IMPORTANT INFORMATION

Section 1D - Outboard Motor Installation

1 D

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Electric Fuel Pump

If an electric fuel pump is used, the fuel pressure must not exceed 4 psi at the engine. If necessary, install a pressure regulator to regulate the pressure.

Boat Horsepower Capacity

U.S. COAST GUARD CAPACITY	
MAXIMUM HORSEPOWER	XXX
MAXIMUM PERSON CAPACITY (POUNDS)	XXX
MAXIMUM WEIGHT CAPACITY	XXX

Do not overpower or overload the boat. Most boats will carry a required capacity plate indicating the maximum acceptable power and load as determined by the manufacturer following certain federal guidelines. If in doubt, contact your dealer or the boat manufacturer.

⚠ WARNING

Using an outboard that exceeds the maximum horsepower limit of a boat can:
1. Cause loss of boat control
2. Place too much weight at the transom, altering the designed flotation characteristics of the boat or,
3. Cause the boat to break apart, particularly around the transom area.
Overpowering a boat can result in serious injury, death, or boat damage.

Start in Gear Protection

The remote control connected to the outboard must be equipped with a start-in-gear protection device. This prevents the engine from starting in gear.

⚠ WARNING

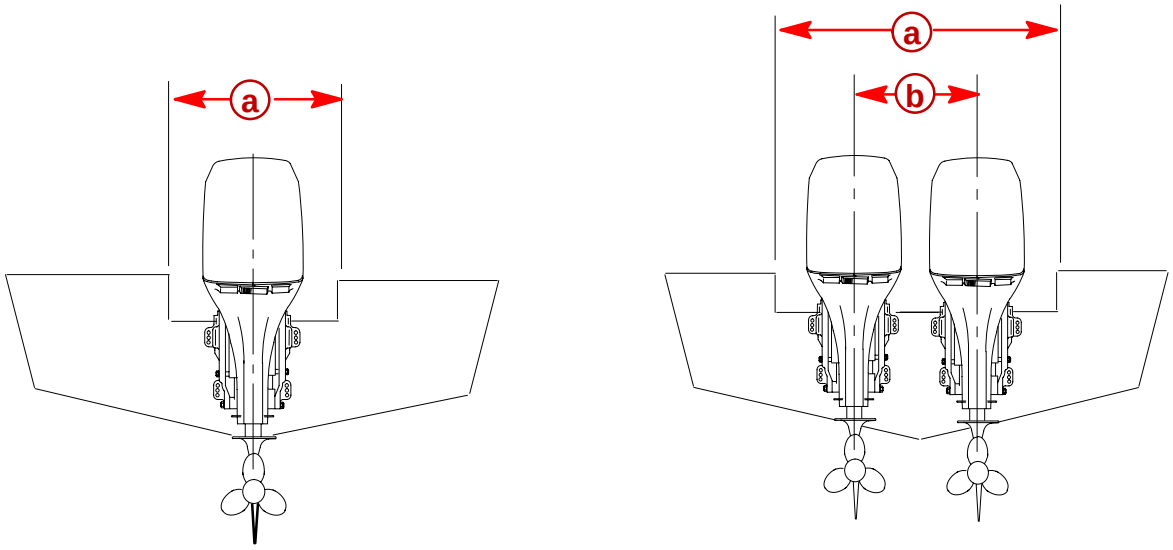
Avoid serious injury or death from a sudden unexpected acceleration when starting your engine. The design of this outboard requires that the remote control used with it must have a built in start-in-gear protection device.

Selecting Accessories For The Outboard

Genuine Quicksilver Parts and Accessories have been specifically designed and tested for this outboard.

Some accessories not manufactured or sold by Quicksilver are not designed to be safely used with this outboard or outboard operating system. Acquire and read the Installation, Operation, and Maintenance manuals for all selected accessories.

Installation Specifications

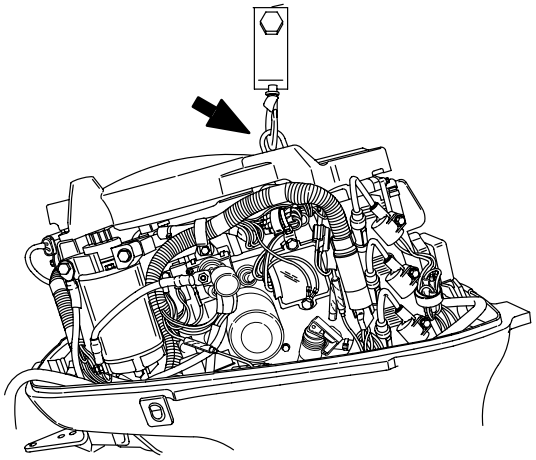


Transom Opening “A” (Minimum)	
Single Engine (Remote)	19 in. (483 mm)
Single Engine (Tiller)	30 in. (762 mm)
Dual Engines	40 in. (1016 mm)

Engine Center Line For Dual Engines “B” (Minimum)
26 in. (660mm)

Lifting Outboard

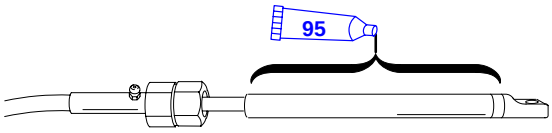
Use lifting eye on engine.



Steering Cable

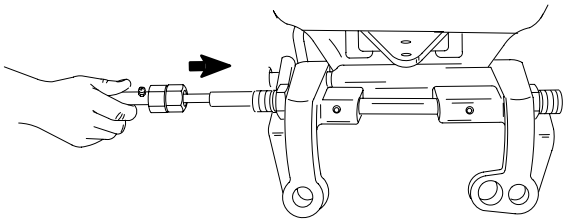
STARBOARD SIDE ROUTED CABLE

1. Lubricate the entire cable end.

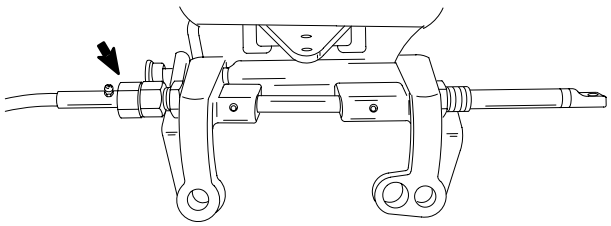


95 2-4-C w/Teflon (92-850736A1)

