

# QUICKSILVER<sup>TM</sup>

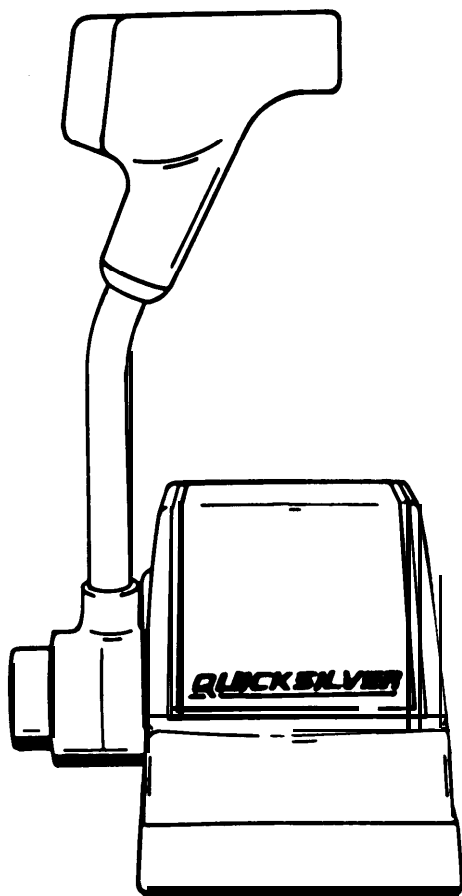
MARINE PARTS AND ACCESSORIES

## 88688A25 SINGLE HANDLE TRIM CONTROL INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

### NOTICE to INSTALLER

After Completing Installation, These Instructions Should Be Placed with the Product For the Owner's Future Use.

These installation instructions provide complete information for installing the remote control. Please read them carefully and thoroughly before starting installation.




24906

## Index

	Page
Notice to Installer/Owner .....	2
Maintenance and Replacement Parts .....	2
Selecting Remote Control Cables .....	2
Introduction .....	3
Installation .....	3
Remote Control Alteration for Port Installation ...	4
Control Module Linkage .....	4
Control Handle .....	4
Repositioning Control Handle .....	5
Starboard Side Control Module Cable	
Installation .....	7
All Outboard Models thru 250 (3 Litre) .....	7
Shift Cable .....	7
Throttle Cable .....	7
Port Side Control Module Cable Installation .....	8
All Outboard Models 35 hp thru 220 hp .....	8
Shift Cable .....	8
Throttle Cable .....	8
Required Mounting Clearances .....	9
Locating and Drilling Mounting Area .....	9
Remote Control Mounting .....	9
Electrical Connections .....	10
Operation. ....	11

## Notice to Installer/Owner

Throughout this publication, and on your motor, DANGER, WARNINGS and CAUTIONS (accompanied by the international HAZARD Symbol ) may be used to alert the installer/ user to special instructions concerning a particular service or operation that may be hazardous if performed incorrectly or carelessly. OBSERVE THEM CAREFULLY!

These "Safety Alerts" alone cannot eliminate the hazards that they signal. Strict compliance to these special instructions when performing the service, plus "common sense" operation, are major accident prevention measures.

### DANGER

DANGER - Immediate hazards which WILL result in severe personal injury or death.

### WARNING

WARNING - Hazards or unsafe practices which COULD result in severe personal injury or death.

### CAUTION

CAUTION - Hazards or unsafe practices which could result minor personal injury or product or property damage.

**IMPORTANT:** - Indicates information or instructions that are necessary for proper operation and/or maintenance.

## Maintenance and Replacement Parts

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

**Normal Service** - Every 50 hrs. of operation or 60 days (whichever comes first)

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

\*Operation in a salt water area is considered "Severe Service."

1. Check fasteners, which secure remote control to boat, to be sure that they are tight.
2. Check set screws, which secure control handles to remote control, to ensure they are torqued to 60 lb. in. (7 N.m.)

3. Check electrical connections to be sure that they are tight, and that harness is properly secured and kept away from bilge water.
4. Inspection and lubrication of remote control assembly should be performed once each year (by your authorized dealer), or whenever remote control is disassembled, or if control operating effort has increased. Lubricate with Quicksilver 2-4-C Marine Lubricant or equivalent.
5. Quicksilver throttle and shift control cables recommended for use in this remote control.

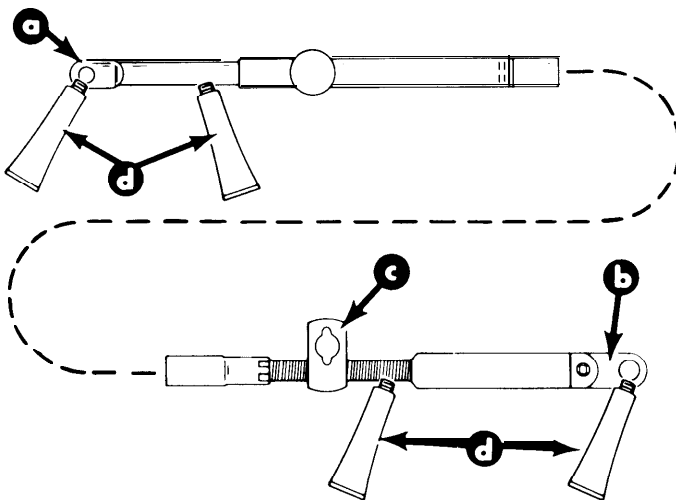
## Selecting Remote Control Cables

Refer to outboard "Quicksilver Dealers' Guide" to determine correct length of control cables.

**IMPORTANT:** Remote control cables MUST BE THE CORRECT LENGTH, sharp bends on too-short cables result in "kinks"; too-long cables require unnecessary bends and/or loops. Both conditions place extra stress on the cables.

**IMPORTANT:** Check throttle and shift cables BEFORE installing in control modules to ensure that set screws in cable end guides are tight. Torque cable end guide set screws to 20 to 25 lbs. in. (2.3 to 2.8 N.m.)

Shift Cable/Throttle Cable Lubrication Points Use Quicksilver 2-4-C Marine Lubricant.



- a - Remote Control End  
b - Engine End  
c - Adjusting Barrel  
d - Lubricant

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## Introduction

This console mount control provides complete one hand operation of the shift and throttle control. The control is equipped with a neutral start switch which must be connected to prevent accidental in-gear starting. The shift and throttle cables are not supplied with control; order cables separately after position of control is determined.

