

IMPORTANCE OF PROPER SET-UP, INSTALLATION, AND PRE-DELIVERY SERVICE

For Your Customer's Safety

Proper set-up, installation and pre-delivery service are essential to the customer's safety and the reliability of the outboard motor. Any error or oversight made during assembly can result in faulty operation, damage to the outboard motor, or injury to others.

WARNING

Improper service or pre-delivery service can create an unsafe condition that can cause your customer or others to be seriously hurt or killed.

Follow the procedures and precautions in this manual and other service materials carefully.

For Your Safety

Some of the most important general safety precautions are given below. However, we cannot warn you of every conceivable hazard that can arise in performing set-up, installation and pre-delivery service. Only you can decide whether or not you should perform a given task.

WARNING

Failure to properly follow instructions and precautions can cause you to be seriously hurt or killed.

Follow the procedures and precautions in this manual carefully.

IMPORTANT SAFETY PRECAUTIONS

- Make sure you have a clear understanding of all basic shop safety practices and that you are wearing appropriate clothing and safety equipment. When performing set-up, installation and pre-delivery service, be especially careful of the following:
 - ❑ Read all of the instructions before you begin, and make sure you have the tools, the replacement or repair parts, and the skills required to perform the tasks safely and completely.
 - ❑ Protect your eyes by using proper safety glasses, goggles or face shields any time you hammer, drill, grind or work around pressurized air or liquids, and springs or other stored-energy components. If there is any doubt, put on eye protection.
 - ❑ Use protective wear when necessary, for example, gloves or safety shoes. Handling hot or sharp parts can cause severe burns or cuts. Before you grab something that looks like it can hurt you, stop and put on gloves.
 - ❑ Protect yourself and others whenever you have engine-powered equipment up in the air. Any time you lift an outboard motor with a hoist, make sure the hoist hook is securely attached to the outboard motor.
- Make sure the engine is off before you begin any servicing procedures, unless the instruction tells you to do otherwise. This will help eliminate several potential hazards:
 - ❑ Carbon monoxide poisoning from engine exhaust. Be sure there is adequate ventilation whenever you run the engine.
 - ❑ Burns from hot parts. Let the engine and exhaust system cool before working in those areas.
 - ❑ Injury from moving parts. If the instruction tells you to run the engine, be sure your hands, fingers and clothing are out of the way.
- Gasoline vapors are explosive. To reduce the possibility of a fire or explosion, be careful when working around gasoline.
 - ❑ Use only a nonflammable solvent, not gasoline, to clean parts.
 - ❑ Never drain or store gasoline in an open container.
 - ❑ Keep all cigarettes, sparks, and flames away from all fuel-related parts.

10. GAUGES



Do not splice or otherwise cut into any wire harness. Always connect power from the battery via an electrical buss.

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Honda DIGITAL GAUGES

SPECIAL NOTICE BEFORE INSTALLATION

- Use the meter harness, side mount remote control box and switch (control) panel assembly that are suitable for the accessories.
- Tighten the bolts and nuts to the correct torque securely.
- Note that missing or loose bolts/nuts can adversely affect the performance of the accessories, possibly leading to serious accident and/or injury.
- Route and connect the wires with care not to interfere with the neighboring parts. Avoiding this can cause wear and damage to the wire insulation.
- Remove all components from the packaging. Check the parts against the Parts Listing shown below.

KIT PARTS LISTING

Honda Digital Speedometer P/N 06373-ZY3-800

Honda Digital Tachometer P/N 06375-ZY3-800

Ref.	Qty.	Description
1	1	Tachometer or Speedometer
2	1	Mounting Bracket
3	1	Gasket
4	2	Spring washer
5	2	Nut
6	1	Sub Harness (for speedometer only)
7	3	Tie band (for speedometer only)

Order the meter harness kit (P/N 06326-ZY3-800 or P/N 32540-ZY3-800AH) for the digital tachometer or the digital speedometer.

This meter harness kit is designed to connect to the side mount remote control box harness or to the switch (control) panel assembly harness. Connectors are available for this meter harness kit to connect to the digital tachometer, digital speedometer and to the light switch.

