

INSTALLER: THESE INSTRUCTIONS CONTAIN IMPORTANT SAFETY INFORMATION AND MUST BE FORWARDED TO THE BOAT OWNER.


MODEL SR SERIES TWIN CONTROL

OWNER'S MANUAL

Part Number:
CH5400P
(Single or
Dual Station
Installation)



NOTICE

Throughout this manual, Warnings and Cautions, accompanied by the International Hazard Symbol , are used to alert the manufacturer or installer to special instructions concerning a particular service or operation that may be hazardous if performed incorrectly or carelessly.

Warnings alone do not eliminate dangers, nor are they a substitute for safe boat handling and proper accident prevention measures. **Observe these alerts carefully!**

*These "safety alerts" alone cannot eliminate the hazards they signal. **Strict compliance to these special instructions** when installing, operating or performing maintenance and using common sense are the most effective accident prevention measures.*

DANGER

*Immediate Hazards which **WILL** result in severe personal injury or death.*

WARNING

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

CAUTION

*Hazards or unsafe practices which **COULD** result in injury, product and/or property damage.*

NOTICE

Information that is important to the proper installation, operation and maintenance, but is not hazard related.

NOTICE

This control is for use with Type 3300 Cables, or can be used with Type 4300 Cables with addition of Kit 040090 (1 per cable).

Before starting installation, read these instructions and the engine maker's instructions thorough or incorrect assembly can result in loss of control and cause property damage or injury.

Do not substitute parts from other manufacturers. They may cause a safety hazard which Teleflex Inc. (USA) cannot accept responsibility.

Cable installation and connections must be made in accordance with the motor manufacturer's instructions.

To insure best performance and free operation of all linkages and the remote control is essential. Follow the manufacturer's recommended procedures for adjustment and lubrication.

All specifications and features are subject to change without notice.

NOTICE

TELEFLEX MARINE HIGHLY RECOMMENDS THE INSTALLATION, AND USAGE OF AN ENGINE SHUT OFF SWITCH (SOMETIMES CALLED A "KILL" SWITCH) AS AN IMPORTANT EMERGENCY SAFETY FEATURE FOR BOATS. THIS SWITCH SHOULD BE CONNECTED BY A CORD TO THE BOAT DRIVER. SHOULD THE DRIVER BE THROWN FROM THE HELM POSITION, THE ENGINE WILL AUTOMATICALLY SHUT OFF.

THIS SHUT OFF SWITCH IS NOT A STANDARD PART OF THE CONTROL YOU ARE USING. IT CAN, HOWEVER, BE OBTAINED FROM MOST MARINE DEALERS AND DISTRIBUTORS.

The Model "SR TWIN" Control can be used to control both the throttle and clutch operation of a single engine installation. Dual station control to provide operation from both the cabin and the bridge can be obtained by using Model "SR TWIN" Controls connected either in tandem or in parallel.

Equipment Required

The following components are required to make a remote control installation for ONE engine. For twin engine installations, each of these requirements should be doubled.

Components	For Single Station	For Dual Stations
<i>Not Included With Control</i>		
Clutch Connection Kit	1	1
Throttle Connection Kit	1	1
Clutch Detent Kit	1	---
3300 type Push-Pull Cable	2	4

An accessory clutch detent kit, # 036774, is recommended when used for clutch control applications (except for dual station installation). This kit provides positive detent feel at forward, neutral and reverse.

Mounting Control

1. Using the template provided, determine the proper position for the control head. Clearance must be allowed for full forward and reverse movement of the hand lever. (See Figure 2.)

2. Cut the opening required, according to template provided.

⚠ CAUTION

DO NOT CUT OPENING ANY LARGER THAN TEMPLATE INDICATES.

