITAL NETWORK PREMIUM GAUGE DIMENSIONS

PREMIUM COLOR GAUGE DIMENSIONS

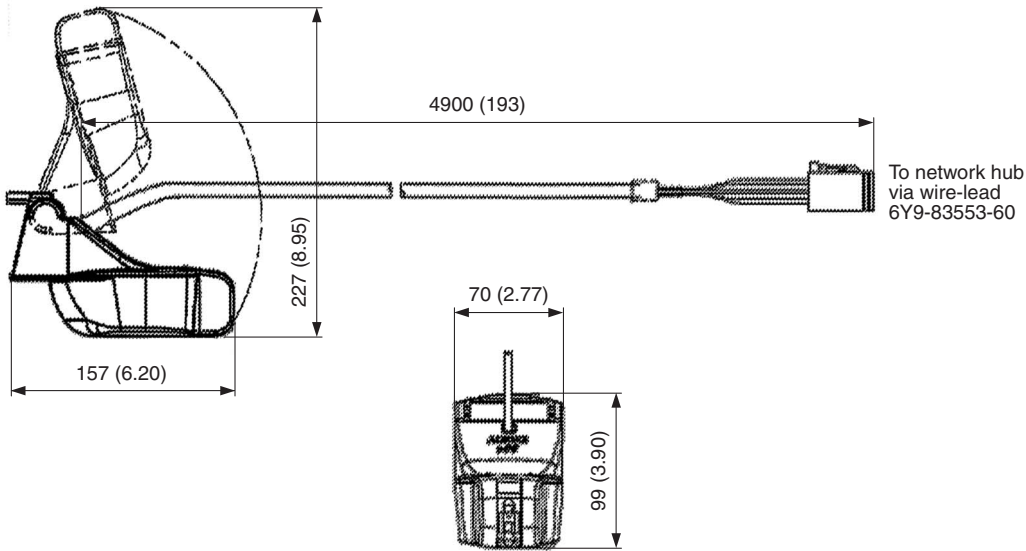
mm (in.)



OPTIONAL EQUIPMENTS **TRANSOM MULTI-SENSOR (6Y9)**

Part No.	Remarks
6Y9-83688-00	Depth, speed, water surface temp

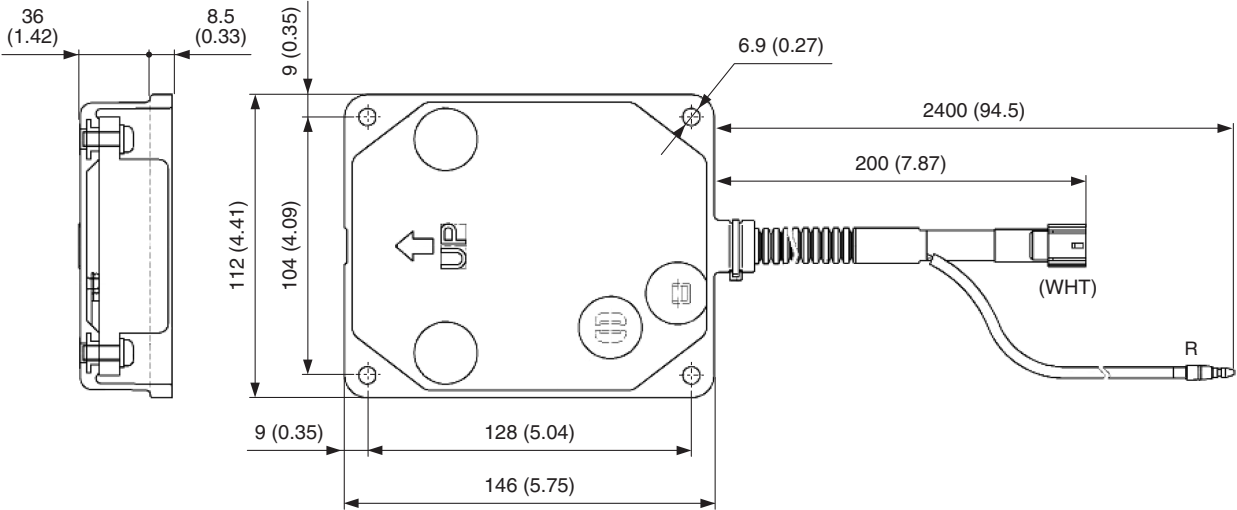
mm (in.)



IMMOBILIZER UNIT Yamaha Security System locks the engine when starting.

Part No.	Remarks
6Y8-86254-02	For EU (STD)
6Y8-86254-20	For US, ANZ
6Y8-86254-30	For JPN

mm (in.)



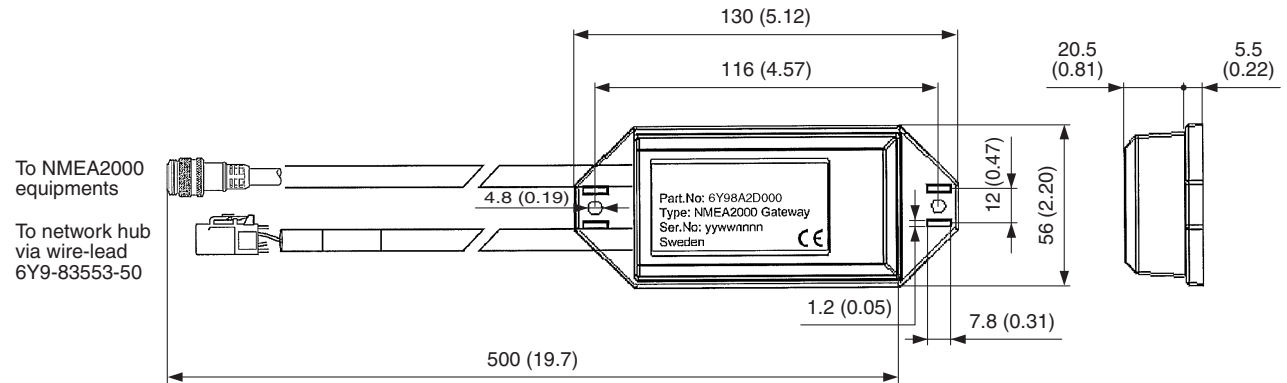
OPTIONAL EQUIPMENTS

NMEA2000 GATEWAY

Uses to connect between NMEA2000 compatible equipments and network hub.

Part No.	Remarks
6Y9-8A2D0-00	For new network system

mm (in.)

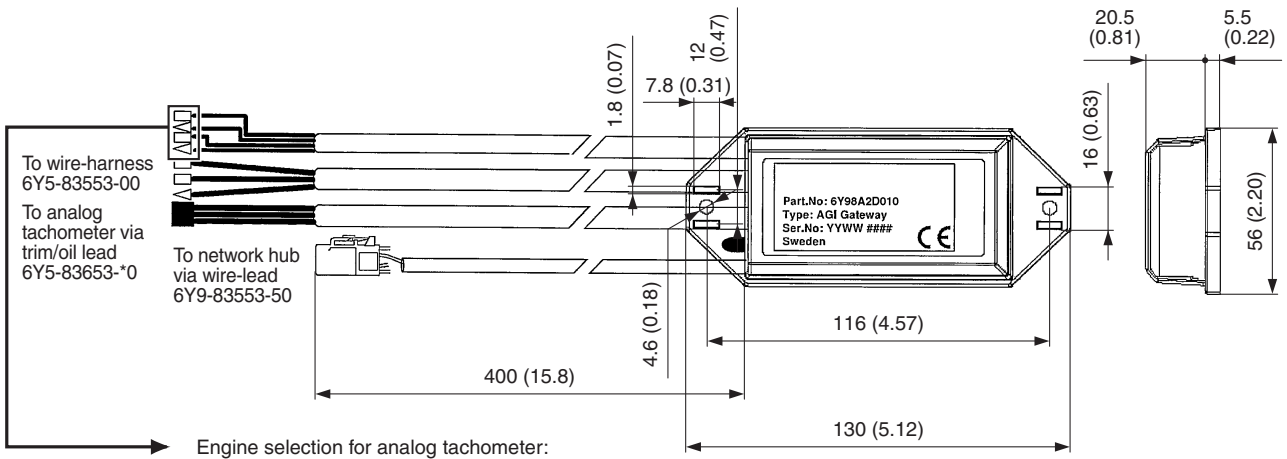


ANALOG GAUGE INTERFACE (IF)

Uses to connect between analog gauge and network hub.

Part No.	Remarks
6Y9-8A2D0-10	For new network system, Required for each engine.

mm (in.)



Single engine	PORT engine	—	—
Twin engine	PORT engine	—	STBD engine
Triple engine	PORT engine	CENTER engine	STBD engine
<div><div><div>L B Or B</div><div></div></div><div><div>L B Or B</div><div></div></div><div><div>L B Or B</div><div></div></div></div>			

OPTIONAL EQUIPMENTS

SPEED SENSOR KIT

Uses to pick up the pitot tube pressure for water speed.

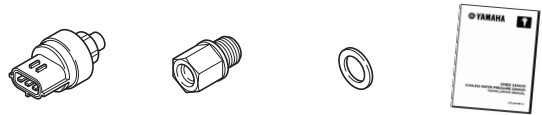
Kit Part No.	Remarks
60V-8A4L1-11	Shared with previous network system



COOLANT PRESSURE SENSOR KIT

Uses to pick up the coolant pressure of engine.

Kit Part No.	Remarks
63P-8A4L0-00	Shared with previous network system



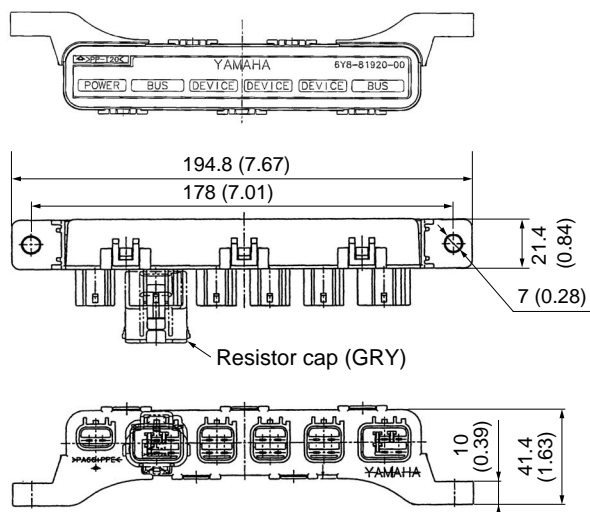
NETWORK HUB

Shared between previous and new network systems.

Ref. No.	Part name	Part No.	Remarks
1	Multi-hub	6Y8-81920-01	w/ ending resistor cap (P/N: 6Y8-85371-01)
2	Single hub (Inline hub)	6Y8-81920-11	Included ending resistor
3	2P sealing cap, RED	6Y8-82582-01	
4	4P sealing cap, WHT	6Y8-82582-11	

1

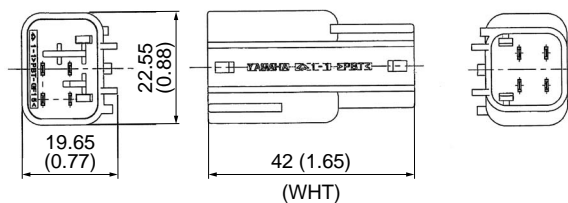
mm (in.)



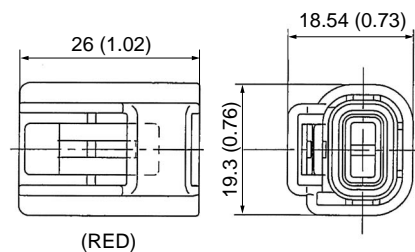
* Face the connectors downward for installation.

2

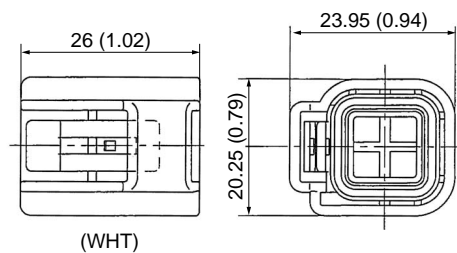
mm (in.)



3



4

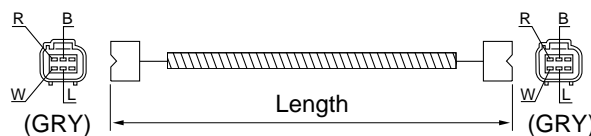


WIRE-HARNESS

MAIN BUS WIRE

Uses to connect between the hub and hub, between the RC and hub, etc. (Shared with previous network system)

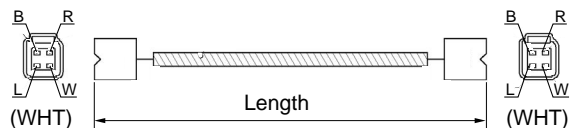
Part No.	Length	Remarks
6Y8-82553-41	30 ft, 9.1 m	
6Y8-82553-31	25 ft, 7.6 m	
6Y8-82553-21	20 ft, 6.1 m	
6Y8-82553-11	15 ft, 4.6 m	
6Y8-82553-50	10 ft, 3.0 m	
6Y8-82553-01	1 ft, 0.3 m	



PIGTAIL BUS WIRE

Uses to connect between the hub and gauge, between the hub and equipment (IF, gateway), etc. (Shared with previous network system)

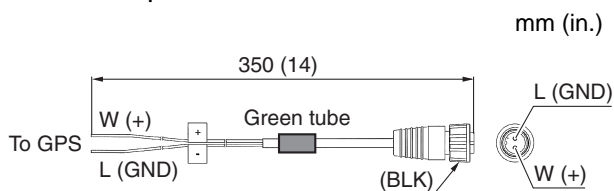
Part No.	Length	Remarks
6Y8-82521-51	12 ft, 3.6 m	
6Y8-82521-41	9 ft, 2.7 m	
6Y8-82521-31	6 ft, 1.8 m	
6Y8-82521-21	3 ft, 0.9 m	
6Y8-82521-11	2 ft, 0.6 m	
6Y8-82521-01	1 ft, 0.3 m	



GPS WIRE

Uses to connect between premium gauge and NMEA0183 compatible GPS unit.

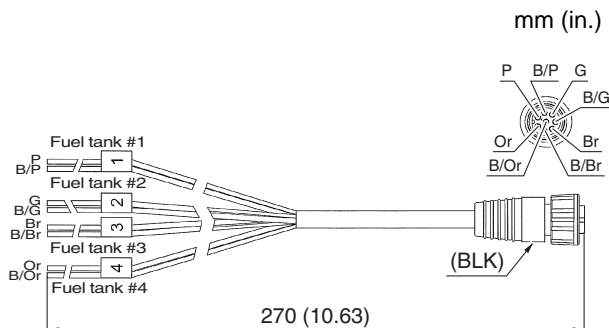
Part No.	Remarks
6Y9-8356N-01	NMEA 0183 compatible GPS



TANK WIRE

Uses to connect between the premium gauge and a fuel tank, fresh water tank, sewage tank, etc.

Part No.	Remarks
6Y9-8356N-10	4-tank acceptable

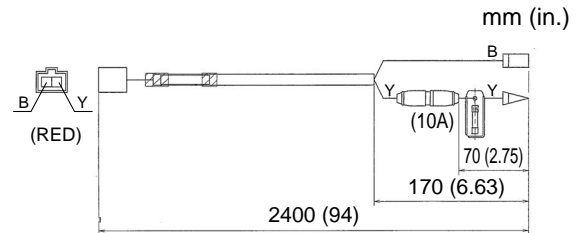


WIRE-HARNESS

SYSTEM POWER SUPPLY WIRE

Uses to connect between the SW panel and the hub, and supply the electric power to the system.

Part No.	Remarks
6Y8-83553-01	Shared with previous network system



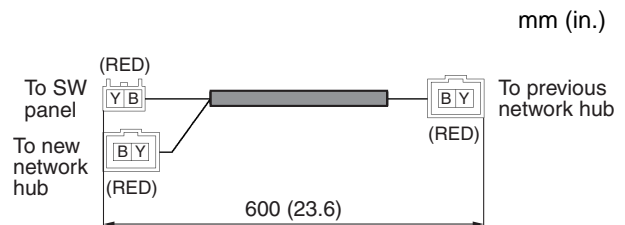
SYSTEM POWER DISTRIBUTION WIRE

Uses to supply the electric power to each network hub, if new and previous network systems are simultaneously used.

NOTICE

Do not connect with the main bus wire between new network and previous network.

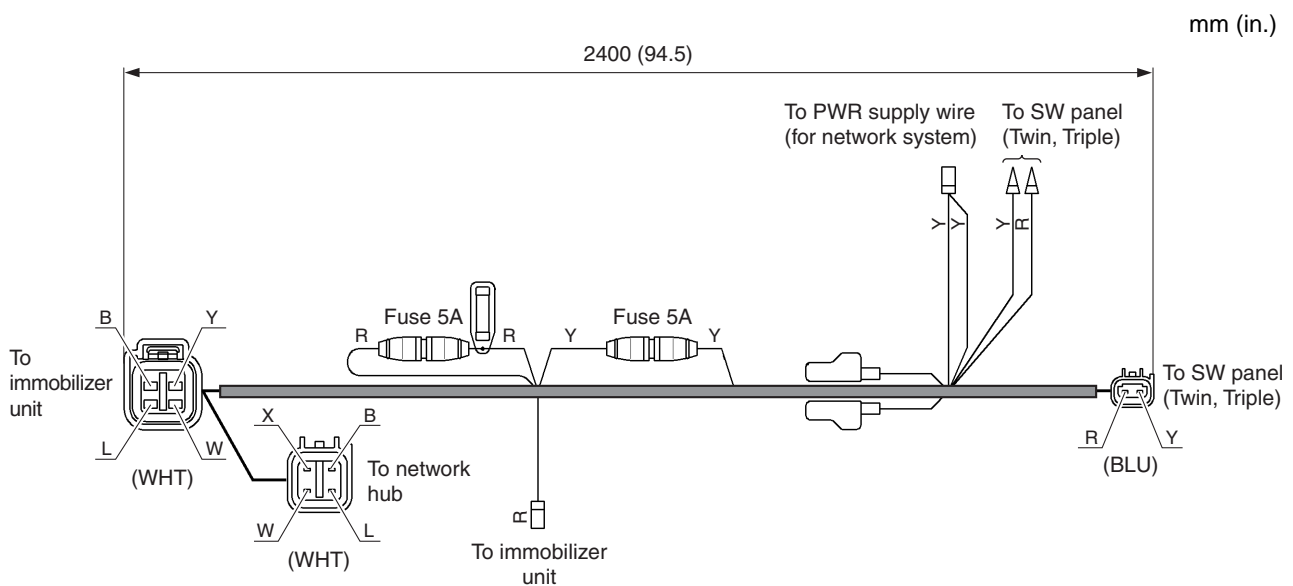
Part No.	Remarks
6Y9-83553-20	



IMMOBILIZER POWER DISTRIBUTION WIRE 2

Supplies the electric power to activate the immobilizer system in case of multi-application.

Part No.	Remarks
6Y8-81315-00	For start/stop button SW panel

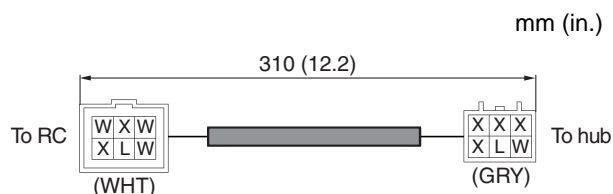


WIRE-HARNESS

CONVERSION HARNESS

Uses to connect between DERC and network hub.

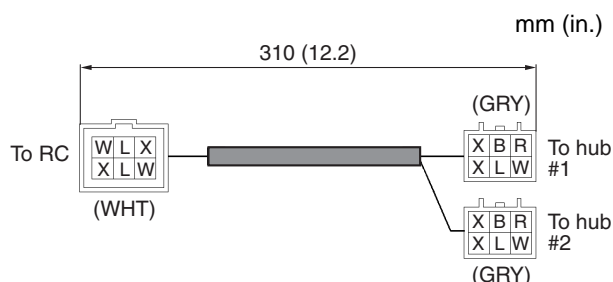
Part No.	Remarks
6Y9-83553-00	For new network system



CONVERSION HARNESS 1

Uses to connect between DERC and network hub if dual station system is used and multi-sensor is connected.

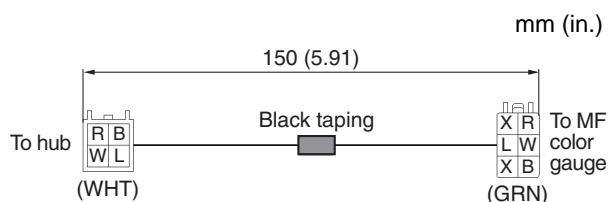
Part No.	Remarks
6Y9-83553-10	For new network system



CONVERSION HARNESS 4

Uses to connect between premium gauge and network hub.

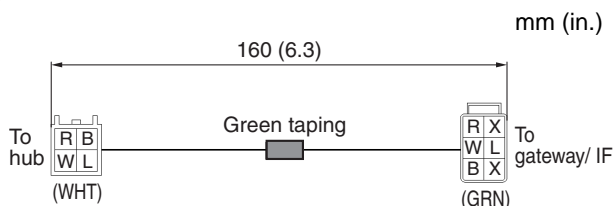
Part No.	Remarks
6Y9-83553-40	For new network system



CONVERSION HARNESS 5

Uses to connect between analog gauge IF/ Gateway and network hub.

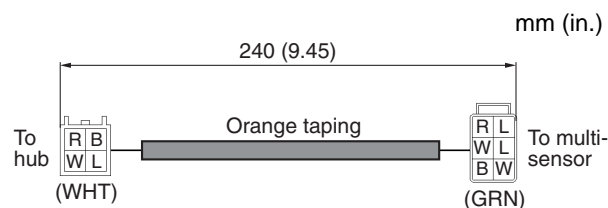
Part No.	Remarks
6Y9-83553-50	For new network system



CONVERSION HARNESS 6

Uses to connect between multi-sensor and network hub.

Part No.	Remarks
6Y9-83553-60	For new network system

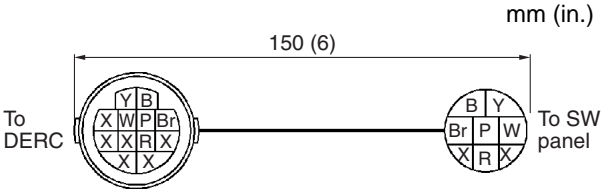


WIRE-HARNESS

CONVERSION HARNESS L

Uses to connect between new DERC unit and previous main IG switch.

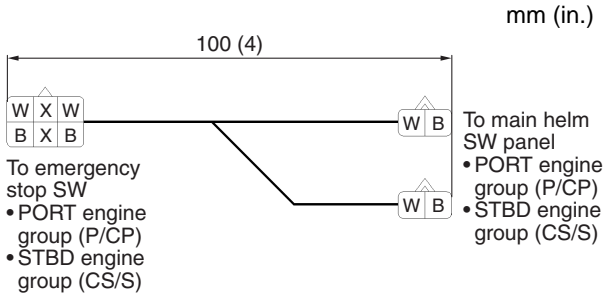
Part No.	Remarks
6X6-8258A-L0	



TWINNING HARNESS

Uses to connect between two engine group IG switches and emergency stop SW. (For quad engine DERC special)

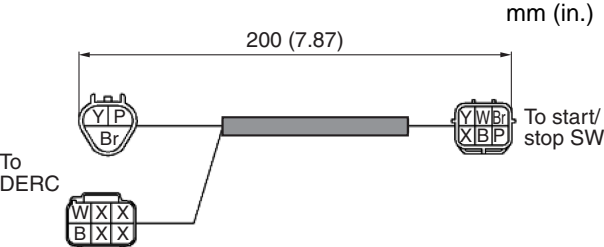
Part No.	Remarks
6X6-8258A-U0	



CONVERSION HARNESS M (FOR 2ND HELM)

Uses to connect between 2nd helm new DERC and 2nd helm previous start/stop SW. (Single engine)

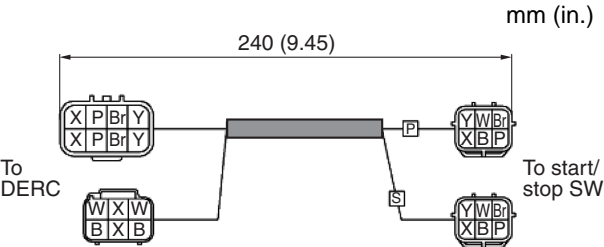
Part No.	Remarks
6X6-8258A-M0	



CONVERSION HARNESS N (FOR 2ND HELM)

Uses to connect between 2nd helm new DERC and 2nd helm previous start/stop SW. (Twin engine)

Part No.	Remarks
6X6-8258A-N0	

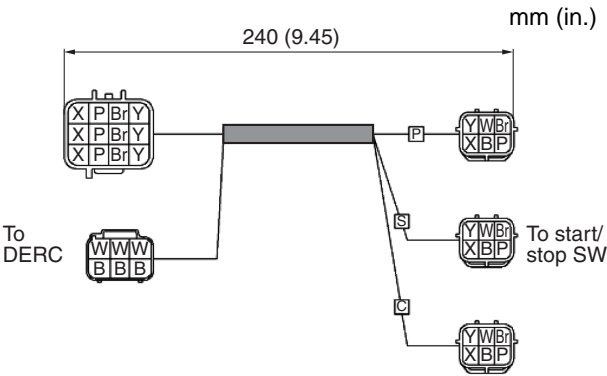


WIRE-HARNESS

CONVERSION HARNESS P (FOR 2ND HELM)

Uses to connect between 2nd helm new DERC and 2nd helm previous start/stop SW. (Triple engine)

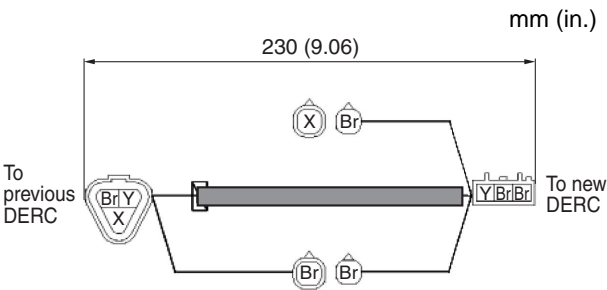
Part No.	Remarks
6X6-8258A-P0	



CONVERSION HARNESS K (FOR DUAL STATION)

Uses to connect between main helm new DERC and 2nd helm previous DERC.