Quicksilver throttle and shift control cables are recommended for use in this remote control.

These installation instructions provide complete information for installing the remote control. Please read them carefully and thoroughly before starting installation.

## Installation

1. Determine position of remote control. Refer to "Mounting Remote Control".

**IMPORTANT: Control mechanism will have to be changed if control will be on port side. Refer to "Remote Control Alteration".**

### ⚠WARNING

**If control handle is removed and reinstalled for any reason. The set screw in handle must be retorqued to 60 lb. in. (7 N.m). Failure to tighten screw securely could allow control handle to disengage with subsequent loss of throttle and shift control.**

2. Install control cables to remote control. Refer to correct cable installation procedure in this manual. Note that cable installation is different, depending on which side the control will be installed.

On some boat installations, it may be helpful to first make the cutout for remote control (using the attached template) and routing the control cables thru the boat before installing cables to control.

3. Mount the remote control following instructions. Make remote control wiring connections following "Wiring Diagram".
4. Install and adjust shift and throttle cables to power package following instructions which accompany the power package or refer to the Product Service Manual.
5. Final Checks and Adjustments
  - a. Re-check tightness of control handle set screw. Set screw should be torqued to 60 lb. in. (7 N.m).
  - b. Before remote control is securely fastened, make sure parts are in place. Check to see that control cables are routed correctly.

### ⚠CAUTION

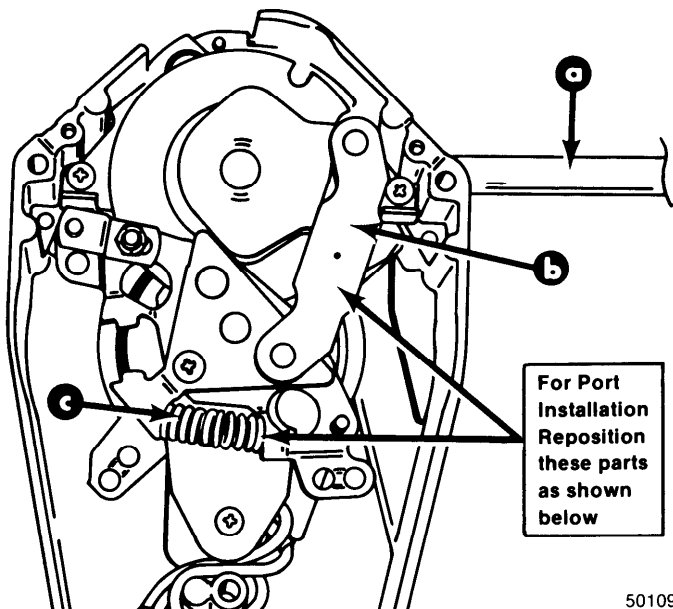
**Do not try to shift remote control into "Reverse" on outboard installations when outboard is not running. Forcing the shift mechanism into reverse may damage the mechanism.**

- c. Operate control handle several times (see "Caution" preceding). Adjust control handle friction adjustment screw to desired tension. Any binding or stiffness in the operation of the control handle is usually caused by the following.
  - 1 - Bends or tension on control cables, close to the control.
  - 2 - Excessive number of bends in cables.
  - 3 - Bends are too small in cables.
  - 4 - Tight engine linkage.
- d. Adjust the control handle detent adjustment screw to desired tension.
- e. Check operation of neutral start switch. Engine must only be able to start when control handle is in neutral position. Make sure water intake in lower unit is in water when starting engine.

## Remote Control Alteration for Port Installation

Throttle link and throttle spring must be changed when control handle will be positioned on the right side of remote control.

1. Remove remote control module back cover.
2. Move control handle to position shown.
3. Reposition throttle link and spring to position shown.

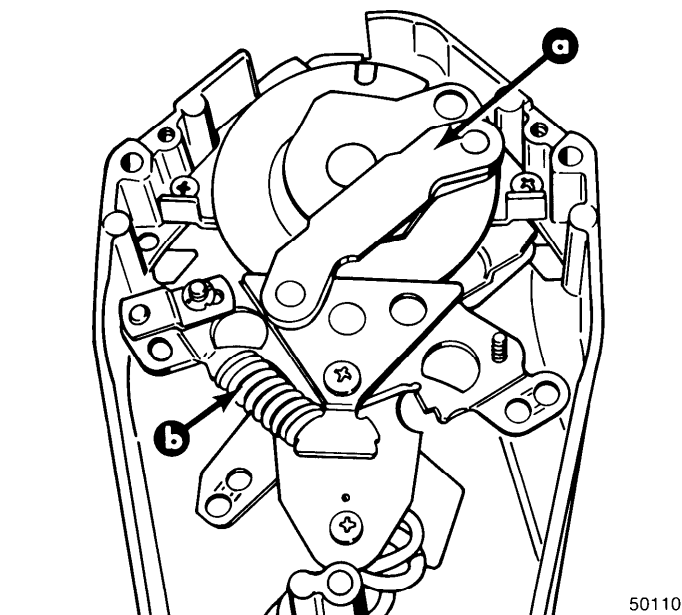


- a - Control Handle  
b - Throttle Link  
c - Spring

### ⚠CAUTION

Spring is under pressure and may eject suddenly.

4. Reinstall back cover with 2 screws. Torque screws to 60 lb. in. (7 N.m).

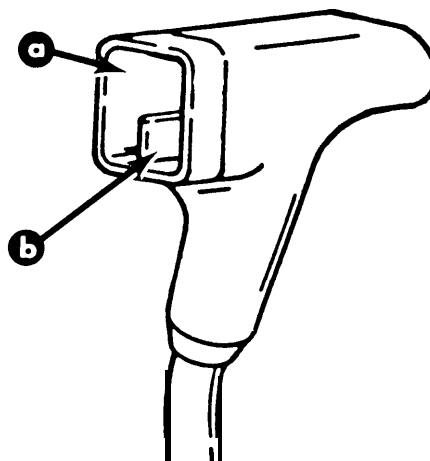


- a - Throttle Link  
b - Spring

## Control Handle

Repositioning Control Handle Trim Switch for port control installation.