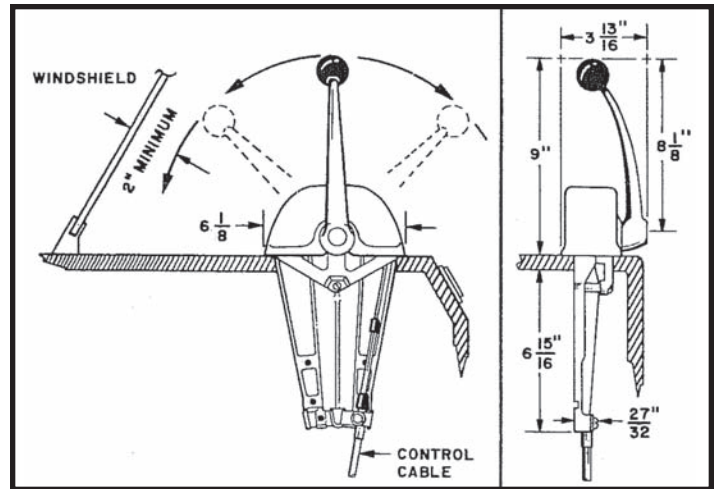


FIGURE 2

3. Remove control cover (5) by removing screw (3) and washer (4).

4. Determine whether push or pull operation of cable is required for forward operation of clutch, and whether push or pull to open operation of throttle is required.

Cable will be installed in control using outer hole (2 3/4" travel) of control arm in either the push or pull mode as required. Push is toward bow and pull is toward stern of boat. (See Figure 3.)

NOTE:
Inner hole (1 1/4" travel) of control arm is normally only used for electric switch or special application.

5. Screw terminal (20) onto cable approximately 9/16 inch.

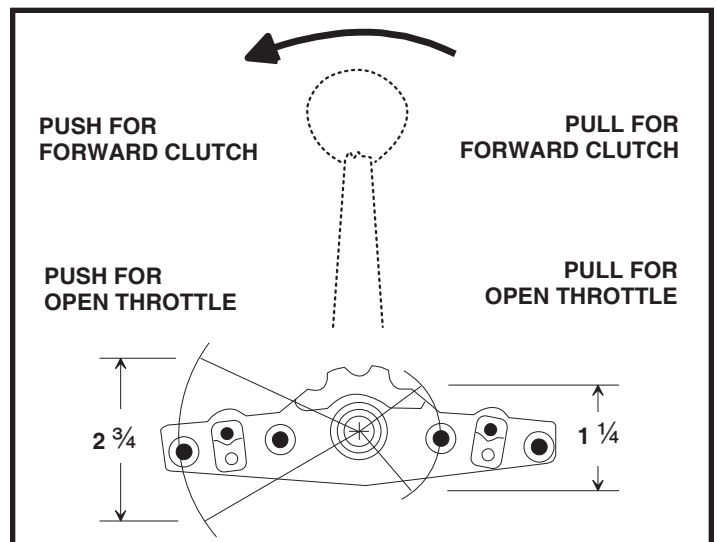


FIGURE 3

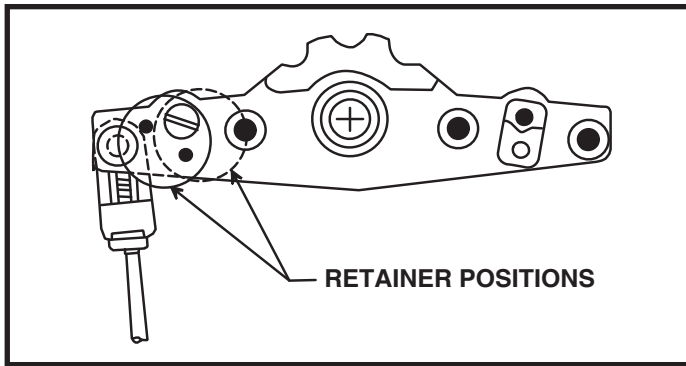


FIGURE 4

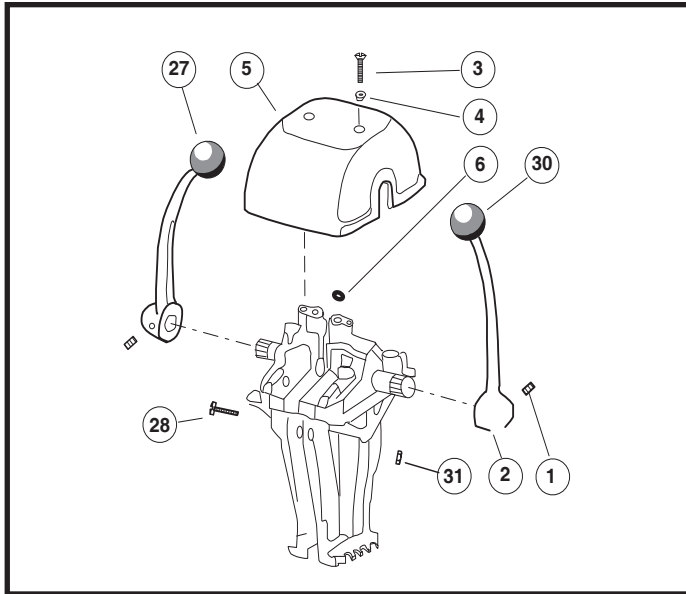


FIGURE 5

6. Place cable hub into groove on lower part of main housing and retain with plate (24), screw (22) and bowed washer (23).