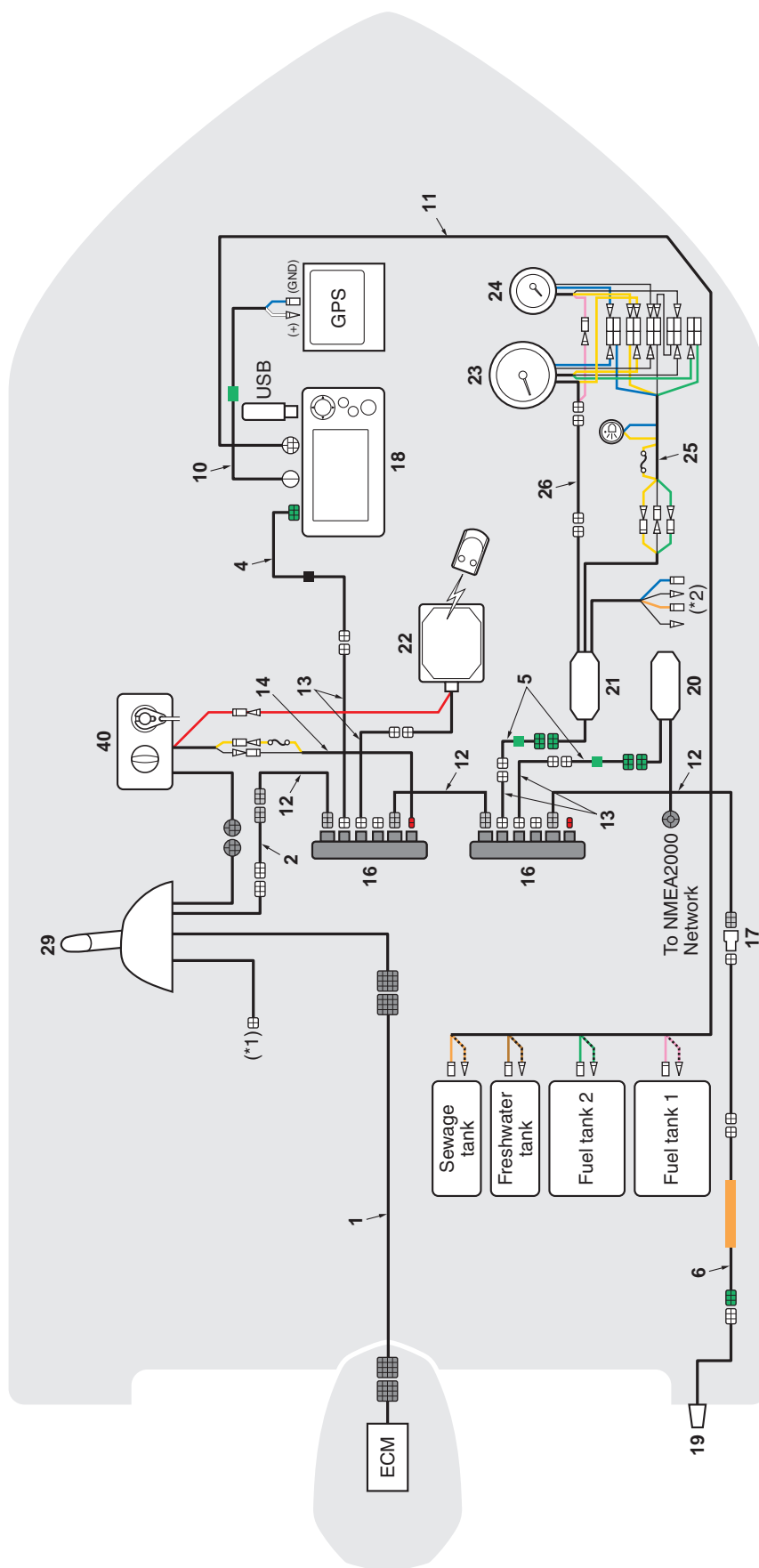
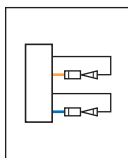
Part No.	Remarks
6X6-8258A-K0	



NETWORK WIRING DIAGRAMS

SINGLE STATION W/ 6Y9 GAUGE SINGLE ENGINE (BINNACLE RC)

- (*1) For previous network system (6Y8)
 (*2) Engine selection for tachmeter



NETWORK WIRING DIAGRAMS

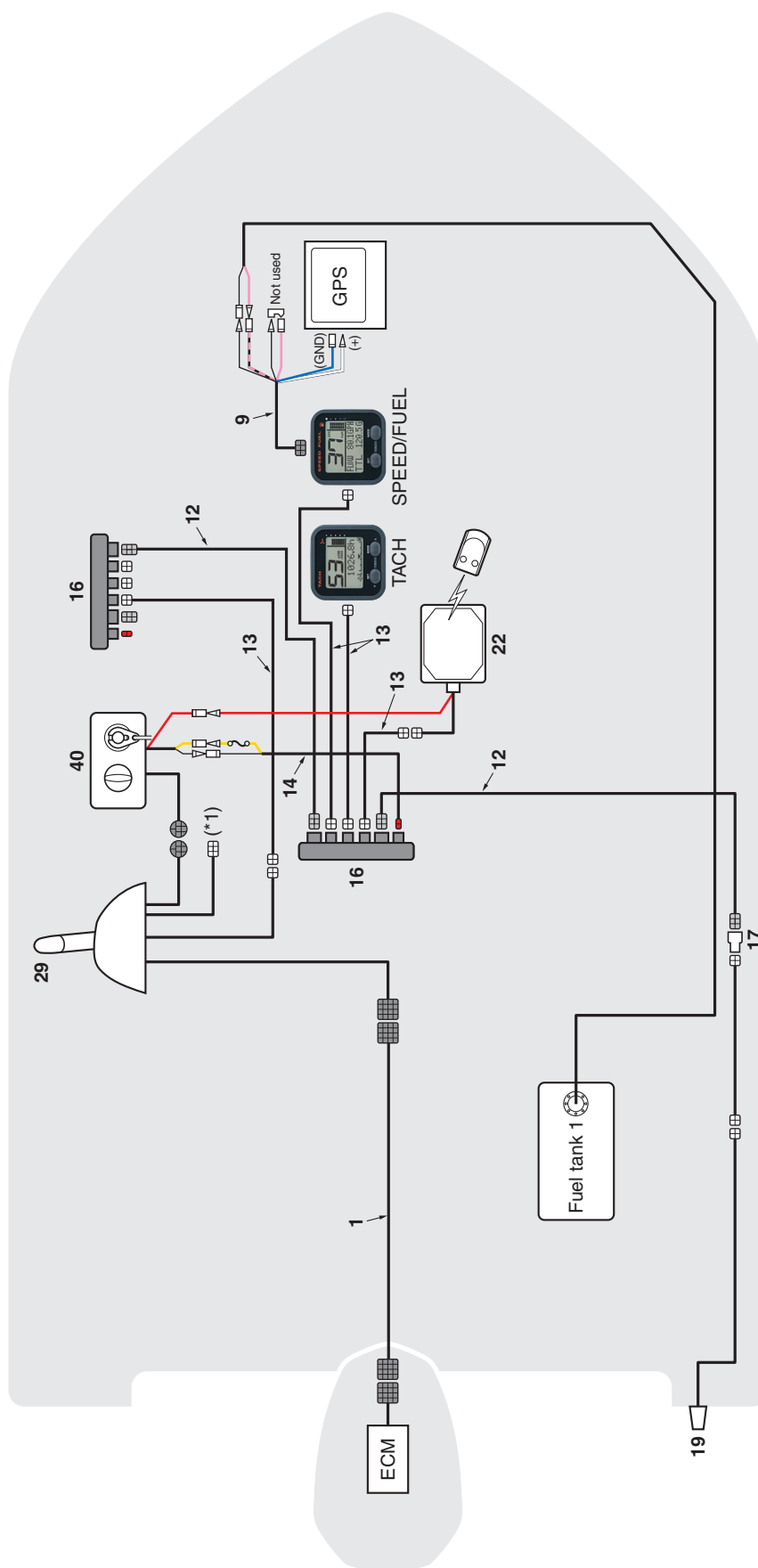
SINGLE STATION W/ 6Y9 GAUGE SINGLE ENGINE (BINNACLE RC)

Ref. No.	Part name	Part No.	Remarks
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
17	Single (inline) hub	6Y8-81920-11	w/ resistor, 4-6P, White
18	Premium color gauge	6Y9-83710-01	w/ screen cover
19	Transom multi-sensor	6Y9-83688-00	Depth, speed, water temp, w/ 4.9 m wire
20	NMEA 2000 gateway	6Y9-8A2D0-00	
21	Analog gauge interface	6Y9-8A2D0-10	
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
23	Analog tachometer	6Y7-83540-80	Black panel
		6Y7-83540-90	White panel
24	Analog trim gauge	6Y7-83670-40	Black panel
		6Y7-83670-50	White panel
25	Analog meter harness	6Y5-83553-00	2.5 m, 8 ft
		6Y5-83653-00	5 m, 16 ft
		6Y5-83653-10	6 m, 20 ft
26	Analog meter trim/oil lead	6Y5-83653-20	7 m, 23 ft
		6Y5-83653-30	8 m, 26 ft
		6Y5-83653-40	9 m, 31 ft
		6Y5-83653-50	10.5 m, 33 ft
29	Single RC	6X6-48205-31	Single station
40	Single IG SW	6X6-82570-30	For binnacle RC, Main helm

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
2	Conversion harness	6Y9-83553-00	0.3 m, 1 ft
4	Conversion harness 4	6Y9-83553-40	0.15 m, 0.5 ft
5	Conversion harness 5	6Y9-83553-50	0.16 m, 0.5 ft
6	Conversion harness 6	6Y9-83553-60	0.24 m, 0.8 ft
10	GPS wire	6Y9-8356N-01	0.35 m, 1.1 ft
11	Tank wire	6Y9-8356N-10	0.27 m, 0.9 ft
		6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
12	Main bus wire	6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
13	Pigtail bus wire	6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
14	System power supply wire	6Y8-83553-01	w/ 10-amps fuse, 2.4 m, 8 ft

NETWORK WIRING DIAGRAMS

SINGLE STATION W/ 6Y8 GAUGE SINGLE ENGINE (BINNACLE RC)



(*1) For 6Y9 network system

NETWORK WIRING DIAGRAMS

SINGLE STATION W/ 6Y8 GAUGE SINGLE ENGINE (BINNACLE RC)

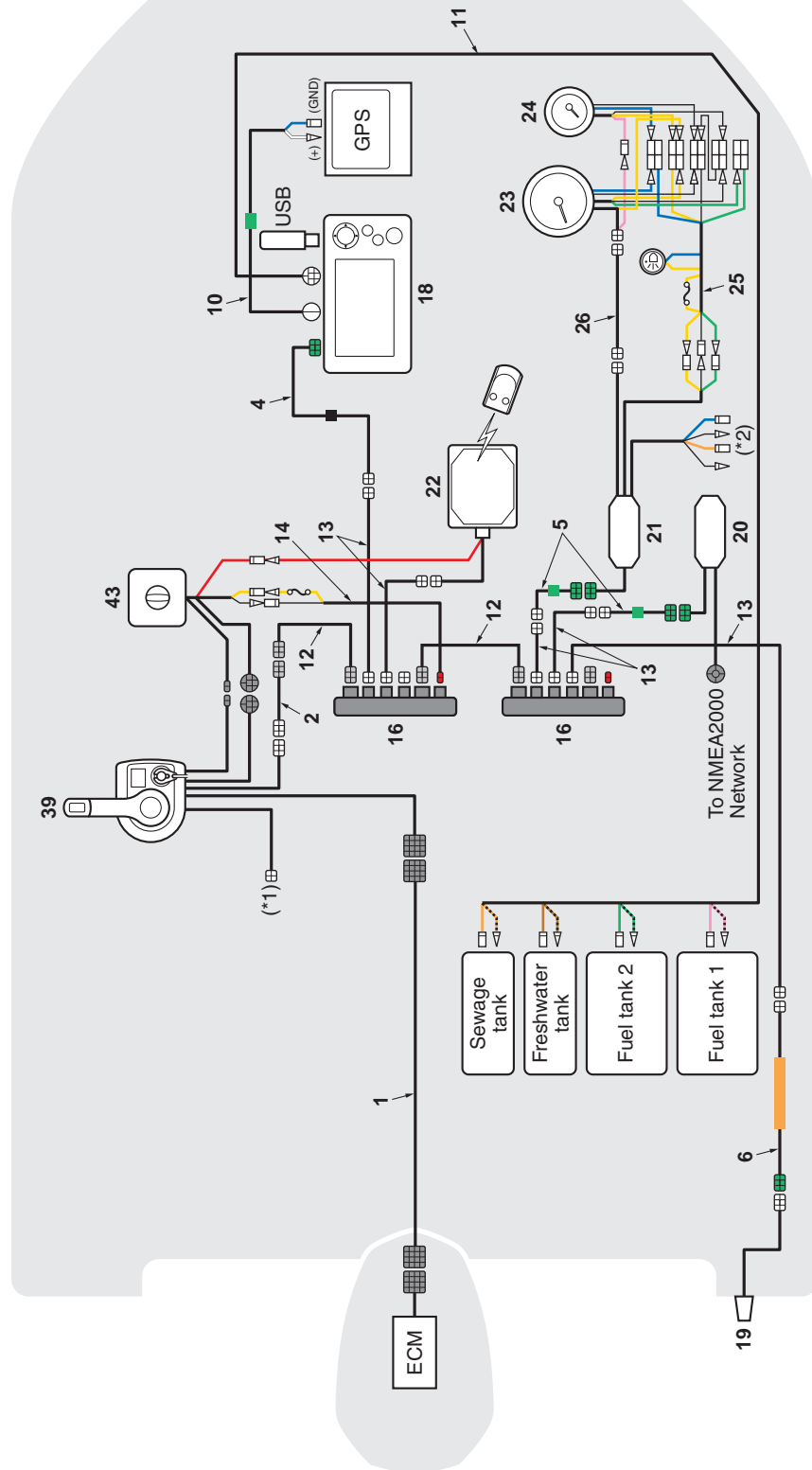
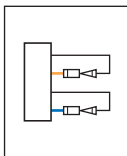
Ref. No.	Part name	Part No.	Remarks
14	System power supply wire	6Y8-83553-01	w/ 10-amps fuse, 2.4 m, 8 ft
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
17	Single (inline) hub	6Y8-81920-11	w/ resistor, 4-6P, White
19	Transom multi-sensor	6Y8-83688-01	Depth, speed, water temp, w/ 4.9 m wire
		6Y8-86254-02	EU
22	Immobilizer unit	6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
29	Single RC	6X6-48205-31	Single station
40	Single IG SW	6X6-82570-30	For binnacle RC, Main helm

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
9	Fuel tank/ GPS wire	6Y8-8356N-01	0.3 m, 1 ft
		6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
12	Main bus wire	6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
13	Pigtail bus wire	6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft

NETWORK WIRING DIAGRAMS

SINGLE STATION W/ 6Y9 GAUGE SINGLE ENGINE (CONCEALED RC)

- (*1) For previous network system (6Y8)
 (*2) Engine selection for tachometer



NETWORK WIRING DIAGRAMS

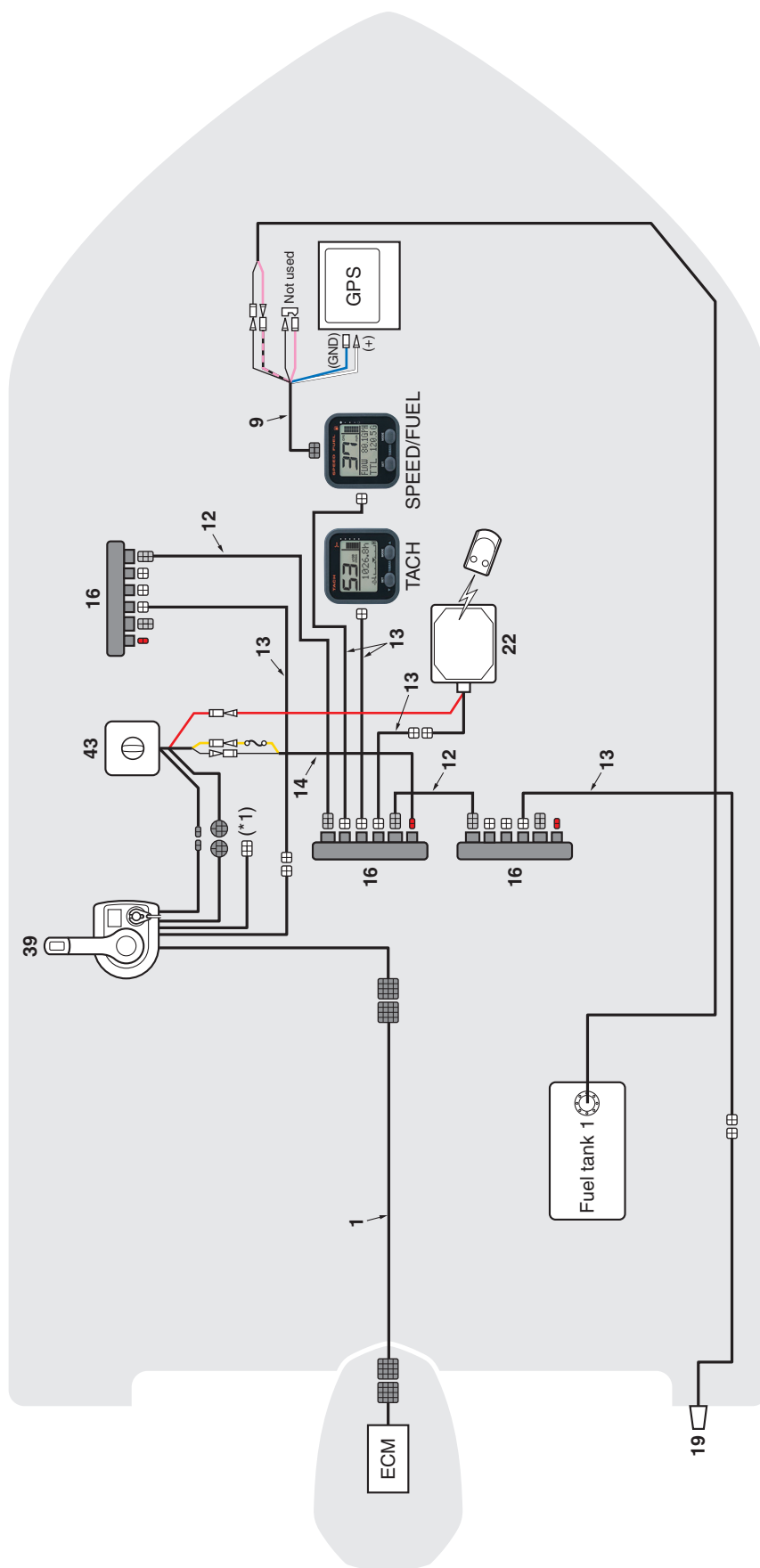
SINGLE STATION W/ 6Y9 GAUGE SINGLE ENGINE (CONCEALED RC)

Ref. No.	Part name	Part No.	Remarks
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
18	Premium color gauge	6Y9-83710-01	w/ screen cover
19	Transom multi-sensor	6Y9-83688-00	Depth, speed, water temp, w/ 4.9 m wire
20	NMEA 2000 gateway	6Y9-8A2D0-00	
21	Analog gauge interface	6Y9-8A2D0-10	
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
23	Analog tachometer	6Y7-83540-80	Black panel
		6Y7-83540-90	White panel
24	Analog trim gauge	6Y7-83670-40	Black panel
		6Y7-83670-50	White panel
25	Analog meter harness	6Y5-83553-00	2.5 m, 8 ft
		6Y5-83653-00	5 m, 16 ft
		6Y5-83653-10	6 m, 20 ft
26	Analog meter trim/oil lead	6Y5-83653-20	7 m, 23 ft
		6Y5-83653-30	8 m, 26 ft
		6Y5-83653-40	9 m, 31 ft
		6Y5-83653-50	10.5 m, 33 ft
39	Concealed RC	6X7-48206-10	Single station
43	Single IG SW	64D-82570-20	For concealed RC

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
2	Conversion harness	6Y9-83553-00	0.3 m, 1 ft
4	Conversion harness 4	6Y9-83553-40	0.15 m, 0.5 ft
5	Conversion harness 5	6Y9-83553-50	0.16 m, 0.5 ft
6	Conversion harness 6	6Y9-83553-60	0.24 m, 0.8 ft
10	GPS wire	6Y9-8356N-01	0.35 m, 1.1 ft
11	Tank wire	6Y9-8356N-10	0.27 m, 0.9 ft
		6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
12	Main bus wire	6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
14	System power supply wire	6Y8-83553-01	w/ 10-amps fuse, 2.4 m, 8 ft

NETWORK WIRING DIAGRAMS

SINGLE STATION W/ 6Y8 GAUGE SINGLE ENGINE (CONCEALED RC)



(*1) For 6Y9 network system

NETWORK WIRING DIAGRAMS

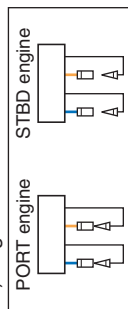
SINGLE STATION W/ 6Y8 GAUGE SINGLE ENGINE (CONCEALED RC)

Ref. No.	Part name	Part No.	Remarks
14	System power supply wire	6Y8-83553-01	w/ 10-amps fuse, 2.4 m, 8 ft
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
19	Transom multi-sensor	6Y8-83688-01	Depth, speed, water temp, w/ 4.9 m wire
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
39	Concealed RC	6X7-48206-10	Single station
43	Single IG SW	64D-82570-20	For concealed RC

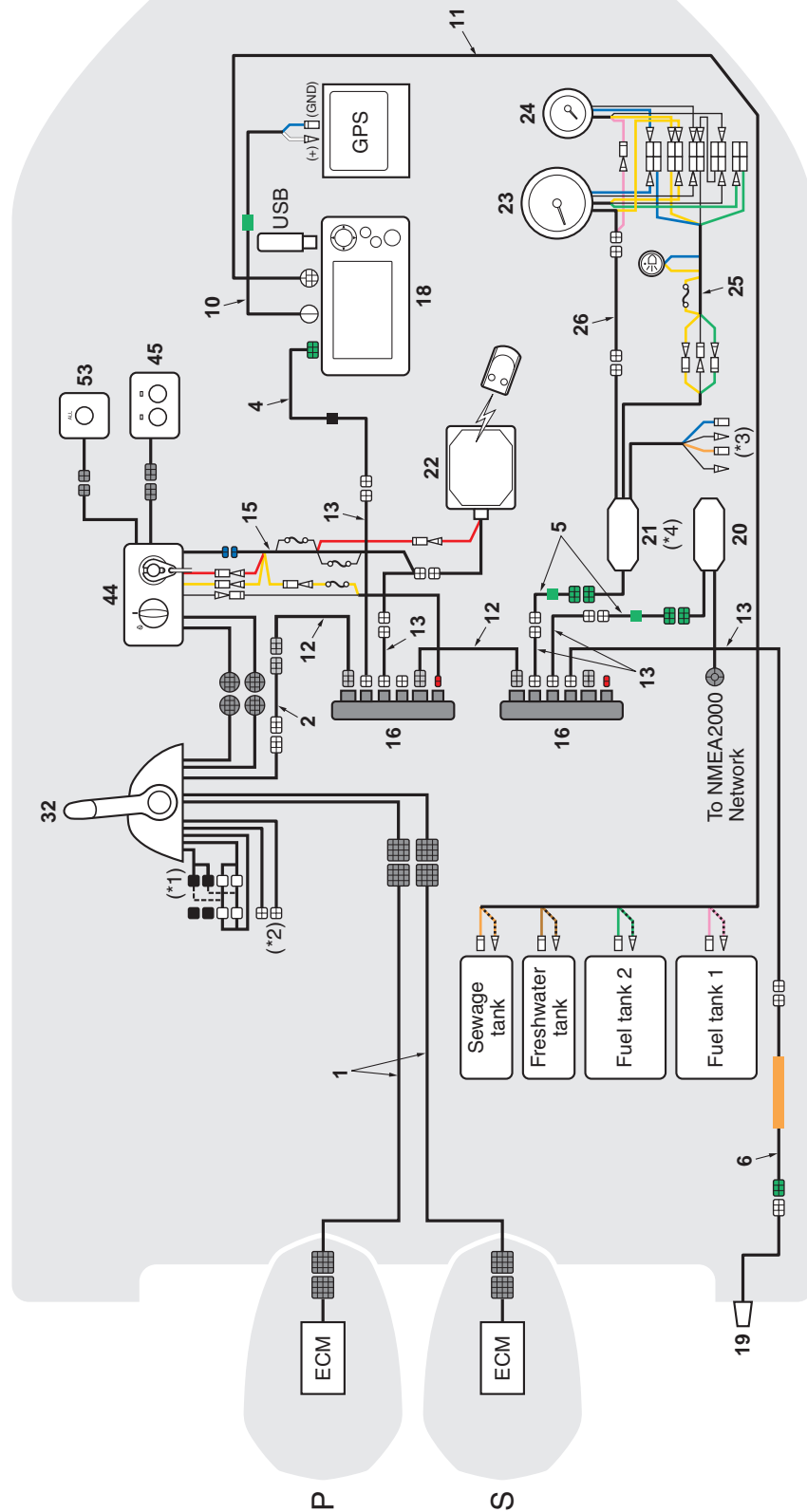
Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
9	Fuel tank/ GPS wire	6Y8-8356N-01	0.3 m, 1 ft
12	Main bus wire	6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
13	Pigtail bus wire	6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft

SINGLE STATION W/ 6Y9 GAUGE TWIN ENGINE

- (*)1) For previous digital electronic controlled engine
(*)2) For previous network system (6Y8)
(*)3) Engine selection for tachmeter



(*4) Requires 2 pcs, and its related parts



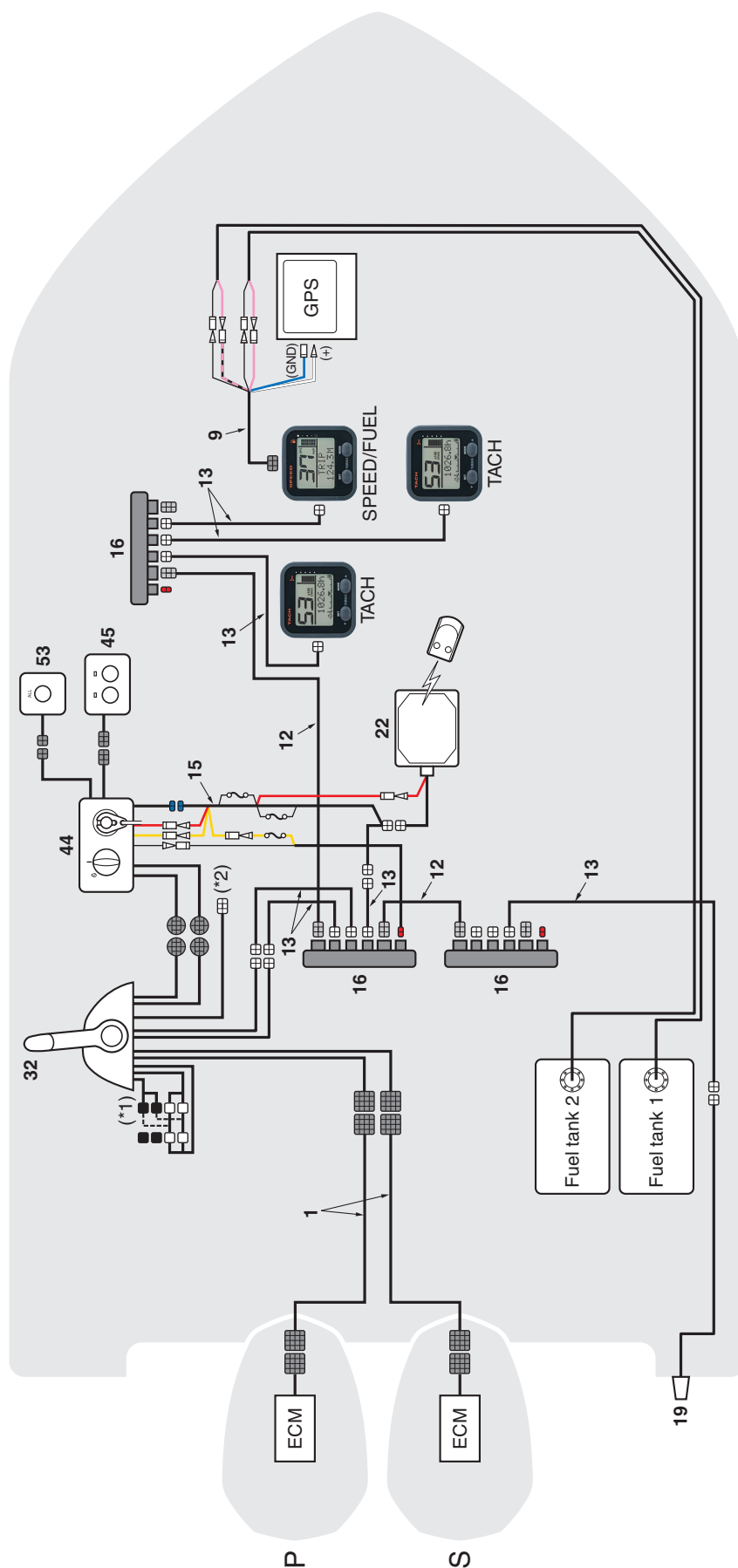
NETWORK WIRING DIAGRAMS

SINGLE STATION W/ 6Y9 GAUGE TWIN ENGINE

Ref. No.	Part name	Part No.	Remarks
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
18	Premium color gauge	6Y9-83710-01	w/ screen cover
19	Transom multi-sensor	6Y9-83688-00	Depth, speed, water temp, w/ 4.9 m wire
20	NMEA 2000 gateway	6Y9-8A2D0-00	
21	Analog gauge interface	6Y9-8A2D0-10	
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
23	Analog tachometer	6Y7-83540-80	Black panel
		6Y7-83540-90	White panel
24	Analog trim gauge	6Y7-83670-40	Black panel
		6Y7-83670-50	White panel
25	Analog meter harness	6Y5-83553-00	2.5 m, 8 ft
		6Y5-83653-00	5 m, 16 ft
		6Y5-83653-10	6 m, 20 ft
26	Analog meter trim/oil lead	6Y5-83653-20	7 m, 23 ft
		6Y5-83653-30	8 m, 26 ft
		6Y5-83653-40	9 m, 31 ft
		6Y5-83653-50	10.5 m, 33 ft
32	Twin RC	6X6-48207-31	Single station
44	Twin IG SW	6X6-82570-40	Main helm
45	Twin start/stop SW	6X6-82570-60	Main helm
53	All start/stop SW	6X6-82570-C0	For single/twin/triple engine

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
2	Conversion harness	6Y9-83553-00	0.3 m, 1 ft
4	Conversion harness 4	6Y9-83553-40	0.15 m, 0.5 ft
5	Conversion harness 5	6Y9-83553-50	0.16 m, 0.5 ft
6	Conversion harness 6	6Y9-83553-60	0.24 m, 0.8 ft
10	GPS wire	6Y9-8356N-01	0.35 m, 1.1 ft
11	Tank wire	6Y9-8356N-10	0.27 m, 0.9 ft
		6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
12	Main bus wire	6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
15	Immobilizer PWR distribution wire	6Y8-81315-00	w/ 5-amps fuses, 2.4 m, 8 ft

NETWORK WIRING DIAGRAMS SINGLE STATION W/ 6Y8 GAUGE TWIN ENGINE



NETWORK WIRING DIAGRAMS

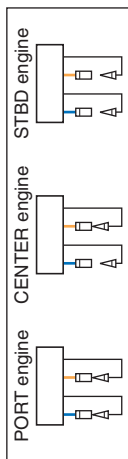
SINGLE STATION W/ 6Y8 GAUGE TWIN ENGINE

Ref. No.	Part name	Part No.	Remarks
15	Immobilizer PWR distribution wire	6Y8-81315-00	w/ 5-amps fuses, 2.4 m, 8 ft
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
19	Transom multi-sensor	6Y8-83688-01	Depth, speed, water temp, w/ 4.9 m wire
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
32	Twin RC	6X6-48207-31	Single station
44	Twin IG SW	6X6-82570-40	Main helm
45	Twin start/stop SW	6X6-82570-60	Main helm
53	All start/stop SW	6X6-82570-C0	For single/twin/triple engine

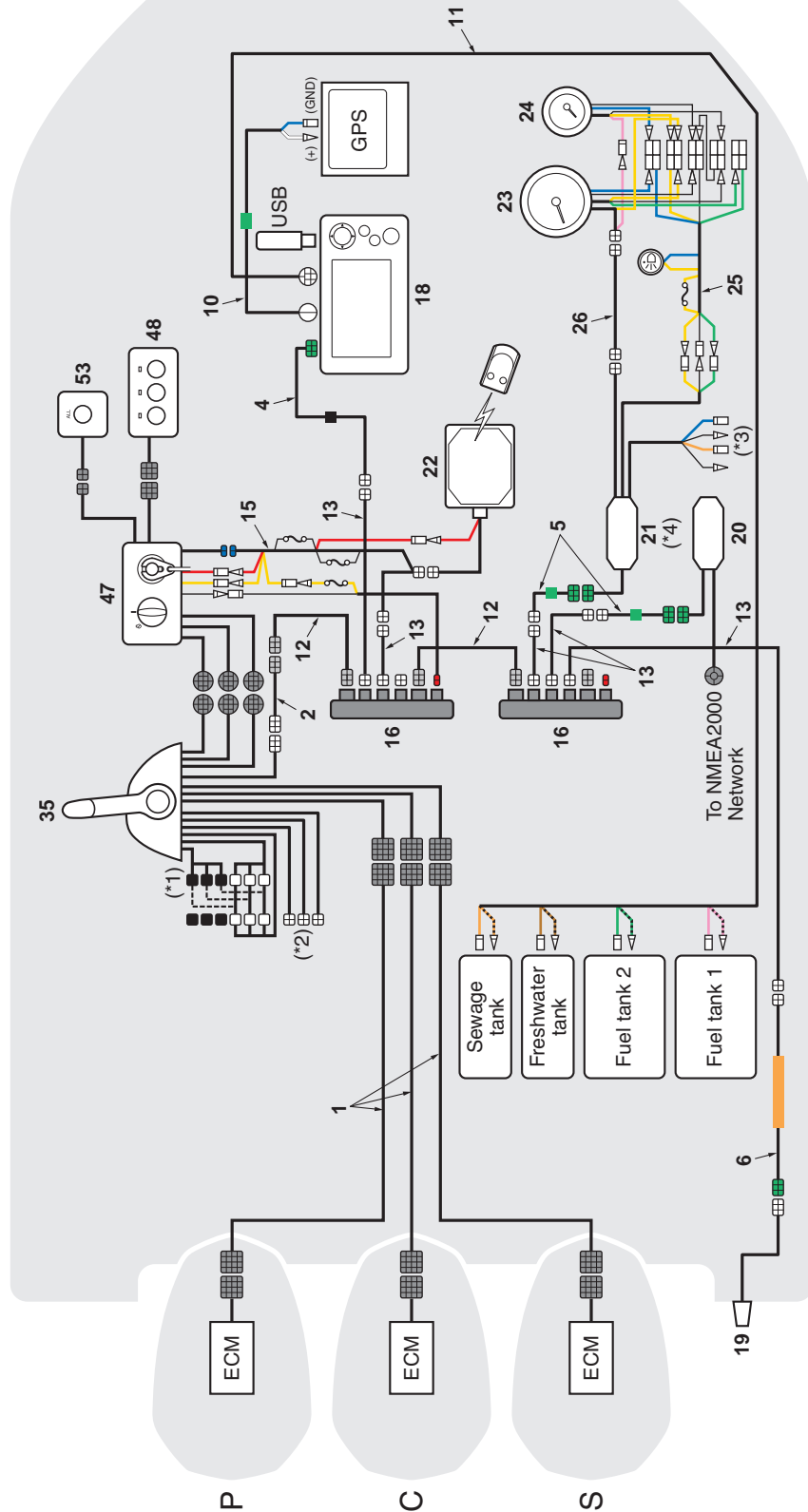
Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
9	Fuel tank/ GPS wire	6Y8-8356N-01	0.3 m, 1 ft
12	Main bus wire	6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
13	Pigtail bus wire	6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft

NETWORK WIRING DIAGRAMS SINGLE STATION W/ 6Y9 GAUGE TRIPLE ENGINE

- (*1) For previous digital electronic controlled engine
 (*2) For previous network system (6Y8)
 (*3) Engine selection for tachmeter



- (*4) Requires 3 pcs, and its related parts



NETWORK WIRING DIAGRAMS

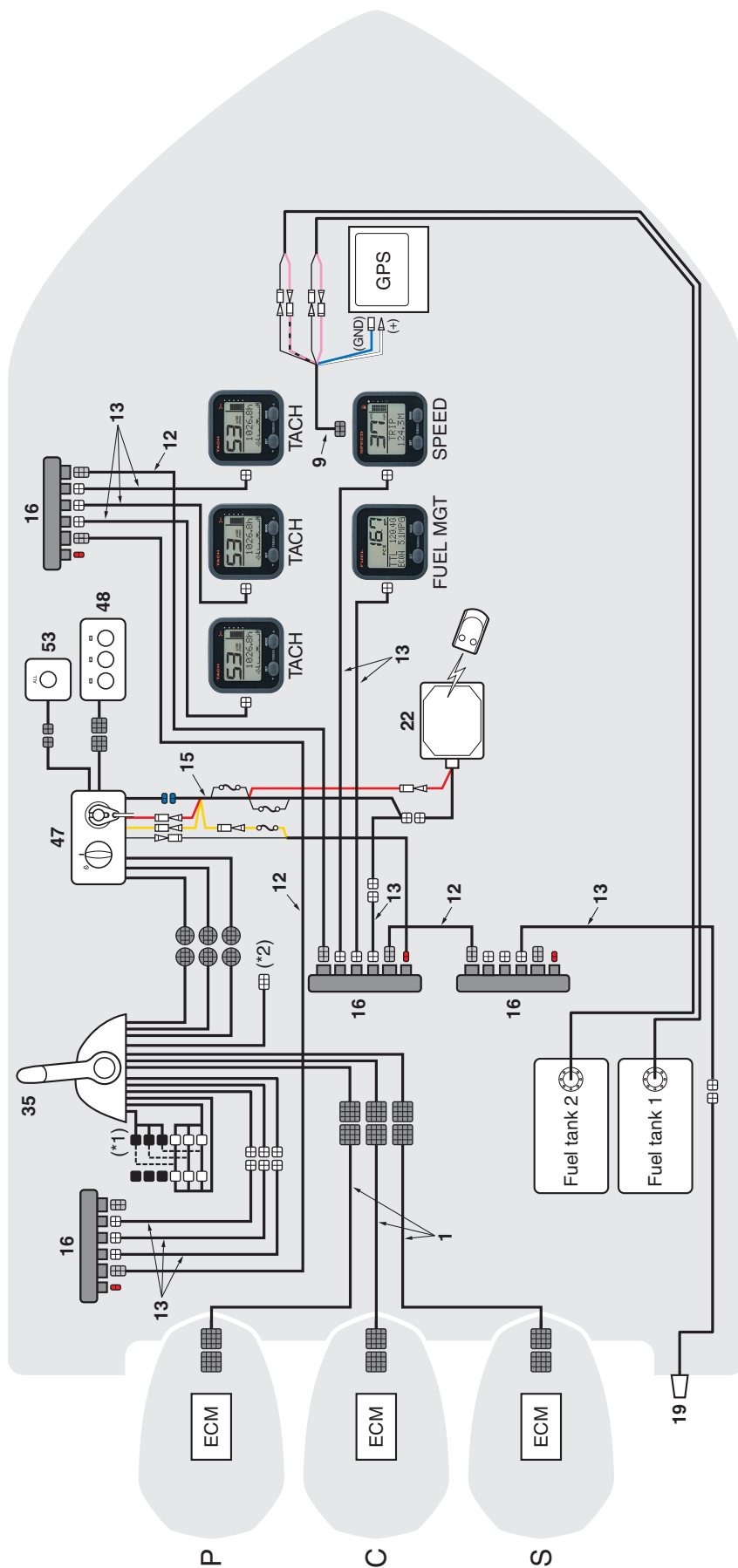
SINGLE STATION W/ 6Y9 GAUGE TRIPLE ENGINE

Ref. No.	Part name	Part No.	Remarks
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
18	Premium color gauge	6Y9-83710-01	w/ screen cover
19	Transom multi-sensor	6Y9-83688-00	Depth, speed, water temp, w/ 4.9 m wire
20	NMEA 2000 gateway	6Y9-8A2D0-00	
21	Analog gauge interface	6Y9-8A2D0-10	
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
23	Analog tachometer	6Y7-83540-80	Black panel
		6Y7-83540-90	White panel
24	Analog trim gauge	6Y7-83670-40	Black panel
		6Y7-83670-50	White panel
25	Analog meter harness	6Y5-83553-00	2.5 m, 8 ft
		6Y5-83653-00	5 m, 16 ft
		6Y5-83653-10	6 m, 20 ft
26	Analog meter trim/oil lead	6Y5-83653-20	7 m, 23 ft
		6Y5-83653-30	8 m, 26 ft
		6Y5-83653-40	9 m, 31 ft
		6Y5-83653-50	10.5 m, 33 ft
35	Triple RC	6X6-48208-41	Single & dual station/ Main helm
47	Triple IG SW	6X6-82570-50	Main helm
48	Triple start/stop SW	6X6-82570-70	Main helm
53	All start/stop SW	6X6-82570-C0	For single/twin/triple engine

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
2	Conversion harness	6Y9-83553-00	0.3 m, 1 ft
4	Conversion harness 4	6Y9-83553-40	0.15 m, 0.5 ft
5	Conversion harness 5	6Y9-83553-50	0.16 m, 0.5 ft
6	Conversion harness 6	6Y9-83553-60	0.24 m, 0.8 ft
10	GPS wire	6Y9-8356N-01	0.35 m, 1.1 ft
11	Tank wire	6Y9-8356N-10	0.27 m, 0.9 ft
		6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
12	Main bus wire	6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
15	Immobilizer PWR distribution wire	6Y8-81315-00	w/ 5-amps fuses, 2.4 m, 8 ft

NETWORK WIRING DIAGRAMS **SINGLE STATION W/ 6Y8 GAUGE TRIPLE ENGINE**

(*1) For previous digital electronic controlled engine
 (*2) For 6Y9 network system



NETWORK WIRING DIAGRAMS

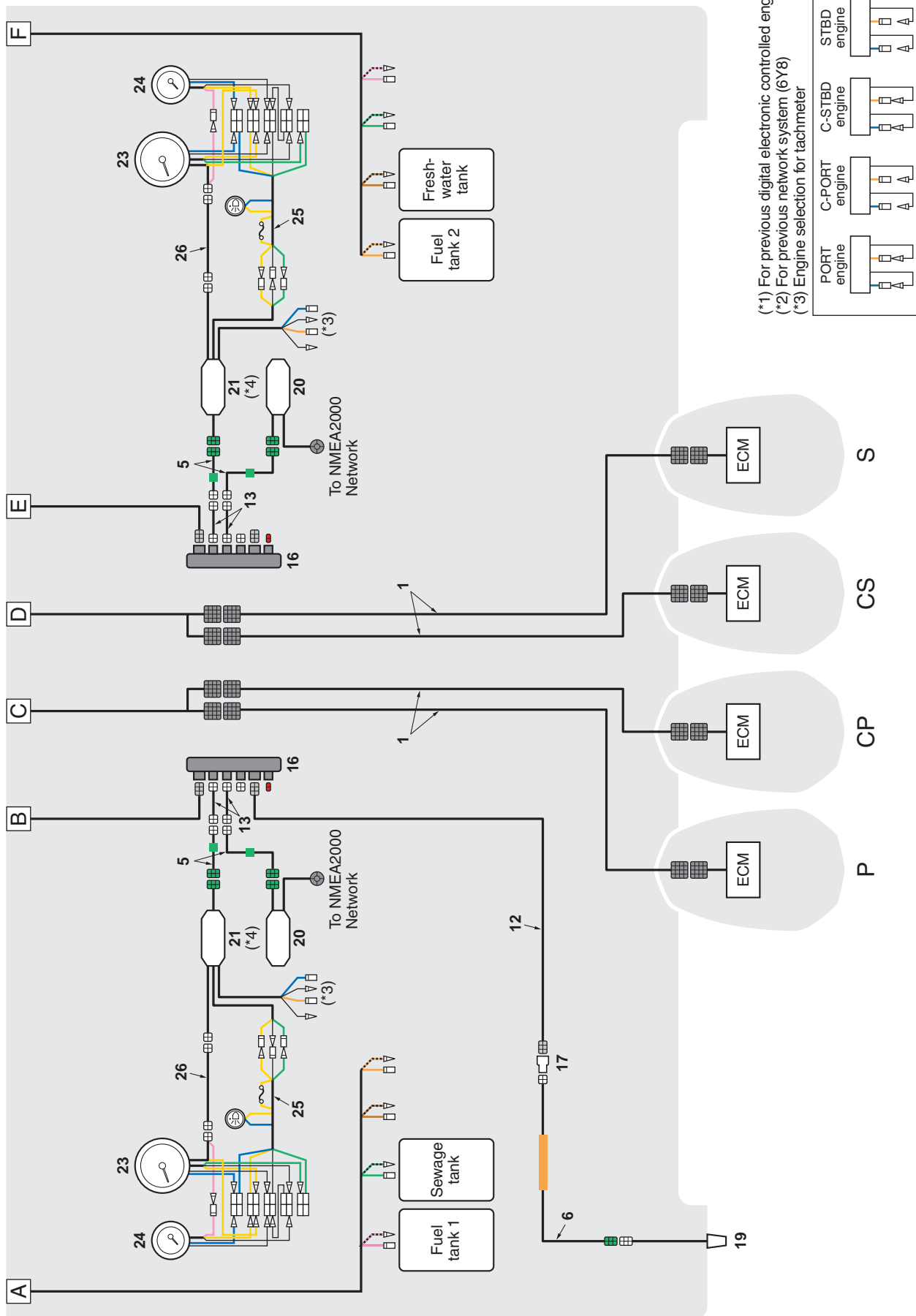
SINGLE STATION W/ 6Y8 GAUGE TRIPLE ENGINE

Ref. No.	Part name	Part No.	Remarks
15	Immobilizer PWR distribution wire	6Y8-81315-00	w/ 5-amps fuses, 2.4 m, 8 ft
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
19	Transom multi-sensor	6Y8-83688-01	Depth, speed, water temp, w/ 4.9 m wire
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
35	Triple RC	6X6-48208-41	Single & dual station/ Main helm
47	Triple IG SW	6X6-82570-50	Main helm
48	Triple start/stop SW	6X6-82570-70	Main helm
53	All start/stop SW	6X6-82570-C0	For single/twin/triple engine

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
9	Fuel tank/ GPS wire	6Y8-8356N-01	0.3 m, 1 ft
12	Main bus wire	6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
13	Pigtail bus wire	6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft

**SINGLE STATION W/ 6Y9 GAUGE QUAD ENGINE
(FOR F/LF225CA, F/LF250CA, F/LF300CA, F/LF350CA)**





NETWORK WIRING DIAGRAMS

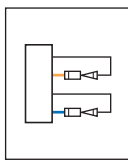
SINGLE STATION W/ 6Y9 GAUGE QUAD ENGINE

(FOR F/LF225CA, F/LF250CA, F/LF300CA, F/LF350CA)

Ref. No.	Part name	Part No.	Remarks
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
17	Single (inline) hub	6Y8-81920-11	w/ resistor, 4-6P, White
18	Premium color gauge	6Y9-83710-01	w/ screen cover
19	Transom multi-sensor	6Y9-83688-00	Depth, speed, water temp, w/ 4.9 m wire
20	NMEA 2000 gateway	6Y9-8A2D0-00	
21	Analog gauge interface	6Y9-8A2D0-10	
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
23	Analog tachometer	6Y7-83540-80	Black panel
		6Y7-83540-90	White panel
24	Analog trim gauge	6Y7-83670-40	Black panel
		6Y7-83670-50	White panel
25	Analog meter harness	6Y5-83553-00	2.5 m, 8 ft
		6Y5-83653-00	5 m, 16 ft
		6Y5-83653-10	6 m, 20 ft
26	Analog meter trim/oil lead	6Y5-83653-20	7 m, 23 ft
		6Y5-83653-30	8 m, 26 ft
		6Y5-83653-40	9 m, 31 ft
		6Y5-83653-50	10.5 m, 33 ft
37	Quad RC	6X6-48209-01	Single & dual station/ Main helm
50	Quad IG SW assy	6X6-82570-M0	Main helm, P/CP/CS/S
56	Emergency stop SW	6X6-82570-V0	For quad engine

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
2	Conversion harness	6Y9-83553-00	0.3 m, 1 ft
4	Conversion harness 4	6Y9-83553-40	0.15 m, 0.5 ft
5	Conversion harness 5	6Y9-83553-50	0.16 m, 0.5 ft
6	Conversion harness 6	6Y9-83553-60	0.24 m, 0.8 ft
7	Conversion harness L	6X6-8258A-L0	0.15 m, 0.5 ft
8	Twinning harness	6X6-8258A-U0	0.1 m, 4 in
10	GPS wire	6Y9-8356N-01	0.35 m, 1.1 ft
11	Tank wire	6Y9-8356N-10	0.27 m, 0.9 ft
		6Y8-82553-01	1 ft
12	Main bus wire	6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
13	Pigtail bus wire	6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
14	System power supply wire	6Y8-83553-01	w/ 10-amps fuse, 2.4 m, 8 ft

(*)1 For previous digital electronic controlled engine
(*)2 For previous network system (6Y8)
(*)3 Engine selection for tachmeter



