

TELEFLEX MORSE Marine Products

Model SR Twin Control

Part Number: E36469-1

(Single or Dual Station Installation)

For use with Type 33 Cables

Installation Instructions

This manual must be accessible to the owner/user of the Morse Marine Product.

PLEASE READ THESE INSTRUCTIONS THROUGH CAREFULLY AND ENTIRELY BEFORE BEGINNING INSTALLATION!



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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.

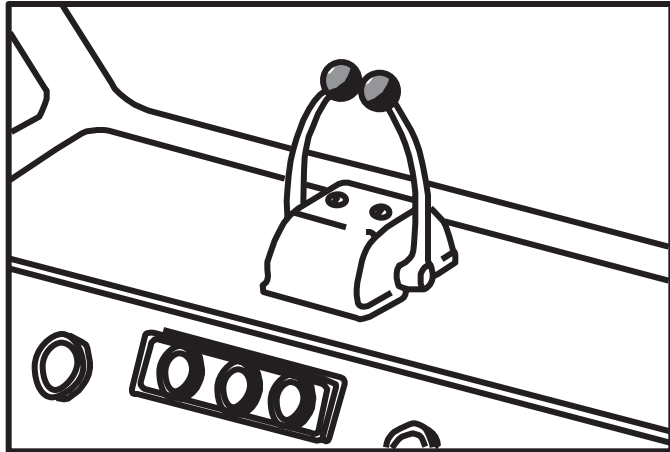


FIGURE 1

An accessory clutch detent kit P/N A36774, is recommended when used for clutch control applications (except for dual station installation). This kit provides positive detent feel at forward, neutral and reverse.

Model 'SR TWIN' controls can be used in combination to provide any desired grouping of the clutch and throttle functions. (See Figures 1 & 2)

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
Control Head	1	2
Clutch Connection Kit	1	1
Throttle Connection Kit	1	1
Clutch Detent Kit	1	---
33 type Push-Pull Cable	2	4

Mounting Control Head

- 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.)

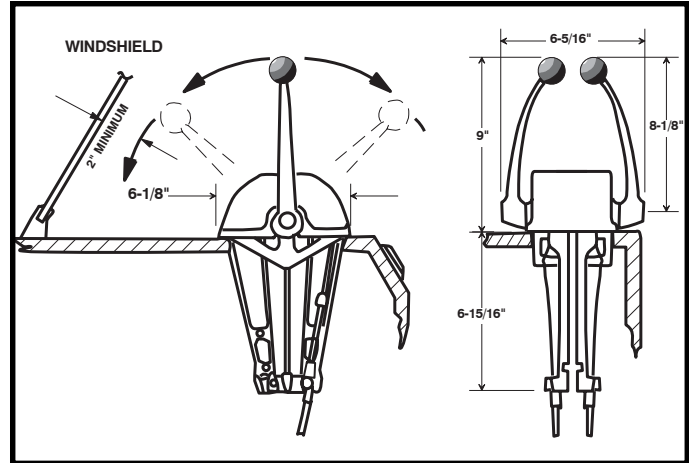


FIGURE 2

- Cut the opening required according to template provided.



DO NOT CUT OPENING ANY LARGER THAN TEMPLATE INDICATES.