1. Pry bezel from handle, pull trim switch out, turn switch 180° and install back into handle.

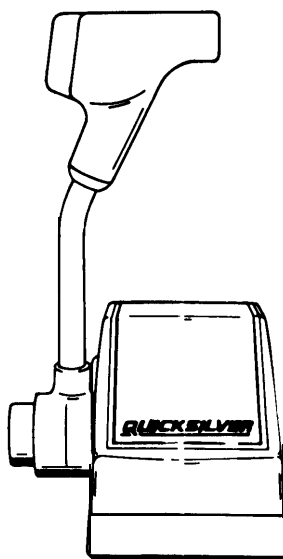


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- a - Bezel  
b - Trim Switch

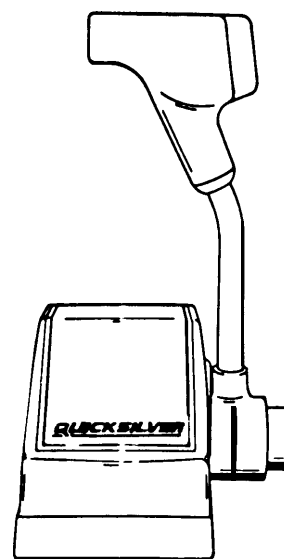
2. Discard bezel removed and install new bezel (from parts bag).

### Starboard Control Mounting



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### Port Control Mounting



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## Repositioning Control Handle

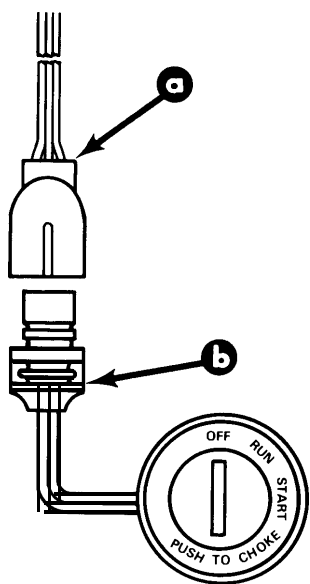
NOTE: Repositioning of control handle (on control shaft) is necessary only if the standard neutral position of control handle is undesirable.

IMPORTANT: When repositioning control handle (on control shaft), position handle so that full forward and reverse can be achieved.

### ⚠WARNING

Before repositioning control handle on control shaft, be sure to disconnect the trim wire connector.

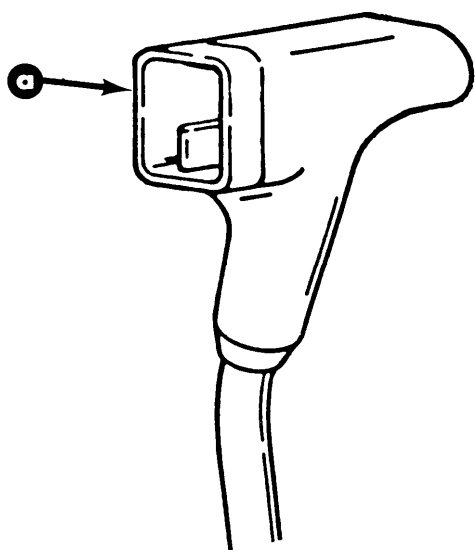
1. Disconnect the trim connection from the ignition key switch connection.



a - Trim Connection

b - Ignition Key Switch Connection

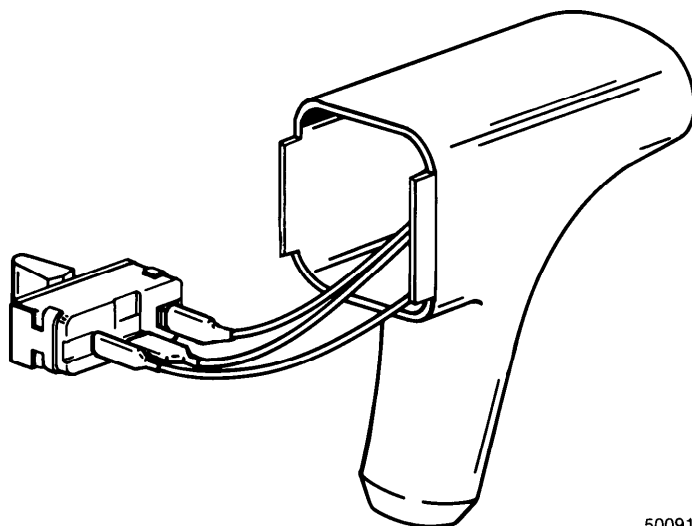
2. Pry trim switch retainer/cover from handle.



a - Retainer/Cover

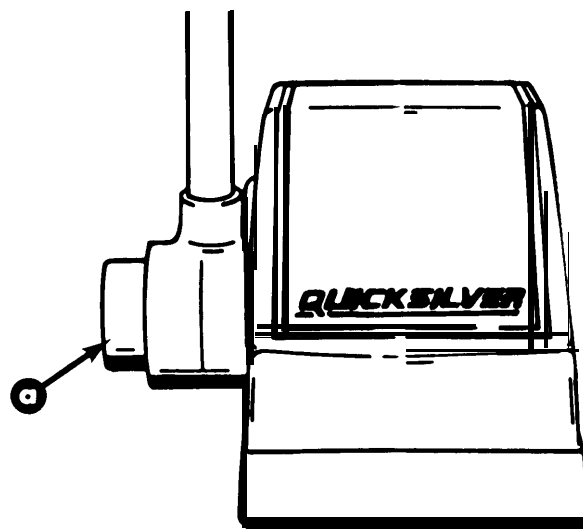
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3. Pull trim switch out from handle and remove wires from switch.



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4. Pull throttle only button from control shaft.

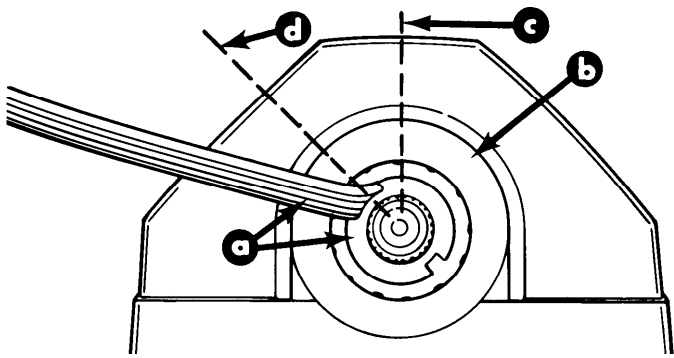


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a - Throttle Only Button

5. Position control handle to allow access to set screw, loosen set screw.
6. Return control handle to neutral position and remove handle from control shaft.

