

SIDE MOUNT REMOTE CONTROL INSTALLATION AND OPERATION MANUAL

IMPORTANT: This document guides our dealers, boatbuilders, and company service personnel in the proper installation or service of our products. If you have not been trained in the recommended servicing or installation procedures for these or similar Mercury Marine products, have the work performed by an authorized Mercury Marine dealer technician. Improper installation or servicing of the Mercury product could result in damage to the product or personal injury to those installing or operating the product.

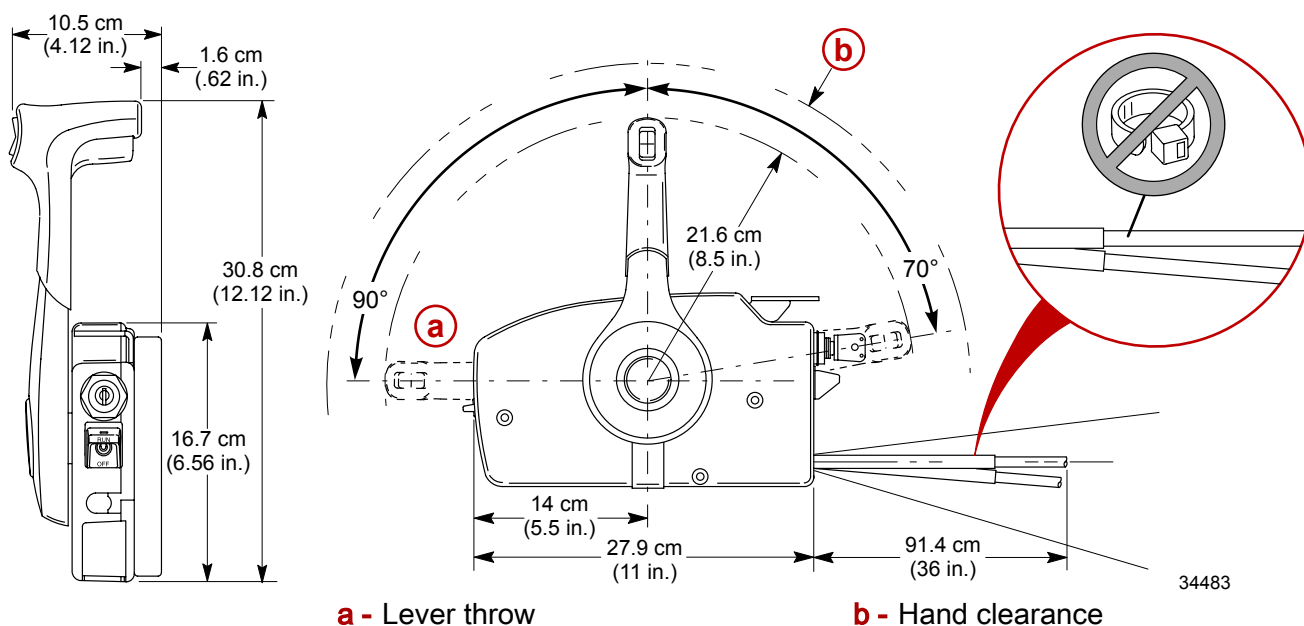
NOTE: After completing installation, place these instructions with the product for the owner's future use.

Remote Control Installation

Required Mounting Clearances

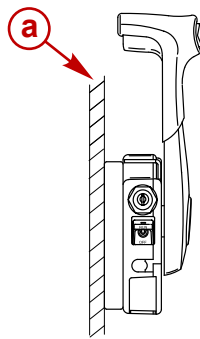
The remote control must be mounted on a hard, flat surface no less than 6.3 mm (1/4 in.) thick.

IMPORTANT: The control cables must be able to move independently of each other. Do not use anchors, clamps, cable ties, or secure any harnesses or other items within 91.4 cm (36 in.) of the control cables exiting the remote control module assembly.

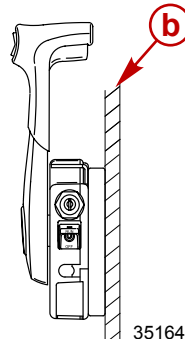


Repositioning the Control Handle for Port Side Mounting Surface (if Required)

NOTE: If the boat is designed with a port side mounting surface for the remote control, the control handle will have to be repositioned to the opposite side. Refer to the following procedure for repositioning the control handle.