Fasten terminal (20) to arm (17) with pin (29), retainer (19), screw (18) and nut (12). (See Figure 4 & 5.)

NOTE:

CLUTCH CABLE SHOULD BE INSTALLED WITH A CLUTCH DETENT KIT, #036774, UNLESS THE TRANSMISSION HAS AN INTERNAL DETENT.

7. Feed control cables down through opening cut in console to the engine throttle and clutch levers.

The cables should be run as straight as possible, avoiding any sharp bends and as few bends as possible. No bend should be less than an 8 inch radius.

8. Fasten controls to console with hardware provided.

Connect Cables to Engine

1. Install the correct engine throttle and clutch connection kit on engine, if not already provided with engine.

2. Connect cables to engine in the manner specified with engine kit instructions or as provided by engine manufacturer.

Final Adjustment

1. Operate the clutch hand lever. The clutch hand lever detent positions and the clutch lever detents of the hydraulic transmission **MUST COINCIDE EXACTLY** at forward, neutral and reverse positions. Adjust the cable terminal at the transmission as required to obtain the correct operation.

2. **ADJUST THE CONTROL HAND LEVER STOP SCREWS** to prevent operation of control hand lever beyond forward and reverse detent positions.

3. Operate the throttle hand lever. Adjust throttle cable terminal at engine as required to obtain full open throttle movement. **ADJUST THROTTLE HAND LEVER STOP SCREWS** so lever rests on rear stop screw at full open throttle position and on front stop screw at idle.

4. Friction brake screws (14) may be turned clockwise to increase drag on hand lever or counterclockwise to decrease drag as desired.

Complete Installation of Control

1. Tighten cable jam nuts at terminals on both ends of cables.
2. Light oil or grease should be placed on moving parts just installed.
3. Install cover (5), using screw (3) and washer (4). A bead of caulking around base of cover will help seal against water running under cover.
4. Secure all cable supports, but not so tight as to crush cable conduit.
5. The control hand levers should operate freely with light hand pressure. Any stiffness or binding in the operation of the hand levers can usually be traced to:

- 1. Excessive number of bends in cable run.**
- 2. Sharp bend in the cables throughout the cable run.**
- 3. Bends smaller than the recommended minimum radius of 8 inches.**
- 4. Cable compressed too tightly by cable supports.**
- 5. Damaged cable.**
- 6. Friction brakes too tight.**
- 7. Tight or misaligned engine linkage.**

NOTE:

Do not expect the dual station control operation to feel as good as a single station set up since the system friction has been approximately doubled.

Pay special attention to the 7 bold points listed above.

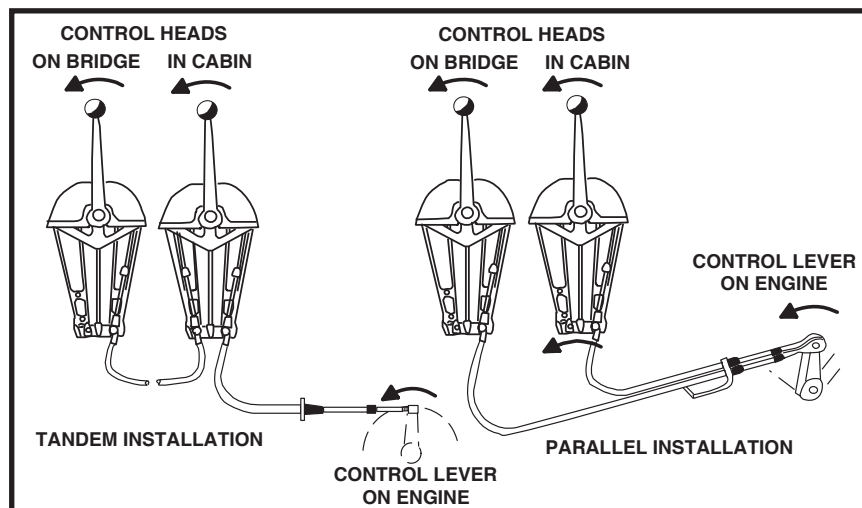


FIGURE 6

Dual Station Applications Maintenance

Teleflex TFXtreme control cables are recommended for dual station applications.