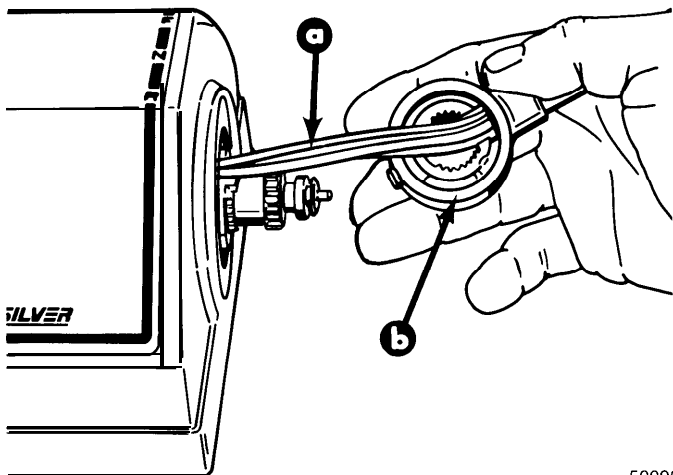
7. Rotate trim wires and trim wire rotator (on control shaft) to the position that neutral is desired when control handle is reinstalled.



50092

- a - Trim Wires and Rotator
- b - Spacer Disc
- c - Standard Position of Trim Wires and Rotator
- d - If Trim Wires and Rotator Are Moved to This Angle (or Any Other Angle) from the Standard Position, the Control Handle Must Also Be Installed (on Control Shaft) in the Same Angle (thus Neutral is Changed to This Angle from Standard Neutral Position)

8. Reinstall handle to control shaft (make certain full forward and full reverse can be achieved) at desired location.



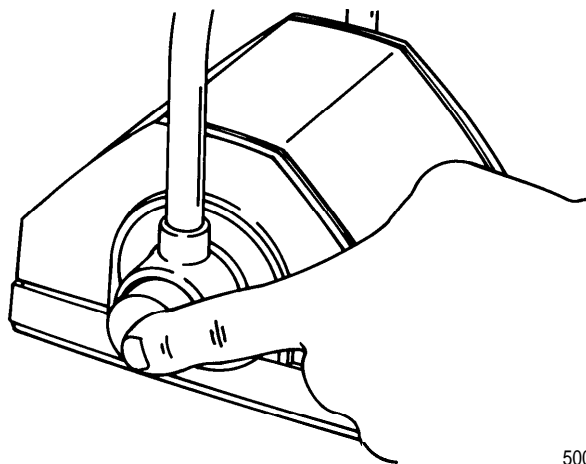
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- a - Trim Wires
- b - Control Handle

## ⚠ WARNING

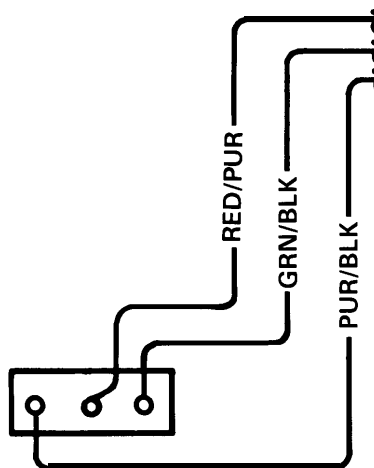
Control handle set screw must be torqued to specification. Failure to tighten set screws securely could allow control handle to disengage, with subsequent loss of throttle shift control.

9. While holding in on hub of control handle, move handle until access to set screw is achieved. Torque control handle set screw to 60 lb. in. (7 N.m).
10. Push the "Throttle-Only" button onto control shaft.



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11. Reconnect trim wires to terminals on trim switch.



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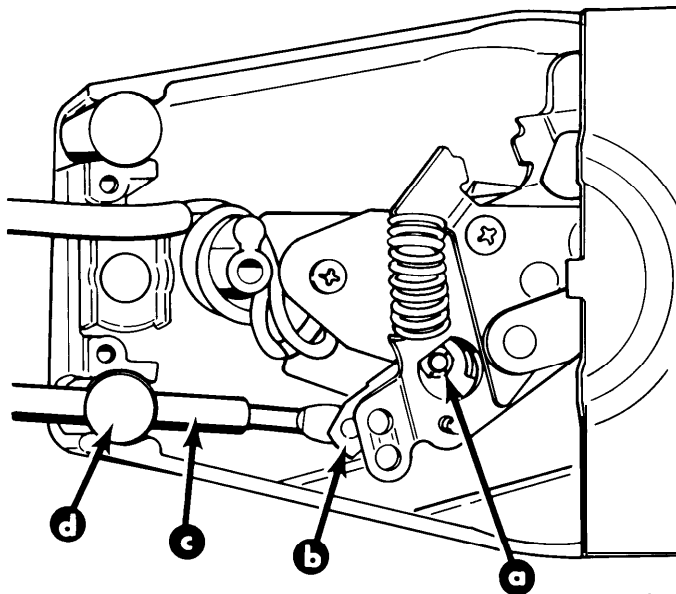
12. Place trim switch into handle and install trim switch retainer/cover onto handle.
13. Reconnect trim wire connection to ignition switch connection.

# Starboard Side Control Module Cable Installation All Outboard Models thru 250 (3 Litre)

## ⚠ CAUTION

Before tightening cable fastener locknut, be sure that pin on end of cable fastener is completely thru cable end and shift/throttle lever. A pin, that is partially thru cable and lever, may cause fastener to bend when locknut is tightened.