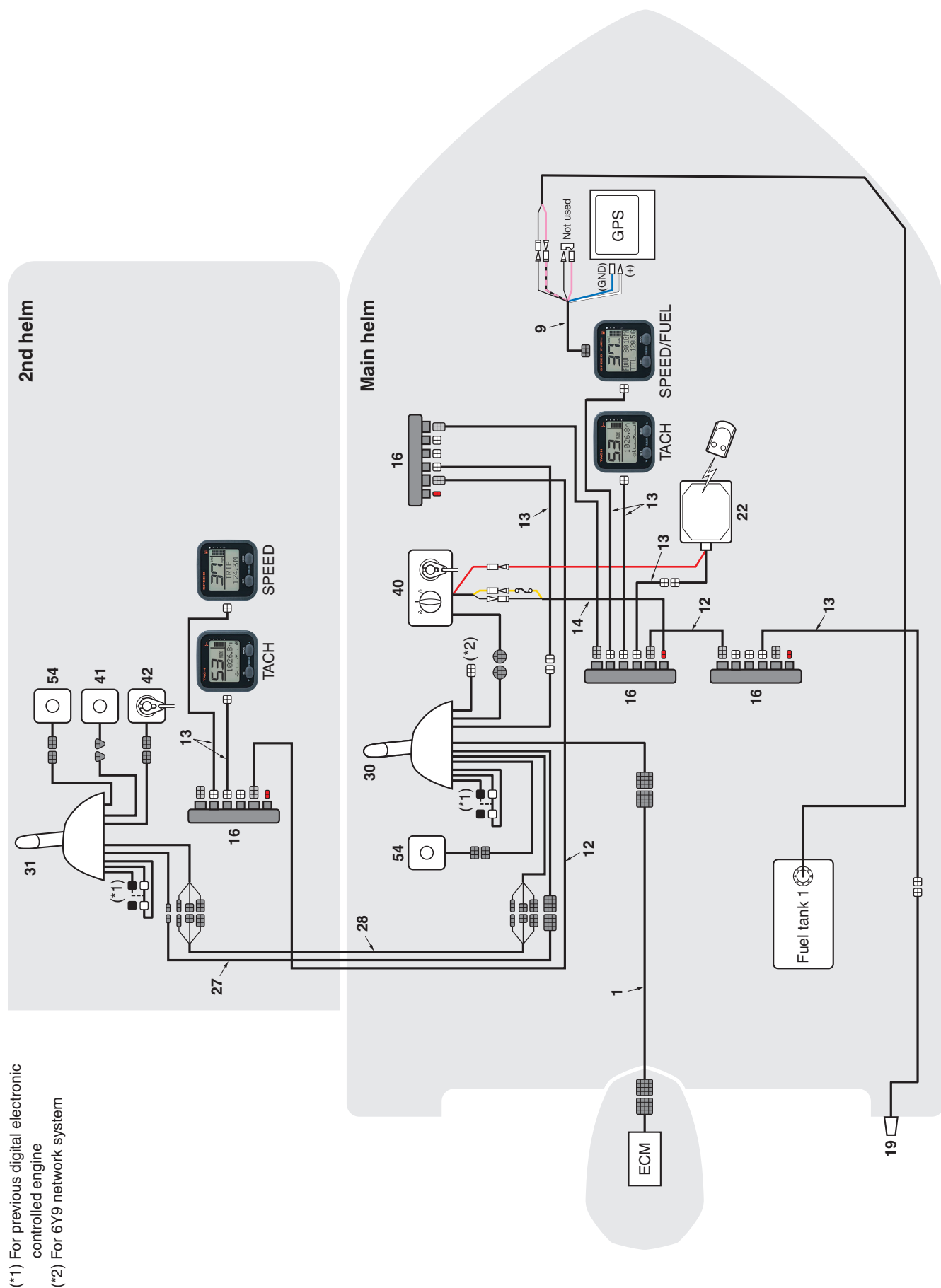
NETWORK WIRING DIAGRAMS

DUAL STATION W/ 6Y9 GAUGE SINGLE ENGINE

Ref. No.	Part name	Part No.	Remarks
21	Analog gauge interface	6Y9-8A2D0-10	
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
		6Y7-83540-80	Black panel
23	Analog tachometer	6Y7-83540-90	White panel
24	Analog trim gauge	6Y7-83670-40	Black panel
		6Y7-83670-50	White panel
25	Analog meter harness	6Y5-83553-00	2.5 m, 8 ft
26	Analog meter trim/oil lead	6Y5-83653-00	5 m, 16 ft
		6Y5-83653-10	6 m, 20 ft
		6Y5-83653-20	7 m, 23 ft
		6Y5-83653-30	8 m, 26 ft
		6Y5-83653-40	9 m, 31 ft
		6Y5-83653-50	10.5 m, 33 ft
27	2nd helm harness (2-12P)	6X6-8258A-B1	5 m
		6X6-8258A-D1	8 m
		6X6-8258A-F1	12 m
28	2nd helm harness (3/4/6P)	6X6-8258A-G0	5 m
		6X6-8258A-H0	8 m
		6X6-8258A-J0	12 m
30	Single RC	6X6-48205-41	Dual station/ Main helm
31	Single RC	6X6-48205-51	Dual station/ 2nd helm
40	Single IG SW	6X6-82570-30	For binnacle RC, Main helm
41	Single start/stop SW	6X6-82570-80	2nd helm
42	Emergency stop SW	6X6-82570-90	2nd helm
54	Station selector SW	6X6-82570-B0	For dual station, single/twin/ triple engine

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
3	Conversion harness 1	6Y9-83553-10	0.3 m, 1 ft
4	Conversion harness 4	6Y9-83553-40	0.15 m, 0.5 ft
5	Conversion harness 5	6Y9-83553-50	0.16 m, 0.5 ft
6	Conversion harness 6	6Y9-83553-60	0.24 m, 0.8 ft
10	GPS wire	6Y9-8356N-01	0.35 m, 1.1 ft
11	Tank wire	6Y9-8356N-10	0.27 m, 0.9 ft
12	Main bus wire	6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
13	Pigtail bus wire	6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
14	System power supply wire	6Y8-83553-01	w/ 10-amps fuse, 2.4 m, 8 ft
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
18	Premium color gauge	6Y9-83710-01	w/ screen cover
19	Transom multi-sensor	6Y9-83688-00	Depth, speed, water temp, w/ 4.9 m wire
20	NMEA 2000 gateway	6Y9-8A2D0-00	

NETWORK WIRING DIAGRAMS **DUAL STATION W/ 6Y8 GAUGE SINGLE ENGINE**



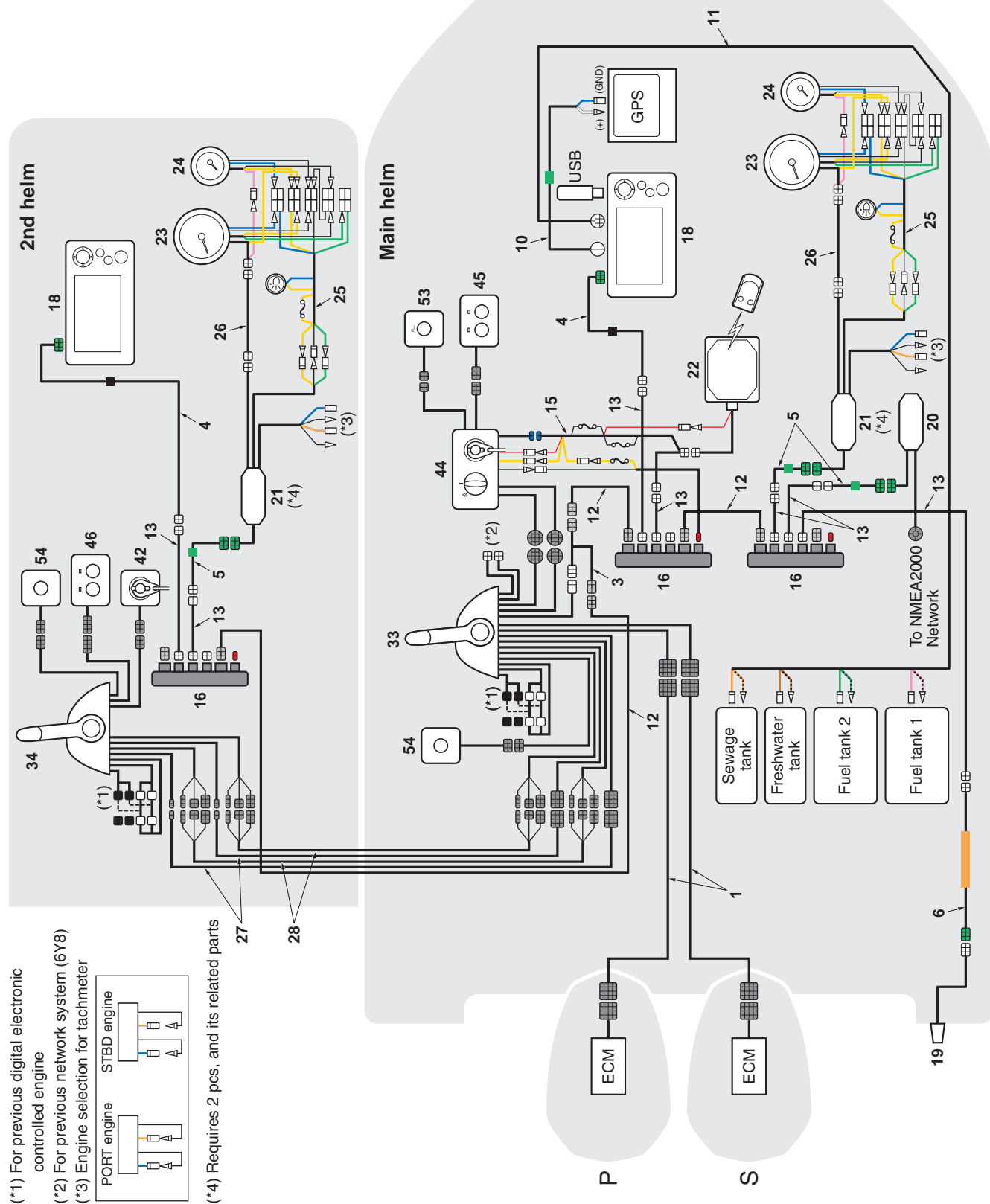
NETWORK WIRING DIAGRAMS

DUAL STATION W/ 6Y8 GAUGE SINGLE ENGINE

Ref. No.	Part name	Part No.	Remarks
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
19	Transom multi-sensor	6Y8-83688-01	Depth, speed, water temp, w/ 4.9 m wire
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
27	2nd helm harness (2-12P)	6X6-8258A-B1	5 m
		6X6-8258A-D1	8 m
		6X6-8258A-F1	12 m
28	2nd helm harness (3/4/6P)	6X6-8258A-G0	5 m
		6X6-8258A-H0	8 m
		6X6-8258A-J0	12 m
30	Single RC	6X6-48205-41	Dual station/ Main helm
31	Single RC	6X6-48205-51	Dual station/ 2nd helm
40	Single IG SW	6X6-82570-30	For binnacle RC, Main helm
41	Single start/stop SW	6X6-82570-80	2nd helm
42	Emergency stop SW	6X6-82570-90	2nd helm
54	Station selector SW	6X6-82570-B0	For dual station, single/twin/ triple engine

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
9	Fuel tank/ GPS wire	6Y8-8356N-01	0.3 m, 1 ft
		6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
12	Main bus wire	6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
13	Pigtail bus wire	6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
14	System power supply wire	6Y8-83553-01	w/ 10-amps fuse, 2.4 m, 8 ft

NETWORK WIRING DIAGRAMS **DUAL STATION W/ 6Y9 GAUGE TWIN ENGINE**



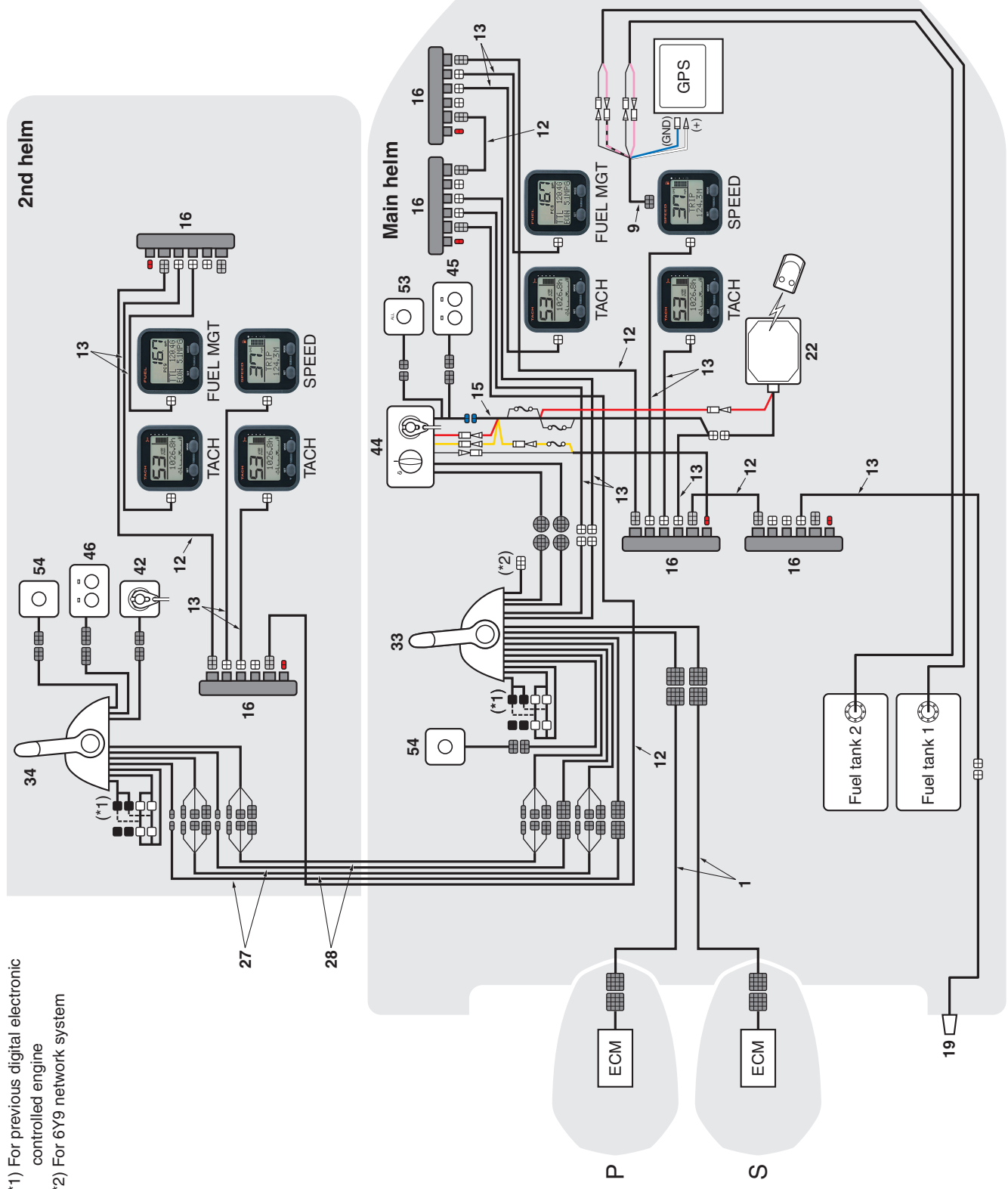
NETWORK WIRING DIAGRAMS

DUAL STATION W/ 6Y9 GAUGE TWIN ENGINE

Ref. No.	Part name	Part No.	Remarks
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
23	Analog tachometer	6Y7-83540-80	Black panel
		6Y7-83540-90	White panel
24	Analog trim gauge	6Y7-83670-40	Black panel
		6Y7-83670-50	White panel
25	Analog meter harness	6Y5-83553-00	2.5 m, 8 ft
		6Y5-83653-00	5 m, 16 ft
		6Y5-83653-10	6 m, 20 ft
26	Analog meter trim/oil lead	6Y5-83653-20	7 m, 23 ft
		6Y5-83653-30	8 m, 26 ft
		6Y5-83653-40	9 m, 31 ft
		6Y5-83653-50	10.5 m, 33 ft
27	2nd helm harness (2-12P)	6X6-8258A-B1	5 m
		6X6-8258A-D1	8 m
		6X6-8258A-F1	12 m
		6X6-8258A-G0	5 m
28	2nd helm harness (3/4/6P)	6X6-8258A-H0	8 m
		6X6-8258A-J0	12 m
33	Twin RC	6X6-48207-41	Dual station/ Main helm
34	Twin RC	6X6-48207-51	Dual station/ 2nd helm
42	Emergency stop SW	6X6-82570-90	2nd helm
44	Twin IG SW	6X6-82570-40	Main helm
45	Twin start/stop SW	6X6-82570-60	Main helm
46	Twin start/stop SW	6X6-82570-E0	2nd helm
53	All start/stop SW	6X6-82570-C0	For single/twin/triple engine
54	Station selector SW	6X6-82570-B0	For dual station, single/twin/triple engine

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
3	Conversion harness 1	6Y9-83553-10	0.3 m, 1 ft
4	Conversion harness 4	6Y9-83553-40	0.15 m, 0.5 ft
5	Conversion harness 5	6Y9-83553-50	0.16 m, 0.5 ft
6	Conversion harness 6	6Y9-83553-60	0.24 m, 0.8 ft
10	GPS wire	6Y9-8356N-01	0.35 m, 1.1 ft
11	Tank wire	6Y9-8356N-10	0.27 m, 0.9 ft
		6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
12	Main bus wire	6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
13	Pigtail bus wire	6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
15	Immobilizer PWR distribution wire	6Y8-81315-00	w/ 5-amps fuses, 2.4 m, 8 ft
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
18	Premium color gauge	6Y9-83710-01	w/ screen cover
19	Transom multi-sensor	6Y9-83688-00	Depth, speed, water temp, w/ 4.9 m wire
20	NMEA 2000 gateway	6Y9-8A2D0-00	
21	Analog gauge interface	6Y9-8A2D0-10	

NETWORK WIRING DIAGRAMS DUAL STATION W/ 6Y8 GAUGE TWIN ENGINE



(*1) For previous digital electronic controlled engine
 (*2) For 6Y9 network system

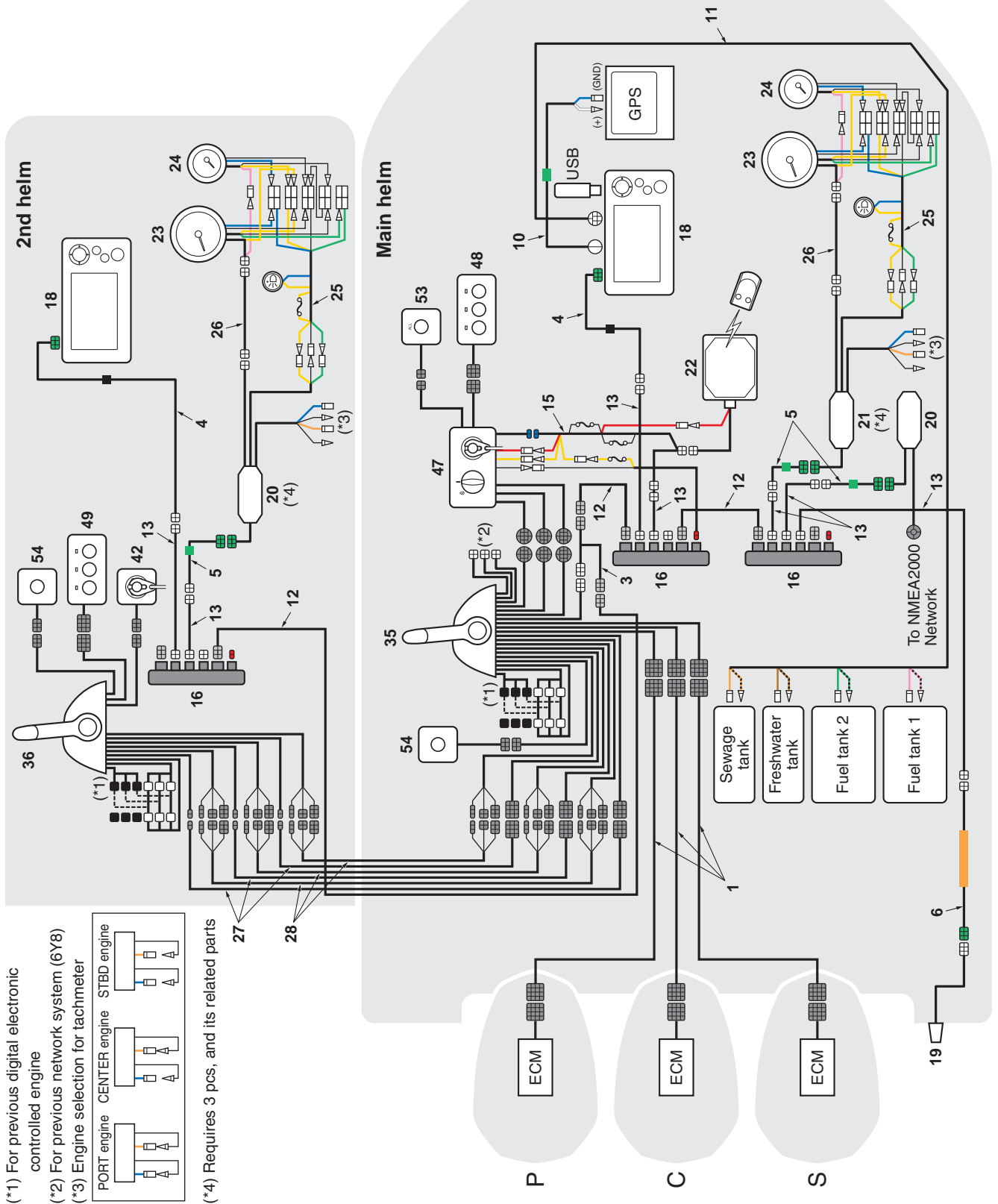
NETWORK WIRING DIAGRAMS

DUAL STATION W/ 6Y8 GAUGE TWIN ENGINE

Ref. No.	Part name	Part No.	Remarks
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
27	2nd helm harness (2-12P)	6X6-8258A-B1	5 m
		6X6-8258A-D1	8 m
		6X6-8258A-F1	12 m
28	2nd helm harness (3/4/6P)	6X6-8258A-G0	5 m
		6X6-8258A-H0	8 m
		6X6-8258A-J0	12 m
33	Twin RC	6X6-48207-41	Dual station/ Main helm
34	Twin RC	6X6-48207-51	Dual station/ 2nd helm
42	Emergency stop SW	6X6-82570-90	2nd helm
44	Twin IG SW	6X6-82570-40	Main helm
45	Twin start/stop SW	6X6-82570-60	Main helm
46	Twin start/stop SW	6X6-82570-E0	2nd helm
53	All start/stop SW	6X6-82570-C0	For single/twin/triple engine
54	Station selector SW	6X6-82570-B0	For dual station, single/twin/ triple engine

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
9	Fuel tank/ GPS wire	6Y8-8356N-01	0.3 m, 1 ft
12	Main bus wire	6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
13	Pigtail bus wire	6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
16	Multi-hub	6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
		6Y8-81920-01	w/ resistor cap, Black
19	Transom multi-sensor	6Y8-83688-01	Depth, speed, water temp, w/ 4.9 m wire

NETWORK WIRING DIAGRAMS **DUAL STATION W/ 6Y9 GAUGE TRIPLE ENGINE**



NETWORK WIRING DIAGRAMS

DUAL STATION W/ 6Y9 GAUGE TRIPLE ENGINE

Ref. No.	Part name	Part No.	Remarks
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
23	Analog tachometer	6Y7-83540-80	Black panel
		6Y7-83540-90	White panel
24	Analog trim gauge	6Y7-83670-40	Black panel
		6Y7-83670-50	White panel
25	Analog meter harness	6Y5-83553-00	2.5 m, 8 ft
26	Analog meter trim/oil lead	6Y5-83653-00	5 m, 16 ft
		6Y5-83653-10	6 m, 20 ft
		6Y5-83653-20	7 m, 23 ft
		6Y5-83653-30	8 m, 26 ft
		6Y5-83653-40	9 m, 31 ft
		6Y5-83653-50	10.5 m, 33 ft
27	2nd helm harness (2-12P)	6X6-8258A-B1	5 m
		6X6-8258A-D1	8 m
		6X6-8258A-F1	12 m
28	2nd helm harness (3/4/6P)	6X6-8258A-G0	5 m
		6X6-8258A-H0	8 m
		6X6-8258A-J0	12 m
35	Triple RC	6X6-48208-41	Single & dual station/ Main helm
36	Triple RC	6X6-48208-51	Single & dual station/ 2nd helm
42	Emergency stop SW	6X6-82570-90	2nd helm
47	Triple IG SW	6X6-82570-50	Main helm
48	Triple start/stop SW	6X6-82570-70	Main helm
49	Triple start/stop SW	6X6-82570-F0	2nd helm
53	All start/stop SW	6X6-82570-C0	For single/twin/triple engine
54	Station selector SW	6X6-82570-B0	For dual station, single/twin/ triple engine