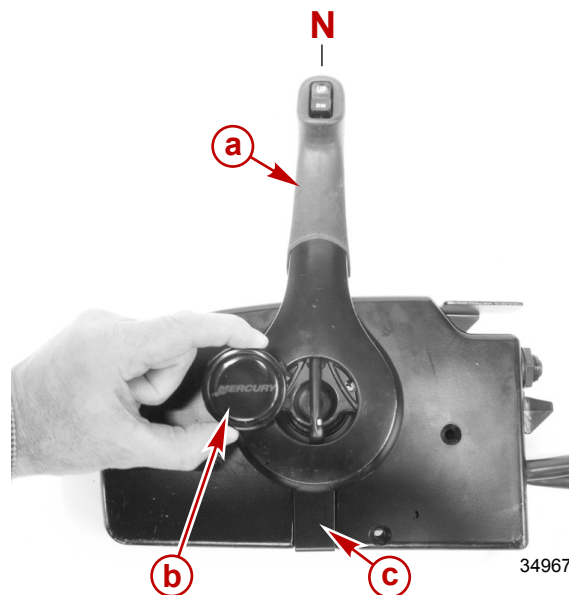


a - Port side mounting surface



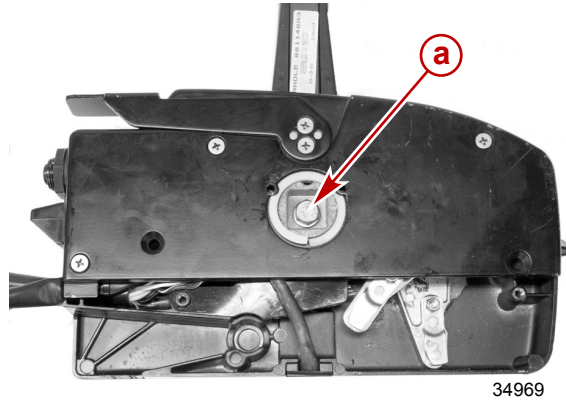
b - Starboard side mounting surface

1. Position the control handle into neutral position.
2. Pry out the center cover from the control handle. Remove the wire cover on power trim models.



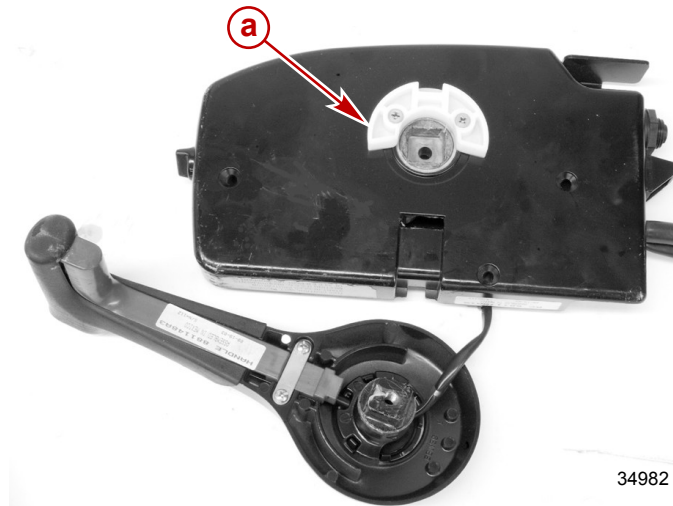
- a** - Control handle - neutral position
b - Center cover
c - Wire cover

3. Loosen the control handle mounting bolt four turns. Tap on the bolt to loosen the control handle. Remove the bolt, flat washer, and control handle.