2. Insert steering cable into tilt tube.

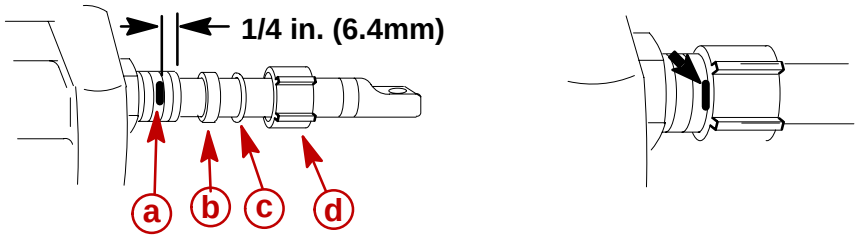


3. Torque nut to 35 lb. ft. (47.5 N·m).



Steering Cable Seal

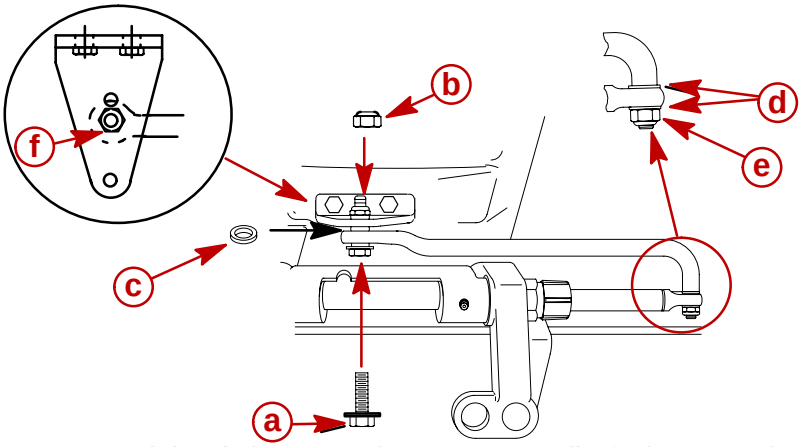
1. Mark tilt tube 1/4 in. (6.4 mm) from end. Install seal components.
2. Thread cap to the mark.



a - 1/4 in. (6.4 mm) Mark
b - Plastic Spacer
c - O-Ring Seal
d - Cap

Steering Link Rod

1. Install steering link rod per illustration.



a - Special Bolt (10-90041) Torque to 20 lb. ft. (27.1 N·m)
b - Nylon Insert Locknut (11-34863) Torque to 20 lb. ft. (27.1 N·m)
c - Spacer (12-71970)
d - Flat Washer (2)
e - Nylon Insert Locknut (11-34863) Tighten Locknut Until it Seats, Then Back Nut Off 1/4 Turn
f - Use Middle Hole – Steer Outboard to the Side to Gain Hole Access

IMPORTANT: The steering link rod that connects the steering cable to the engine must be fastened using special bolt (“a” - Part Number 10-90041) and self locking nuts (“b” & “e” - Part Number 11-34863). These locknuts must never be replaced with common nuts (non locking) as they will work loose and vibrate off, freeing the link rod to disengage.

⚠ WARNING

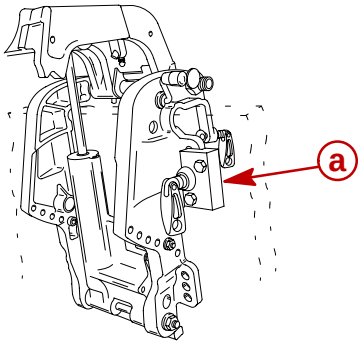
Disengagement of a steering link rod can result in the boat taking a full, sudden, sharp turn. This potentially violent action can cause occupants to be thrown overboard exposing them to serious injury or death.

Installing Outboard – Thumb Screw Models

⚠ WARNING

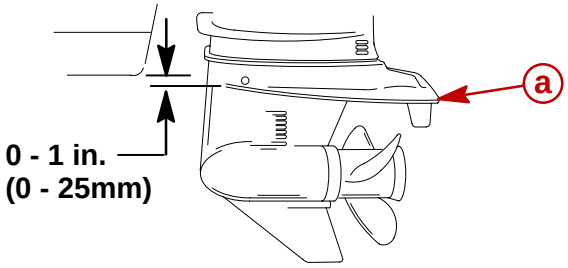
Outboard must be fastened to boat transom one of two ways: 1. permanently fastened to transom with thumb screws, and mounting bolts (provided), or 2. secured to the transom using the optional outboard mounting kit (shown below). Should the outboard strike an underwater object or be steered into a sharp turn, failure to fasten outboard correctly to the boat transom with mounting bolts or optional mounting kit could result in outboard ejecting suddenly off boat transom causing serious injury, death, boat damage, or loss of outboard.

IMPORTANT: Optional outboard mounting kits shown, must be used if outboard will not be permanently fastened to the transom with mounting bolts**.**



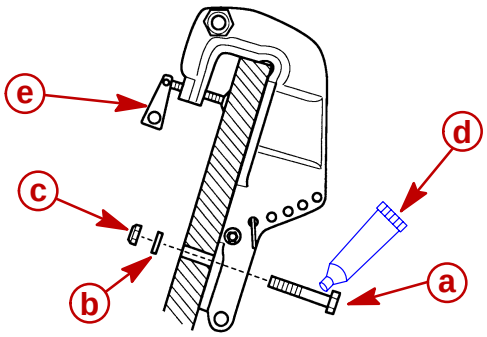
a - Outboard Mounting Kit Part No. 812432A4

1. Center outboard on the transom. Install the outboard so that the anti-ventilation plate is in line or within 1 in. (25 mm) below the bottom of the boat.



a - Anti-Ventilation Plate

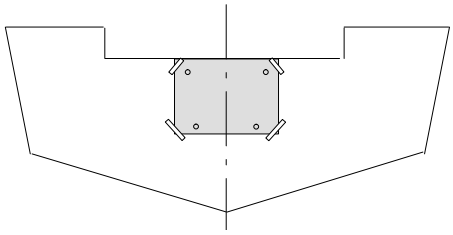
2. Fasten outboard with provided mounting hardware shown.



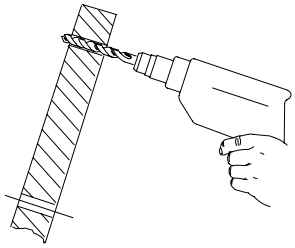
a - 1/2 in. Diameter Bolts (2)
b - Flat Washers
c - Locknuts
d - Marine Sealer - Apply to Shanks of Bolts, Not Threads
e - Thumb Screws - Tighten Securely

Installing Outboard – Non Thumb Screw Models

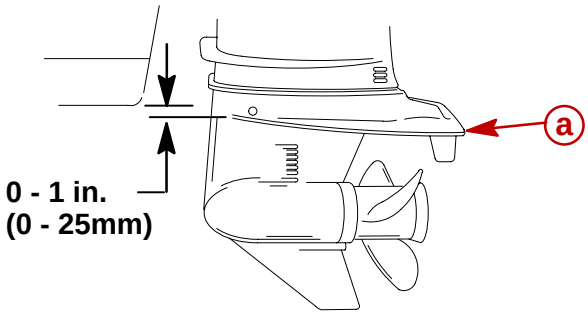
1. Attach (tape) engine mounting template to boat transom.