1. Typical dual station applications are shown in Figure 7.
2. It is extremely important for cable to be run as straight as possible, avoiding sharp bends, and as few bends as possible.
3. Special connection kits are available for installing dual stations.

Control Maintenance

For maximum protection, especially in salt water environment, wipe metallic parts with marine grease periodically. Rinse with fresh water after every use.

Replacement Parts

Bearings Rebuild Kit #CA67870P

Item #	Kit Description	Includes
16	Long Shaft Bearing	4
21	Short Shaft Bearing	4
17	Control Arm	2
15	Throttle Tension Strap	2

Decorative Rebuild Kit #CA68350P Not Shown in Figure 7.

Kit Description	Includes
Stainless Steel Bezel	1
Handles	2
Handle set screws	2
Bezel Screws	2
O-Rings	2
Red Knob	1
Black Knob	1

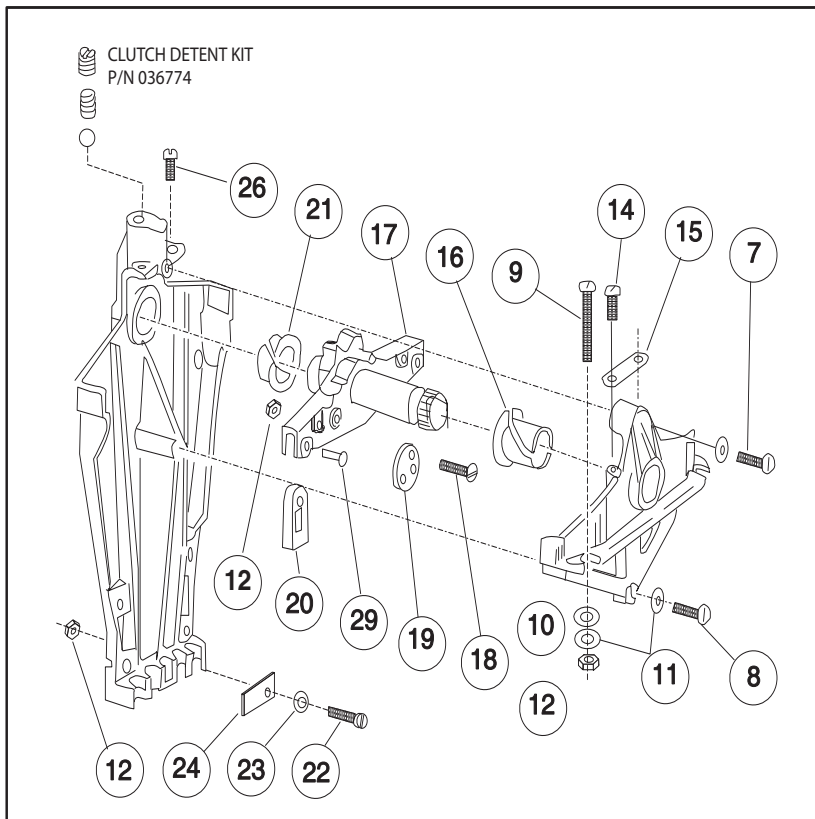


FIGURE 7- ONE HALF THE TWIN SR SHOWN

Replacement Hardware Kit #060991

Item #	Kit Description	Includes
23	Bowed Washer	2
24	Cable Retaining Plate	2
22	Retainer Screw	2
9	Control Mounting Screw	4
10	Flat Washer	6
11	Split Lockwasher	4
12	Nut	8
29	Pin	2
20	Cable Terminal	2
19	Cable Terminal Retainer	2
18	Terminal Retainer Screw	2

In-series Dual Station Kit, 30 Series #039490-002
(to connect one cable to second side of lower control arm from upper station)

In-series Dual Station Kit, 40 Series #048501-002
(to connect one cable to second side of lower control arm from upper station)

Clutch Detent Kit #036771
(For one clutch)

Hand Lever Ball Knob Kit #CA68287P
(Includes 1 red knob, 1 black knob)

40 Series Cable Connection Kit #040090.
(To connect one 40 Series Cable to Control)

Replacement Stainless Cover #047682

Replacement Handle #036326

Neutral Safety Switch Kit #041117
(for one clutch)

Optional Adapter Kit For SR Controls For 4300 Style Cables P/N 040090

This kit contains all the parts necessary to convert the Model 'SR' for use with a Type 4300 control cable. (One kit is required for each cable used)

1. Determine whether push or pull cable action is required. Refer to Figure 3 on page 3.

NOTE

When control is used with this kit, cable terminal can be attached only in the outer hole of control arm as shown.