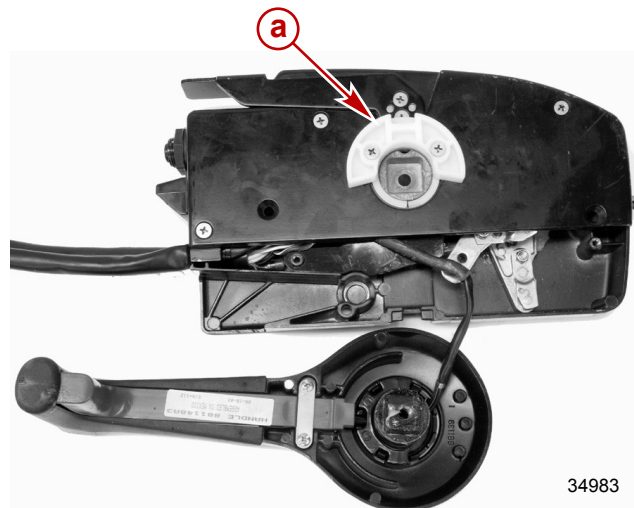


a - Control handle mounting bolt and flat washer

4. Remove the neutral lock holder and relocate it on the opposite side. Tighten the screws to the specified torque.



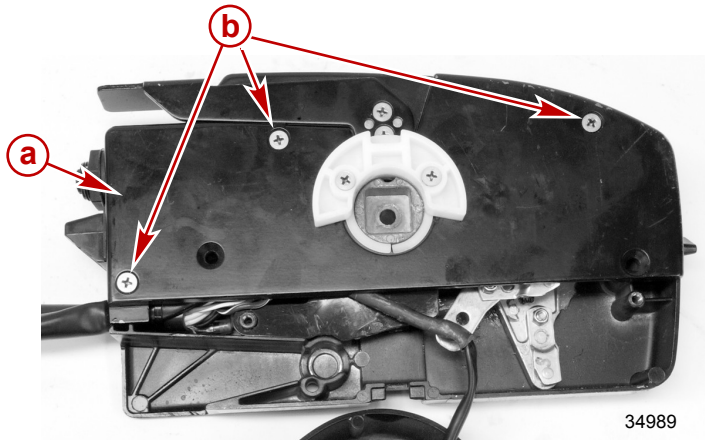
a - Neutral lock holder



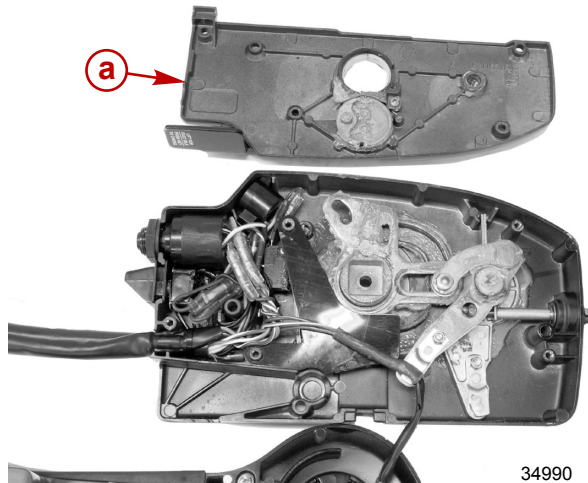
a - Neutral lock holder - relocated

Description	Nm	lb. in.	lb. ft.
Screw securing the neutral lock holder (2)	3.9	35	

5. Power trim models - Remove the upper cover by removing the three screws.



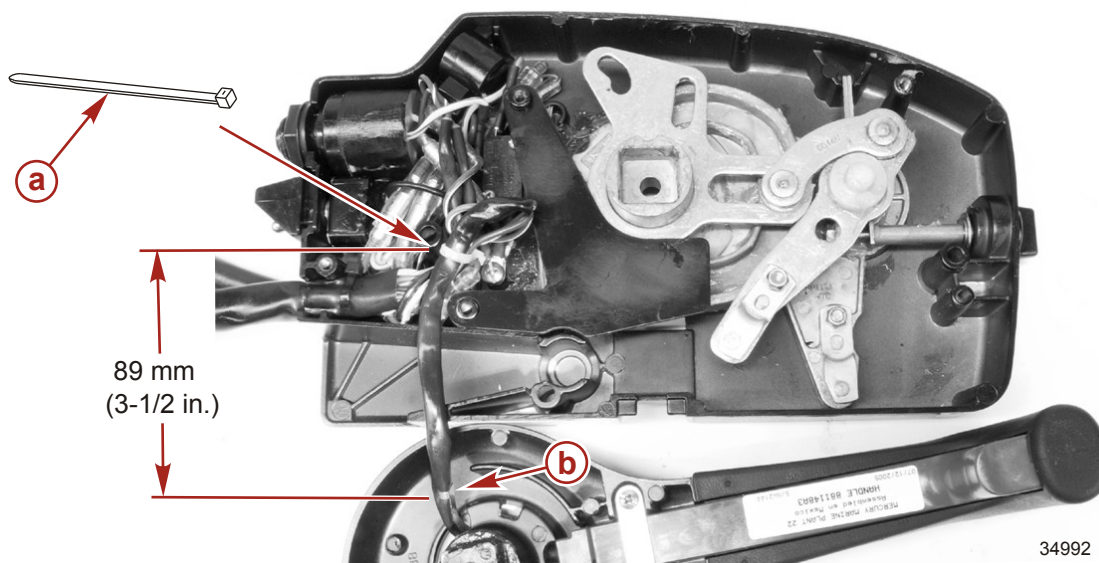
- a** - Upper cover
b - Screw (3)



- a** - Upper cover

6. Power trim models - Remove the excess slack in the trim switch wiring by fastening the trim switch wiring to the inside wiring with a cable tie, as shown. The wire length from the cable tie to the metal wire protector should be approximately 89 mm (3-1/2 in.).

IMPORTANT: Remove the excess slack in the trim switch wiring, as shown. This will prevent interference with the control cables and any excess wiring from entering the control handle.

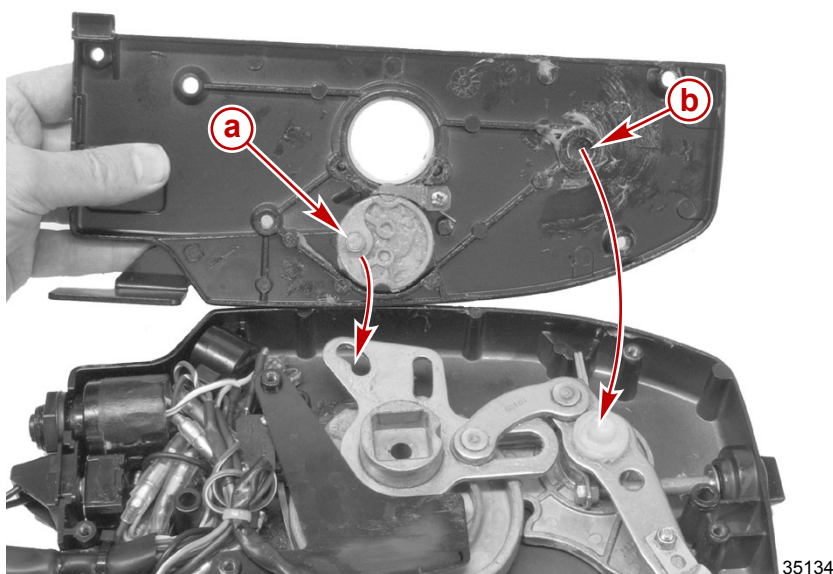


- a** - Cable tie
- b** - Metal wire protector

⚠ CAUTION

Avoid a shorted circuit that may result in engine electrical failure. Do not route, pack, or push any excess trim switch wiring into the control handle. Excess wiring in the handle area may wear against the handle and cause a short circuit.