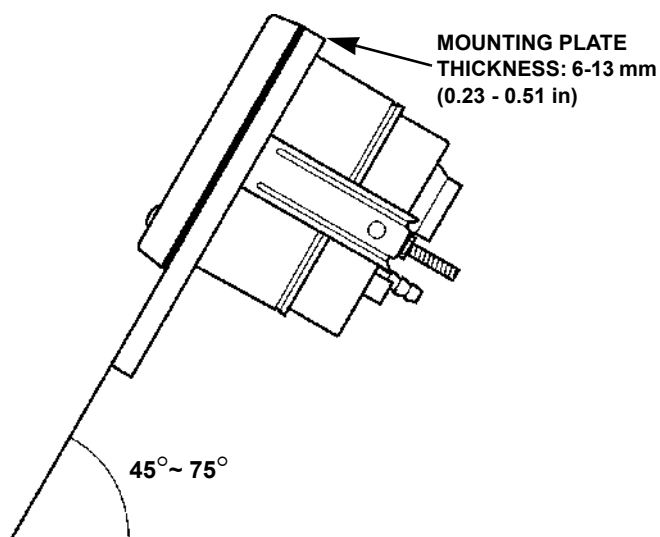
Order the speedometer tube dedicated to this speedometer.

SERVICE PRECAUTIONS

Fuel Level Gauge

There are three types of fuel level senders that can be connected to the speedometer. For fuel level gauge installation procedures, refer to the boat manufacturer's instruction manual or the fuel level gauge operation manual.

10. GAUGES



Meter Position

Meters should be installed on a dashboard panel of 6 -13 mm (0.23 -0.51 in) thickness. If any other location is selected, it will be necessary to use a mounting plate with a thickness of 6 -13 mm (0.23 -0.51 in).

- Tighten the mounting nuts evenly on both sides.
- Meter installation angle should be within 45° to 75°.

- Installation hole diameter:

Tachometer 85 -85.5 mm ($3^{11/32}$ - $3^{3/8}$ in)

Speedometer 85 -85.5 mm ($3^{11/32}$ - $3^{3/8}$ in)

Location

Digital meters are designed so that they are not affected by magnetic interference, but they can malfunction when they receive an extremely strong electrical wave. Check for proper operation whenever mounting radio or GPS equipment on the boat.

Observe the following instructions to prevent erroneous operation.

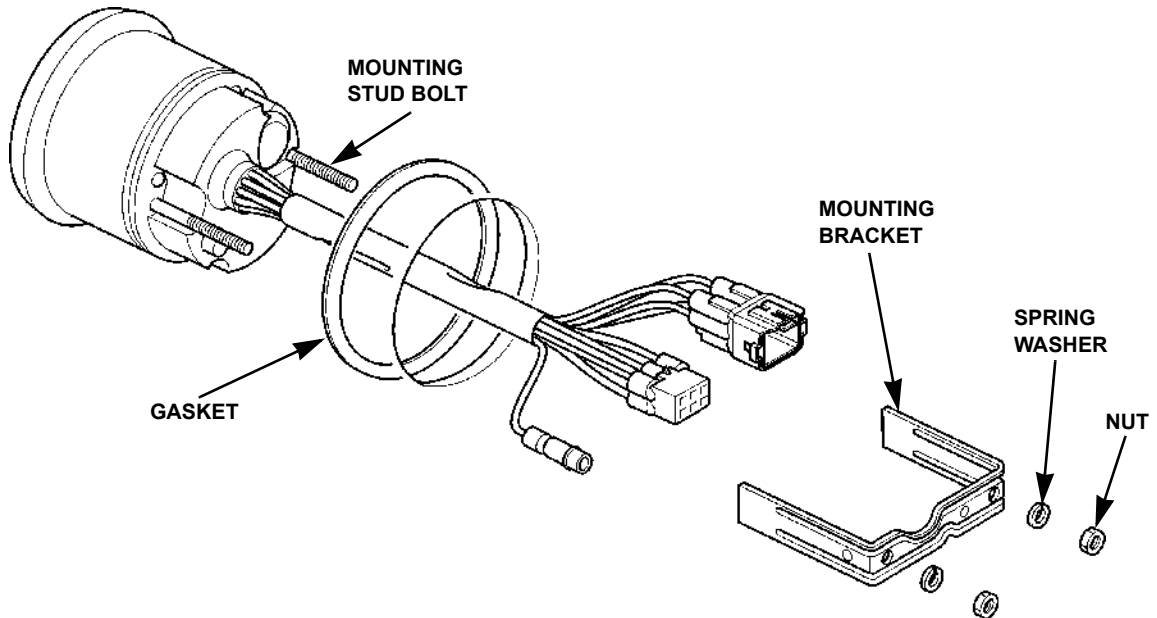
- Install antenna and radio equipment at least 50 cm (19.7 in) or more away from digital meters.
- When the boat is equipped with radio or GPS, check the meters for proper operation after installation.
- Avoid running radio antenna cable along digital meter wire leads.
- Position the meter where the operator can read the meter clearly.
- Ensure the back of the mounting surface has enough depth to install the meter.