2. Mark and drill four 17/32 in. (13.5mm) mounting holes.

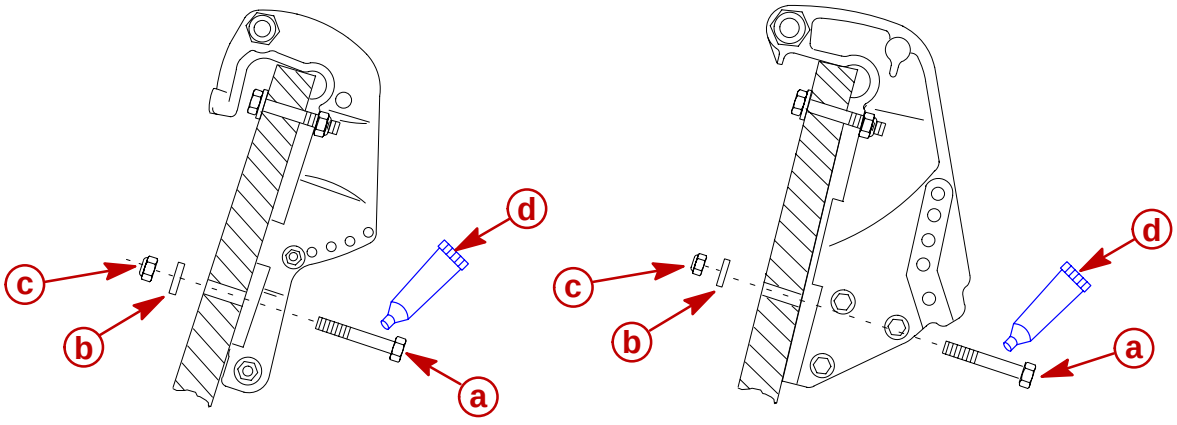


3. Install the outboard so that the anti-ventilation plate is in-line or within 1 in. (25 mm) below the bottom of the boat.



a - Anti-Ventilation Plate

4. Fasten outboard with provided mounting hardware shown.

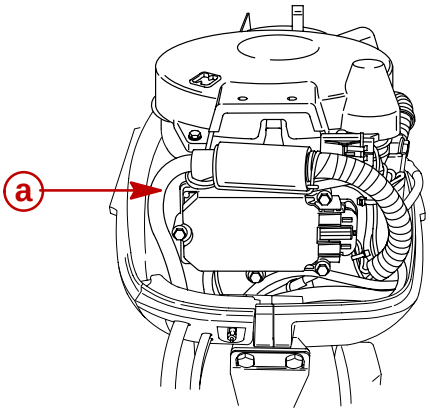


a - 1/2 in. Diameter Bolts (2)
b - Flat Washers
c - Locknuts
d - Marine Sealer - Apply to Shanks of Bolts, Not Threads

Wiring Harness

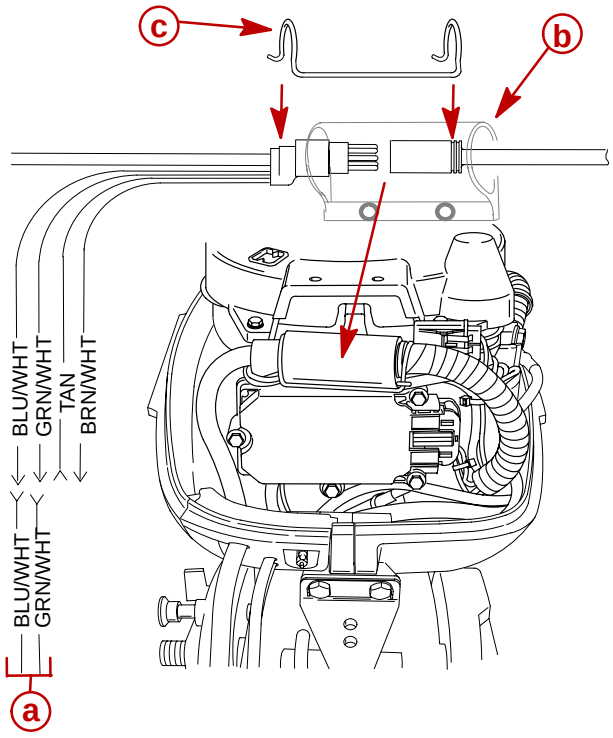
IMPORTANT: Warning Horn Requirement – The remote control or key switch assembly must be wired with a warning horn. This warning horn is used with the engine warning system.

1. Route wiring harness into bottom cowl.



a - Wiring Harness

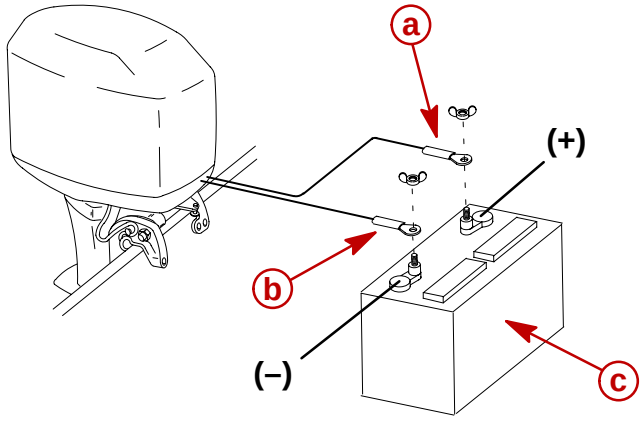
2. Connect wiring. Push the wiring harness connectors together inside the rubber sleeve. Push the retainer over the exposed ends of the connectors. This will hold the connectors together.



a - Power Trim Connections
b - Rubber Sleeve – Place Harness Connectors Inside
c - Retainer – Push Over Connector Ends