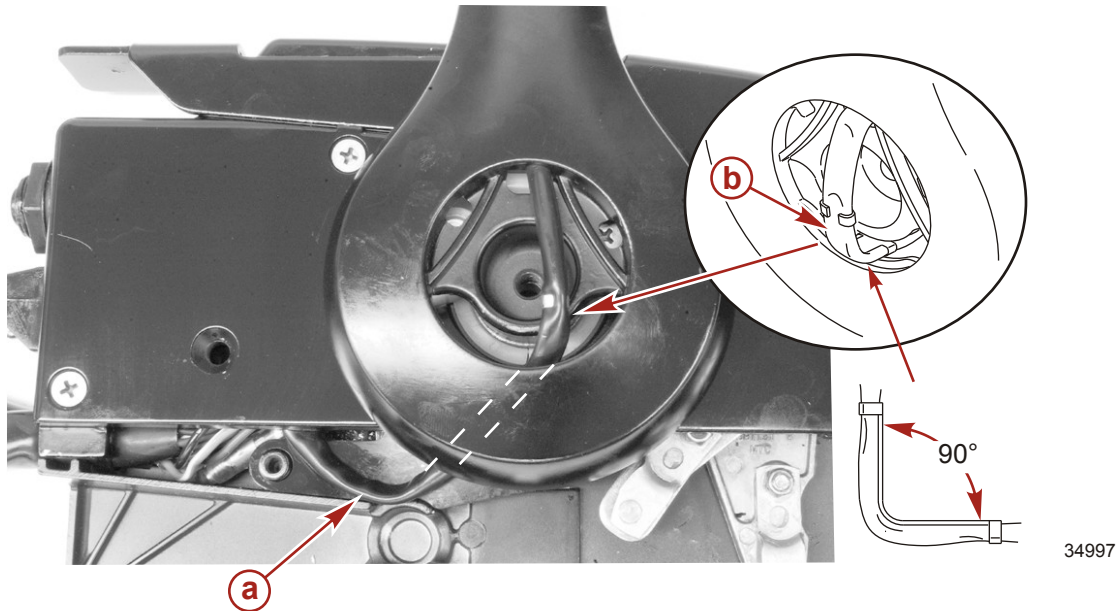
7. Power trim models - Align the roller and bushing hole on the upper cover with the slot and nylon bushing in the remote control. Lifting the fast idle lever may help align the roller with the slot. Reinstall the upper cover with three screws. Tighten the screws to the specified torque.



- a** - Roller
- b** - Bushing hole

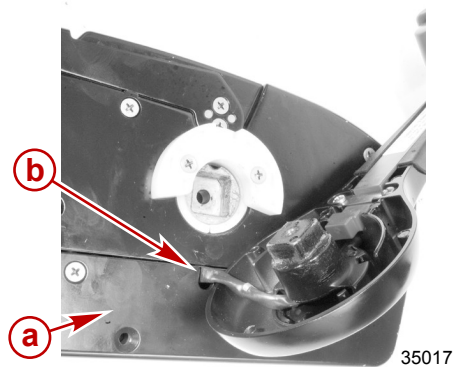
Description	Nm	lb. in.	lb. ft.
Upper cover screw (3)	4.9	43	

8. Power trim models - Bend the metal wire protector so that it is at 90 degrees. Temporarily install the handle and check that the correct length of trim switch wiring is exposed, as shown. Make sure that the metal wire protector is centered in the handle and no excess trim switch wiring is routed or pushed into the handle.



- a** - Correct amount of trim switch wiring exposed
b - Metal wire protector - bend to 90 degrees

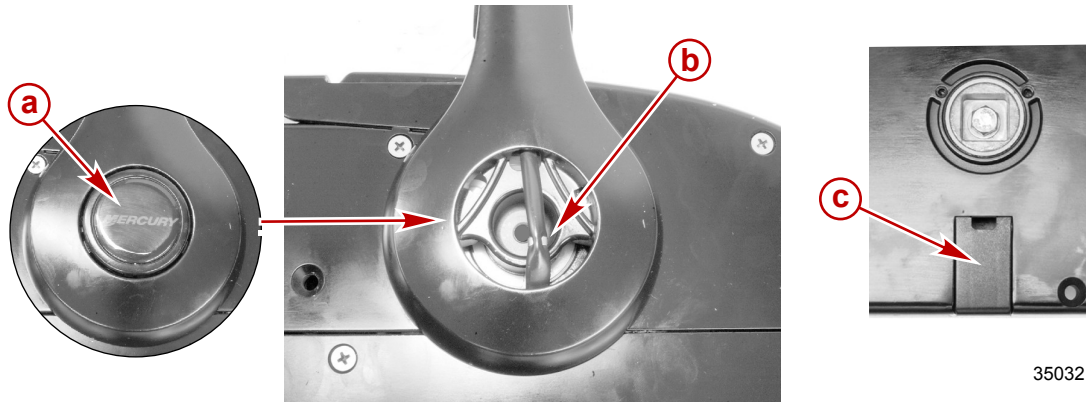
9. Install the shift and throttle cables. Refer to **Shift and Throttle Cable Installation**.
10. Install the lower cover with two screws. On power trim models, route the trim wires through the wire slot. Tighten the screws to the specified torque.



- a** - Lower cover
b - Wiring slot - trim wires

Description	Nm	lb. in.	lb. ft.
Lower housing cover screw (2)	4.9	43	

11. Install the control handle onto the remote control with the mounting bolt and flat washer. Position the metal wire protector so that it will protect the trim switch wiring from rubbing against the hub of the handle. Tighten the mounting bolt to the specified torque.
12. Operate the control handle through the full range of motion to ensure that no binding or rubbing against the wiring exists.
13. Reinstall the handle center cover and wire cover.