GAUGE INSTALLATION

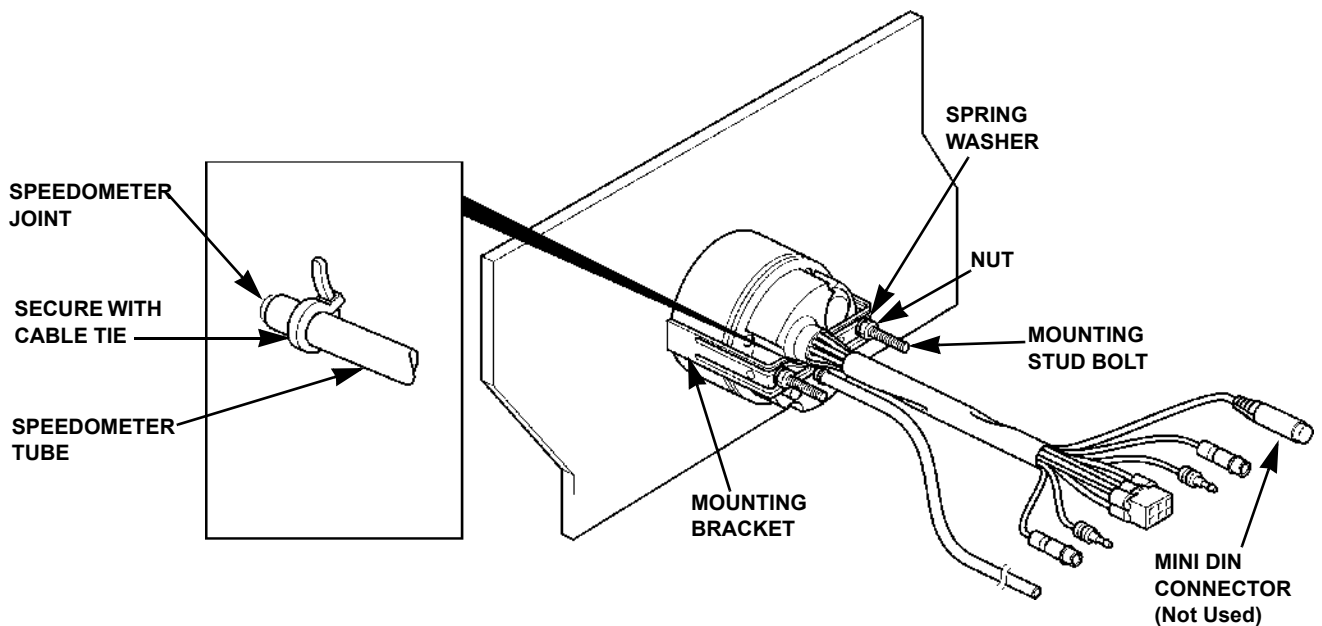
1. Disconnect the negative (-) battery terminal.
2. Check the digital meter and panel for proper fitting and place the mounting bracket over the mounting stud bolts.
3. Tighten the spring washers and nuts against the respective mounting stud bolts as shown. Do not tighten the nuts excessively as it can damage the meter housing.

TORQUE: 0.6 -0.7 N•m (0.06 -0.07 kgf-m, 0.4 -0.5 lb-ft)