2. The following, packed with the Control and shown on Figure 7, page 6, are to be discarded:

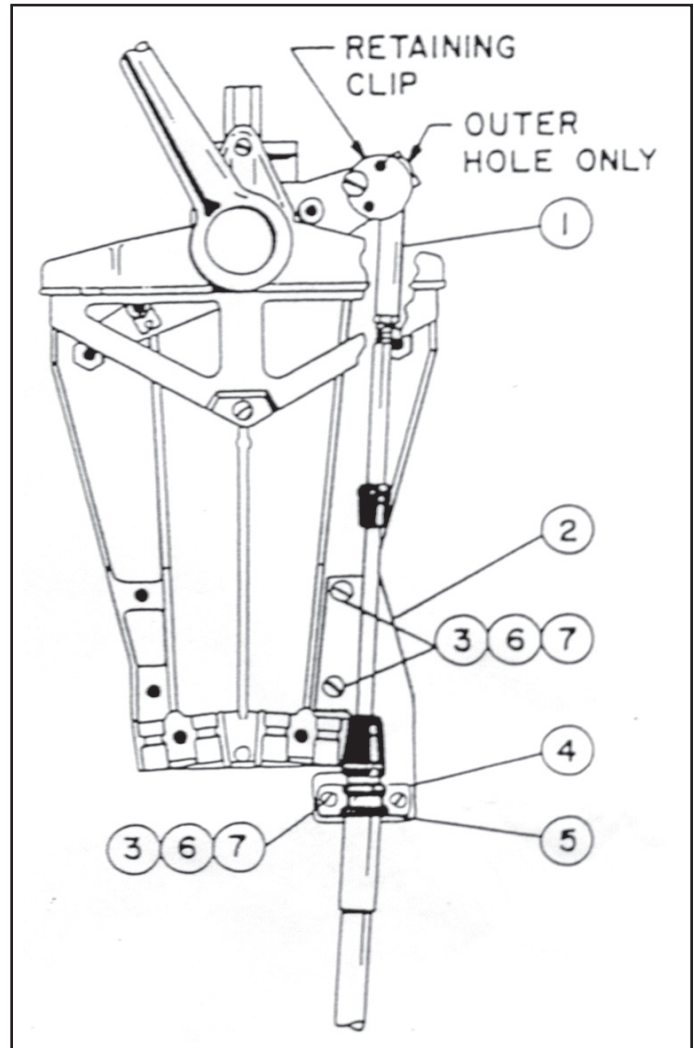
- Item 20 - Terminal
- Item 22 - Hex. Head Screw #10-32 x 3/4 lg.
- Item 23 - Bowed Washer
- Item 24 - Retaining Plate

3. Attach bracket (2) as shown in illustration, using screws (7), lock washers (3) and nuts (6).

4. Screw cable terminal (1) into cable rod approximately 5/8". Tighten cable rod nut against cable terminal (1). Insert cable terminal into slot in control arm and lock with pin, retaining clip and screw.
(NOTE: - Lubricate pin first.)

5. Attach cable hub to bracket as shown using clamp (4), shim (5), screws (7), lock washers (3) and nuts (6).

6. Refer to SR Control Instructions and Connection Kit Instructions to complete Installation.



Item	Description	No. Req'd.
1	Cable Terminal	1
2	Bracket	1
3	Lockwasher, Int. Tooth, #10	4
4	Clamp	1
5	Shim	1
6	Nut, Reg. Hex, #10-32	4
7	Screw, Fil. Hd. #10-32 x 5/8" long	4

Optional Neutral Safety Switch Kit #041117

This neutral safety switch kit is designed for use with the Teleflex Marine SR style controls. Its purpose is to prevent the engine from being started while the control is in gear.