- a** - Center cover
b - Metal wire protector - positioned towards the hub
c - Wire cover

Description	Nm	lb. in.	lb. ft.
Control handle mounting bolt	16.9	150	

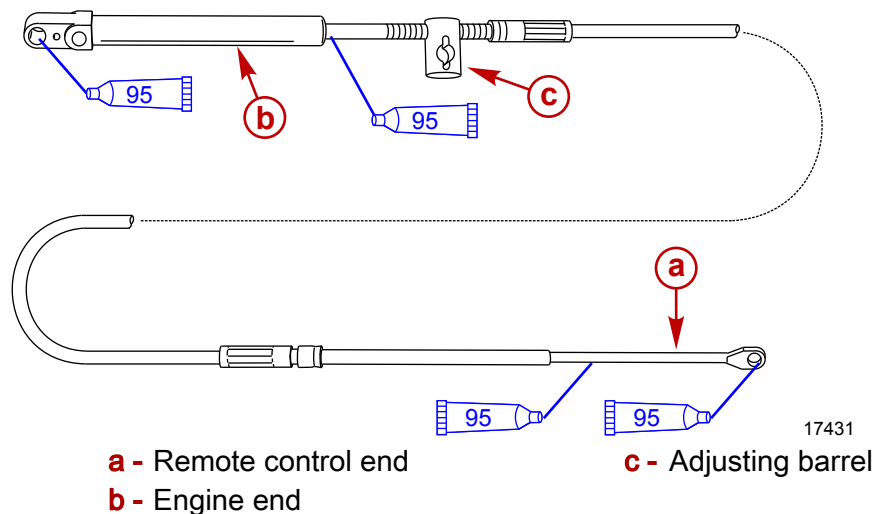
Selecting Remote Control Cables

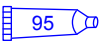
Refer to the **Mercury Precision Parts Accessories Guide** for the available shift and throttle cables for your application. This control requires the use of Mercury/Quicksilver shift and throttle cables.

IMPORTANT: Remote control cables must be the correct length. Sharp bends on cables that are too short may result in kinks. Cables that are too long will require unnecessary bends and/or loops. Both conditions place extra stress on the cables.

Shift and Throttle Cable Installation

1. Lubricate the shift and throttle cables with 2-4-C with Teflon.

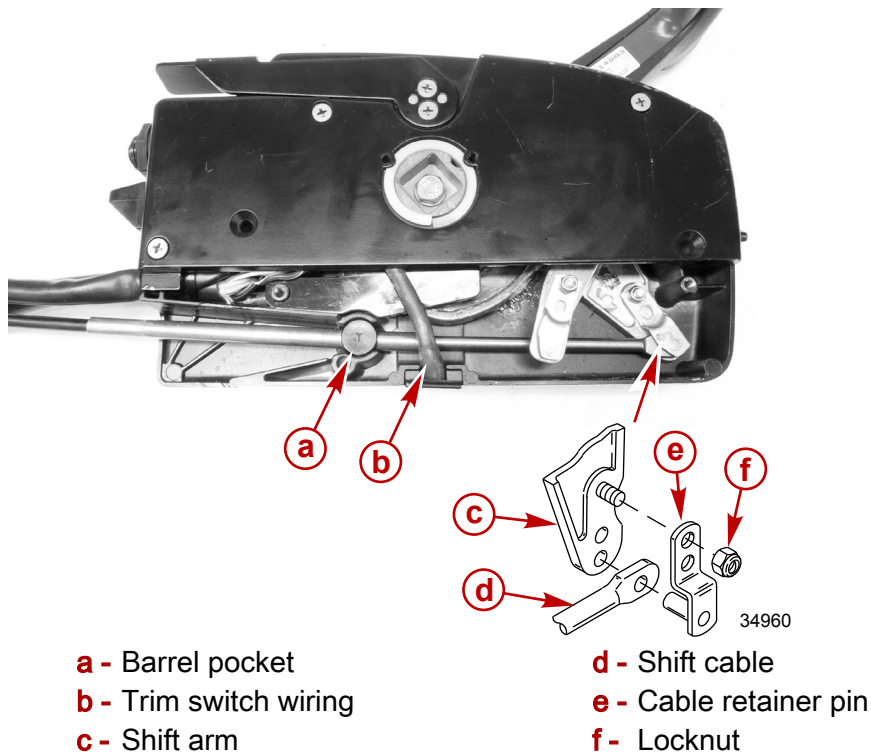


Tube Ref No.	Description	Where Used	Part No.
 95	2-4-C with Teflon	Shift cable and throttle cable lubrication points	92-802859A 1

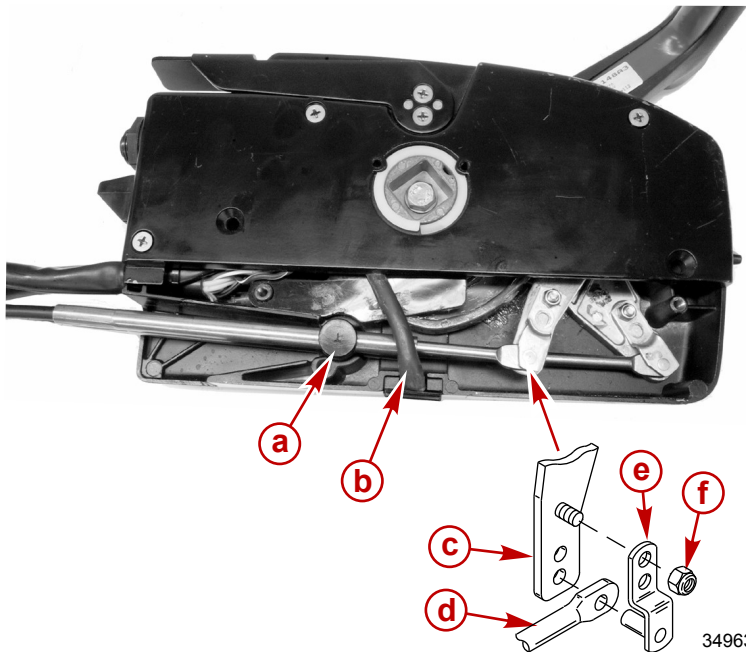
IMPORTANT: Power trim models - Position the shift and throttle cables under the trim switch wires.