TACHOMETER



SPEEDOMETER



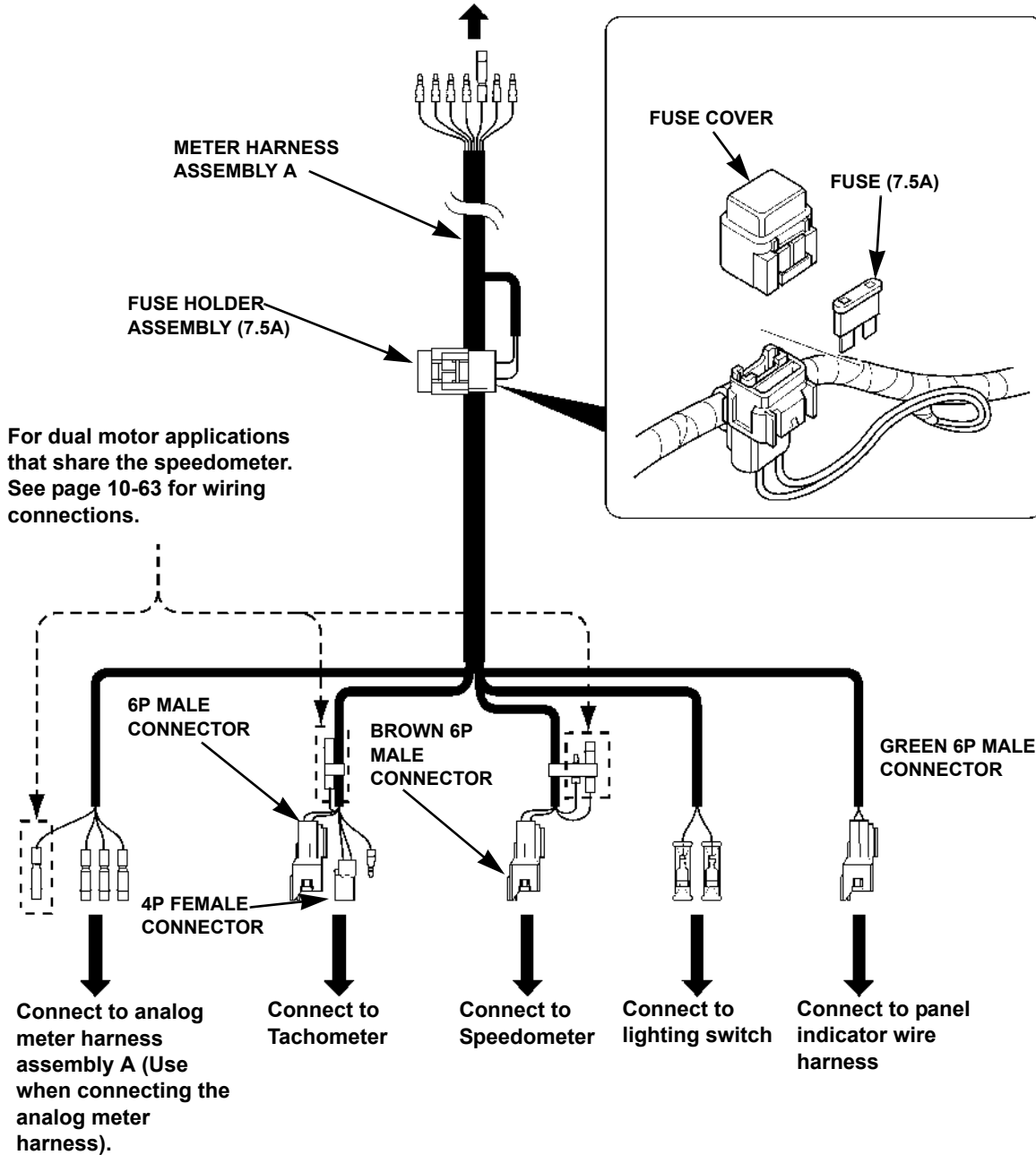
4. Install the speedometer tube (for the speedometer only).
5. Connect each terminal properly by referring to [page 10-63](#) or [10-64](#) (wiring diagram).
6. Secure wiring harness with a cable tie to restrict movement.
7. Reconnect the negative (-) battery terminal securely.

10. GAUGES

ELECTRICAL CONNECTIONS

Meter Harness Assembly A P/N 32540-ZY3-800AH

Connect the terminals of:
Side mount remote control box (Optional Part) or
Switch (control) panel assembly (Optional Part)