Battery Cable Connections

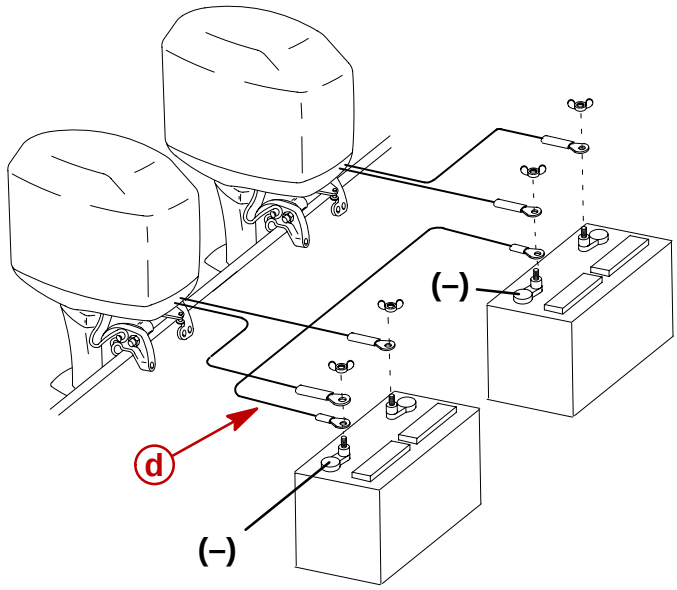
SINGLE OUTBOARD



a - Red Sleeve (Positive)
b - Black Sleeve (Negative)
c - Starting Battery

DUAL OUTBOARDS

Connect a common ground cable (wire size same as engine battery cables) between negative (–) terminals on starting batteries.



d - Ground Cable (Same Wire Size As Engine Battery Cable) – Connect Between Negative (–) Terminals

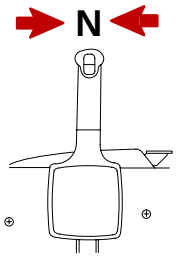
Shift and Throttle Cable Installation

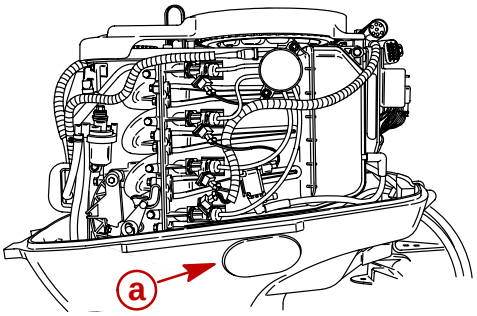
Install cables into the remote control following the instructions provided with the remote control.

NOTE: *Install the shift cable to the engine first. The shift cable is the first cable to move when the remote control handle is moved out of neutral.*

Shift Cable Installation

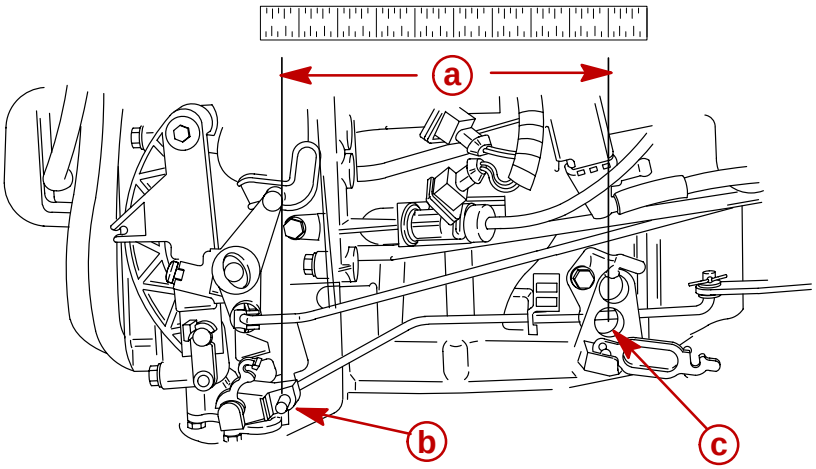
1. Position remote control into neutral.
2. Remove access cover from side of bottom cowl.





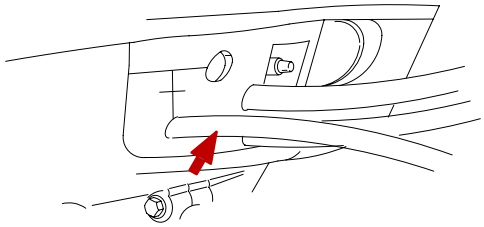
a - Access Cover

3. Shift outboard into neutral.
4. Measure the distance (a) between pin and center of lower hole.

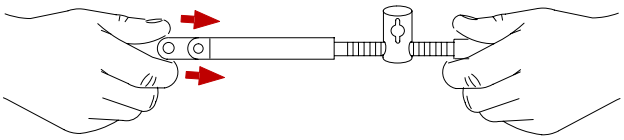


a - Distance Between Pin And Center of Lower Hole
b - Pin
c - Lower Hole

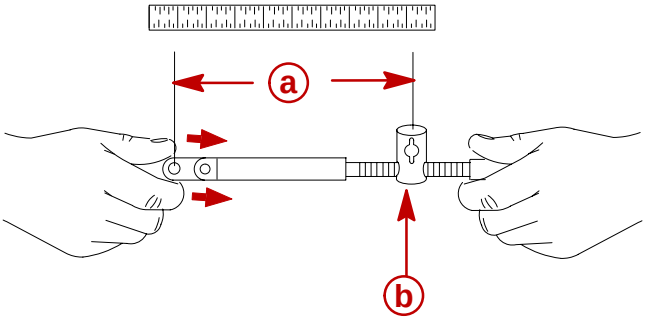
5. Fit shift cable through rubber grommet.



6. Push in on the cable end until resistance is felt.

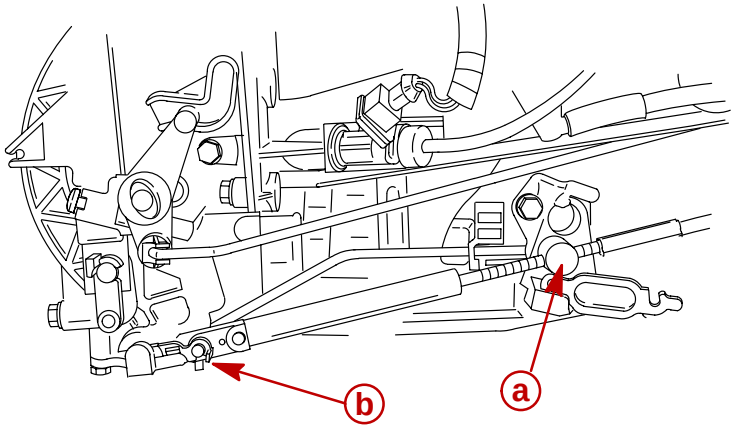


7. While pushing in on the cable end, adjust the cable barrel (b) to attain the measured distance (a) taken in Step 3.



a - Adjust Cable Barrel To Attain The Measured Distance Taken In Step 3
b - Cable Barrel

8. Place cable barrel into the barrel holder. Fasten cable with retainer.

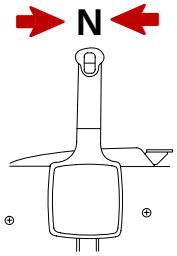


a - Place Barrel Into Barrel Holder
b - Retainer

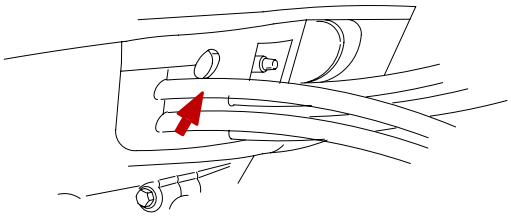
9. Check shift cable adjustments as follows:
   a. Shift remote control into forward. The propeller shaft should be locked in gear. If not, adjust the barrel closer to the cable end.
   b. Shift remote control into neutral. The propeller shaft should turn freely without drag. If not, adjust the barrel away from the cable end. Repeat steps a and b.
   c. Shift remote control into reverse while turning propeller. The propeller shaft should be locked in gear. If not, adjust the barrel away from the cable end. Repeat steps a thru c.
   d. Shift remote control back to neutral. The propeller shaft should turn freely without drag. If not, adjust the barrel closer to the cable end. Repeat steps a thru d.