NOTE: The locknut and cable retainer pin do not need to be completely removed for the cable end installation.

2. Place the shift cable barrel into the pocket. Fasten the shift cable to the lower hole in the shift arm with the cable retainer pin, as shown. Make sure the pin enters the hole in the shift arm. Tighten the locknut to the specified torque.



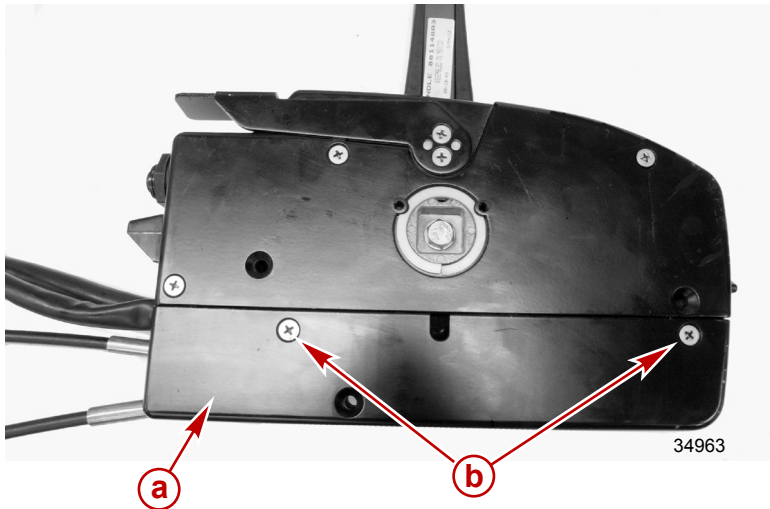
3. Place the throttle cable barrel into the pocket. Fasten the throttle cable to the lower hole in the throttle arm with the cable retainer pin, as shown. Make sure the pin enters the hole in the throttle arm. Tighten the locknut to the specified torque.



- a** - Barrel pocket
b - Trim switch wiring
c - Throttle arm
d - Throttle cable
e - Cable retainer pin
f - Locknut

Description	Nm	lb. in.	lb. ft.
Cable retainer pin locknut	4.9	43	

4. Install the lower housing cover with two screws. Tighten the screws to the specified torque.



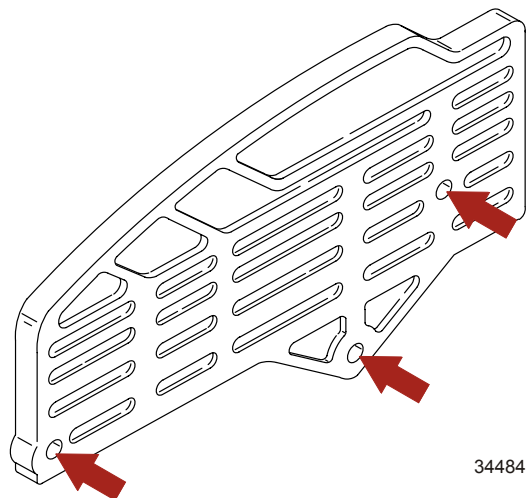
- a** - Lower housing cover
b - Screw (2)

Description	Nm	lb. in.	lb. ft.
Lower housing cover screw (2)	4.9	43	

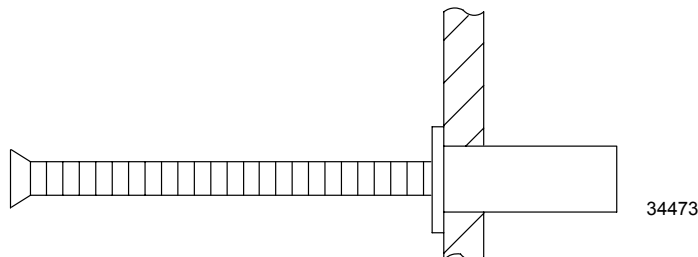
Installing the Remote Control

1. The remote control must be mounted on a hard, flat surface no less than 6.3 mm (1/4 in.) thick.
2. Use the mounting platform as a template to mark and drill three 6.3 mm (1/4 in.) diameter holes through the mounting surface. If using well-nut fasteners, drill three 14.3 mm (9/16 in.) diameter holes through the mounting surface.