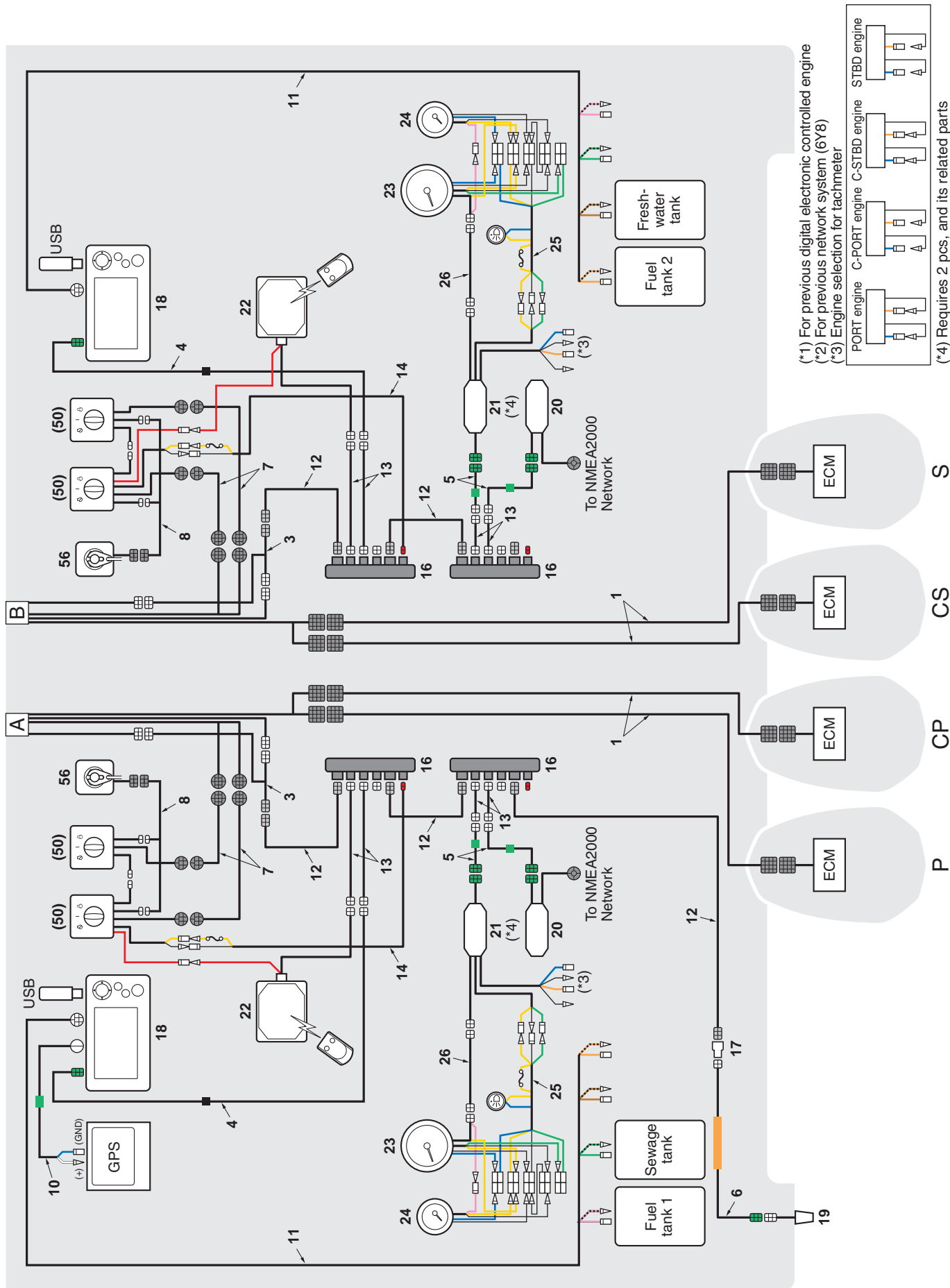
Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
3	Conversion harness 1	6Y9-83553-10	0.3 m, 1 ft
4	Conversion harness 4	6Y9-83553-40	0.15 m, 0.5 ft
5	Conversion harness 5	6Y9-83553-50	0.16 m, 0.5 ft
6	Conversion harness 6	6Y9-83553-60	0.24 m, 0.8 ft
10	GPS wire	6Y9-8356N-01	0.35 m, 1.1 ft
11	Tank wire	6Y9-8356N-10	0.27 m, 0.9 ft
12	Main bus wire	6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
		6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
13	Pigtail bus wire	6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
		6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
15	Immobilizer PWR distribution wire	6Y8-81315-00	w/ 5-amps fuses, 2.4 m, 8 ft
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
18	Premium color gauge	6Y9-83710-01	w/ screen cover
19	Transom multi-sensor	6Y9-83688-00	Depth, speed, water temp, w/ 4.9 m wire
20	NMEA 2000 gateway	6Y9-8A2D0-00	
21	Analog gauge interface	6Y9-8A2D0-10	

MEMO



**DUAL STATION W/ 6Y9 GAUGE QUAD ENGINE
(FOR F/LF225CA, F/LF250CA, F/LF300CA, F/LF350CA)**





NETWORK WIRING DIAGRAMS

DUAL STATION W/ 6Y9 GAUGE QUAD ENGINE

(FOR F/LF225CA, F/LF250CA, F/LF300CA, F/LF350CA)

Ref. No.	Part name	Part No.	Remarks
20	NMEA 2000 gateway	6Y9-8A2D0-00	
21	Analog gauge interface	6Y9-8A2D0-10	
22	Immobilizer unit	6Y8-86254-02	EU
		6Y8-86254-20	US, OCE
		6Y8-86254-30	JP
23	Analog tachometer	6Y7-83540-80	Black panel
		6Y7-83540-90	White panel
24	Analog trim gauge	6Y7-83670-40	Black panel
		6Y7-83670-50	White panel
25	Analog meter harness	6Y5-83553-00	2.5 m, 8 ft
		6Y5-83653-00	5 m, 16 ft
		6Y5-83653-10	6 m, 20 ft
26	Analog meter trim/oil lead	6Y5-83653-20	7 m, 23 ft
		6Y5-83653-30	8 m, 26 ft
		6Y5-83653-40	9 m, 31 ft
		6Y5-83653-50	10.5 m, 33 ft
27	2nd helm harness (2-12P)	6X6-8258A-B1	5 m
		6X6-8258A-D1	8 m
		6X6-8258A-F1	12 m
		6X6-8258A-G0	5 m
28	2nd helm harness (3/4/6P)	6X6-8258A-H0	8 m
		6X6-8258A-J0	12 m
37	Quad RC	6X6-48209-01	Single & dual station/ Main helm
38	Quad RC	6X6-48209-11	Single & dual station/ 2nd helm
50	Quad IG SW assy	6X6-82570-M0	Main helm, P/CP/CS/S
51	Quad start/stop SW	6X6-82570-J0	2nd helm, P/CP
52	Quad start/stop SW	6X6-82570-K0	2nd helm, S/CS
55	Station selector SW	6X6-82570-L0	For dual station, quad engine
56	Emergency stop SW	6X6-82570-V0	For quad engine
		6X6-8258A-R0	5 m
57	2nd helm harness (3-12P)	6X6-8258A-S0	8 m
		6X6-8258A-T0	12 m

Ref. No.	Part name	Part No.	Remarks
1	Main-harness (16P)	6X6-8258A-10	7 m, 23 ft
		6X6-8258A-20	8 m, 26 ft
		6X6-8258A-30	10 m, 32 ft
		6X6-8258A-40	12 m, 39 ft
2	Conversion harness	6Y9-83553-00	0.3 m, 1 ft
3	Conversion harness 1	6Y9-83553-10	0.3 m, 1 ft
4	Conversion harness 4	6Y9-83553-40	0.15 m, 0.5 ft
5	Conversion harness 5	6Y9-83553-50	0.16 m, 0.5 ft
6	Conversion harness 6	6Y9-83553-60	0.24 m, 0.8 ft
7	Conversion harness L	6X6-8258A-L0	0.15 m, 0.5 ft
8	Twinning harness	6X6-8258A-U0	0.1 m, 4 in
10	GPS wire	6Y9-8356N-01	0.35 m, 1.1 ft
11	Tank wire	6Y9-8356N-10	0.27 m, 0.9 ft
		6Y8-82553-01	1 ft
		6Y8-82553-50	10 ft
12	Main bus wire	6Y8-82553-11	15 ft
		6Y8-82553-21	20 ft
		6Y8-82553-31	25 ft
		6Y8-82553-41	30 ft
		6Y8-82521-01	1 ft
		6Y8-82521-11	2 ft
		6Y8-82521-21	3 ft
13	Pigtail bus wire	6Y8-82521-31	6 ft
		6Y8-82521-41	9 ft
		6Y8-82521-51	12 ft
14	System power supply wire	6Y8-83553-01	w/ 10-amps fuse, 2.4 m, 8 ft
16	Multi-hub	6Y8-81920-01	w/ resistor cap, Black
17	Single (inline) hub	6Y8-81920-11	w/ resistor, 4-6P, White
18	Premium color gauge	6Y9-83710-01	w/ screen cover
19	Transom multi-sensor	6Y9-83688-00	Depth, speed, water temp, w/ 4.9 m wire

BATTERY

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RECOMMENDED BATTERY

Battery is an important material to obtain sure engine start and to maintain engine operation performance.

Therefore, exact battery selection is required on a model.

Using maintenance-free sealed and/or gel cell batteries are not recommended, because they may not be compatible with Yamaha's charging system.

Read carefully the labels attached to the battery and follow the instruction supplied by battery manufacturer when you treat or maintain the battery.

NOTICE

Do not use a battery which does not meet with the specified capacity.

If different battery from the specification is used, the electrical system may perform poorly and/or overloaded, causing electrical system damage.

Select a suitable battery as shown in the table below.

Global Model	US & Canada Model	Unit	Min. battery rating
F8 up to F/FT25 6 up to 55 (Except E/40X, 55D)	F8 up to F/T25 6 up to 50	CCA/SAE	245 amps
		MCA/ABYC	323 amps
		RC/SAE	52 min
		CCA/EN	347 amps
		20HR/IEC	40 Ah
		JIS	32C24 – 65D31
F30 up to F/FL115 E/40X, 55D & Carbureted 60 up to 225 (V6-2.6L)	F30 up to F/LF115 Carbureted 60 up to 200 (V6-2.6L)	CCA/SAE	380 amps
		MCA/ABYC	502 amps
		RC/SAE	124 min
		CCA/EN	430 amps
		20HR/IEC	70 Ah
		JIS	65D31 – 95E41
F/FL150 up to F/FL250 (V6-3.3L) HPDI (V6-2.6L, V6-3.3L) L/250G	F/LF150 up to F/LF250 (V6-3.3L) HPDI (V6-2.6L, V6-3.3L)	CCA/SAE	512 amps
		MCA/ABYC	675 amps
		RC/SAE	182 min
		CCA/EN	711 amps
		20HR/IEC	100 Ah
		JIS	95E41 – 115F51
F200D, F225D, F250C, F225G, F250F, F275A F/FL225F, F/FL250D, F/FL300B (V6-4.2L)	VF200LA, VF225LA, VF250LA (VMAX) F/LF225CA, F/LF250CA, F/LF300CA (V6-4.2L)	CCA/SAE	680 amps
		MCA/ABYC	770 amps
		RC/SAE	160 min
		CCA/EN	640 amps
		20HR/IEC	80 Ah
		JIS	105D31 – 130E41
F/FL300A, F/FL350A (V8)	F/LF350CA (V8)	CCA/SAE	700 amps
		MCA/ABYC	900 amps
		RC/SAE	170 min
		CCA/EN	670 amps
		20HR/IEC	110 Ah
		JIS	120E41 – 130E41

* Under severe cold condition, twin or more battery with parallel wiring is required to start the engine.

CCA: Cold Cranking Ampere
SAE: Society of Automotive Engineers
MCA: Marine Cranking Ampere
ABYC: American Boat and Yacht Council

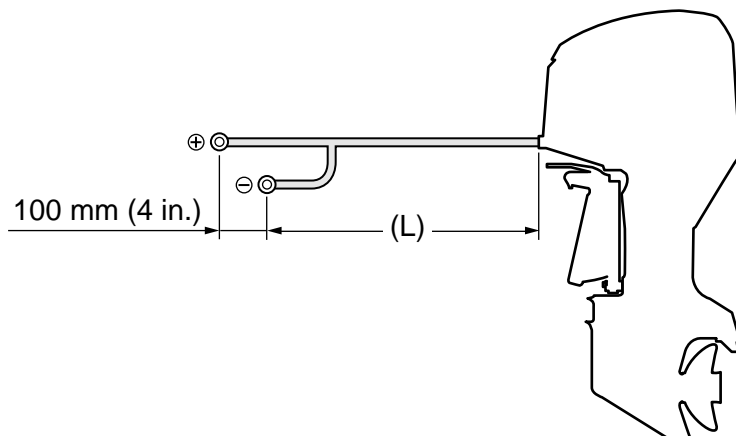
RC: Reserve Capacity Minutes
EN: European Norm (European Standard)
IEC: International Electro-technical Commission
JIS: Japanese Industrial Standard

BATTERY CABLE LENGTH

The following table shows the battery cable length to the (–) terminal from the grommet of outboard motor.

The (+) terminal is usually 100 mm (4 inches) longer than the (–) terminal.

Global Model	US Model	Canada Model	Cable length (L)		Remarks
E/40J, EK40J			1.43 m	4.7 ft	
55B			1.47 m	4.8 ft	
40V, 50H FT50C, F50D F40D, F50F, FT50G, F60C, FT60D	F50, T50, F60, T60	50 F50A, T50A, F60A, T60A	1.64 m	5.4 ft	US, CA & ANZ: 2.24 m, 7.3 ft
F30B, F40F	F40A	F30A, F40A	1.64 m	5.4 ft	US, CA, ANZ & JP: 2.24 m, 7.3 ft
E/40X 9.9F, 15F		9.9, 15	1.67 m	5.5 ft	
F20D, F25D	F25A	F25A	1.67 m	5.5 ft	JP: 2.08 m, 6.7 ft
FT25F	T25A	T25A	2.24 m	7.3 ft	
E/25B, E/30H 30D			1.70 m	5.6 ft	
6C, 8C 20D, 25N, F8C, FT8D	F8A	6, 8 20, 25 F8A, T8A	1.75 m	5.7 ft	
F15C, F20B	F15A, F20A	F15A, F20A	1.77 m	5.8 ft	
60F, 70B			1.78 m	5.8 ft	US & ANZ: 2.38 m, 7.8 ft
75C, 90A		90	2.14 m	7.0 ft	
F70A, F40G	F70A	F70A	2.24 m	7.3 ft	
115B, 140B			2.42 m	7.9 ft	
Carbureted V6-2.6L w/ oil injection	Carbureted V6-2.6L w/ oil injection	Carbureted V6-2.6L w/ oil injection	2.59 m	8.5 ft	
HPDI V6-2.6L F/FL150A, F/FL150B	HPDI V6-2.6L F/LF150A	HPDI V6-2.6L F/LF150A	2.61 m	8.6 ft	
FT8D (RC), F9.9F, FT9.9G	F9.9A, T9.9A	T8A (RC), F9.9A, T9.9A	2.65 m	8.7 ft	
E115A			2.76 m	9.1 ft	
F95A, F100B F75B, F80B, F90B, F100D, F75C, F80C F/FL115A	F75, F90 F/LF115A	F75A, F90A F/LF115A	2.83 m	9.3 ft	
115C, 130B			2.88 m	9.4 ft	
L/150A, L/200A			2.93 m	9.6 ft	
L/250G			3.31 m	10.9 ft	
F/FL200B, F/FL200C, F/FL225B, F225C, F/FL250A, F/FL250G F200D, F225D, F250C, F225G, F250F, F275A F/FL225F, F/FL250D, F/FL300B	F/LF200A, F/LF225A, F/LF250 VF200LA, VF225LA, VF250LA F/LF225CA, F/LF250CA, F/LF300CA	F/LF200A VF200LA, VF225LA, VF250LA F/LF225CA, F/LF250CA, F/LF300CA	3.50 m	11.5 ft	
F/FL300A, F/FL350A	F/LF350CA	F/LF350CA	3.56 m	11.7 ft	



BATTERY WIRING

ISOLATOR EQUIPPED MODEL (ABOVE 150PS MODEL)

⚠ WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes, or clothing.

Read the safety and maintenance instructions which are accompaniment to your battery.

Do not coil and/or loop the battery cable even if the cable has surplus for routing.

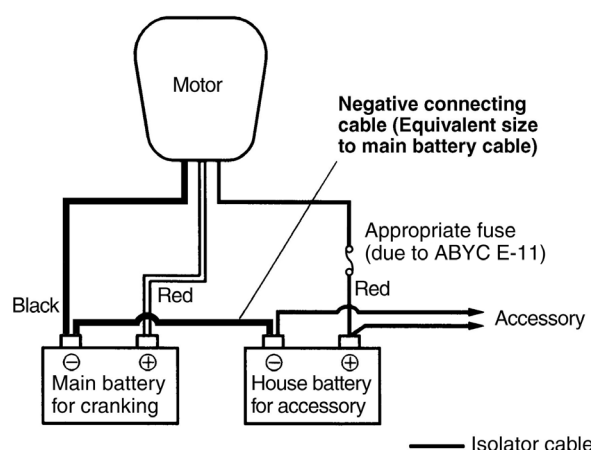
When using a house battery, its capacity is recommended the same as the main battery for cranking the engine.

For twin-battery wiring, a battery cable for (–) terminal has to connect between the house battery and the main battery. The battery cable size has to be equivalent to the main battery cable.

On a model, the optional isolated charging cable is available for a house battery.

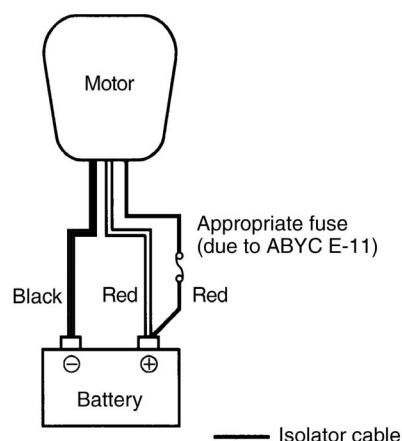


Part No.	Length	Remarks
68F-81949-02	2.7 m 9 ft	For HPDI, F150 and above * Except F225 – F300 off-shore (V6-4.2L)
69J-81949-02	3.8 m 13 ft	
6CE-81949-00	3.8 m 13 ft	For F225, F250, F300 off-shore (V6-4.2L) special



When one battery is used, connect the large original red cable and the isolator cable to the (+) terminal.

The isolator cable has to connect to (+) battery terminal, because an accidental contact of the isolator cable to the ground will form a short circuit and may cause a fire.



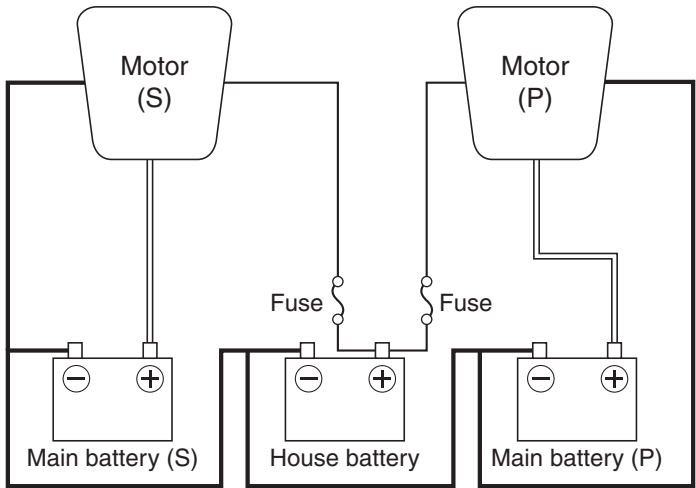
If plural batteries are used for multi-engine installation, all (–) terminals should connect to the same ground.

Obey the local over-current protection compliance such as ABYC part E-11 for wiring the battery cables and connecting to a conductor.

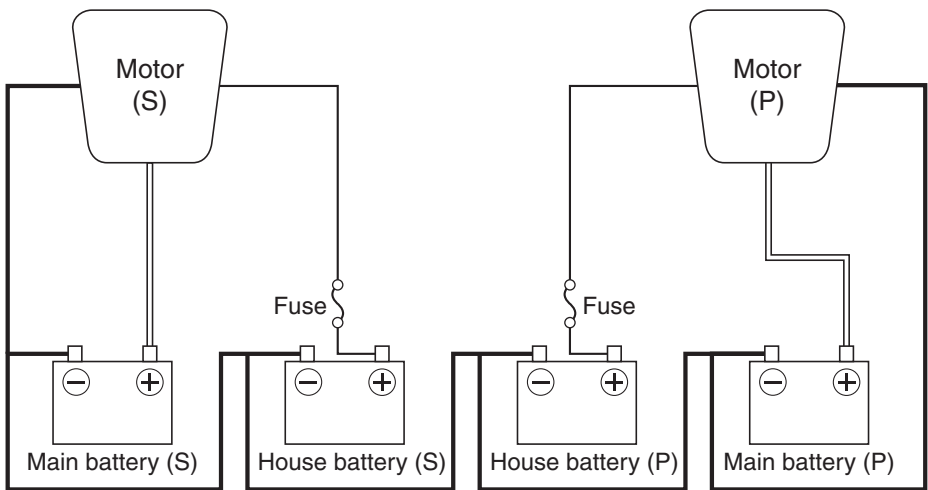
* Follow the local rules and/or regulations if your battery is scrapped.

BATTERY WIRING
EXAMPLE FOR BATTERY CABLE WIRING (TWIN ENGINE)

— Isolator cable
= Battery cable (+)
= Battery cable (–)



Applicable model:
* F150 (2009 and later model)
* F200/225 (V6-3.3L)
* F200/225/250 (V6-3.3L w/ VCT)
(2008 and later model)
* F225/250/300 (V6-4.2L)
* F300/350 (V8)



Applicable model:
Isolator equipped model

BATTERY WIRING

RECOMMENDED EXTENSION LENGTH OF BATTERY CABLES

If the battery cables are extended, follow the requirements in the table due to the battery capacity, cable size and atmosphere temperature.

The length of extension battery cable means the total length of (+) and (–) cables.

Be sure to select an extension battery cable and a terminal that meet ABYC requirements or equivalents.

Use a best-suited stud to the terminal size.

Give solder to the connection of terminals and cables to prevent them from corroding.

Coiling and/or looping battery cable should be inhibited because of a power loss.

NOTICE

Do not exceed the recommended extension length of battery cable.

Otherwise, the electrical system can allow poor performance or damage.

Atmosphere temperature is 0°C (32°F) and above						
Applicable models	Battery		Maximum total extension length			
	Unit	Minimum rating	AWG4 20 mm ²	AWG2 30 mm ²	AWG1/0 50 mm ²	AWG2/0 60mm ²
Carbureted 150 – 225 (V6-2.6L) Four stroke 115	CCA/SAE	380 amps	3.9 m 13 ft	6.7 m 22 ft	10.3 m 34 ft	—
	MCA/ABYC	502 amps				
	RC/SAE	124 min				
	CCA/EN	430 amps				
	20HR/IEC	70 Ah				
	JIS	65D31				
Four stroke 150	CCA/SAE	512 amps	6.0 m 20 ft	10.0 m 33 ft	16.0 m 52 ft	—
	MCA/ABYC	675 amps				
	RC/SAE	182 min				
	CCA/EN	711 amps				
	20HR/IEC	100 Ah				
	JIS	95E41				
HPDI (V6-2.6L)	CCA/SAE	512 amps	8.3 m 27 ft	14.2 m 47 ft	22. m 72 ft	—
	MCA/ABYC	675 amps				
	RC/SAE	182 min				
	CCA/EN	711 amps				
	20HR/IEC	100 Ah				
	JIS	95E41				
Carbureted 250 (V6-3.1L) HPDI (V6-3.3L) Four stroke 200, 225, 250 (V6-3.3L)	CCA/SAE	512 amps	5.4 m 18 ft	9.2 m 30 ft	14.2 m 47 ft	—
	MCA/ABYC	675 amps				
	RC/SAE	182 min				
	CCA/EN	711 amps				
	20HR/IEC	100 Ah				
	JIS	95E41				
Four stroke VMAX200, 225, 250 (V6-4.2L) F225G, F250F, F275A	CCA/SAE	700 amps	4.2 m 14 ft	6.3 m 21 ft	10.5 m 35 ft	12.6 m 42 ft
	MCA/ABYC	900 amps				
	RC/SAE	220 min				
	CCA/EN	670 amps				
	20HR/IEC	110 Ah				
	JIS	120E41				

To be continued.

BATTERY WIRING

RECOMMENDED EXTENSION LENGTH OF BATTERY CABLES

Atmosphere temperature is 0°C (32°F) and above						
Applicable models	Battery		Maximum total extension length			
	Unit	Minimum rating	AWG4 20 mm ²	AWG2 30 mm ²	AWG1/0 50 mm ²	AWG2/0 60mm ²
Four stroke 225, 250, 300 off-shore model (V6-4.2L)	CCA/SAE	700 amps	5 m 17 ft	7.6 m 25 ft	12.6 m 42 ft	15.2 m 51 ft
	MCA/ABYC	900 amps				
	RC/SAE	220 min				
	CCA/EN	670 amps				
	20HR/IEC	110 Ah				
	JIS	120E41				
	CCA/SAE	800 amps	5.5 m 18 ft	8.3 m 28 ft	13.8 m 46 ft	16.6 m 55 ft
	MCA/ABYC	960 amps				
	RC/SAE	230 min				
	CCA/EN	750 amps				
	20HR/IEC	120 Ah				
	JIS	130E41				
Four stroke 300 (V8), 350	CCA/SAE	700 amps	3.8 m 12 ft	6.4 m 21 ft	10.0 m 33 ft	11.8 m 39 ft
	MCA/ABYC	900 amps				
	RC/SAE	170 min				
	CCA/EN	670 amps				
	20HR/IEC	110 Ah				
	JIS	120E41				

Atmosphere temperature is below 0°C (32°F)						
Applicable models	Battery		Maximum total extension length			
	Unit	Minimum rating	AWG4 20 mm ²	AWG2 30 mm ²	AWG1/0 50 mm ²	AWG2/0 60mm ²
Carbureted 150 – 225 (V6-2.6L) Carbureted 250 (V6-3.1L) Four stroke 115, 150 & VMAX (SHO)			Cannot be extended			
HPDI (V6-2.6L)	CCA/SAE	696 amps	2.8 m 9 ft	4.8 m 16 ft	7.4 m 24 ft	—
	MCA/ABYC	856 amps				
	RC/SAE	167 min				
	CCA/EN	711 amps				
	20HR/IEC	83 Ah				
	JIS	95D31				
HPDI (V6-3.3L)	CCA/SAE	696 amps	3.9 m 13 ft	6.7 m 22 ft	10.4 m 34 ft	—
	MCA/ABYC	856 amps				
	RC/SAE	167 min				
	CCA/EN	711 amps				
	20HR/IEC	83 Ah				
	JIS	95D31				
Four stroke 200, 225, 250 (V6-3.3L)	CCA/SAE	696 amps	3.5 m 11 ft	6 m 20 ft	9.2 m 30 ft	—
	MCA/ABYC	856 amps				
	RC/SAE	167 min				
	CCA/EN	711 amps				
	20HR/IEC	83 Ah				
	JIS	95D31				

To be continued.