Throttle Cable Installation

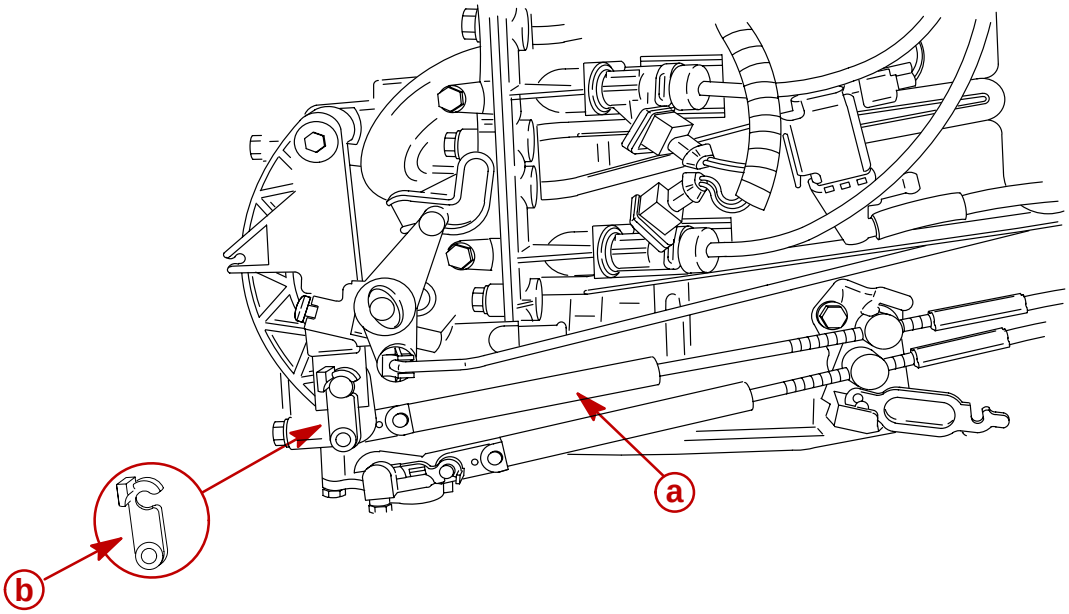
1. Position remote control into neutral.



2. Fit throttle cable through rubber grommet.

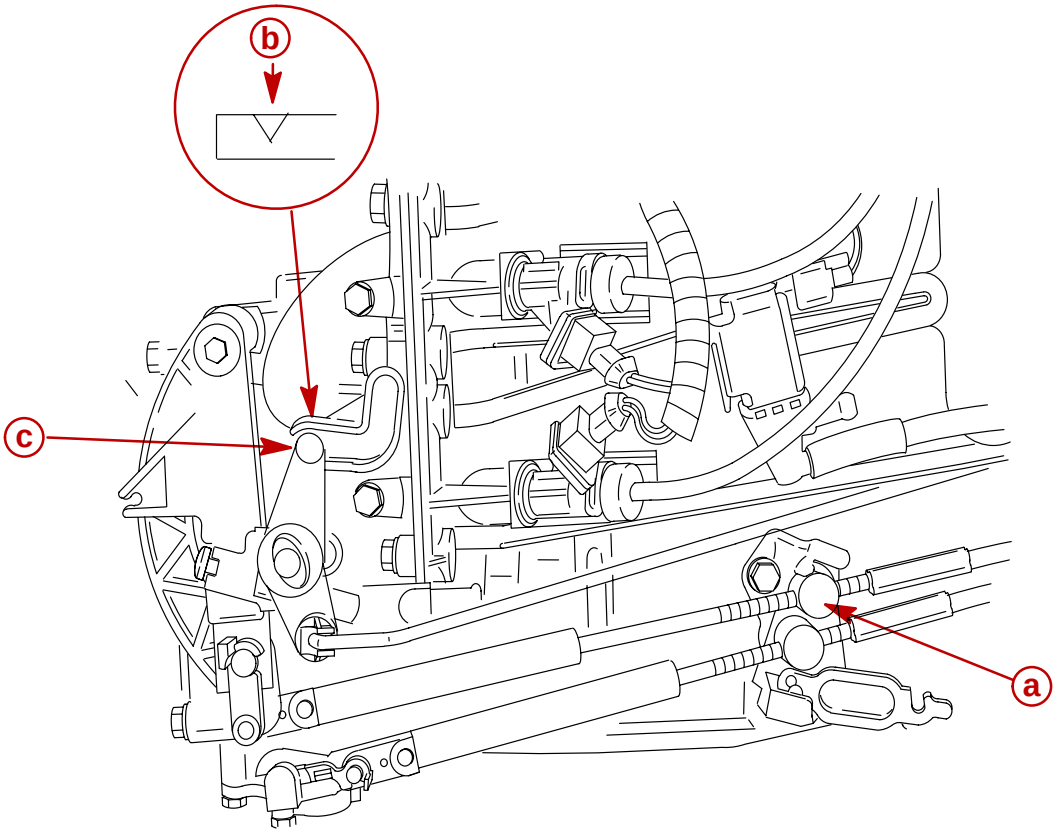


3. Install throttle cable with retainer pin. Lock retainer pin in place.
4. Place throttle cable onto the throttle lever pin. Lock in place with retainer.