Prior to installing the cable into the control, secure the bracket to the control base as shown in Figure A, using the screws, nuts and lock washers (items 4, 7 and 8). Place the cable in the mounting slot of the control and retain it with the cable retainer plate, the screw and the washer that came with the control.

Next, attach the switch to the bracket with the hardware as shown. Make sure that you have lock washers between the spacer and the metal switch bracket. **DO NOT TIGHTEN THE SCREWS DOWN AT THIS TIME.**

Adjust the switch at the slotted hole in the bracket so that the cable sleeve closes the switch at the position nearest to neutral. **TIGHTEN THE SCREWS AT THIS POINT.**

Finally, wire the switch into the circuit between the starter solenoid and the starter key switch. Use the common and normally open terminals. At this point check the setup to verify that the engine will not start if the control is out of the neutral position.

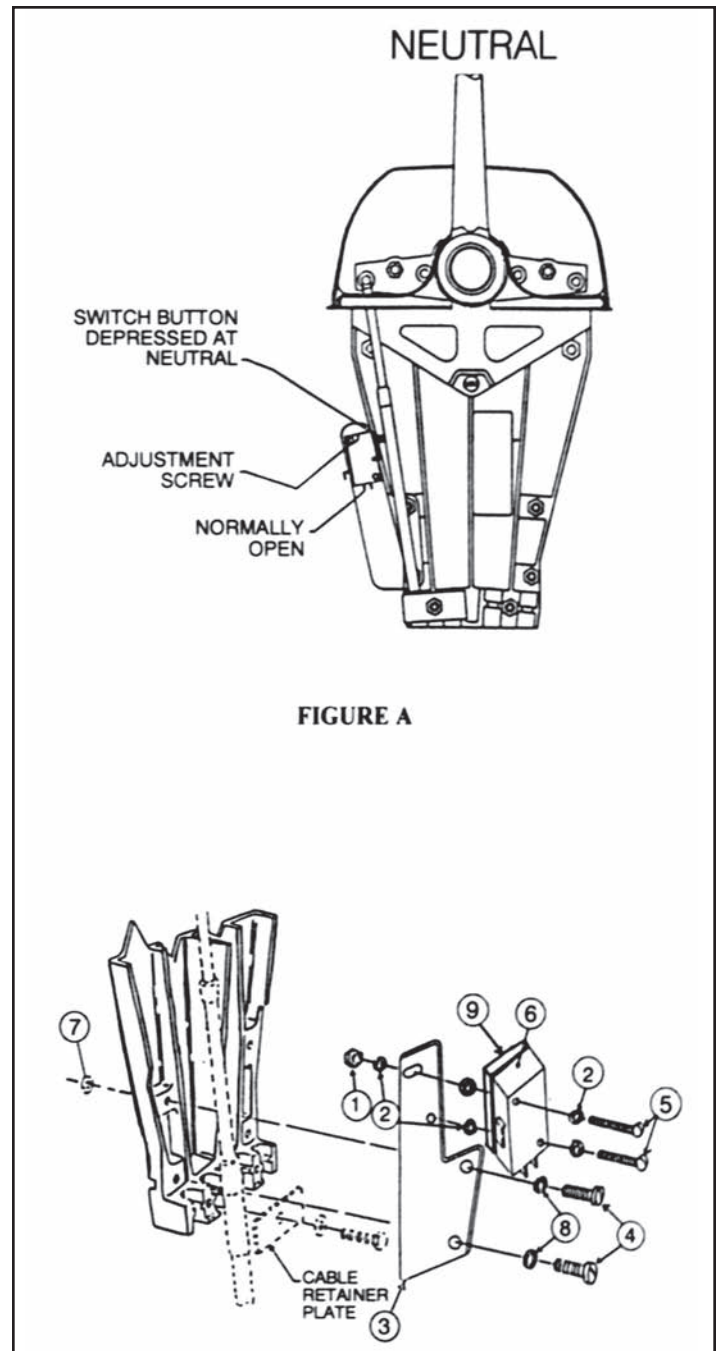


FIGURE A

Item	Description	No. Req'd.
1	Nut, Hex, #4-40	1
2	Internal Tooth Lockwasher, #4	5
3	Bracket	1
4	Screw, Fillet Head, #10-32 x 5/8" long	2
5	Screw, Round Head #4-40 x 7/8" long	2
6	Switch	1
7	Nut, Hex #10-32	2
8	Internal Tooth Lockwasher, #10	2
9	Spacer	1

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