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

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

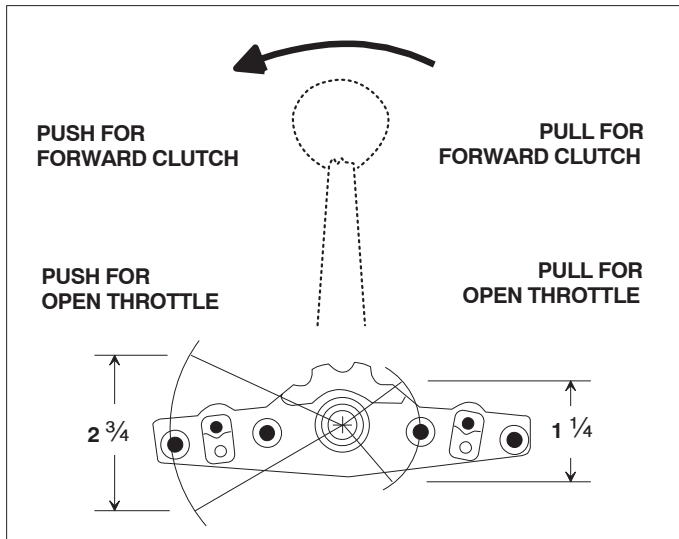


FIGURE 3

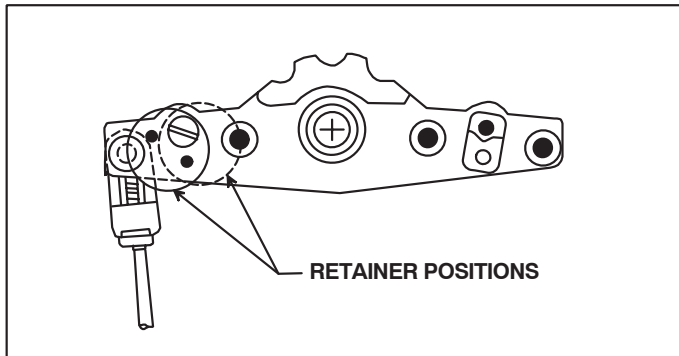


FIGURE 4

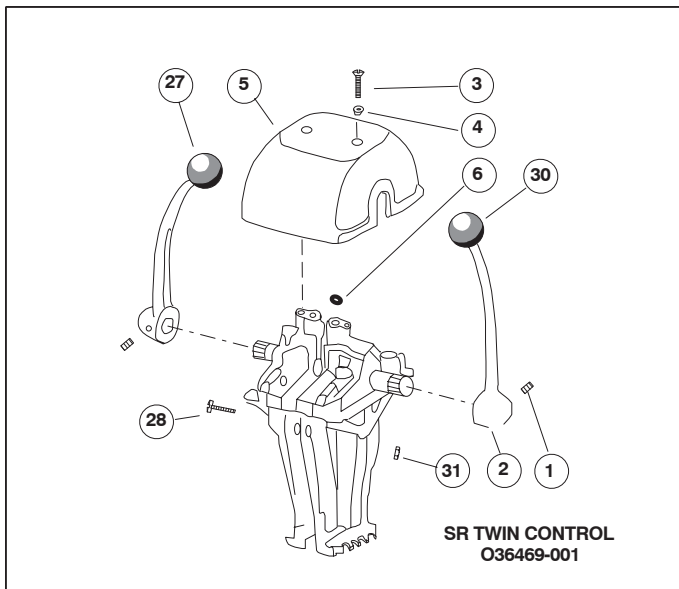


FIGURE 5

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.

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 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 runs.**
2. **Sharp bend in the cables close to the engine.**
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 dual station control operation to feel as good as single station since the system friction has been approximately doubled.

Pay special attention to the 7 bold points listed above.

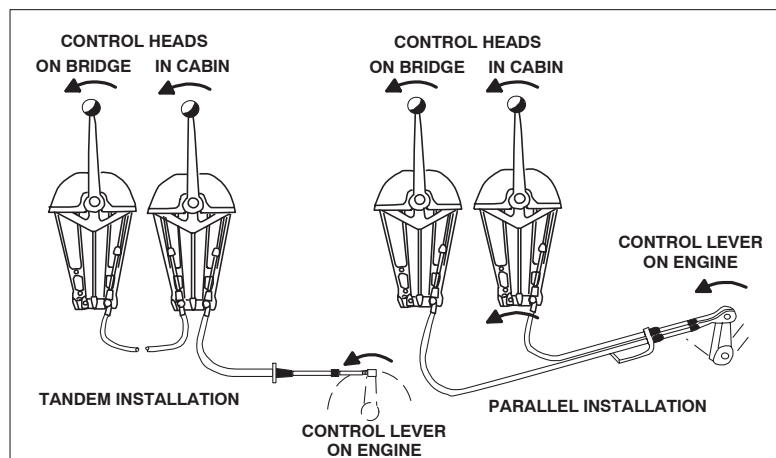


FIGURE 6

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. A cable transfer unit #061371 may help to eliminate unnecessary cable bends and allow the use of shorter cables.