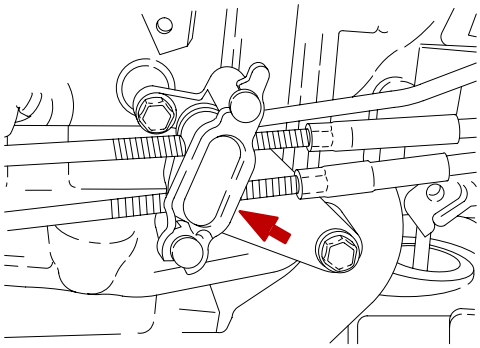
a - Throttle Cable
b - Retainer

5. Adjust cable barrel until the center of the roller lines up with the alignment mark on the cam.

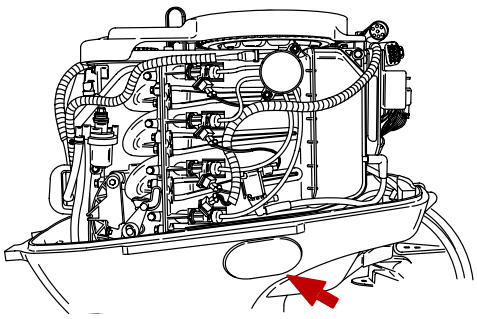


a - Cable Barrel
b - Alignment Mark
c - Roller

6. Fasten control cables with the cable latch.

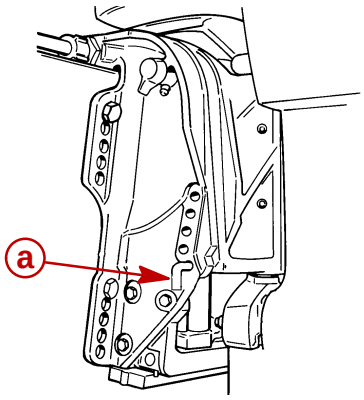


7. Install the access cover.



Trim-In Stop Adjustment – Power Trim Models

If an adjustment is required, purchase a stainless steel tilt pin (P/N 17-49930A1) and insert it through whatever pin hole is desired. The non-stainless steel shipping bolt should not be used in this application other than on a temporary basis.



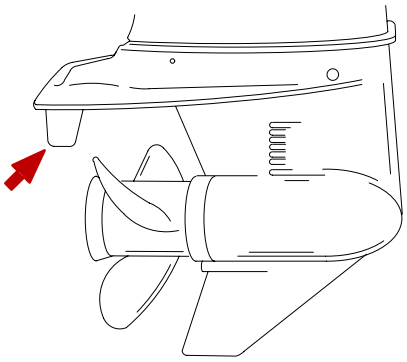
a - Tilt Pin

Trim Tab Adjustment

The trim tab can be adjusted within limits to help compensate for steering torque.

Adjust trim tab as follows:

1. If boat tends to pull to the right, move the rear edge of the trim tab to the right.
2. If boat tends to pull to the left, move the rear edge of the trim tab to the left.

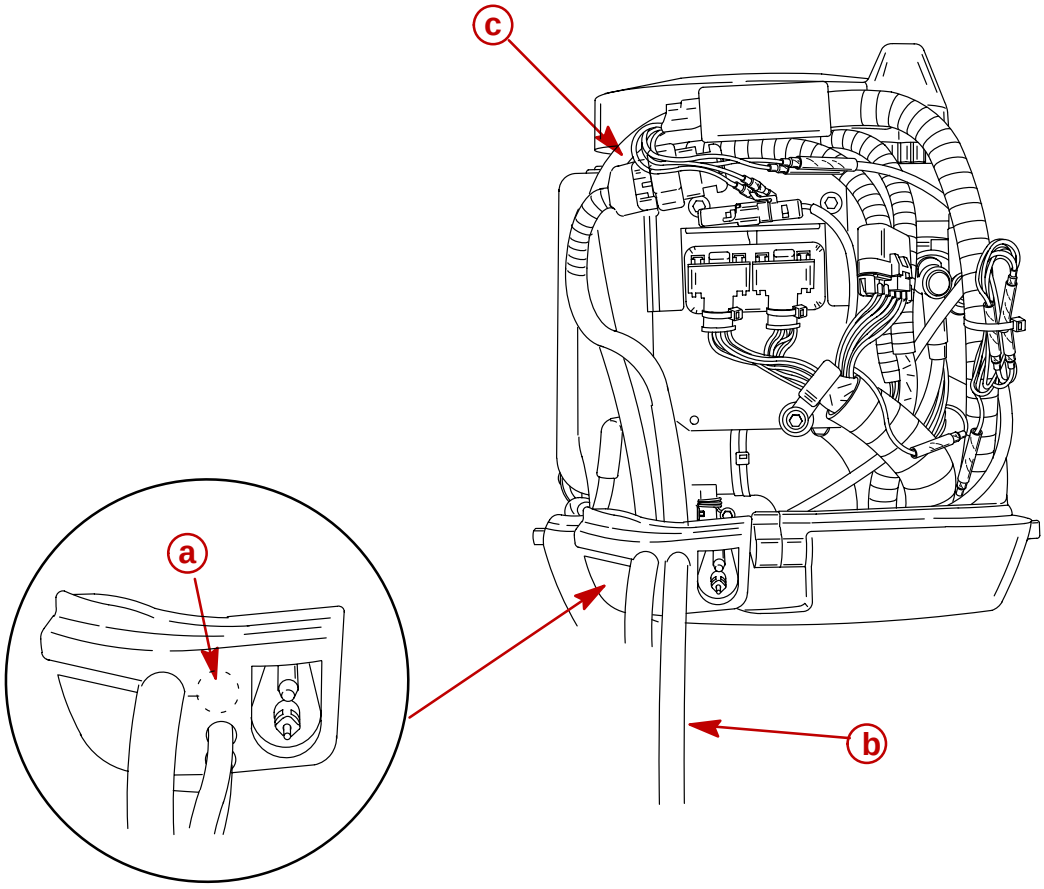


NOTE: *Trim tab adjustment will have little effect reducing steering torque if the anti-ventilation plate is raised 2 inches (50mm) or more above the boat bottom.*

Wiring for SmartCraft Gauges – EFI Models

SmartCraft Wiring Harness Connection to the Engine

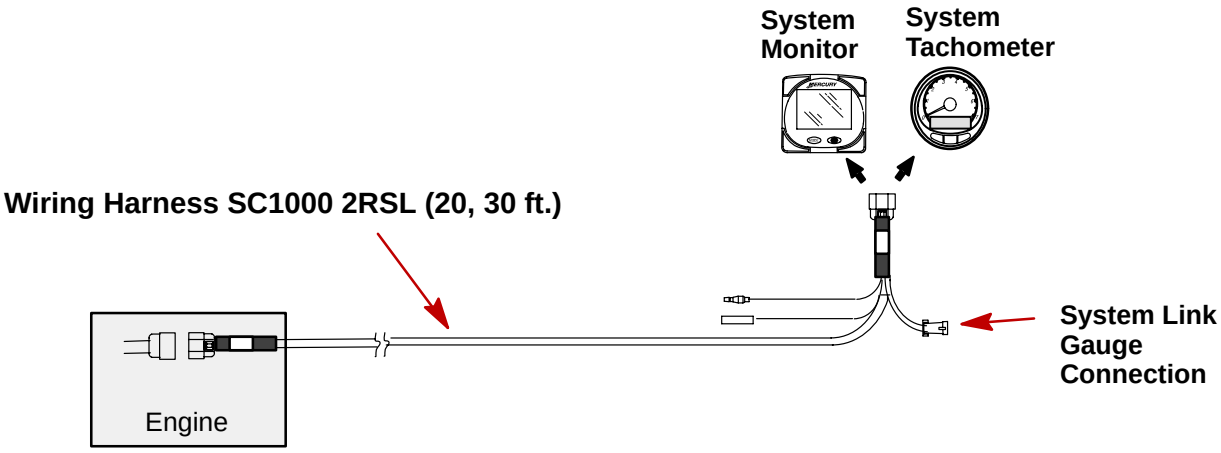
1. Cutout the harness opening in the front rubber grommet.
2. Route the SmartCraft wiring harness into the bottom cowl and connect as shown.