## Shift Cable

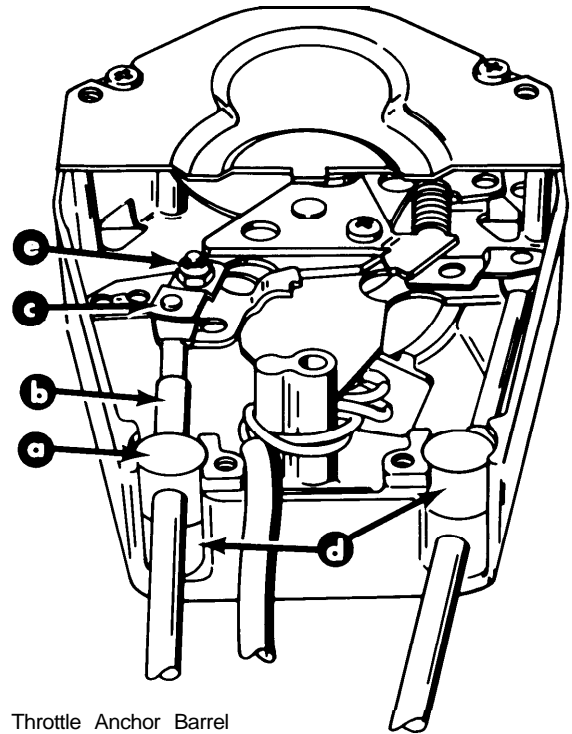


- a - Locknut (Cable Fastener)
- b - Cable Fastener
- c - Shift Cable
- d - Cable Anchor Barrel

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Torque shift cable fastener locknut to 20 to 25 lb. in. (2.3 to 2.8 N.m).

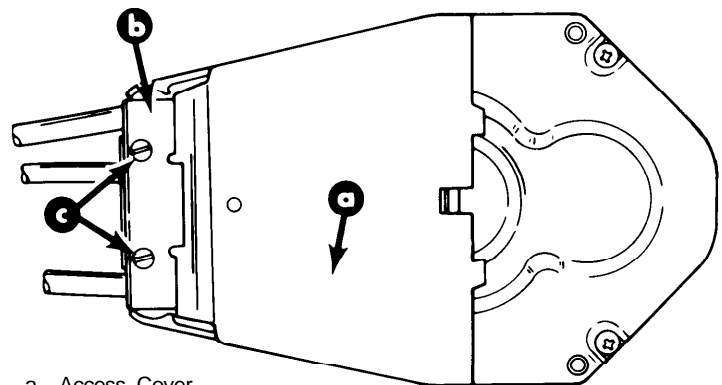
## Throttle Cable



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- a - Throttle Anchor Barrel
- b - Throttle Cable
- c - Cable Fastener
- d - Spacers (From Parts Bag)
- e - Cable Fastener Locknut

Torque throttle cable fastener locknut to 20 to 25 lbs. in. (2.3 to 2.8 N.m.)



- a - Access Cover
- b - Cable Retainer
- c - Screws

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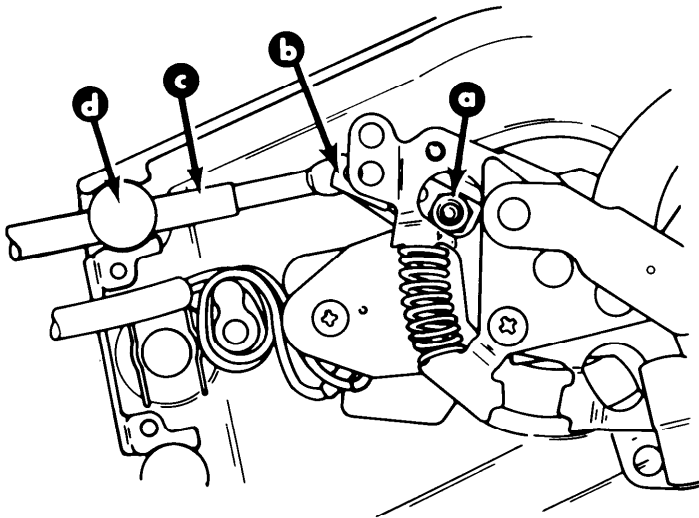
Position access cover and cable retainer onto back of control and secure both with 2 screws. Torque screws to 60 lb. in. (7 N.m).

# Port Side Control Module Cable Installation All Outboard Models thru 250 (3 Litre)

## ⚠CAUTION

Before tightening cable fastener locknut, be sure that pin on end of cable fastener is completely thru cable end and shift/throttle lever. A pin, that is partially thru cable and lever, may cause fastener to bend when locknut is tightened.

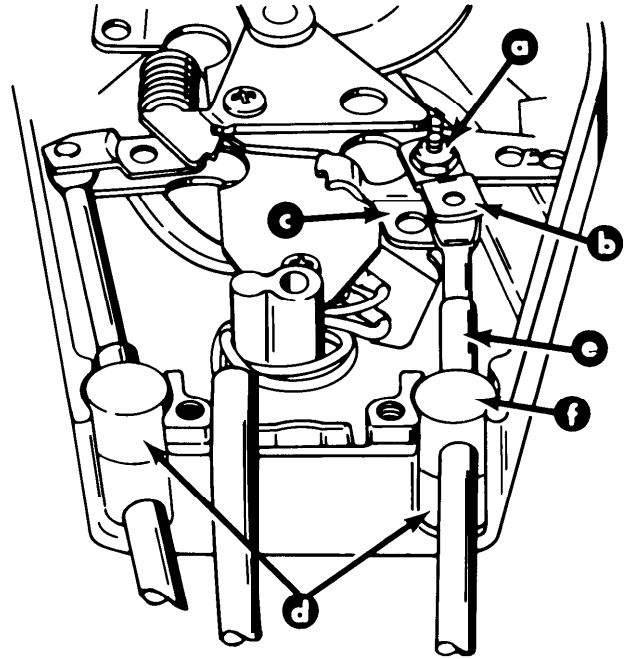
## Shift Cable



- a - Cable Fastener Locknut
- b - Cable Fastener
- c - Shift Cable
- d - Cable Anchor Barrel

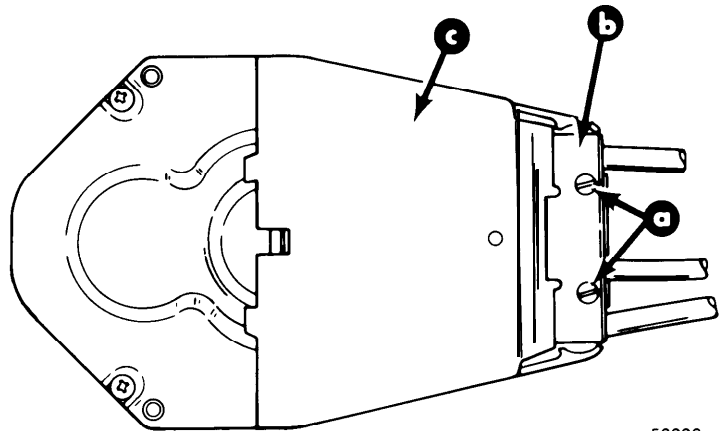
Torque cable fastener locknut to 20 to 25 lb. in. (2.3-2.8 N.m).