Maintenance

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

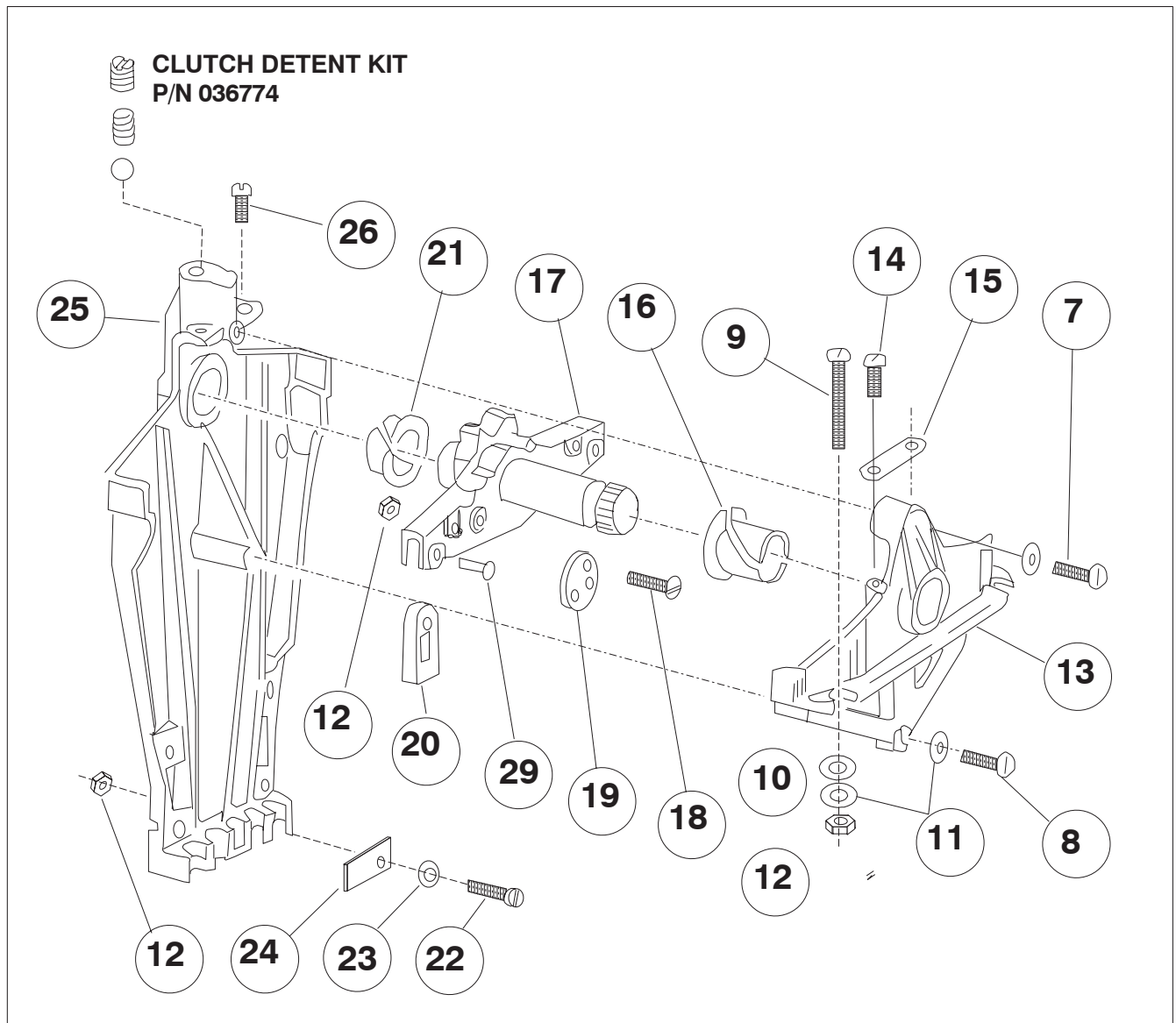


FIGURE 7

Item Number	Description	Number Required	Part Number	Item Number	Description	Number Required	Part Number
1	Setscrew 5/16-18 x 3/8	2	050414-004	16	Nyliner-3141.D. x 3/4 lg.	2	062947
2	Hand Lever SR	2	036326	17	Control Arm Shaft	2	036299
3	Screw-Oval Hd. Mach. #10-24 x 1/2"	2	050127-046	18	*Screw, Bind Hd. Mach. #10-32 x 1/2" lg. w/Torq patch	1	306102
4	Washer. Seal	2	036354	19	*Retainer	2	300562
5	Cover	1	047682	20	*Cable Terminal	2	300561
6	O-Ring	2	051200-018	21	Nylon Bearing	2	032660
7	Screw, Rd. Hd. Mach. #10-24 x 5/8" 1g.	6	050145-062	22	*Screw. Hex Hd. Mach.. #10-32 x 3/4" lg.	2	050406-662
8	See Item #7			23	*Washer. Bowed	2	032320
9	*Screw Rd. Hd. Mach. #10-32 x 1-1/2" lg.	4	050145-610	24	*Cable Retaining Plate	2	036350
10	*Washer, Flat 7/32 I.D x 1/2 O.D. x 1/16 thk.	4	050800-052	25	Main Housing	2	036300
11	*Lockwasher, Split #10	8	050801-311	26	Stop Screw (see item #7)	1	035232-4
12	*Nut, Finished Hex #10-32	10	050900-078	27	Ball Knob (Black)	2	050112-562
13	Bearing Housing	2	036298	28	Screw. Fil. Hd. Mach. #10-32 x 5/8 lg.	2	051100-100
14	BrakeScrew (see item #7)			29	*Pin	2	051100-100
15	Brake Tension Strap	2	036356	30	Ball Knob (Red)	1	035232-1
				31	See Item #12		