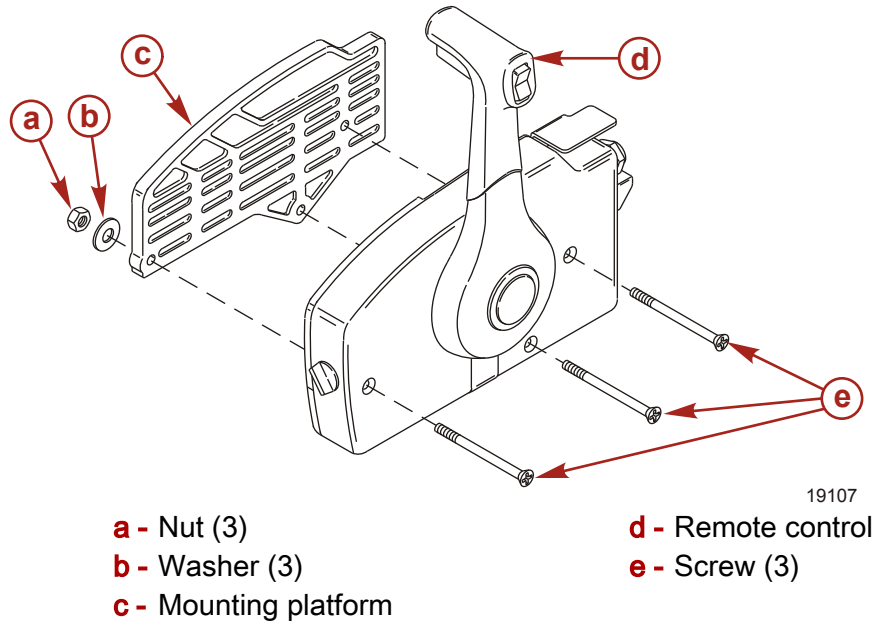
NOTE: For remote control installation with no access behind the mounting area, well-nut fasteners can be used in place of locknuts for fastening the control to the boat.



3. Thread one of the mounting screws into the well-nut. Insert the well-nut with flange against the outer surface of the mounting platform.

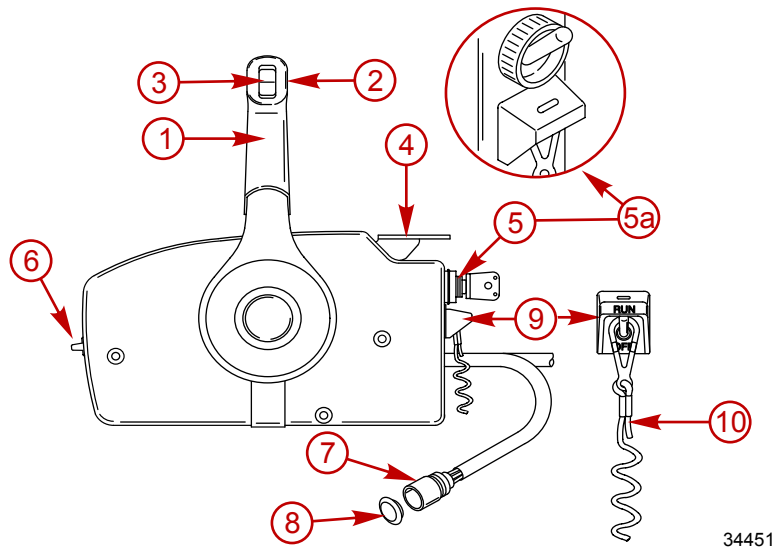


4. Install the screws through the remote control and secure to the mounting platform with washers and nuts or with the well-nuts. Tighten securely.



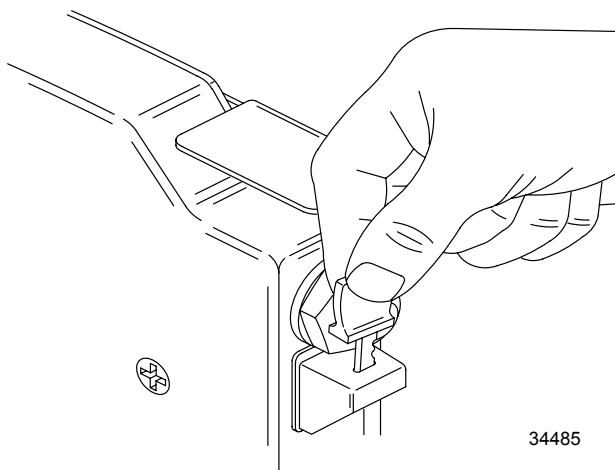
NOTE: Items "a" and "b" can be substituted with well-nuts.

Remote Control Features



- Control handle:** Lift the neutral lock release and shift into gear with a firm, quick motion. Approximately the first 32° of control handle travel (from neutral position) will shift the gears, the remainder of control handle travel advances the throttle.
- Neutral lock release:** The neutral lock prevents accidental shifting of the remote control from the neutral position. The neutral lock release must be lifted to shift the remote control.
- Trim switch:** Used to trim engine and raise engine to desired height for trailering or shallow water operation.