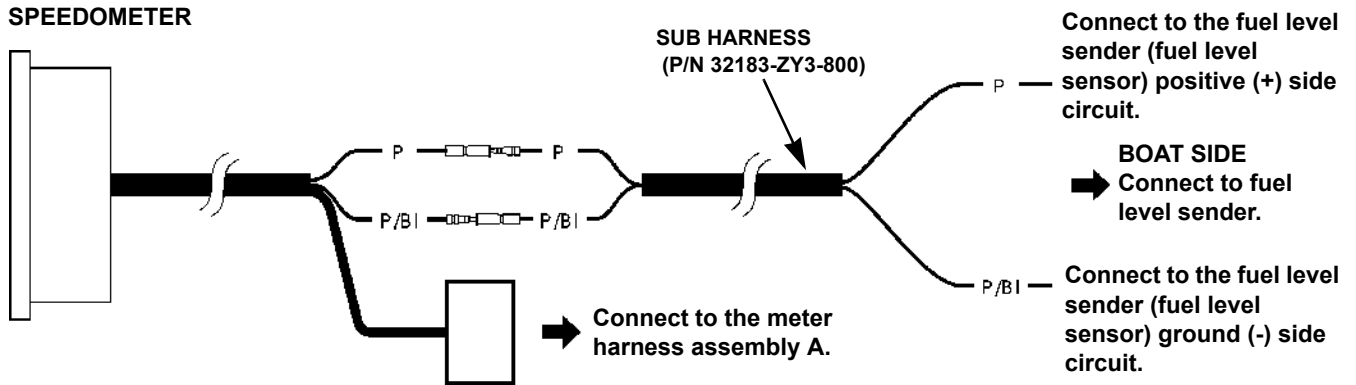


Check for blown fuses and replace if necessary. Note that the meter does not operate with a blown fuse.

Specified fuse capacity: 7.5A
Use only a fuse with this specified capacity.

Fuel Level Gauge Harness

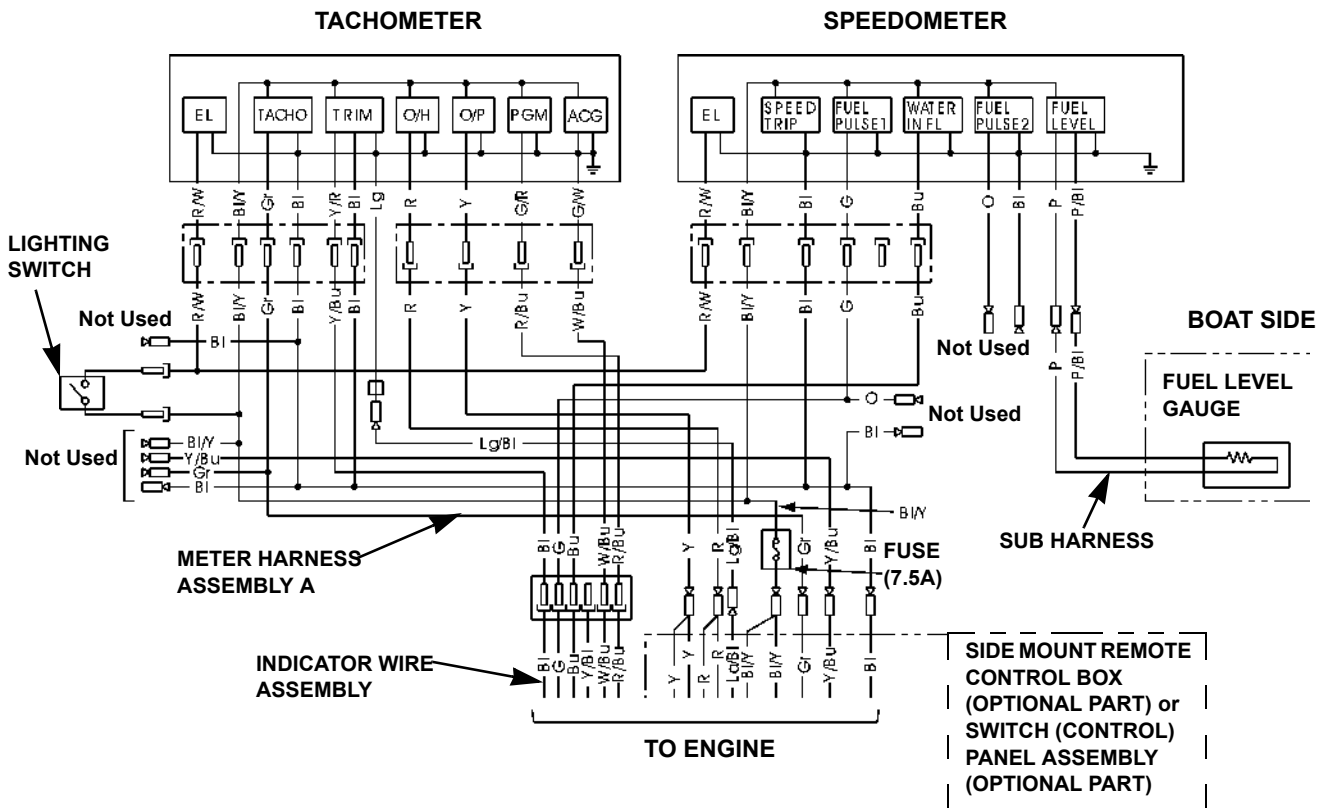
Bl	Black	Br	Brown
Y	Yellow	O	Orange
Bu	Blue	Lb	Light Blue
G	Green	Lg	Light Green
R	Red	P	Pink
W	White	Gr	Gray