Items marked with asterisk (*) included in Fitting Kit P/N 060991

OPTIONAL ITEMS:

Neutral Safety Switch Kit	041117
43C Cable Adapter Kit	040090
(one required for each cable)	

OPTIONAL ADAPTER KIT FOR SR CONTROLS WITH 43C STYLE CABLES
P/N 040090

This kit contains all the parts necessary to convert the Morse Model 6SR1 for use with a Type 43-C 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 Control and shown on Figure 7, page 5 are to be discarded:

Item 20 - Terminal	(0300561)
Item 22 - Hex. Head Screw #10-32 x 1/2 lg.	(050406-662)
Item 23 - Bowed Washer	(032320)
Item 24 - Retaining Plate	(036350)

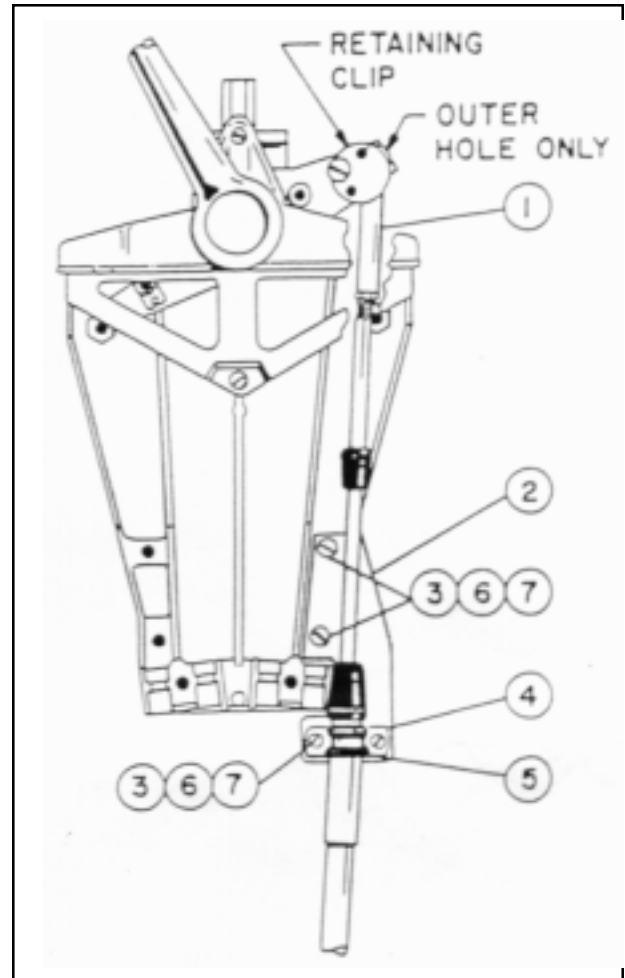
3. Attach bracket (2) as shown in illustration, using screws (7), lock washers (4) and nut (6).

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.	Part Number
1	Cable terminal	1	040089
2	Bracket	1	040091
3	Lock washer, Int. Tooth, #10	4	050803-059
4	Clamp	1	031532
5	Shim	1	031538
6	Nut, Reg. hex, #10-32	4	050900-076
7	Screw, Fil. Hd. #10-32 x 5/8" long	4	050112-5