BATTERY WIRING

RECOMMENDED EXTENSION LENGTH OF BATTERY CABLES

Atmosphere temperature is below 0°C (32°F)						
Applicable models	Battery		Maximum total extension length			
	Unit	Minimum rating	AWG4 20 mm ²	AWG2 30 mm ²	AWG1/0 50 mm ²	AWG2/0 60mm ²
Four stroke 225, 250, 300 off-shore model (V6-4.2L)	CCA/SAE	700 amps	2.1 m 7 ft	3.2 m 11 ft	5.3 m 18 ft	6.4 m 21 ft
	MCA/ABYC	900 amps				
	RC/SAE	220 min				
	CCA/EN	670 amps				
	20HR/IEC	110 Ah				
	JIS	120E41				
	CCA/SAE	800 amps	2.3 m 8 ft	3.5 m 12 ft	5.8 m 19 ft	7 m 23 ft
	MCA/ABYC	960 amps				
	RC/SAE	230 min				
	CCA/EN	750 amps				
	20HR/IEC	120 Ah				
	JIS	130E41				
Four stroke 300 (V8), 350	CCA/SAE	700 amps (x2)	1.2 m 4 ft	2.2 m 7 ft	3.6 m 12 ft	4.2 m 14 ft
	MCA/ABYC	900 amps (x2)				
	RC/SAE	170 min (x2)				
	CCA/EN	670 amps (x2)				
	20HR/IEC	110 Ah (x2)				
	JIS	120E41 (x2)				
* Twin-battery with parallel wiring is required under cold condition.						

AWG : American Wire Gauge, **mm²: Conductor cross-section

CCA : Cold Cranking Ampere

SAE : Society of Automotive Engineers

MCA : Marine Cranking Ampere

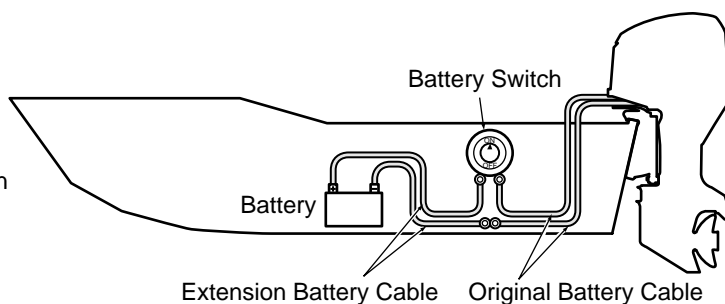
ABYC : American Boat and Yacht Council

RC : Reserve Capacity Minutes

EN : European Norm (European Standard)

IEC : International Electro-technical Commission

JIS : Japanese Industrial Standard



BATTERY WIRING

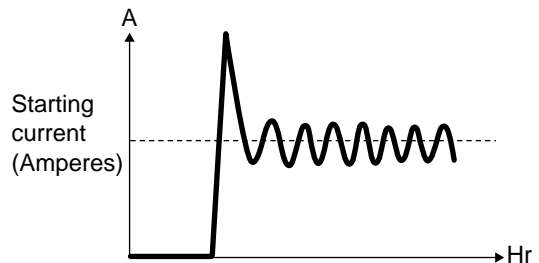
RECOMMENDED BATTERY SWITCH CAPACITY

Select a battery switch which covers the starting ampere draw in the table.

If the battery cable connection points are increased, electric resistance will increase and performance for starting will decrease.

If a lot of connections such as an automatic battery distribution system is used, the total electric resistance of connections has to be 0.5 MΩ and less.

Applicable models	Starting current (Amperes)
Carbureted 150 – 225 (2.6L)	195
F115	260
HPDI (2.6L)	216
F200 – F250 (3.3L)	220
HPDI (3.3L)	254
F150	250
F300 – F350 (V8)	410
F200 – F300 (4.2L)	250



BATTERY CHARGING CAPABILITY

The following chart shows the net capability to charge a battery.

In case of the isolator equipped model, the capability is the total of main and isolator lines.

* When the temperature of stator coil has risen, the battery charging capability tends to drop.

Global model	US & Canada model	Net capability	Note
F25D, FT25F, F20D	F25A, T25A	13 amps	
F30B, F40F	F30A, F40A	13 amps	
F50F, FT50G, F60C, FT60D, F40D, F70A, F40G	F50, T50, F60, T60, F70A	8.5 amps	
F75B, F75C, F80B, F80C, F90B, F100D	F75, F90	19 amps	
F/FL115A	F/LF115A	16 amps	
F/FL150A, F/FL150B	F/LF150A	21 amps	
F/FL200B, F/FL200C, F/FL225B, F225C, F/FL250A, F/FL250B, F/FL250G	F/LF200A, F/LF225A, F/LF250	27 amps	V6-3.3L (VCT)
F200D, F225D, F250C, F225G, F250F, F275A	VF200LA, VF225LA, VF250LA	35 amps	VMAX (SHO)
F/FL225F, F/FL250D, F/FL300B	F/LF225CA, F/LF250CA, F/LF300CA	55 amps	V6-4.2L
F/FL300A, F/FL350A	F/LF350CA	33 amps	V8-5.3L

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APPENDIX

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To be continued.

APPENDIX

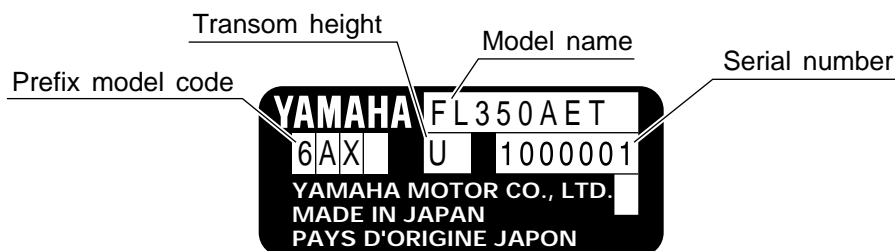
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MODEL NAME DESIGNATION

The model primary ID that consists of the model name, prefix model code, transom length and serial number is stamped on the label attached to the clamp bracket.

* The serial number is a 7-digit sequential numbering scheme irrespective of model variation and transom length.

GLOBAL MODEL IDENTIFICATION (EXCEPT US AND CANADA)

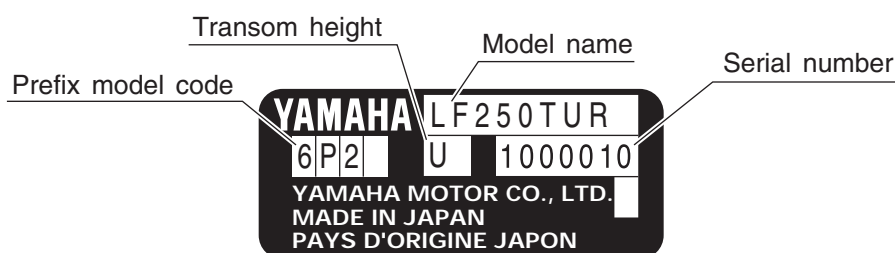


The model identification has been standardized as follows since 1998 model year.

FL	350	A	ET	U
Model category	Output (PS)	Model generation	Model variation	Transom height (Drive shaft length)
Non: 2-stroke STD engine D: Twin rotating prop E: Enduro series F: 4-stroke engine K: Kerosene engine L: L/H rotation series T: High thrust (4-stroke) Z: HPDI engine	2 to 350	A B C D F G H J L N P Q R S T U V X Y (Repeat from A)	Level 1: Start system M: Manual start E: Electric start W: Electric & Manual start Level 2: Control system Non: Remote control H: Tiller handle C: Remote control w/ tiller handle Level 3: Trim & Tilt system Non: Manual tilt D: Hydro tilt P: Power tilt T: Power trim & tilt Level 4: Lubrication system [2-stroke engine] Non: Premixed fuel engine O: Oil injection engine	S (15") L (20") Y (22.5") X (25") U (30")

MODEL NAME DESIGNATION

US & CANADA MODEL IDENTIFICATION



The model identification has been standardized as follows since 1984 model year.

LF	250	T	U	R	—		
					Model year code		
Model category	Output (PS)	Trim & Tilt/ Starting system	Transom height (Drive shaft length)	Control system	US	CA	
Non: 2-stroke STD engine	2.5	T: Power trim & tilt/ Electric start	S (15")	R: Remote control	N	N	1984
B: Inshore series	to		L (20")	H: Tiller handle	K	K	1985
C: Commercial (premixed fuel)	350	P: Power tilt/ Electric start	X (25")		J	J	1986
D: Twin rotating prop		E: Manual tilt/ Electric start	U (30")		H	H	1987
E: Enduro series		M: Manual tilt/ Manual start	J (Jet drive)		G	G	1988
F: 4-stroke engine					F	F	1989
L: L/H rotation series					D	D	1990
P: Pro series					P	P	1991
S: Saltwater series					Q	Q	1992
T: High thrust (4-stroke)					R	R	1993
V: VMAX series					S	S	1994
X: Electronic fuel injection engine					T	T	1995
Z: HPDI engine					U	U	1996
					V	V	1997
					W	W	1998
					X	X	1999
					Y	Y	2000
					Z	Z	2001
					A	A	2002
					B	B	2003
					C	C	2004
					D	D	2005
					—	—	2006
					—	F	2007
					—	G	2008
					—	H	2009
					—	—	(*1)

(*1) 2010 and later

US & CANADA NEW MODEL IDENTIFICATION CODE

US and Canada model ID code will be revised from all new models (starting with fuel injection F40 which has been released on fall 2008).

All current Yamaha outboard motors will continue to use the current model ID code system.

“Generation” codes will change at such time new Yamaha outboards models are introduced.

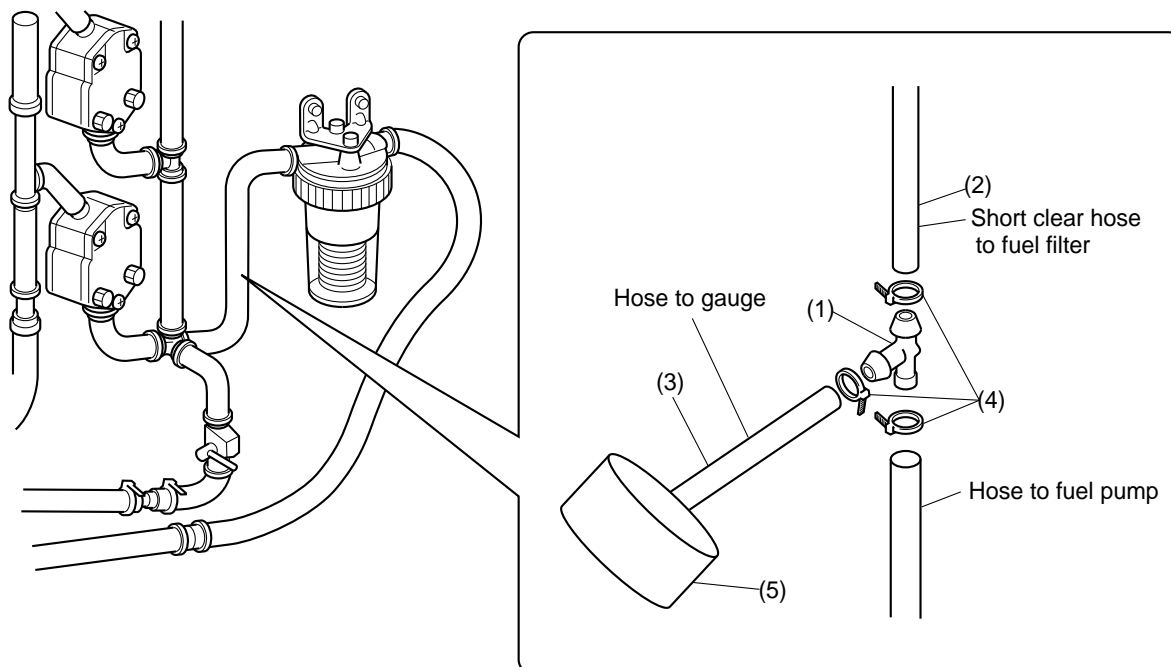
Model ID code will utilize this new and simpler format at that time.

F	40	L	E	H	A
Model category	Horsepower	Shaft length	Starting method PTT	Control method	Generation
F: 4-stroke L: L/H rotation series V: VMAX series T: High thrust (4-stroke)		S: 15" L: 20" X: 25" U: 30" J: Jet	Blank: PTT & E-start P: PT & E-start E: Electric start M: Manual start	Blank: Remote control H: Tiller handle C: Command Link control (DERC)	A: 1st change on motor B: 2nd change on motor C: 3rd change on motor etc.

FUEL SYSTEM VACUUM PRESSURE STANDARD

In high-horsepower V6 models, the required fuel flow volume at normal operation may become insufficient and the engine's reliability may decrease, due to the routing resistance of the fuel hoses and the installation of a larger fuel filter. For the fuel hose routing standard, be sure to adequately inform the service network as well as the boat manufactures.

FUEL HOSE ROUTING RESISTANCE MEASURING METHOD



Ref.No.	Description	Part No.	Q'ty	Remark
(1)	HOSE JOINT	6E5-24378-00	1	
(2)	HOSE	Commercially obtainable	1	50 mm (2.0 in.) clear hose (inside diameter is 8 mm) used to check for air bubbles
(3)	HOSE	61A-24313-00	1	L = 300 mm (11.8 in.) (250 to 400 mm (9.8 to 15.7 in.) is acceptable)
(4)	CLAMP	90465-11M10	4	
(5)	VACUUM PRES-SURE GAUGE	Commercially obtainable	1	Specified pressure range: -101 kPa (-760 mmHg) to 0


1. Connect a 50 mm (2.0 in.) clear hose (market obtainable) (2) to the top nipple of the hose joint (1).
2. Connect the other end of the clear hose (2) to the engine fuel filter outlet.
3. Connect the fuel hose (3) to the center nipple of the hose joint, and the other end of the fuel hose to a vacuum gauge (commercially obtainable) (5).
4. Connect the fuel pump hose to the hose joint, and then fasten all hose connections with clamps (4).
5. Start the engine, let it warm up, and then measure the vacuum pressure at idle and wide-open throttle, after the breaking-in period has been completed.
6. Measure that the vacuum pressure is within specification, and then route the fuel hoses to their original positions.

To be continued.

FUEL SYSTEM VACUUM PRESSURE STANDARD

LOWEST VACUUM PRESSURE STANDARD

The lowest vacuum pressure must be fulfilled as below at an atmospheric temperature of 20°C (68°F) and higher.

	Idle: 0 kPa to -10.7 kPa (-80 mmHg) WOT: -10.7 kPa (-80 mmHg) to -20 kPa (-150 mmHg)
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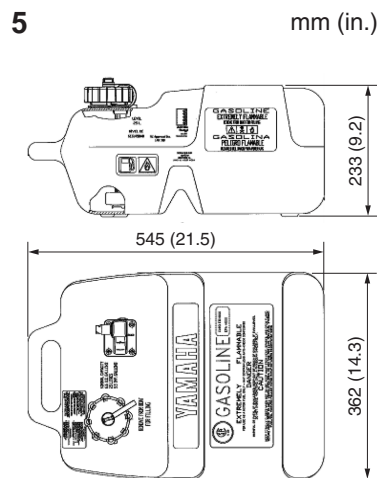
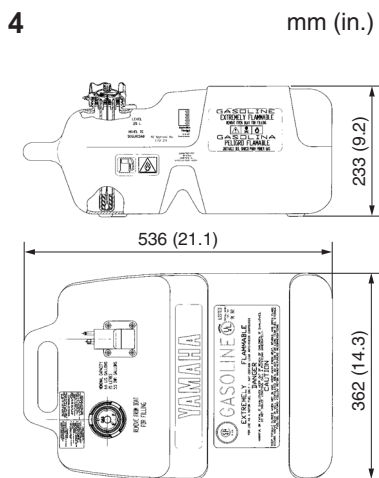
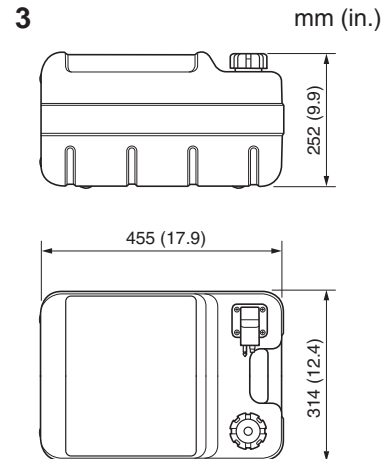
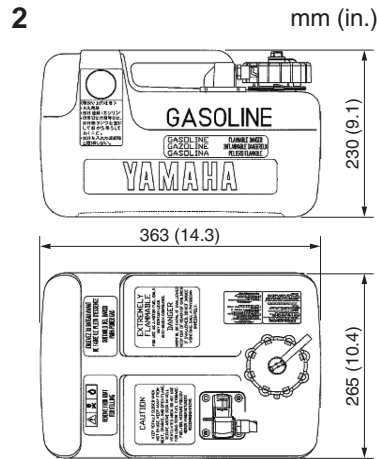
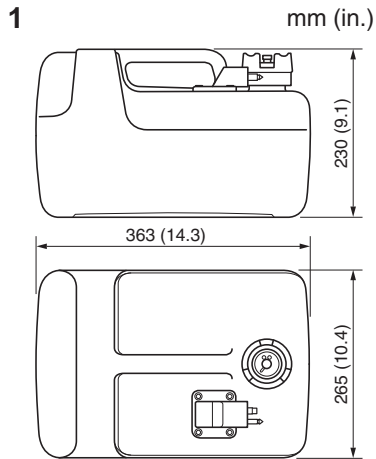
* Be sure to measure the vacuum pressure which is within specification at the idle and the wide-open throttle, after the breaking-in period has been completed.

- Engine breaking-in operating conditions : 10 hours
- ^ 2-stroke carbureted models : Use a 25:1 pre-mixed fuel.
 - ^ 2-stroke electronic fuel injected models : Use a 50:1 pre-mixed fuel, and supply with oil injection.
 - ^ HPDI models : Use straight gasoline (only supply with oil injection)
 - ^ 4-stroke models : Use straight gasoline.

Larger fuel filters installed onto a boat may lower the fuel vacuum pressure to -20.0 kPa (-15 mmHg) and under. Therefore, follow the instructions mentioned above to rig the boat properly so that the fuel vacuum pressure is within specification.

If the vacuum pressure does not surpass -10.7 kPa (-80 mmHg) at wide-open throttle, use a clear hose to check fuel for air bubbles mixed.

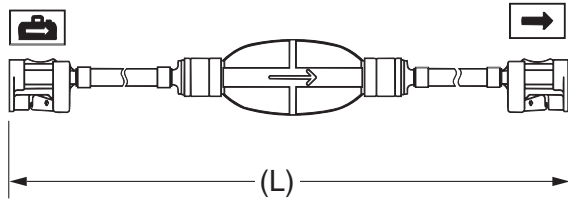
PORTABLE FUEL TANKS (TYPICAL)



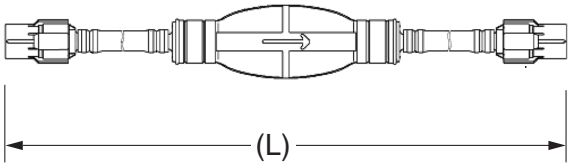
Ref. No.	Part No.	Capacity L (US gal)	Material	Description
1	6YL-24201-05	12 (3.2)	Plastic	w/ fuel gauge
	6YL-F4201-05			
2	6YL-24201-20	12 (3.2)	Plastic	US/CA new joint, w/ fuel gauge
	6YL-F4201-20			
3	6YJ-24201-40	24 (6.3)	Plastic	For JPN, With JCI label, w/ fuel gauge
	6YJ-24201-80	24 (6.3)	Plastic	With tag and exclusive filler structure banning use of leaded fuel
4	6YK-24201-03	25 (6.6)	Plastic	With fuel gauge
	6YK-F4201-03			
	6YK-24201-10	25 (6.6)	Plastic	With label and exclusive filler structure banning use of leaded fuel
	6YK-24201-21	25 (6.6)	Plastic	For kerosene
5	6YK-24201-40	25 (6.6)	Plastic	US/CA new joint, w/ fuel gauge

FUEL PIPES (TYPICAL)

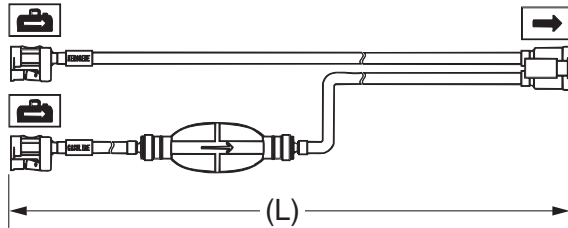
1



2

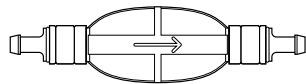


3



Ref. No.	Part No.	Hose inside diameter	Length (L)	Remarks
1	6Y1-24306-55	6 mm	3 m (9.8 ft)	
2	6YL-24306-71	6 mm	3 m (9.8 ft)	US/CA new joint
	6YK-24306-71	8 mm	3 m (9.8 ft)	US/CA new joint
3	6YK-24306-04	6 mm	3 m (9.8 ft)	For kerosene models

PRIMARY PUMP (TYPICAL)



Part No.	Hose inside diameter	Remarks
6YK-24360-71	8 mm	Meeting with EPA regulation, Above F75
6YL-24360-51	6 mm	

PRE-DELIVERY INSPECTION (PDI) CHECKS

Before operation, go over the checklist below to enhance customer satisfaction.

Fill in the information required.

Perform the static and dynamic checks following the items on the sheet.

SAMPLE

OUTBOARD MOTOR



Pre-Delivery Inspection Check List

2- and 4-Stroke engines

Trained personnel should check that the unit has been pre-delivered in accordance with the relevant Yamaha Outboard Manual. The following points must be confirmed at pre-delivery and during the water test.

Ref No: _____

MODEL	PRIMARY ID (Port)	PRIMARY ID (Center)	PRIMARY ID (Starboard)	HULL ID NUMBER (HIN)
BOAT MAKER/MODEL	IGNITION KEY NUMBER (Port)	IGNITION KEY NUMBER (Center)	IGNITION KEY NUMBER (Starboard)	TRAILER NUMBER

CHECK BEFORE OPERATION

- ☐ All Standard Items Supplied (Defect, Breakage, Missing parts)
- ☐ Engine Mounting (High, Width, Proper hardware, Secured)
- ☐ Harness and hoses installation (Secured and Properly Dressed)
- ☐ Main Wire Harness installation ☐ Extended _____ ft ☐ No Extended
- ☐ Multifunction Gauge Dip Switch Setting for Application
- ☐ Instrument Operation/Connections
- ☐ Tiller Handle Installation/Secure
- ☐ Remote Control Operation/Adjustments Type: _____
- ☐ Cable Stroke and Routing Length: _____ m Min. radius: _____ cm
- ☐ Shift Throttle Operation
- ☐ Cable Stroke and Routing Length: _____ m Min. radius: _____ cm
- ☐ Mechanical Steering Operation/Installation Maker: _____
- ☐ Hydraulic Steering Operation/Bleeding Maker: _____
- ☐ Primer Bulb Installed Properly (Arrow pointing up)
- ☐ Fuel Line/Tank Installation/Connections Routing Sealed/Secured
- ☐ Inner Diameter: _____ m Length: _____ m Height: _____ m
- ☐ Boat Fuel Filter Type: _____
- ☐ Fuel Vacuum Test Result: _____ Kpa @ WOT _____ rpm (V4 & V6)
- ☐ Battery Meets/Exceeds Engine Specifications Type: _____
- ☐ Battery Charged/Secured/Connections Tight
- ☐ Battery Cable Installation and Routing
- ☐ Battery Cable Type: _____ Cable Length: _____
- ☐ Battery Switch Installation (Secured, Properly Connections)
- ☐ Manual Tilt Operation
- ☐ Power Trim/Tilt Operation
- ☐ Lower Case Oil Level
- ☐ Overheat Warning System (Ground sensor lead on applicable models)
- ☐ Visual Inspection of Engine
- ☐ <2-Stroke engine Fuel and Oil Setup>
- ☐ Break-In Premix Ratio (Except HPDI models) _____ :
- ☐ Oil in Remote and Engine Tank
- ☐ Yamalube TC-W3 ☐ Equivalent Quality Oil Brand: _____
- ☐ Breed Oil Injection Pump / No air oil Injection Lines
- ☐ Electric Oil Pump Function
- ☐ <4-Stroke engine Oil Setup>
- ☐ Check Engine Oil Level (Ensure engine is not overfilled)
- ☐ Engine Oil Classification: Brand: _____
- ☐ <Carbureted 2- and 4-Stroke engines>
- ☐ Manual/Electric Choke Operation

CHECK DURING OPERATION

- ☐ Electric Starter Operation (Start in gear protection functions)
- ☐ Manual/Electric Choke Operation
- ☐ Neutral Switch function
- ☐ Stop Switch/Emergency lanyard Switch Operation
- ☐ Steering Operation
- ☐ Throttle Operation/Friction Adjustment Neutral/Cruising
- ☐ Proper Shift Cable Adjustment/Operation (F-N-R)
- ☐ Cooling System Water Flow
- ☐ Fuel/Oil/Water/Exhaust leaks
- ☐ Oil Warning system Check (Equipped models)
- ☐ Warning Indicator and Buzzer
- ☐ Oil and Overheat Warning functions (Equipped models)
- ☐ Engine reaches operating temperature
- ☐ Power Trim/Tilt Operation
- ☐ Instrument Operation
- ☐ Trim Tab Adjustment (retorque after operation)
- ☐ Propeller Selection: Brand: ☐ YAMAHA ☐ Other: _____
- ☐ Material: ☐ SST ☐ AL ☐ Plastic
- ☐ Model: _____ Dia: _____ Pitch: _____
- ☐ Idle RPM Single/P: _____ rpm S: _____ rpm C: _____ rpm
- ☐ In gear idle RPM Single/P: _____ rpm S: _____ rpm C: _____ rpm
- ☐ Factory-recommended W.O.T. RPM Range: _____ rpm
- ☐ W.O.T. RPM Single/P: _____ rpm S: _____ rpm C: _____ rpm
- ☐ No Cavitation/Ventilation

Remarks: _____

INSPECTOR'S SIGNATURE	DATE
DEALER NAME	PHONE NUMBER
DEALERSHIP ADDRESS	

CUSTOMER DELIVERY CHECKLIST

- ☐ Operation of Equipment/Boat Accessories Explained (Proper Trim and Tilt operation demonstrated)
- ☐ Operation/Orientation Ride with Dealership Personnel
- ☐ Warranty/Owner's Manual and Keys Given to Customer by Dealer
- ☐ Customer Introduced to Service Manager/Writer
- ☐ Return-to-Port Operations (Oil Injection System, RPM Reduction)
- ☐ Gauge Operation/Warning Symbols Explained
- ☐ 2-Stroke: Use of Yamalube 2M/TC-W3 or Equivalent Rated Oil
- ☐ 4-Stroke: Use of Yamalube 4M or Equivalent Rated Oil
- ☐ YDIS Download Provided on Applicable Models
- ☐ 4-Stroke: Show Customer Proper Checking Procedures and Proper Level of Engine Oil
- ☐ Engine Break-in Procedure Explained
- ☐ Maintenance/Care Schedule Explained
- ☐ Advised of First Scheduled Maintenance
- ☐ Warranty Coverage Explained to Customer's Satisfaction, Including Customer Responsibilities
- ☐ Service Maintenance Package benefits explained
- ☐ C.S.I. questionnaire explained
- ☐ Customer questions Answered by Dealership Personnel
- ☐ Break-in Time Placed on Engine by Dealership Personnel

Hours: _____ Minutes: _____

The above material has been explained and/or provided to me by dealership personnel.