NOTICE

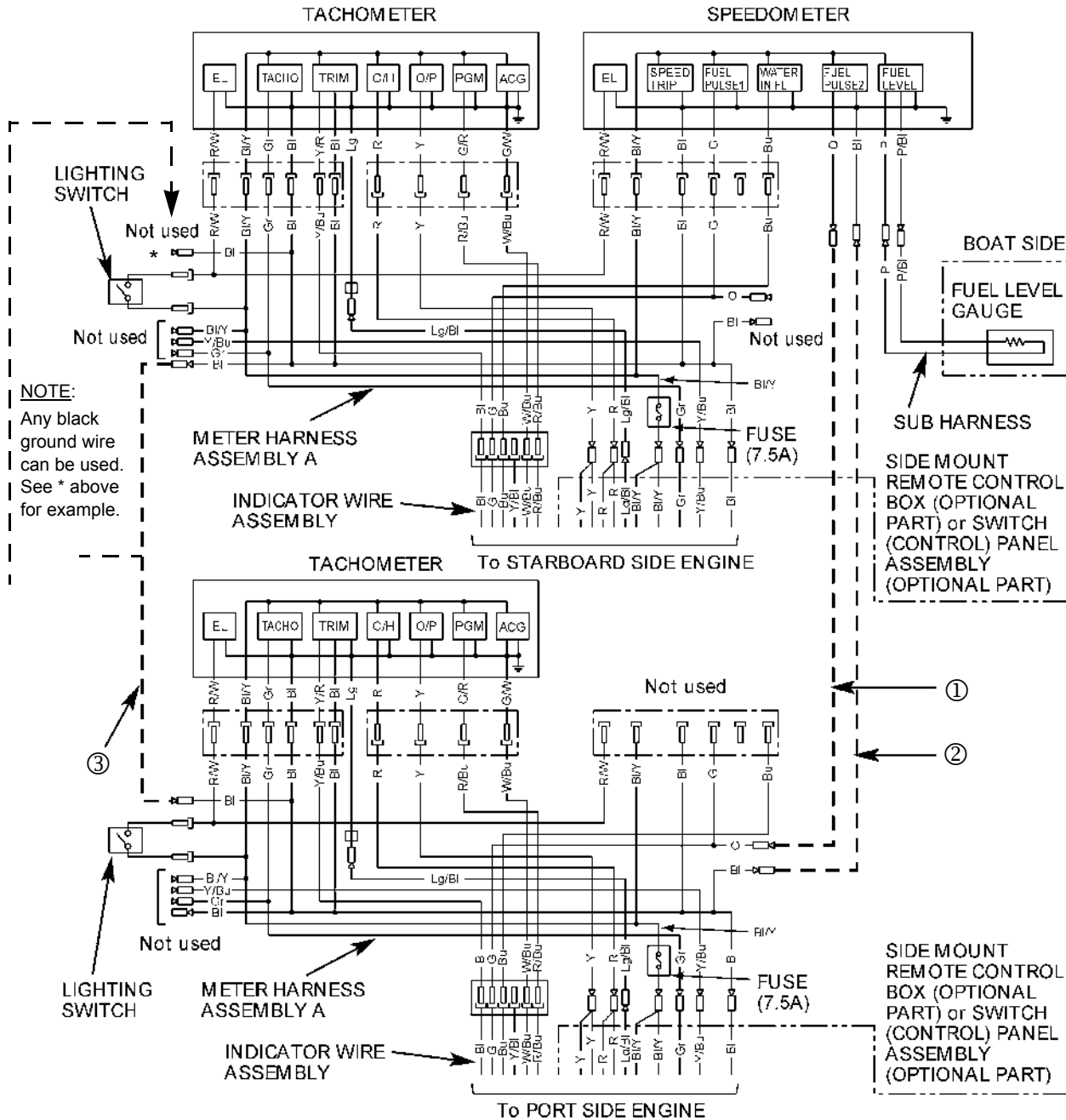
Waterproof the sub harness connection to the fuel level sender to prevent water from entering the harness wire. Neglect of waterproofing will cause damage to the digital speedometer.