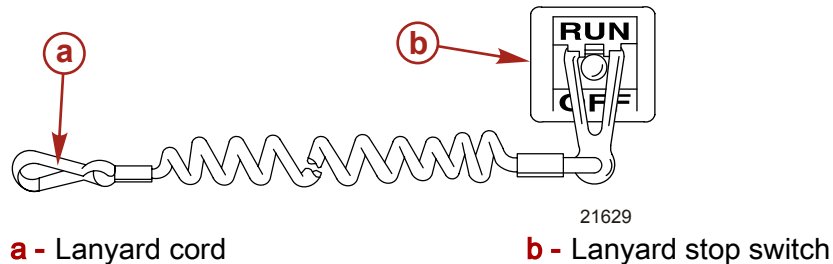
4. **Fast idle lever:** Assists in starting a cold engine (with carburetors). When the engine is cold, place control handle in neutral and lift the lever. This provides a higher RPM for starting a cold engine. The fast idle lever can be lifted only when the control handle is in neutral.
5. **Ignition/choke switch:** Start the engine by turning the ignition key clockwise to the "START" position. On models that have a choke, pushing the ignition key in will actuate the choke. Release the ignition key and allow the switch to return to the "RUN" position. Stop the engine by turning the ignition key counterclockwise to the "OFF" position.
 - a. **Run/off switch, manual start engines:** Position the switch up when starting the engine. Push switch down to turn the engine off.
6. **Throttle friction adjustment knob:** Adjust throttle friction by turning the knob clockwise to increase friction, or counterclockwise to decrease friction.
7. **Tachometer wiring harness receptacle:** Provides a convenient connection for tachometer/instrumentation hook up.
8. **Tachometer receptacle plug:** Insert into the tachometer receptacle if a tachometer or other instruments are not used.
9. **Lanyard stop switch:** The purpose of a lanyard stop switch is to turn off the engine when the operator moves far enough away from the operator's position (as in accidental ejection from the operator's position) to activate the switch.
10. **Lanyard cord/clip:** Connect the cord or clip to the lanyard stop switch and attach the other end of the cord to the driver of the boat. Proper length of the cord will allow some freedom of movement, but provides the lanyard stop switch to shut the engine off if the driver of the boat no longer has access to the controls.
11. The engine can be started with or without the clip installed by pushing the lanyard stop switch up to the "RUN" position. If necessary, push the switch down to reinstall the clip.



Lanyard Stop Switch

The purpose of a lanyard stop switch is to turn off the engine when the operator moves far enough away from the operator's position (as in accidental ejection from the operator's position) to activate the switch. Tiller handle outboards and some remote control units are equipped with a lanyard stop switch. A lanyard stop switch can be installed as an accessory - generally on the dashboard or side adjacent to the operator's position.

The lanyard is a cord usually 122 - 152 cm (4 - 5 feet) in length when stretched out, with an element on one end made to be inserted into the switch and a snap on the other end for attaching to the operator. The lanyard is coiled to make its at-rest condition as short as possible to minimize the likelihood of lanyard entanglement with nearby objects. Its stretched-out length is made to minimize the likelihood of accidental activation should the operator choose to move around in an area close to the normal operator's position. If it is desired to have a shorter lanyard, wrap the lanyard around the operator's wrist or leg, or tie a knot in the lanyard.



Read the following Safety Information before proceeding.

Important Safety Information: The purpose of a lanyard stop switch is to stop the engine when the operator moves far enough away from the operator's position to activate the switch. This would occur if the operator accidentally falls overboard or moves within the boat a sufficient distance from the operator's position. Falling overboard and accidental ejections are more likely to occur in certain types of boats such as low sided inflatables, bass boats, high performance boats, and light, sensitive handling fishing boats operated by a hand tiller. Falling overboard and accidental ejections are also likely to occur as a result of poor operating practices such as sitting on the back of the seat or gunwale at planing speeds, standing at planing speeds, sitting on elevated fishing boat decks, operating at planing speeds in shallow or obstacle infested waters, releasing your grip on a steering wheel or tiller handle that is pulling in one direction, drinking alcohol or consuming drugs, or daring high speed boat maneuvers.

While activation of the lanyard stop switch will stop the engine immediately, a boat will continue to coast for some distance depending upon the velocity and degree of any turn at shut down. However, the boat will not complete a full circle. While the boat is coasting, it can cause injury to anyone in the boat's path as seriously as the boat would when under power.

We strongly recommend that other occupants be instructed on proper starting and operating procedures should they be required to operate the engine in an emergency (e.g. if the operator is accidentally ejected).

⚠ WARNING

If the operator falls out of the boat, stop the engine immediately to reduce the possibility of serious injury or death from being struck by the boat. Always properly connect the operator to the stop switch using a lanyard.

⚠ WARNING

Avoid serious injury or death from deceleration forces resulting from accidental or unintended stop switch activation. The boat operator should never leave the operator's station without first disconnecting the stop switch lanyard from the operator.

Accidental or unintended activation of the switch during normal operation is also a possibility. This could cause any, or all, of the following potentially hazardous situations:

- Occupants could be thrown forward due to unexpected loss of forward motion - a particular concern for passengers in the front of the boat who could be ejected over the bow and possibly struck by the gearcase or propeller.
- Loss of power and directional control in heavy seas, strong current or high winds.
- Loss of control when docking.

Maintenance and Periodic Inspection of Remote Control

Maintenance and safety instructions are the owner's responsibility and must be performed at intervals specified in the following:

Normal Service - Every 50 hours of operation or 60 days (whichever comes first)

Severe Service - Every 25 hours of operation or 30 days (whichever comes first).

NOTE: *Operation in saltwater is considered severe service.*

1. Check all the fasteners which secure the remote control to the boat to ensure they are tight.
2. Check the tightness of the control handle to the remote control. If the control handle should ever loosen, tighten the control handle mounting bolt to the specified torque.

Description	Nm	lb. in.	lb. ft.
Bolt	16.9	150	

3. Check the electrical connections to ensure they are properly secured, tight, and kept away from the bilge water.
4. Inspection and lubrication of the remote control assembly should be performed once a year by an authorized dealer or if the control operating effort has increased.