## Throttle Cable



- a - Cable Fastener Locknut
- b - Cable Fastener
- c - Throttle Lever
- d - Spacer (From Parts Bag)
- e - Throttle Cable
- f - Cable Anchor Barrel

Torque cable fastener locknut to 20 to 25 lb. in. (2.3-2.8 N.m).

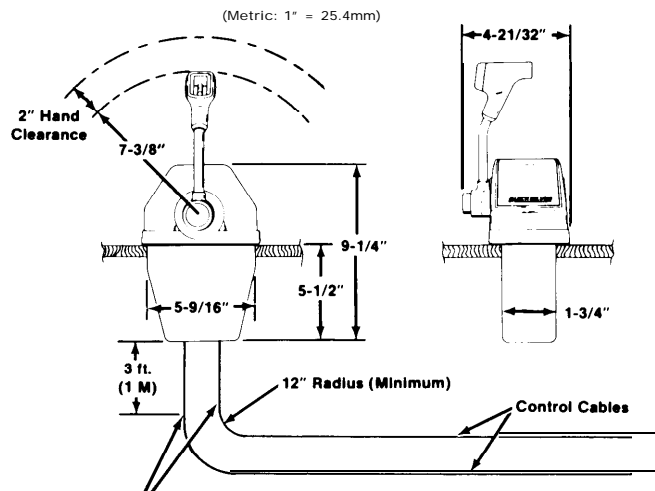


- a - Screws
- b - Cable Retainer
- c - Access Cover

Position access cover and cable retainer onto back of control and secure both with 2 screws. Torque screws to 60 lb. in. (7 N.m).



## Required Mounting Clearance



IMPORTANT: The control cables should extend straight downward for at least 3 ft. (1m) before bending, and cable bends should have at least a 12" (30.4cm) radius. This will prevent binding of cables.

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## Locating and Drilling Mounting Area

### ⚠ CAUTION

Area directly under control must be free of obstructions (bulkhead, braces, etc.). Cables always must protrude from rear of control, extending straight-down and parallel to each other. Radius (at point where cables are routed toward stern of boat) must not be less than 12" (30.5cm). This will prevent placing a load or bind on control cables that would result in hard shifting or binding throttle action.

1. Locate area where control will be mounted in boat. Be sure to allow sufficient clearance for control handle when in full forward and full reverse position.
2. Place Template (provided on last page) over area where control is to be mounted.
3. Cut and drill mounting area as indicated on template.

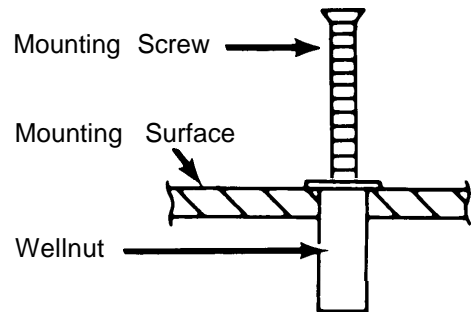
## Remote Control Mounting

### ⚠ CAUTION

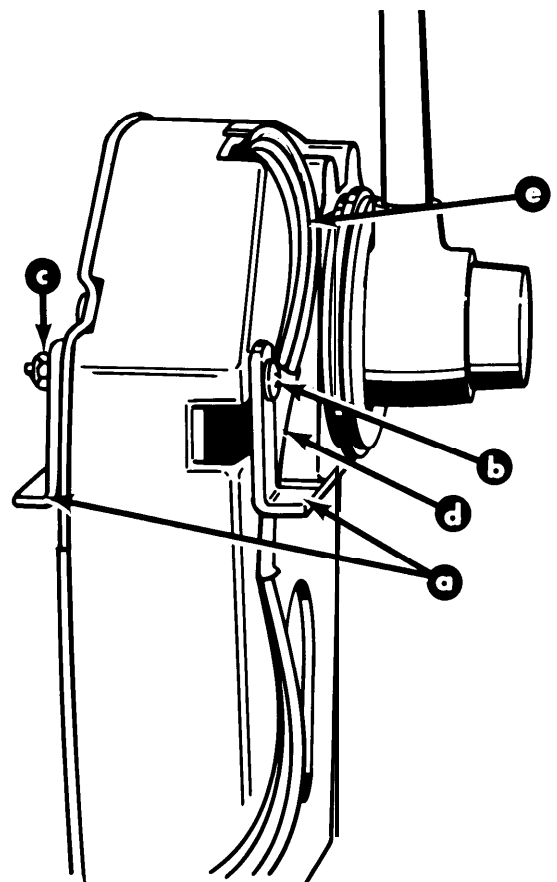
This trim control can be connected only to Power Trims that are equipped with a 2-solenoid trim pump. If Power Trim is equipped with only one solenoid, a Trim Solenoid Kit must be purchased and installed on Power Trim pump.

1. Insert wellnut fasteners into drilled holes with flange against the outer surface.

NOTE: It may be helpful to thread a mounting screw into fastener when inserting fastener into drilled hole.



2. Install mounting brackets on remote control with two 2-1/4" (57mm) long screws and locknuts, as shown.



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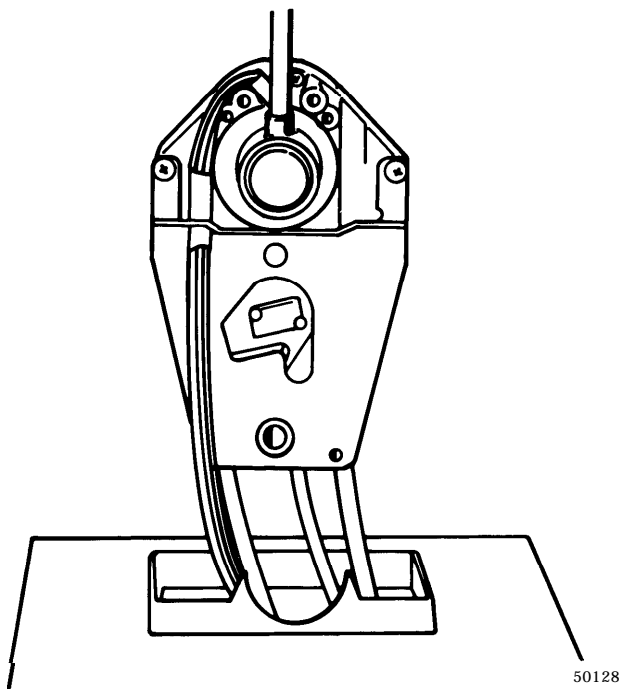
- a - Mounting Brackets
- b - Screws
- c - Locknuts
- d - Protective Sleeve
- e - Wiring Harness