Single Motor Type Wiring Diagram



10. GAUGES

Dual Motor Type Wiring Diagram



Connect the orange wire ① and the black wire ② of the port side meter harness assembly A to the connector terminals of the speedometer's orange and black wires respectively. Connect black wire ③ of the meter harness assembly A to the corresponding black terminal (See the broken lines in the above wiring diagram).

NOTICE

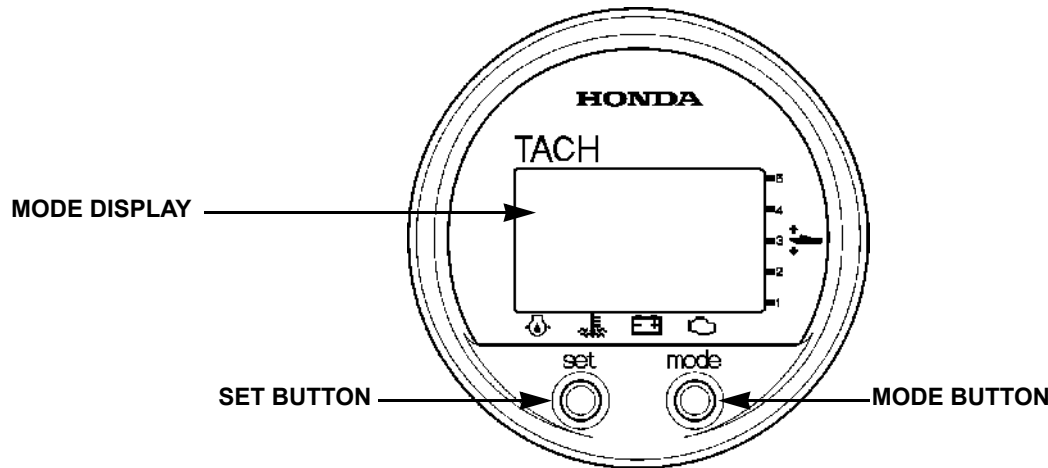
Do not connect the black wires ② and ③ of the speedometer and digital meter harness assembly A when the batteries are connected to each of the port side and the starboard side engines and the ground terminals of the two batteries are connected to each other with the cable. Neglect of the instructions can cause burned black wires.

TACHOMETER SETUP

This tachometer is pre-set for the U.S.A. market with 4 pole setting and “LO” oil pressure indicator. Follow the procedures below if you encounter a problem during installation. Ensure the harnesses and wires are connected properly, then perform the Tachometer Initial Setting.

Initial Setting Function

Initial Tachometer Setting is performed to set the number of the tachometer pulses (per engine revolution) that is read from the engine, and to set the activation mode of the oil pressure indicator.



How to enter/exit Initial Setting Mode:

To enter the Initial Setting Mode, turn the engine (combination) switch ON while pushing both the set button and the mode button simultaneously. To exit the Initial Setting Mode, turn the engine (combination) switch OFF.

Initial Setting Procedure:

1. Begin the Initial Tachometer Setting by turning the engine (combination) switch ON while pressing both the Set button and the Mode button simultaneously.
2. Number of the currently set Tachometer Pulses is shown on the display.
3. Press the Set button to change the Pulse Setting according to the table below (the number changes in the cycle of 2 → 3 → 6 → 2).
4. Press the Mode button. The chosen Pulse value is displayed for two seconds.
5. The current setting of the Oil Pressure Indicator is then displayed.
6. Press the Set button to select Lo (selection changes in the cycle of Lo → Hi → Lo).
7. Press the Mode button. The set value displays for two seconds.
8. Terminate the Initial Tachometer Setting by turning the engine (combination) switch OFF.

Tachometer Pulse Setting

Set Item	Indication	Factory Setting	BF135A/150A BF200A/225A
Tachometer Pulse	2	X	X

10. GAUGES

SPEEDOMETER SETUP

This speedometer is pre-set for the U.S.A. market. Only "Number of Engines" needs to be changed for dual engine.