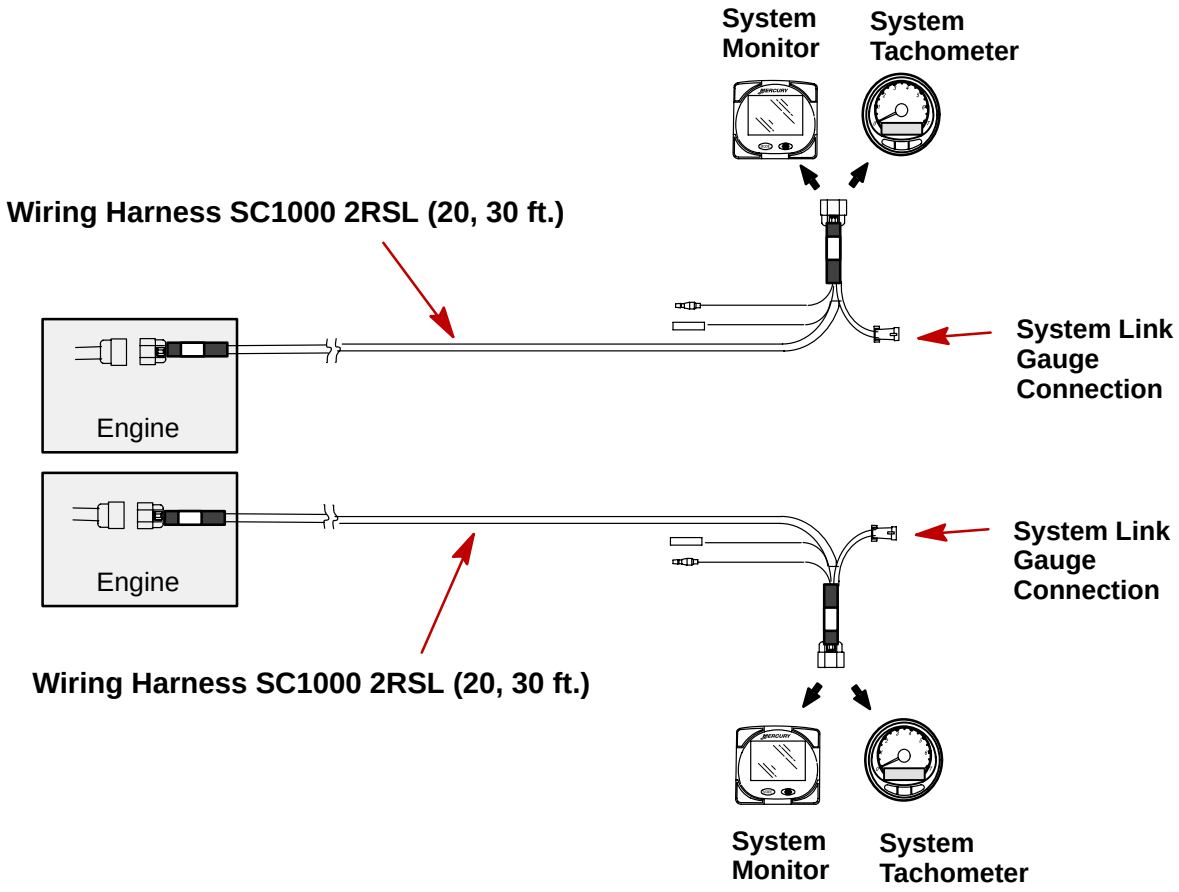
a - Front Rubber Grommet - Cutout Harness Opening
b - SmartCraft Harness
c - Connection for SmartCraft Harness