3. Make sure wiring harness and protective sleeve are installed as shown.

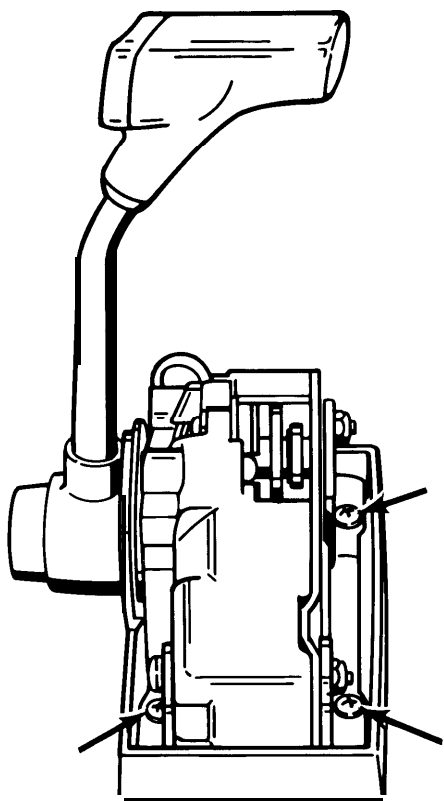
### ⚠ CAUTION

Protective sleeve must be positioned over the wires and behind the mounting bracket, as shown, to prevent wires from being pinched or cut by the mounting bracket.

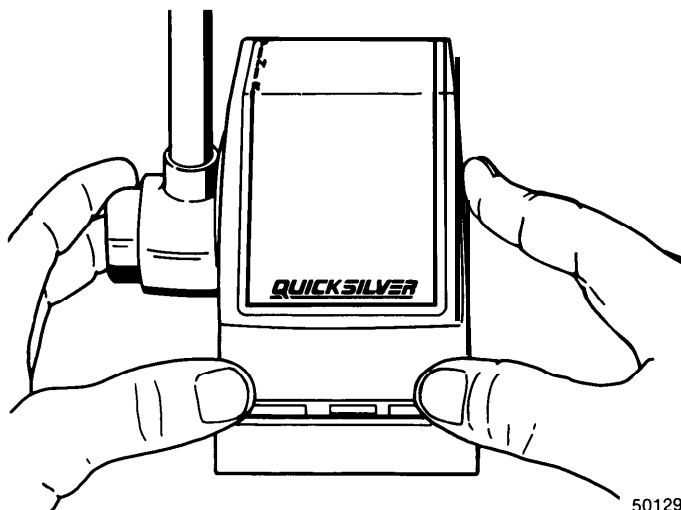
4. Route control cables and wiring harnesses thru mounting base, then place remote control into position on mounting base.



5. Secure remote control to mounting surface with four 1-1/2" (38mm) long screws, tighten securely.



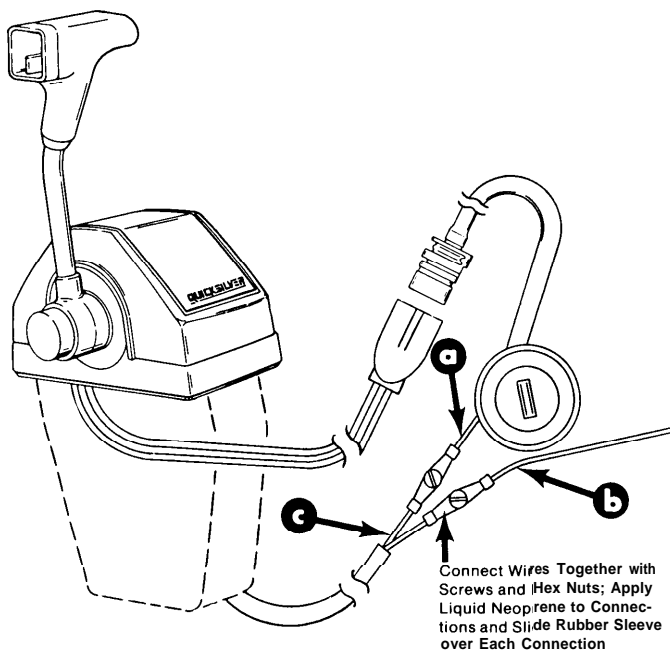
6. Install cover on remote control by snapping into place.



## Electrical Connections

### ⚠ WARNING

Failure to connect neutral start safety switch leads properly could allow engine to start while in gear. If engine starts while in gear, immediate boat movement and a hazard to unseated occupants of boat or persons and property outside of boat may result.

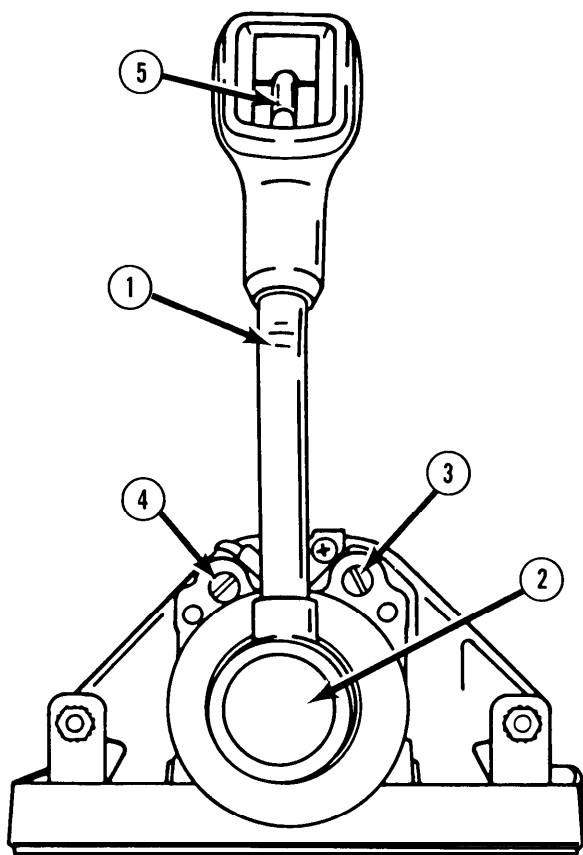


- a - Yellow/Red from Key/Choke Switch
- b - Yellow/Red from Engine Remote Wiring
- c - Yellow/Red Neutral Safety Start Switch from Remote Control

**IMPORTANT:** When routing neutral start safety switch harness, secure each harness every 18" (45.7cm). Be sure that wiring does not rub or get pinched and that it does not come in contact with water.