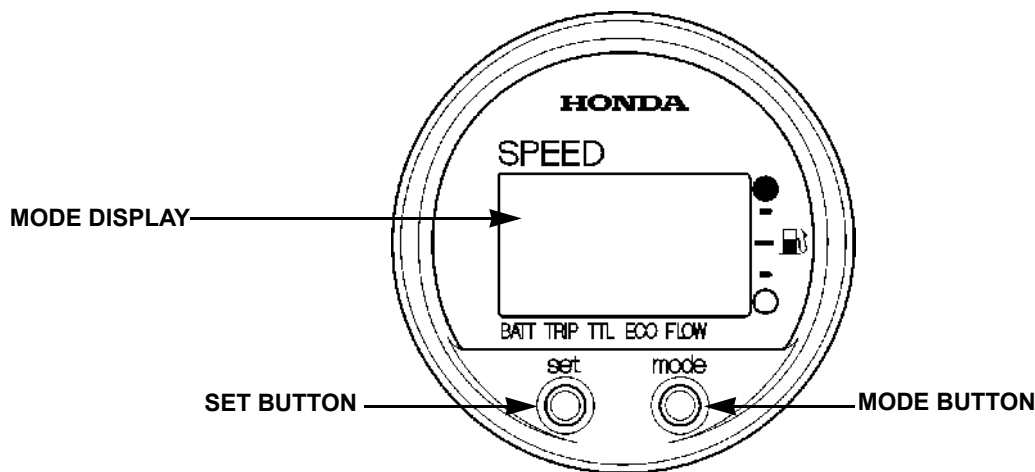
Ensure the harnesses and wires are connected properly, then perform the Speedometer Initial Setting.

Mode Display:

Press the Mode button to select the desired mode. The mode changes in the cycle of BATT → TTL → ECO → FLOW → BATT.

Initial Setting Function:

The Speedometer Initial Setting is performed to program the setting of the speedometer's speed unit, fuel level gauge resistance, fuel integration error compensation value and the number of engines rigged.



How to Enter/Terminate Initial Setting Mode:

To enter the Initial Setting Mode, turn the engine (combination) switch ON while pressing both the Set button and the Mode button simultaneously.

After making all the necessary settings, turn the engine (combination) switch OFF to terminate the Initial Setting Mode.

Initial Setting Procedure:

1. Initialize the Function Change Mode by turning the engine (combination) switch ON while pressing both the Set button and the Mode button simultaneously.
2. The currently set Speed Unit System flashes.
3. Press the Set button to select the desired Speed Unit System (changes in the cycle of km/h → knots → mph → km/h).
4. Press the Mode button. The set speed unit system displays for two seconds. Unit Systems of the Trip Meter, Total Fuel Flow Meter, Fuel Meter and the Fuel Flow Meter are set automatically by determining the Speed Unit System setting. See the following table:

Speed Unit	TRIP Unit	TTL Unit	ECO Unit	FLOW Unit
mph	mile	g	mpg	gph
km/h	km	L	km/h	L/h
knots	nautical mile	g	mpg	gph

5. The number representing the currently set Fuel Level Gauge Resistance flashes:
1= 5 -105 Ω , 2= 33 -240 Ω , 3= 180 -0 Ω , 4= Fuel level gauge not used (no indication).
Refer to Speedometer Factory Settings Table on page 10-67 before making changes.
6. Press the Set button to change the setting (changes in the cycle of 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 1).
7. Press the Mode button. The selected number displays for two seconds.
8. The currently set fuel integration error compensation value flashes:
-4= -4%, -3= -3%, -2= -2%, -1= -1%, 0= No compensation, 1= +1%, 2= +2%, 3= +3%
9. Press the Set button to change the setting (changes in the cycle of -4 \rightarrow -3 \rightarrow -2 \rightarrow -1 \rightarrow 0 \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow -4). Refer to Speedometer Factory Settings Table (below) before making changes.
10. Press the Mode button. The selected number displays for two seconds.
11. The currently set Number of Engines flashes:
1= one engine, 2= two engines
12. Press the Set button to select (changes in the cycle of 1 \rightarrow 2 \rightarrow 1).
13. Press the Mode button. The selected number displays for two seconds.

Speedometer Factory Settings

Set Item	Indication	Specification	Factory Setting
Speed Unit	km/h	km/h	
	knot	knot	
	mph	mph	X
Fuel Level Gauge Resistance	1	5 - 105 Ω (Europe Standard)	
	2	3 - 240 Ω (U.S. Standard)	X
	3	180-0 Ω	
	4	Fuel level gauge not used (No indication)	
Fuel Integration Error Compensation	-4	-4%	
	-3	-3%	
	-2	-2%	
	-1	-1%	
	0	No Compensation	X
	1	1%	
	2	2%	
	3	3%	
Number Of Engines	1	1 (When speedometer is provided for each respective engine)	X
	2	2 (When boat is mounted with dual motors that share one speedometer)	



When the boat is mounted with dual motors that share one speedometer, set the number of engines "2" during the speedometer initial setting or it will lead to incorrect total/ individual indication.

10. GAUGES