Typical SmartCraft Installation Configurations – EFI Models

Single Engine Applications



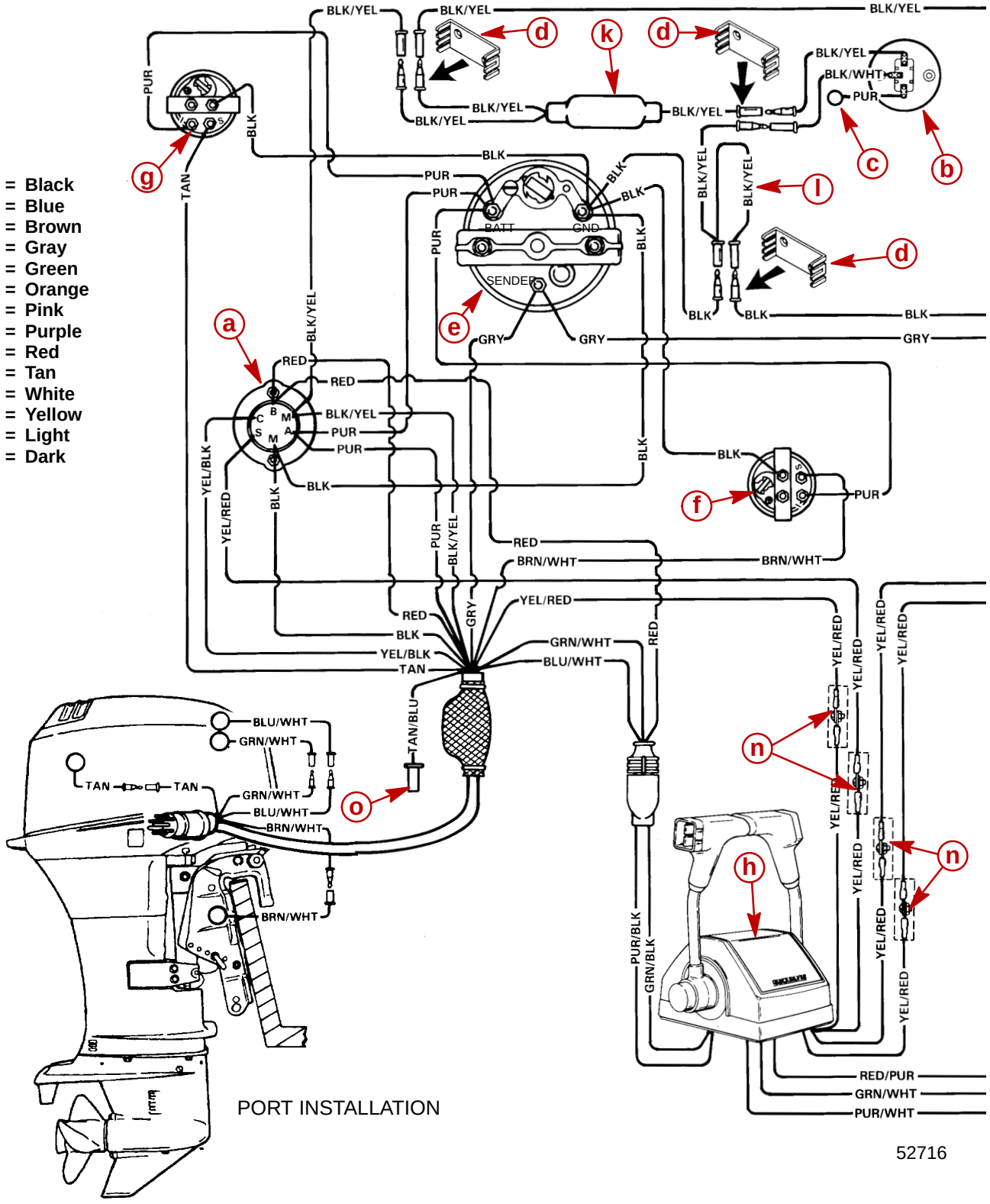
Dual Engine Applications



Notes:

Instrument/Lanyard Stop Switch Wiring Diagram (Dual Outboard)

BLK = Black
BLU = Blue
BRN = Brown
GRY = Gray
GRN = Green
ORN = Orange
PNK = Pink
PUR = Purple
RED = Red
TAN = Tan
WHT = White
YEL = Yellow
LIT = Light
DRK = Dark

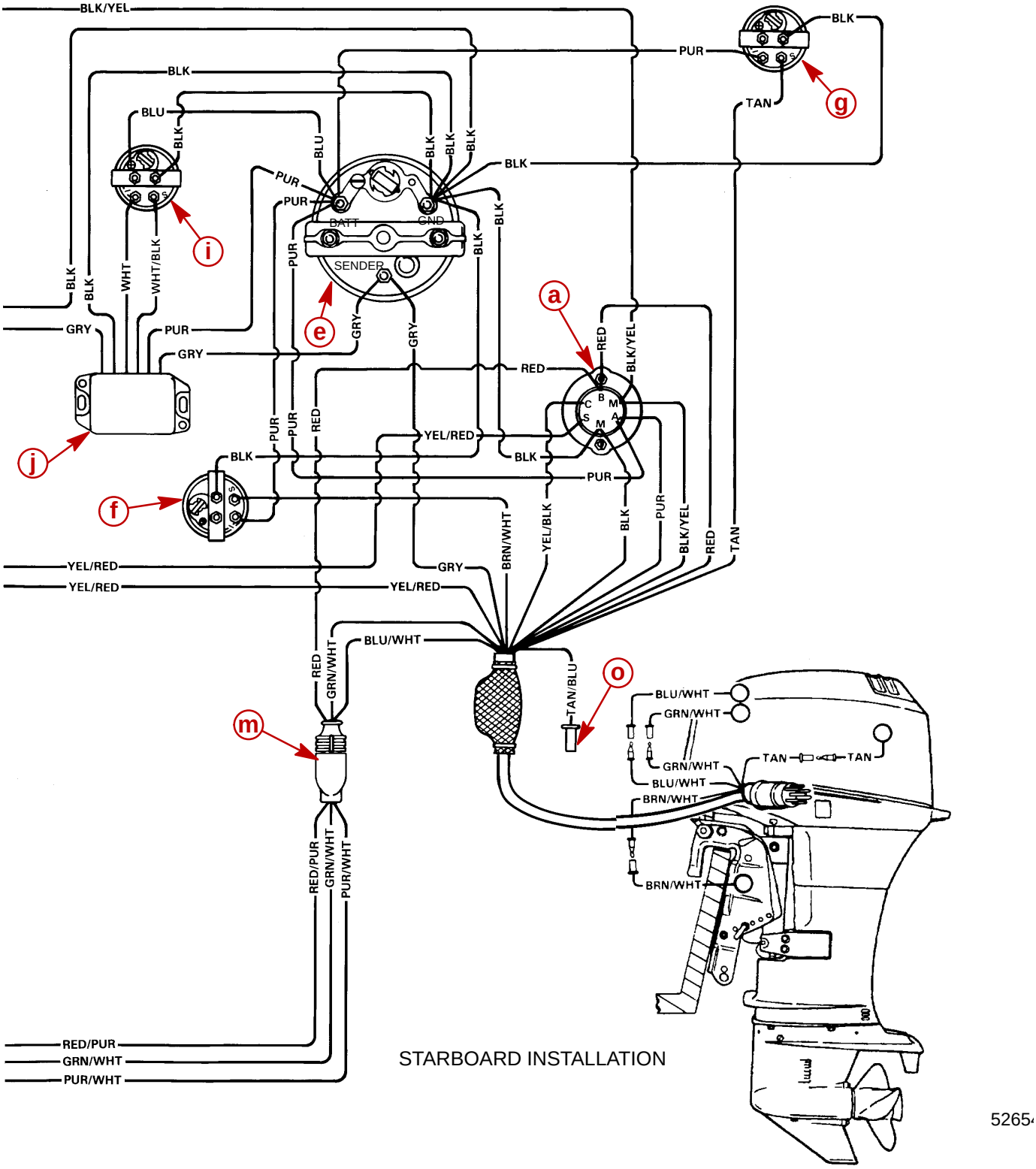


PORT INSTALLATION

52716

a - Ignition/Choke Switch
b - Lanyard Stop Switch
c - Lead Not Used on Outboard Installations
d - Retainer
e - Tachometer
f - Trim Indicator Gauge
g - Temperature Gauge
h - Remote Control
i - Synchronizer Gauge
j - Synchronizer Box

IMPORTANT: On installations where gauge options will not be used, tape back and isolate any unused wiring harness leads.



k - Lanyard/Diode
l - "Y" Harness
m - Power Trim Harness Connector
n - Connect Wires Together with Screw and Hex Nut (4 Places);Apply Quicksilver Liquid Neoprene to Connections and Slide Rubber Sleeve over Each Connection.
o - Lead to Visual Warning Kit