## Operation

1. **Control Handle:** Features full gear shift and throttle. Shift into gear with a firm, quick motion. Do not ease gears into or out of engagement. Approximately the first 40 degrees of control handle travel (from neutral position) shifts the gears, the remaining travel of the control handle advances throttle.
2. **Throttle Only Button:** Allows engine throttle advancement without shifting engine. This is done by disengaging the shift mechanism from the control handle. Throttle-only button can be depressed only when control handle is in neutral, and should be used only to assist in starting the engine. Refer to Operation and Maintenance Manual for correct throttle setting for starting the engine.
3. **Control Handle Detent Tension Adjustment Screw:** Increases or decreases the tension on the control handle detent. Turn detent screw in (clockwise) to increase tension on detent.
4. **Control Handle Friction Adjustment Screw:** Adjust control handle tension by turning adjustment screw in (clockwise) to increase tension; turn screw out (counterclockwise) to decrease tension. Adjust to tension desired.
5. **Trim/Tilt Switch:** Push toward "UP" to trim power package out or push toward "DOWN" to trim in.



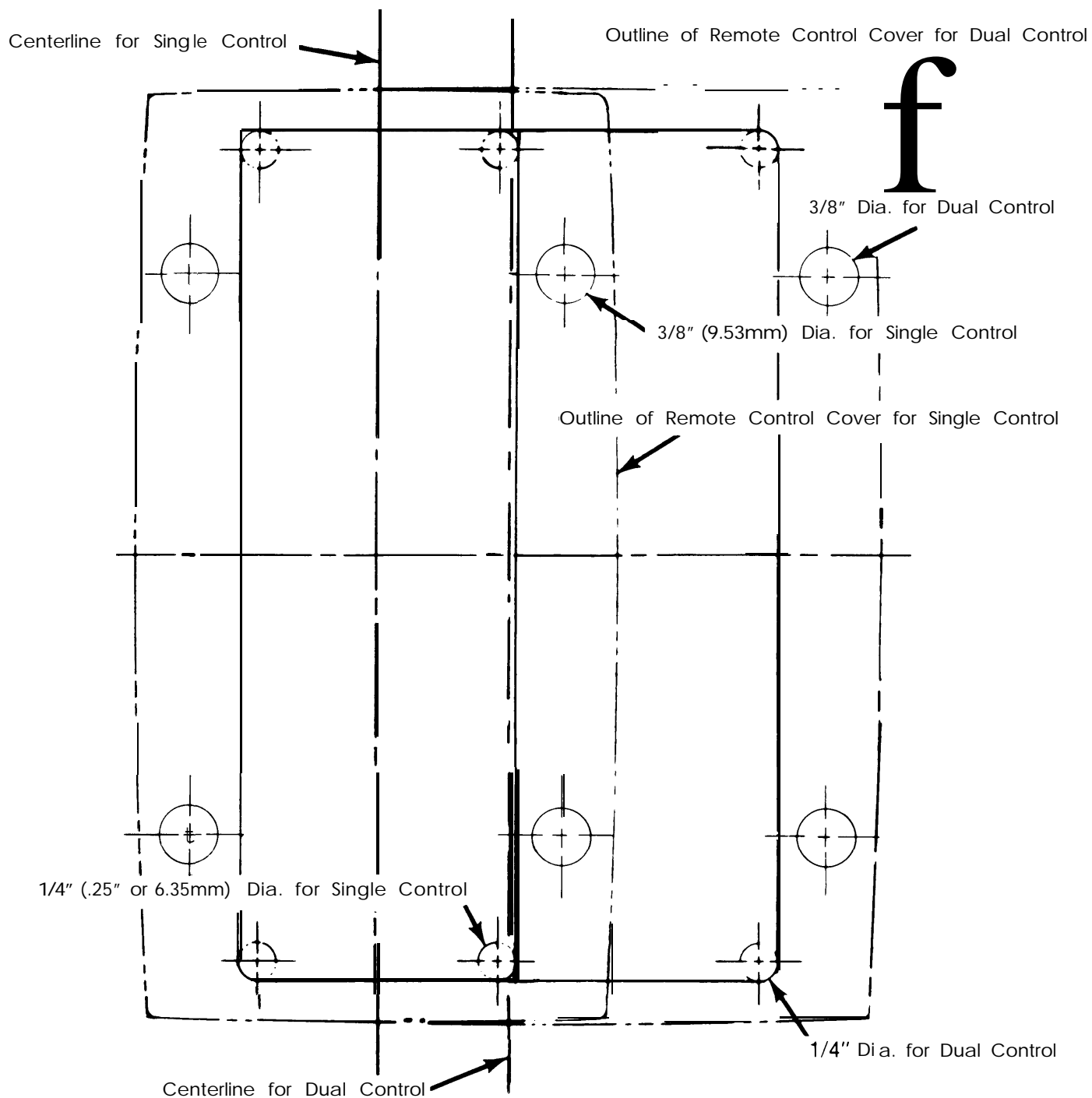
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## ⚠ CAUTION

Check that water level is above water intake ports. (Should water level fall below water intake ports, damage from overheating or water pump impeller damage could occur.)

NOTE: If the trim switch remains pushed toward the "DOWN" position, after unit reaches its end of travel, an overload cut-out switch will open and pump motor will stop. To prevent cut-out switch from opening, it is recommended that trim switch be released as soon as unit reaches end of travel. If cut-out switch should open, do not depress switch or button for approximately one minute. After this period of time, cut-out switch will close (reset itself) and pump again may be operated.

# Template for Dual and Single Console Controls



## ⚠CAUTION

Area (located directly under mounting panel) must be free from obstructions and must allow cables to form a gradual bend when routed toward stern of boat.