My questions were answered and explained to my satisfaction.

CUSTOMER NAME	PHONE NUMBER
CUSTOMER ADDRESS	
CUSTOMER SIGNATURE	DATE

CONVENTIONAL RIGGING KIT CONTENTS

The rigging kit is handled by Marine Sales Division of Yamaha Motor Corporation.

Thereby, Yamaha parts distribution center in Japan is out of control.

Attention to importers, the rigging kit has to purchase from Sales Division as well as outboard-motors because it is impossible to purchase from the parts route.

DIGITAL TACHOMETER KIT

US, Can.: Above 40, Above F30

Others: Above 40 (3-cyl) w/ oil injection (except 250G & L250G), Above F30

P/N: 6YR-W0035-E3

Part name	Part No.	Q'ty	Remarks
EXT wire-lead	6Y5-83653-20	1	7 m, 23 ft
Tachometer assy	6Y5-8350T-91	1	Included instruction tag
Wire-lead	6Y5-83553-20	1	2.5 m, 8 ft w/10 amps fuse

DIGITAL TACHOMETER AND SPEEDOMETER KIT

US, Can.: Above 40, Above F30

Others: Above 40 (3-cyl) w/ oil injection (except 250G & L250G), Above F30

P/N: 6YR-W0035-F3

Part name	Part No.	Q'ty	Remarks
Wire-lead	6Y5-83553-N0	1	2.5 m, 8 ft w/10 amps twin-fuse
Tachometer assy	6Y5-8350T-91	1	Included instruction tag
EXT wire-lead	6Y5-83653-30	1	8 m, 26 ft
Speedometer assy	6Y5-83570-S6	1	Included instruction tag
Tube	6Y5-83557-10	1	8 m, 26 ft
Clamp	90465-11M10	2	
Clamp	90465-13M18	10	
Instruction	61A-28107-A4	1	

ANZ: Fuel injected F50-F100

P/N: 6YR-W0035-T1

Part name	Part No.	Q'ty	Remarks
Wire-lead	6Y5-82117-00	1	30 cm, BLK
Tachometer assy	6Y5-8350T-91	1	Included instruction tag
Wire-lead	6Y5-83553-M0	1	2.5 m, 8 ft w/10 amps twin-fuse
Tube	6Y5-83557-10	1	8 m, 26 ft
Speedometer assy	6Y5-83570-S6	1	Included instruction tag
EXT wire-lead	6Y5-83653-30	1	8 m, 26 ft
Clamp	90465-11M10	2	

CONVENTIONAL RIGGING KIT CONTENTS

TWIN-MOTOR KIT

Above L150, Above FL/LF115

P/N: 6YR-W0035-G4

Part name	Part No.	Q'ty	Remarks
Wire-lead	6Y5-83553-20	1	2.5 m, 8 ft w/10 amps fuse
Tachometer assy	6Y5-8350T-91	1	Included instruction tag
EXT wire-lead	6Y5-83653-40	1	9 m, 31 ft
Twin-binnacle RCL box	704-48207-P1	1	Premium
Main wire-harness, 10-pin	6K1-8258A-40	1	8 m, 26 ft
Main wire-harness, 10-pin	61B-8258A-01	1	9.5 m, 32 ft
Clamp	90465-13M18	10	
Twin-switch panel	6K1-82570-08	1	With DES control unit
Screw	90149-05M05	4	25 mm
Nut	95380-05600	4	
Plane washer	92990-05600	4	
Spring washer	92990-05100	4	
Fuel mgt gauge	6Y5-8350F-01	1	Included instruction tag
Wire-lead	6Y5-83553-F1	1	8 m, 26 ft
Fuel flow sensor	6Y5-85752-02	2	
Screw	90158-06003	4	68 mm
Instruction	61B-28107-A4	1	

CONVENTIONAL RIGGING KIT CONTENTS

REMOTE OIL TANK KIT (FOR 2-STROKE ENGINE)

10.5 L (2.8 US-GAL) TANK

Global P/N: 6YR-W0035-D2

Part name	Part No.	Q'ty	Remarks
Remote oil tank assy	61A-21708-20	1	
Remote oil tank holder	6E5-21734-01	1	
Damper	6E5-21746-00	2	
Bracket	6E5-21798-01	1	
Fuel pipe complete	6YK-24307-42	1	
Clamp	90450-10M07	1	
Clamp	90465-11M10	1	
Clamp	90465-13M11	1	
Washer	92990-06600	2	
Nut	95380-06600	1	
Bolt	97080-06100	1	

US & Canada P/N: 6YR-W0035-94

Part name	Part No.	Q'ty	Remarks
Remote oil tank assy	61A-21708-20	1	
Remote oil tank holder	6E5-21734-01	1	
Damper	6E5-21746-00	2	
Bracket	6E5-21798-01	1	
Fuel pipe complete	6Y2-24307-50	1	Meeting with ABYC requirements
Clamp	90450-10M07	1	
Clamp	90465-11M10	1	
Clamp	90465-13M11	1	
Washer	92990-06600	2	
Nut	95380-06600	1	
Bolt	97080-06100	1	

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

SQUARE STYLE GAUGE RIGGING KIT FOR US & CANADA

SINGLE KIT (TACH, SPEED/FUEL MGT)

Kit P/N: 6Y8-WE83S-10-00

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-82521-51	Pigtail bus wire, 12 ft	1	
6Y8-81920-01	Multi-hub	2	With resistor cap, GRY
6Y8-82582-01	2-P cap, RED	1	For waterproof
6Y8-82582-11	4-P cap, WHT	3	For waterproof
6Y8-8350T-01	SQR tachometer	1	
6Y8-83500-01	SQR comb. speedometer & fuel mgt gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-2819U-00	Operation manual	1	
6Y8-2819K-S1	Quick installation guide	1	
6Y8-2819U-X0	Quick operation guide	1	Laminated card

TWIN KIT 1 (TACH, TACH, SPEED, FUEL MGT)

Kit P/N: 6Y8-WE83S-20-00

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82521-51	Pigtail bus wire, 12 ft	2	
6Y8-81920-01	Multi-hub	3	With resistor cap, GRY
6Y8-82582-01	2-P cap, RED	2	For waterproof
6Y8-82582-11	4-P cap, WHT	3	For waterproof
6Y8-8350T-01	SQR tachometer	2	
6Y8-8350S-01	SQR speedometer	1	
6Y8-8350F-01	SQR fuel management gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-82570-02	Twin-switch panel	1	
704-48207-P1	Twin-binnacle RCL box, Premium	1	
6K1-8258A-40	Main harness 10-P, 26 ft	1	
61B-8258A-01	Main harness 10-P, 32 ft	1	
6Y8-2819U-00	Operation manual	1	
6Y8-2819K-S1	Quick installation guide	1	
6Y8-2819U-X0	Quick operation guide	1	Laminated card

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

SQUARE STYLE GAUGE RIGGING KIT FOR US & CANADA

TWIN KIT 2 (TACH, TACH, SPEED/FUEL MGT)

Kit P/N: 6Y8-WE83S-30-00

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-82521-51	Pigtail bus wire, 12 ft	2	
6Y8-81920-01	Multi-hub	2	With resistor cap, GRY
6Y8-82582-01	2-P cap, RED	1	For waterproof
6Y8-82582-11	4-P cap, WHT	1	For waterproof
6Y8-8350T-01	SQR tachometer	2	
6Y8-83500-01	SQR comb. speedometer & fuel mgt gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-82570-02	Twin-switch panel	1	
704-48207-P1	Twin-binnacle RCL box, Premium	1	
6K1-8258A-40	Main harness 10-P, 26 ft	1	
61B-8258A-01	Main harness 10-P, 32 ft	1	
6Y8-2819U-00	Operation manual	1	
6Y8-2819K-S1	Quick installation guide	1	
6Y8-2819U-X0	Quick operation guide	1	Laminated card

TRIPLE KIT 1 (TACH, TACH, TACH, SPEED, FUEL MGT)

Kit P/N: 6Y8-WE83S-80-00

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82521-51	Pigtail bus wire, 12 ft	3	
6Y8-81920-01	Multi-hub	3	With resistor cap, GRY
6Y8-82582-01	2-P cap, RED	2	For waterproof
6Y8-82582-11	2-P cap, WHT	1	For waterproof
6Y8-8350T-01	SQR tachometer	3	
6Y8-8350S-01	SQR speedometer	1	
6Y8-8350F-01	SQR fuel management gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6X5-82570-01	Triple-switch panel	1	
6X5-48207-00	Triple-binnacle RCL box, Premium	1	
6K1-8258A-40	Main harness 10-P, 26 ft	1	
61B-8258A-01	Main harness 10-P, 32 ft	2	
6Y8-2819U-X0	Quick operation guide	1	Laminated card
6Y8-2819U-00	Operation manual	1	

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

SQUARE STYLE GAUGE RIGGING KIT FOR US & CANADA

TRIPLE KIT 2 (TACH, TACH, TACH, SPEED, FUEL MGT) w/o Triple RC Box

Kit P/N: 6Y8-WE83S-90-00

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82521-51	Pigtail bus wire, 12 ft	3	
6Y8-81920-01	Multi-hub	3	With resistor cap, GRY
6Y8-82582-01	2-P cap, RED	2	For waterproof
6Y8-82582-11	2-P cap, WHT	1	For waterproof
6Y8-8350T-01	SQR tachometer	3	
6Y8-8350S-01	SQR speedometer	1	
6Y8-8350F-01	SQR fuel management gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6X5-82570-01	Triple-switch panel	1	
6K1-8258A-40	Main harness 10-P, 26 ft	1	
61B-8258A-01	Main harness 10-P, 32 ft	2	
6Y8-2819U-X0	Quick operation guide	1	Laminated card
6Y8-2819U-00	Operation manual	1	

ROUND STYLE GAUGE RIGGING KIT FOR US & CANADA

SINGLE KIT 1 (TACH)

Kit P/N: 6Y8-WE83R-60-00

Part No.	Part name	Q'ty	Remarks
6Y8-82521-51	Pigtail bus wire, 12 ft	1	
6Y8-81920-11	Single-hub	1	With resistor
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-82521-11	Pigtail bus wire, 2 ft	1	
6Y8-8350T-11	RND tachometer	1	
6Y8-82582-11	4-P cap, WHT	2	For waterproof
6Y8-2819V-00	Operation manual	1	
6Y8-2819K-R1	Quick installation guide	1	
6Y8-2819V-X0	Quick operation guide	1	Laminated card

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

ROUND STYLE GAUGE RIGGING KIT FOR US & CANADA

SINGLE KIT 2 (TACH, SPEED/FUEL MGT)

Kit P/N: 6Y8-WE83S-40-00

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-82521-51	Pigtail bus wire, 12 ft	1	
6Y8-81920-01	Multi-hub	2	With resistor cap, GRY
6Y8-82582-01	2-P cap, RED	1	For waterproof
6Y8-82582-11	4-P cap, WHT	3	For waterproof
6Y8-8350T-11	RND tachometer	1	
6Y8-83500-11	RND comb. speedometer & fuel mgt gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-2819U-00	Operation manual	1	
6Y8-2819K-R1	Quick installation guide	1	
6Y8-2819V-X0	Quick operation guide	1	Laminated card

TWIN KIT (TACH, TACH, SPEED/FUEL MGT)

Kit P/N: 6Y8-WE83S-50-00

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-82521-51	Pigtail bus wire, 12 ft	2	
6Y8-81920-01	Multi-hub	2	With resistor cap, GRY
6Y8-82582-01	2-P cap, RED	1	For waterproof
6Y8-82582-11	4-P cap, WHT	1	For waterproof
6Y8-8350T-11	RND tachometer	2	
6Y8-83500-11	RND comb. speedometer & fuel mgt gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-82570-02	Twin-switch panel	1	
704-48207-P1	Twin-binnacle RCL box, Premium	1	
6K1-8258A-40	Main harness 10-P, 26 ft	1	
61B-8258A-01	Main harness 10-P, 32 ft	1	
6Y8-2819U-00	Operation manual	1	
6Y8-2819K-R1	Quick installation guide	1	
6Y8-2819V-X0	Quick operation guide	1	Laminated card

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

SQUARE STYLE GAUGE RIGGING KIT FOR EUROPE

SINGLE KIT (TACH, SPEED/FUEL MGT)

Kit P/N: 6YR-W0035-N4

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-81920-11	Single-hub	1	With resistor
6Y8-82521-11	Pigtail bus wire, 2 ft	2	
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y8-82553-21	Main bus wire, 20 ft	1	
6Y8-82582-11	4-pin cap, WHT	1	For waterproof
6Y8-83500-01	SQR comb. speedometer & fuel mgt gauge	1	
6Y8-8350T-01	SQR tachometer	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-2819U-X0	Quick operation guide	1	
6Y8-2819K-S1	Quick installation guide	1	
6Y8-2819U-70	Operation manual 1	1	
6Y8-2819U-80	Operation manual 2	1	

SINGLE KIT (TACH, SPEED/ FUEL MGT) w/o Transom Wire Harness

Kit P/N: 6Y8-W0035-20

Part No.	Part name	Q'ty	Remarks
6Y8-82521-11	Pigtail bus wire, 2 ft	2	
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-82582-11	4-pin cap, WHT	1	For waterproof
6Y8-8350T-01	SQR tachometer	1	
6Y8-83500-01	SQR comb. Speedometer & fuel mgt gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-2819U-70	Operation manual 1	1	
6Y8-2819U-80	Operation manual 2	1	
6Y8-2819K-S1	Quick installation guide	1	
6Y8-2819U-X0	Quick operation guide	1	

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

SQUARE STYLE GAUGE RIGGING KIT FOR EUROPE

TWIN KIT (TACH, TACH, SPEED, FUEL MGT)

Kit P/N: 6YR-W0035-P4

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
61B-8258A-01	Main wire-harness 10-pin, 32 ft	1	
6K1-8258A-40	Main wire-harness 10-pin, 26 ft	1	
6Y8-81920-01	Multi-hub	3	With resistor cap, GRY
6Y8-82521-11	Pigtail bus wire, 2 ft	4	
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y8-82521-41	Pigtail bus wire, 9 ft	1	
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82553-31	Main bus wire, 25 ft	1	
6Y8-82582-01	2-pin cap, RED	2	For waterproof
6Y8-82582-11	4-pin cap, WHT	3	For waterproof
6Y8-8350F-01	SQR fuel mgt gauge	1	
6Y8-8350S-01	SQR speedometer	1	
6Y8-8350T-01	SQR tachometer	2	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-8356N-01	Fuel tank & GPS wire	1	
704-48207-P1	Twin-binnacle RCL box, Premium	1	
6Y8-82570-02	Twin-switch panel	1	
90149-05M05	Screw, 25 mm	4	
95380-05600	Nut	4	
92990-05600	PLN washer	4	
92990-05100	SRG washer	4	
6Y8-2819U-X0	Quick operation guide	1	
6Y8-2819K-S1	Quick installation guide	1	
6Y8-2819U-70	Operation manual 1	1	
6Y8-2819U-80	Operation manual 2	1	

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

SQUARE STYLE GAUGE RIGGING KIT FOR EUROPE

TWIN KIT (TACH, TACH, SPEED, FUEL MGT) w/o Transom Wire Harness

Kit P/N: 6Y8-W0035-30

Part No.	Part name	Q'ty	Remarks
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82521-11	Pigtail bus wire, 2 ft	4	
6Y8-81920-01	Multi-hub	2	With resistor cap, GRY
6Y8-82582-01	2-pin cap, RED	1	For waterproof
6Y8-82582-11	4-pin cap, WHT	2	For waterproof
6Y8-8350T-01	SQR tachometer	2	
6Y8-8350S-01	SQR speedometer	1	
6Y8-8350F-01	SQR fuel mgt gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-2819U-70	Operation manual 1	1	
6Y8-2819U-80	Operation manual 2	1	
6Y8-2819K-S1	Quick installation guide	1	
6Y8-2819U-X0	Quick operation guide	1	

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

SQUARE STYLE GAUGE RIGGING KIT FOR EUROPE

F350 SINGLE KIT (TACH, SPEED/ FUEL MGT)

KIT P/N: 6X6-W0035-01

Part No.	Part name	Q'ty	Remarks
6Y8-8350T-01	Tachometer	1	Square style
6Y8-8356N-01	GPS/ Fuel tank wire	1	
6Y8-83500-01	Comb. Speed/ fuel mgt gauge	1	Square style
6Y8-81920-01	Multi hub	1	
6Y8-85371-01	Resistor cap	1	Gray, 6-pin
6Y8-82521-11	Pigtail bus wire, 2ft	2	
6Y8-82521-31	Pigtail bus wire, 6ft	1	
6Y8-83553-01	PWR supply wire, 8ft	1	With 10 amps fuse
6R5-82570-05	Switch panel	1	Single
6X6-8258A-30	Main wire harness, 10m	1	
6X6-2819K-S1	Quick installation manual	1	
6Y8-2819U-X0	Quick reference guide	1	

F350 TWIN KIT (TACH, TACH, SPEED, FUEL MGT)

KIT P/N: 6X6-W0035-11

Part No.	Part name	Q'ty	Remarks
6Y8-8350T-01	Tachometer	2	Square style
6Y8-8350S-01	Speedometer	1	Square style
6Y8-8356N-01	GPS/ Fuel tank wire	1	
6Y8-8350F-01	Fuel mgt gauge	1	Square style
6Y8-81920-01	Multi hub	2	
6Y8-82553-01	Main bus wire, 1ft	1	
6Y8-82521-11	Pigtail bus wire, 2ft	4	
6Y8-82521-31	Pigtail bus wire, 6ft	2	
6Y8-83553-01	PWR supply wire, 8ft	1	With 10 amps fuse
6Y8-82582-01	2-P cap, RED	1	For waterproof
6Y8-82570-02	Switch panel	1	Twin
6X6-8258A-40	Main wire harness, 12m	2	
6X6-2819K-S1	Quick installation manual	1	
6Y8-2819U-X0	Quick reference guide	1	

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

ROUND STYLE GAUGE RIGGING KIT FOR EUROPE

SINGLE KIT 1 (TACH)

Kit P/N: 6YR-W0035-Y1

Part No.	Part name	Q'ty	Remarks
6Y8-82521-41	Pigtail bus wire, 9 ft	1	
6Y8-82553-21	Main bus wire, 20 ft	1	
6Y8-81920-11	Single-hub	1	With resistor
6Y8-82521-11	Pigtail bus wire, 2 ft	1	
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-82582-11	4-pin cap	2	For waterproof
6Y8-8350T-11	RND tachometer	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse

SINGLE KIT 1 (TACH) w/o Transom Wire Harness

Kit P/N: 6Y8-W0035-00

Part No.	Part name	Q'ty	Remarks
6Y8-82521-11	Pigtail bus wire, 2 ft	1	
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-82582-11	4-pin cap, WHT	2	For waterproof
6Y8-8350T-11	RND tachometer	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

ROUND STYLE GAUGE RIGGING KIT FOR EUROPE

SINGLE KIT2 (TACH, SPEED/FUEL MGT)

Kit P/N: 6YR-W0035-M6

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-81920-11	Single-hub	1	With resistor
6Y8-82521-11	Pigtail bus wire, 2 ft	2	
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y8-82553-21	Main bus wire, 20 ft	1	
6Y8-82582-11	4-pin cap, WHT	1	For waterproof
6Y8-83500-11	RND comb. speedometer & fuel mgt gauge	1	
6Y8-8350T-11	RND tachometer	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-2819U-X0	Quick operation guide	1	
6Y8-2819K-R1	Quick installation guide	1	

SINGLE KIT 2 (TACH, SPEED/ FUEL MGT) w/o Transom Wire Harness

Kit P/N: 6Y8-W0035-10

Part No.	Part name	Q'ty	Remarks
6Y8-82521-11	Pigtail bus wire, 2 ft	2	
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-82582-11	4-pin cap, WHT	1	For waterproof
6Y8-8350T-11	RND tachometer	1	
6Y8-83500-11	RND comb. Speed & fuel mgt gauge	1	
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-2819K-R1	Quick installation guide	1	
6Y8-2819V-X0	Quick operation guide	1	

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

TRANSOM RIGGING KIT FOR EUROPE

SINGLE KIT 1 (SINGLE-HUB)

Kit P/N: 6Y8-W0035-40

Part No.	Part name	Q'ty	Remarks
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y8-81920-11	Single-hub	1	With resistor

SINGLE KIT 2 (MULTI-HUB)

Kit P/N: 6Y8-W0035-50

Part No.	Part name	Q'ty	Remarks
6Y8-82521-41	Pigtail bus wire, 9 ft	1	
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-82582-11	4-pin cap, WHT	2	For waterproof
6Y8-82582-01	2-pin cap, RED	1	For waterproof

TWIN KIT 1 (MULTI-HUB)

Kit P/N: 6Y8-W0035-60

Part No.	Part name	Q'ty	Remarks
6Y8-82521-41	Pigtail bus wire, 9 ft	1	
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-82582-01	2-pin cap, RED	1	For waterproof
6Y8-82582-11	4-pin cap, WHT	1	For waterproof

TWIN KIT 2 (MULTI-HUB)

Kit P/N: 6Y8-W0035-70

Part No.	Part name	Q'ty	Remarks
6Y8-82521-51	Pigtail bus wire, 12 ft	1	
6Y8-82521-41	Pigtail bus wire, 9 ft	1	
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-82582-01	2-pin cap, RED	1	For waterproof
6Y8-82582-11	4-pin cap, WHT	1	For waterproof

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

SQUARE STYLE GAUGE RIGGING KIT FOR ANZ

SINGLE KIT (TACH, SPEED, FUEL MGT)

Kit P/N: 6YR-W0035-R4

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-81920-11	Single-hub	1	With resistor
6Y8-82521-11	Pigtail bus wire, 2 ft	3	
6Y8-82521-51	Pigtail bus wire, 12 ft	1	
6Y8-82553-31	Main bus wire, 25 ft	1	
6Y8-8350F-01	SQR fuel mgt gauge	1	
6Y8-8350S-01	SQR speedometer	1	
6Y8-8350T-01	SQR tachometer	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-8356N-01	Fuel tank & GPS wire	1	

TWIN KIT (TACH)

Kit P/N: 6YR-W0035-S1

Required the single-kit.

Part No.	Part name	Q'ty	Remarks
61B-8258A-01	Main wire-harness 10-pin, 32 ft	1	
6K1-8258A-40	Main wire-harness 10-pin, 26 ft	1	
6Y8-81920-01	Multi-hub	2	With resistor cap, GRY
6Y8-82521-11	Pigtail bus wire, 2 ft	1	
6Y8-82521-51	Pigtail bus wire, 12 ft	1	
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82582-01	2-pin cap, RED	2	For waterproof
6Y8-82582-11	4-pin cap, WHT	3	For waterproof
6Y8-8350T-01	SQR tachometer	1	
704-48207-P1	Twin-binnacle RCL box, Premium	1	
6Y8-82570-02	Twin-switch panel	1	
90149-05M05	Screw, 25 mm	4	
92990-05100	SRG washer	4	
92990-05600	PLN washer	4	
95380-05600	Nut	4	

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

SQUARE STYLE GAUGE RIGGING KIT FOR JAPAN

SINGLE KIT 1 (TACH)

Kit P/N: 6YR-W0035-U0

Part No.	Part name	Q'ty	Remarks
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-81920-11	Single-hub	1	With resistor
6Y8-82521-21	Pigtail bus wire, 3 ft	1	
6Y8-82521-41	Pigtail bus wire, 9 ft	1	
6Y8-82553-21	Main bus wire, 20 ft	1	
6Y8-82582-11	4-pin cap, WHT	2	For waterproof
6Y8-8350T-01	SQR tachometer	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-2819U-01	Operation manual	1	
6Y8-2819K-S1	Quick installation guide	1	

SINGLE KIT 2 (TACH, SPEED/FUEL MGT)

Kit P/N: 6YR-W0035-V3

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-81920-11	Single-hub	1	With resistor
6Y8-82521-21	Pigtail bus wire, 3 ft	2	
6Y8-82521-51	Pigtail bus wire, 12 ft	1	
6Y8-82553-31	Main bus wire, 25 ft	1	
6Y8-82582-11	4-pin cap, WHT	1	For waterproof
6Y8-83500-01	SQR comb. speedometer & fuel mgt gauge	1	
6Y8-8350T-01	SQR tachometer	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-2819U-01	Operation manual	1	
6Y8-2819K-S1	Quick installation guide	1	

F350/F300 SINGLE KIT (TACH, SPEED/ FUEL MGT)

Kit P/N: 6X6-W0035-20

Part No.	Part name	Q'ty	Remarks
6Y8-8350T-01	SQR Tachometer	1	
6Y8-8356N-01	GPS/ Fuel tank wire	1	
6Y8-83500-01	SQR Comb. Speed/ fuel mgt meter	1	
6Y8-81920-01	Multi-hub	1	
6Y8-85371-01	Resistor cap	1	Gray, 6-pin
6Y8-82521-21	Pigtail bus wire, 3 ft	2	
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6R5-82570-05	Switch panel	1	Single
6X6-8258A-30	Main wire-harness, 10 m	1	16-pin
6Y8-2819U-01	Operation manual	1	Japanese

DIGITAL NETWORK GAUGE RIGGING KIT CONTENTS

ROUND STYLE GAUGE RIGGING KIT FOR JAPAN

SINGLE KIT 1 (TACH)

Kit P/N: 6YR-W0035-W0

Part No.	Part name	Q'ty	Remarks
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-81920-11	Single-hub	1	With resistor
6Y8-82521-21	Pigtail bus wire, 3 ft	1	
6Y8-82521-41	Pigtail bus wire, 9 ft	1	
6Y8-82553-21	Main bus wire, 20 ft	1	
6Y8-82582-11	4-pin cap, WHT	2	For waterproof
6Y8-8350T-11	RND tachometer	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-2819V-01	Operation manual	1	
6Y8-2819K-R1	Quick installation guide	1	

SINGLE KIT 2 (TACH, SPEED/FUEL MGT)

Kit P/N: 6YR-W0035-X3

Part No.	Part name	Q'ty	Remarks
60V-8A4L1-11	Speed sensor kit	1	Refer to kit contents
6Y8-81920-01	Multi-hub	1	With resistor cap, GRY
6Y8-81920-11	Single-hub	1	With resistor
6Y8-82521-21	Pigtail bus wire, 3 ft	2	
6Y8-82521-51	Pigtail bus wire, 12 ft	1	
6Y8-82553-31	Main bus wire, 25 ft	1	
6Y8-82582-11	4-pin cap, WHT	1	For waterproof
6Y8-83500-11	RND comb. speedometer & fuel mgt gauge	1	
6Y8-8350T-11	RND tachometer	1	
6Y8-83553-01	PWR supply wire, 8 ft	1	With 10 amps fuse
6Y8-8356N-01	Fuel tank & GPS wire	1	
6Y8-2819V-01	Operation manual	1	
6Y8-2819K-R1	Quick installation guide	1	

IMMOBILIZER RIGGING KIT CONTENTS

IMMOBILIZER KIT 1 (FOR US, ANZ, CRB)

Kit P/N: 6Y8-W0035-81

Part No.	Part name	Q'ty	Remarks
6Y8-86254-21	Immobilizer unit	1	Conformed to local frequency band
90167-06M00	Screw	4	
97880-06035	Screw	4	
90201-06M30	Washer	8	
95780-06300	Nut	4	
6Y8-82521-11	Pigtail bus wire	1	0.3 m, 1 ft
6Y8-48277-00	Symbol graphic	4	
6Y8-28107-92	Instruction	1	

IMMOBILIZER KIT 2 (FOR JPN)

Kit P/N: 6Y8-W0035-90

Part No.	Part name	Q'ty	Remarks
6Y8-86254-30	Immobilizer unit	1	Conformed to local frequency band
90167-06M00	Screw	4	
97880-06035	Screw	4	
90201-06M30	Washer	8	
95780-06300	Nut	4	
6Y8-82521-11	Pigtail bus wire	1	0.3 m, 1 ft
6Y8-48277-00	Symbol graphic	3	
6Y8-28107-92	Instruction	1	

SINGLE ENGINE GAUGE KIT FOR IMMOBILIZER (FOR EU, ANZ, JPN, GEN)

P/N: 6Y8-W0035-A0 (w/ IG SW panel)

Part No.	Part name	Q'ty	Remarks
6Y8-8350T-01	SQR tachometer	1	
6Y8-83500-01	SQR speed/fuel gauge	1	
6Y8-81920-01	Multi-hub	2	w/ resistor
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82582-11	4-pin waterproof cap	3	White
6Y8-82582-01	2-pin waterproof cap	1	Red
6Y8-82521-11	Pigtail bus wire, 2 ft	2	
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y8-8356N-01	Fuel tank/ GPS wire	1	NMEA0183
6Y8-83553-01	PWR supply wire	1	w/ 10 amps fuse
6X6-82570-30	IG switch panel, single	1	OFF-ON-START
6X6-8258A-30	Main wire-harness, 33 ft	1	16-pin
6Y9-2819K-E0	Set up manual	1	

IMMOBILIZER RIGGING KIT CONTENTS

SINGLE ENGINE GAUGE KIT FOR IMMOBILIZER (FOR EU, ANZ, JPN, GEN)

P/N: 6Y8-W0035-D0 (w/o IG SW panel)

Part No.	Part name	Q'ty	Remarks
6X6-8258A-30	Main wire-harness, 33 ft	1	16-pin
6Y8-81920-01	Multi-hub	2	
6Y8-82521-11	Pigtail bus wire, 2 ft	2	
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82582-01	2-pin waterproof cap	1	Red
6Y8-82582-11	4-pin waterproof cap	3	White
6Y8-83500-01	SQR speed/fuel gauge	1	NMEA0183
6Y8-8350T-01	SQR tachometer	1	
6Y8-83553-01	PWR supply wire	1	w/ 10 amps fuse
6Y8-8356N-01	Fuel tank/GPS wire	1	
6Y9-2819K-E0	Set-up manual	1	

TWIN ENGINE GAUGE KIT FOR IMMOBILIZER

P/N: 6Y8-W0035-B0

Part No.	Part name	Q'ty	Remarks
6Y8-8350T-01	SQR tachometer	2	
6Y8-8350F-01	SQR fuel MGT gauge	1	
6Y8-8350S-01	SQR speedometer	1	
6Y8-81920-01	Multi-hub	3	w/ resistor
6Y8-82553-01	Main bus wire, 1 ft	2	
6Y8-82582-11	4-pin waterproof cap	3	White
6Y8-82582-01	2-pin waterproof cap	2	Red
6Y8-82521-11	Pigtail bus wire, 2 ft	4	
6Y8-82521-31	Pigtail bus wire, 6 ft	2	
6Y8-8356N-01	Fuel tank/ GPS wire	1	NMEA0183
6Y8-83553-01	PWR supply wire	1	w/ 10 amps fuse
6X6-82570-40	IG switch panel, twin	1	OFF-ON
6X6-82570-60	Start/stop SW panel, twin	1	
6X6-8258A-40	Main wire-harness, 40 ft	2	16-pin
6Y9-2819K-E0	Set up manual	1	

DIGITAL NETWORK PREMIUM GAUGE RIGGING KIT CONTENTS

SINGLE ENGINE PREMIUM GAUGE KIT

P/N: 6Y9-W0035-02 (w/ IG SW panel)

Part No.	Part name	Q'ty	Remarks
6Y9-83710-01	Premium gauge assy	1	5" color display, w/ screen cover
6Y8-81920-01	Multi-hub	1	w/ resistor cap
6Y8-82582-11	4-pin waterproof cap	2	White
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y9-83553-40	Conversion harness 4, 0.5 ft	1	Hub to premium gauge
6Y9-83553-00	Conversion harness, 1 ft	1	RC to hub
6Y8-83553-01	PWR supply wire	1	w/ 10 amps fuse
6Y9-8356N-01	GPS wire	1	NMEA0183
6Y9-8356N-10	Fuel tank wire	1	4 fuel tanks
6X6-82570-30	IG switch panel, single	1	OFF-ON-START
6X6-8258A-30	Main wire-harness, 33 ft	1	16-pin
6Y9-2819K-E0	Set up manual	1	

P/N: 6Y9-W0035-21 (w/o IG SW panel)

Part No.	Part name	Q'ty	Remarks
6X6-8258A-30	Main wire-harness, 33 ft	1	16-pin
6Y8-81920-01	Multi-hub	1	w/ resistor cap
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82582-11	4-pin waterproof cap	2	White
6Y8-83553-01	PWR supply wire	1	w/ 10 amps fuse
6Y9-2819K-E0	Set up manual	1	
6Y9-83553-00	Conversion harness, 1 ft	1	RC to Hub
6Y9-83553-40	Conversion harness 4, 0.5 ft	1	Hub to premium gauge
6Y9-8356N-01	GPS wire	1	NMEA0183
6Y9-8356N-10	Fuel tank wire	1	4 fuel tanks
6Y9-83710-01	Premium gauge assy	1	5" color display, w/ screen cover

DIGITAL NETWORK PREMIUM GAUGE RIGGING KIT CONTENTS

TWIN ENGINE PREMIUM GAUGE KIT

P/N: 6Y9-W0035-12

Part No.	Part name	Q'ty	Remarks
6Y9-83710-01	Premium gauge assy	1	5" color display, w/ screen cover
6Y8-81920-01	Multi-hub	1	w/ resistor cap
6Y8-82582-11	4-pin waterproof cap	2	White
6Y8-82553-01	Main bus wire, 1 ft	1	
6Y8-82521-31	Pigtail bus wire, 6 ft	1	
6Y9-83553-40	Conversion harness, 0.5 ft	1	Hub to premium gauge
6Y9-83553-00	Conversion harness, 1 ft	1	RC to hub
6Y8-83553-01	PWR supply wire	1	w/ 10 amps fuse
6Y9-8356N-01	GPS wire	1	NMEA0183
6Y9-8356N-10	Fuel tank wire	1	4 fuel tanks
6X6-82570-40	IG switch panel, twin	1	OFF-ON
6X6-82570-60	Start/stop SW panel, twin	1	
6X6-8258A-40	Main wire-harness, 40 ft	2	16-pin
6Y9-2819K-E0	Set up manual	1	

MAIN HELM SW PANEL TWIN ENGINE KIT (FOR US, CAN)

P/N: 6X6-W0035-50

Part No.	Part name	Q'ty	Remarks
6X6-82570-40	IG switch panel, twin	1	OFF-ON
6X6-82570-60	Start/stop SW panel, twin	1	

MAIN HELM SW PANEL TRIPLE ENGINE KIT (FOR US, CAN)

P/N: 6X6-W0035-60

Part No.	Part name	Q'ty	Remarks
6X6-82570-50	IG switch panel, triple	1	OFF-ON
6X6-82570-70	Start/stop SW panel, triple	1	

2ND HELM SW PANEL SINGLE ENGINE KIT (FOR US, CAN)

P/N: 6X6-W0035-70

Part No.	Part name	Q'ty	Remarks
6X6-82570-80	Start/stop SW panel, single	1	
6X6-82570-B0	Station selector SW panel	2	
6X6-82570-90	Emergency stop SW panel	1	

DIGITAL NETWORK PREMIUM GAUGE RIGGING KIT CONTENTS

2ND HELM SW PANEL TWIN ENGINE KIT (FOR US, CAN)

P/N: 6X6-W0035-80

Part No.	Part name	Q'ty	Remarks
6X6-82570-E0	Start/stop SW panel, twin	1	
6X6-82570-B0	Station selector SW panel	2	
6X6-82570-90	Emergency stop SW panel	1	

2ND HELM SW PANEL TRIPLE ENGINE KIT (FOR US, CAN)

P/N: 6X6-W0035-90

Part No.	Part name	Q'ty	Remarks
6X6-82570-F0	Start/stop SW panel, triple	1	
6X6-82570-B0	Station selector SW panel	2	
6X6-82570-90	Emergency stop SW panel	1	

OTHER RIGGING KIT CONTENTS

TILT LIMIT SWITCH KIT (FOR US, CA, EU, ANZ, RUS, JPN)

P/N: 63P-825EY-00

Applicable model:

Global model	F/FL115A	F/FL150A	F200D	F225D	F250C	F225G	F250F	F275A
US model	F/LF115A	F/LF150A	VF200LA	VF225LA	VF250LA			
Canada model	F/LF115A	F/LF150A	VF200LA	VF225LA	VF250LA			

Kit contents:

Part No.	Part name	Q'ty	Remarks
63P-825E0-00	Tilt limit SW assy	1	
97595-06516	Bolt w/ washer	2	
90159-05059	Screw	1	
90387-05004	Collar	1	
90165-11M10	Clamp	5	

* For installation, see the service manual and/or installation manual.



LIGHTING COIL KIT (FOR EU, CA, JPN)

P/N: 6BX-W8130-A0

Applicable model:

Global model	F4B	F5A	F6C
US model			
Canada model	F4A		F6A

Kit contents:

Part No.	Part name	Q'ty	Remarks
6BX-81949-00	Wire lead	1	
6BX-81960-00	Rectifier/ regulator	1	
6BX-82388-00	Plate	1	
6BX-82581-00	Stay	1	
6BX-85510-A0	Stator assy	1	
6BX-85550-A0	Rotor assy	1	
90109-06M80	Bolt	1	
90464-30009	Clamp	1	
90465-08371	Clamp	1	
97595-06516	Bolt	2	
97595-06520	Bolt	3	

* For installation, see the service manual and/or service guide.



2012 YEARS MODELS MANUFACTURE START SERIAL NUMBER

2-STROKE ENGINES						
Model name			Model code	Prefix code	Starting serial number	Remarks
Global	US	Canada				
2CMH			6F8	6F8K	1052939	
3AMH			6L5	6L5K	1026451	
4ACMH			6E0	6E0K	1018541	
5CMH			6E3	6E3K	1066341	
5CSMH			6E4			
6CMH		6MH	6M8	6M8	1014151	France made
E8DMH			677	677K	1014609	
EK8DMH			680	680K	1008723	
8CMH		8MH	6N0	6N0	1036778	France made
9.9FMH		9.9MH	63V	682K	1051516	
E9.9DMH			6B3	6B3K	1010915	
EK9.9DMH			6B7	6B7K	1007749	For IND
EK9.9JMH			6B9	6B9K	1002973	For LKA
15FMHS			65D	65D	1070201	Brazil made, For BRA
15FMH		15MH	63W	684K	1097765	
E15DMH			6B4	6B4K	1141562	
EK15DMH			6B8	6B8K	1004347	
EK15PMH			6C0	6C0K	1004740	For LKA
20DMH		20MH	6L3	6L3K	1010726	
20DMHO						For EU
25BMH			69R	61RK	1048683	
25BW						
25BWC						
25BWH						For JPN
E25BMH			69P			
EK25BMH			69T	62CK	1003808	
25BMHS			69U	69U	1012026	Brazil made, For BRA
25XMH			69X	69XK	1000898	For ANZ
25NMH		25MH	6L2	6L2K	1050326	
25NMHO						For EU
25NWC						For ANZ
EK25CMH			6S6	6S6K	1000698	For LKA
30HMH			69S	61TK	1059754	
30HW						
30HWC						For RUS
30HWH						
E30HMH			60B			
30DEO			6CT	6J8K	1011681	For EU
30DETO						
30DMH						
30DMHO						For EU
E40XMH			66T	66TK	1117441	
E40XW						
E40XWH						
E40XWT						
40XMHS			67T	67T	1106076	Brazil made, For BRA
40XWS						Brazil made, For BRA
EK40GMH			6F5	6F5K	1018484	
E40GMH			6F6	6F6K	1075172	
E40GWH						

2012 YEARS MODELS MANUFACTURE START SERIAL NUMBER

2-STROKE ENGINES							
Model name			Model code	Prefix code	Starting serial number	Remarks	
Global	US	Canada					
40VEO			63C	6H4K	1019856		
40VETO			63D				
40VMHD			63B			For ANZ	
40VMHO						For EU	
40VWHTO			63D			For ANZ	
EK40JMH			6H9	6H9K	1004725		
E40JMH			6J4	6J4K	1032833		
E40JW							
E40JWH							
E48CMH			696	670K	1012381		
50HET			62X	6H5K	1031324	For ANZ	
50HETO		50					
50HMHD			62W			For ANZ	
50HMHO			63G				
50HWHTO			62X			For ANZ	
55DEHD			63S	63S	1001971		
55BED			697	663K	1009041		
55BET							
E55CMH			6A3				
E60JMHD			64S	64S	1000517		
60FED			6CU	6H2K	1012899		
60FEDO						For ZAF	
60FET							
60FETO							
E60HMHD			69D	6K5K	1030897		
E60HWD							
E60HWHD							
E65AMHD			65S	65S	1000747		
70BETO			6H3	6H3K	1015090		
75AED			692	692	1056618		
75AEHD							
75AET							
75CETO			67P			For EU	
E75BMHD			692				
85AED			688	688	1030588		
85AEHD							
85AET							
90AETO		90	6H1	6H1	1046544		
115BET			6E5	6E5	1029763		
115CETO			6N6				
E115AE			61U				
E115AET							
E115AMH							
E115AWH							
130BETO			6N7	6L1	1005229		
140BET			6F3	6F3	1002187		
150AET			6G4	6G4	1022806		
150FETO			64C				
Z150PETO			68H				
Z150QETO	VZ150TR		68J	6J9	1014920	Except JPN	
L150AET			6K0	6K0	1001311		

2012 YEARS MODELS MANUFACTURE START SERIAL NUMBER

2-STROKE ENGINES						
Model name			Model code	Prefix code	Starting serial number	Remarks
Global	US	Canada				
Z175HETO	VZ175TR		68M	62H	1002180	For US
Z175HETO			68M	68M	1000055	For JPN
Z175GETO			68L	6G5	1001225	For ANZ
Z200PETO			60F	60F	1002203	
200GETO			64M	61H	1000552	For ZAF
200AET			60H	6G6	1046837	
200FETO			64E			
Z200NETO	Z200TR		68F			
L200AET			60J	6K1	1009071	
L200FETO			64H			
LZ200NETO	LZ200TR		68G			
225DET			64F	6K7	1000877	
250GETO			6S3	6S3	1002710	
L250GETO			6S4	6S4	1001832	

2012 YEARS MODELS MANUFACTURE START SERIAL NUMBER

4-STROKE ENGINES						
Model name			Model code	Prefix code	Starting serial number	Remarks
Global	US	Canada				
F2AMH			6S7	6S7	1004551	France made, For JPN
F2.5AMH	F2.5MH	F2.5MH	69M	69M	1074189	France made
F4BMH	F4MHA	F4MHA	6BV	6BV	1015288	France made
F5AMH			6BW	6BW	1008246	France made
F6CMH	F6MHA	F6MHA	6BX	6BX	1013809	France made
F8CMH	F8MHA	F8MHA	60R	60R	1031873	France made
F8CWH						France made, For JPN
FT8DE		T8EA	60S	60S	1026537	France made
FT8DEHP		T8PHA				France made, For CAN
FT8DEP		T8PA				France made
FT8DMH		T8MHA				France made
F9.9FE	F9.9EA		6AU	6AUK	1021854	
F9.9FEH		F9.9EHA				For CAN
F9.9FMH	F9.9MHA	F9.9MHA				
F9.9FWH						For JPN
F9.9GEHP	T9.9PHA	T9.9PHA	6AV	6AVK	1012188	For US & CAN
FT9.9GE		T9.9EA				
FT9.9GEP	T9.9PA	T9.9PA				For US & CAN
FT9.9GMH		T9.9MHA				
FT9.9GWH	T9.9EHA	T9.9EHA	6CA	6CAK	1003092	
F9.9HMH						For NOR
F15CE			6AG	6AGK	1024647	For EU
F15CEH	F15EHA	F15EHA				
F15CEHP	F15PHA					
F15CEP						For EU
F15CMH	F15MHA	F15MHA				
F15CWH						For JPN
F20BE	F20EA		6AH	6AHK	1033061	
F20BEH	F20EHA	F20EHA				
F20BEHP	F20PHA	F20PHA				
F20BEP	F20PA	F20PA				
F20BMH	F20MHA	F20MHA				
F20BWH						For JPN
F20CE			6AJ	6AJK	1001424	
F20CMH						
F20BMHS			6BY	6BY	1001326	Brazil made, For BRA
F20DETL			6DN	6DN	1000161	For FIN
FT25FET	T25A	T25A	6BL	6BLK	1001174	
F25DE	F25EA		6BP	6BPK	1011378	
F25DEH	F25EHA					
F25DEHD		F25EHB				
F25DEHT						
F25DET	F25A	F25A				
F25DMH	F25MHA	F25SMHA				
F25DMHD		F25MHB				New
F25DWH						For JPN
F25DWHHD			6BT	6BT	1003899	For JPN, New
F30BEHD		F30EHA				
F30BEHT						
F30BET		F30A				

2012 YEARS MODELS MANUFACTURE START SERIAL NUMBER

4-STROKE ENGINES						
Model name			Model code	Prefix code	Starting serial number	Remarks
Global	US	Canada				
F40DET			6AK	6AK	1009618	For EU
F40FED	F40EA	F40EA	6BG	6BG	1019903	
F40FEHD	F40EHA	F40EHA				
F40FEHT						
F40FET	F40A	F40A				
F40GETL			6CY	6CY	1001012	For ITA
F50DET			60A	60A	1001692	
FT50CED			61S	64J	1011328	
FT50CEHD						
FT50CET						
F50FED			6C1	6C1	1042224	For EU
F50FEHD						
F50FEHT		F50HA				
F50FET	F50TR	F50A				
FT50GET	T50TR	T50A	6C2	6C2	1012253	
F60CEHT		F60HA	6C5	6C5	1049208	
F60CET	F60TR	F60A				
FT60DEHD			6C6	6C6	1018352	For MEX, New
FT60DEHT						For MEX, New
FT60DET	T60TR	T60A				
F60CETL			6DP	6DP	1000101	Brazil made, For BRA
F70AET	F70A	F70A	6CJ	6CJ	1011120	
F75BET	F75TR	F75A	6D6	62P	1013956	
F75CED			6BC	6BC	1002079	
F75CEHD						
F80CED			6CK	6CK	1000026	For EU
F80BET			6D7	6D7	1013666	
F90BET	F90TR	F90A	6D8	61P	1050228	
F95AET			6S0	6S0	1000713	For JPN
F100BEHD			60C	60C	1006414	
F100BET						
F100DET			6D9	6D9	1018900	
F115AET			68V	68V		
F115AET	F115A F115AET1	F115A	68V	68V	1124466	
FL115AET	LF115A FL115AET1	LF115A	68W	68W	1005001	
F150AET	F150TR F150AET1	F150A	63P	63P	1106291	
FL150AET	LF150TR FL150AET1	LF150A	64P	64P	1013389	
F150BET			6BM	6BM	1001267	
FL150BET			6BN	6BN	1000213	
F200CET	F200A	F200A	6AL	6AL	1001697	
FL200CET	LF200A	LF200A	6AM	6AM	1000232	
F200DET	VF200LA	VF200LA	6CD	6CD	1000832	For US & CAN
F200BET	F225A		6S1	6S1	1002876	
FL200BET	LF225A		6S2	6S2	1001074	
F225BET			6AS	6AS	1001490	
FL225BET			6AT	6AT	1000190	

2012 YEARS MODELS MANUFACTURE START SERIAL NUMBER

4-STROKE ENGINES						
Model name			Model code	Prefix code	Starting serial number	Remarks
Global	US	Canada				
F225CET			6BB	6BB	1001502	
F225DET	VF225LA	VF225LA	6CC	6CC	1001056	For US & CAN
F225FET	F225CA	F225CA	6CL	6CL	1001084	
FL225FET	LF225CA	LF225CA	6CM	6CM	1000190	
F225GET			6DM	6DM	1000031	For JPN
F250CET	VF250LA	VF250LA	6CB	6CB	1002436	For US & CAN
F250DET	F250CA F250DET1	F250CA	6CG	6CG	1002208	
FL250DET	LF250CA FL250DET1	LF250CA	6CH	6CH	1000678	
F250FET			6DL	6DL	1000046	For JPN
F250GET			6DX	6DX	1000001	New
FL250GET			6DY	6DY	1000001	New
F250AET	F250TR		6P2	6P2	1035795	
FL250AET	LF250TR		6P3	6P3	1014509	
F275AET			6DK	6DK	1000065	For JPN
F300AET			6BJ	6BJ	NA	Continued from 2011 serial number
FL300AET			6BK	6BK	NA	Continued from 2011 serial number
F300BET	F300CA F300BET1	F300CA	6CE	6CE	1003590	
FL300BET	LF300CA FL300BET1	LF300CA	6CF	6CF	1001446	
F350AET	F350CA F350AET1	F350CA	6AW	6AW	NA	Continued from 2011 serial number
FL350AET	LF350CA FL350AET1	LF350CA	6AX	6AX	NA	Continued from 2011 serial number



Produced in Japan
June 2011 –0.02 ×1NP
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