OPTIONAL NEUTRAL SAFETY SWITCH KIT

P/N 041117 for use with **SR Control**

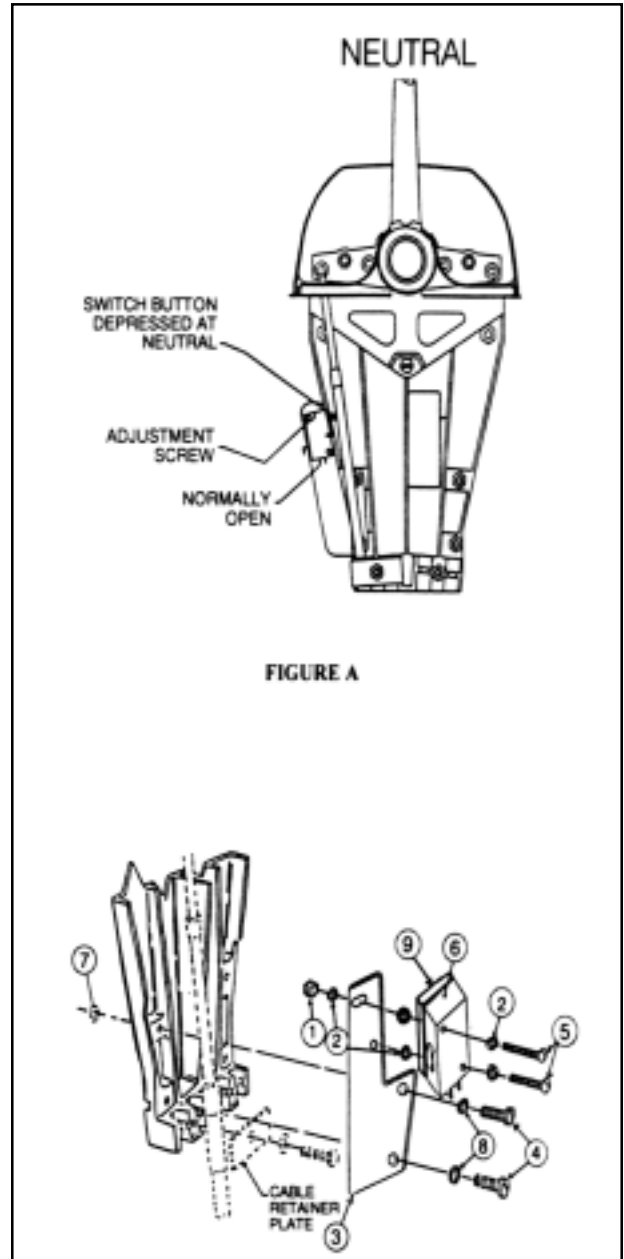
This neutral safety switch kit is designed for use with the Morse SR style controls. Its purpose is to prevent the engine from being started while the control is in gear.

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.



Item	Description	No. Req'd.	Part No.
1	Nut, Hex, #4-40	1	050900-026
2	Internal tooth Lockwasher, #4	5	050803-023
3	Bracket	1	040772
4	Screw, Fillet Head, #10-32 x 5/8" long	2	050112-561
5	Screw, Round Head #4-40 x 7/8" long	2	050143-077
6	Switch	1	311889
7	Nut, Hex #10-32	2	050900-076
8	Internal tooth Lockwasher, #10	2	050803-059
9	Spacer	1	311888

LIMITED WARRANTY

Teleflex Morse warrants to the first retail (end user) purchaser of this product or a Teleflex Morse product incorporated in another vendor's product that, for a period of one (1) year from the date of original purchase, such product will be free from defects in materials and workmanship. TELEFLEX MORSE MAKES NO WARRANTY AS TO MERCHANTABILITY OR TO FITNESS OF ITS PRODUCTS FOR A PARTICULAR PURPOSE.

The above warranty does not apply to a product that has not been installed or maintained in accordance with Teleflex Morse instructions, been subjected to damage in an accident or abuse during operation or repaired or modified by persons other than Teleflex Morse. This warranty is also void when Teleflex Morse Marine Products are installed on a boat or engine judged by Teleflex Morse to be an inappropriate application of its product or when Teleflex Morse Products are used with other marine accessory products which in Teleflex Morse's judgment are incompatible with the Teleflex Morse product or adversely affect its performance or durability.

If any Teleflex Morse product is used commercially for such purposes as rental or other income-producing activities, then this warranty is limited to 90 days from the date of original retail purchase. Teleflex Morse's responsibility in respect to warranty claims is limited solely to repair or replacement of product found by Teleflex Morse to be defective. Teleflex Morse DOES NOT PAY FOR LABOR CHARGES connected with removal of a product deemed to be defective or with installation of replacement or repaired product or for any other incidental or consequential damages.

To make a claim under this warranty, return the product believed to be defective to your local marine dealer or Teleflex Morse distributor, along with proof of purchase. If your dealer or distributor feels that a warranty claim is justified, he/she should contact Teleflex Morse giving a description of the product and requesting authorization to return it to the factory.

MERCHANDISE SHOULD NOT BE RETURNED TO TELEFLEX MORSE UNTIL A RETURN GOODS AUTHORIZATION FORM IS RECEIVED.

After receipt of an authorization form, he/she should return the product, freight prepaid, to:

Teleflex Morse
6980 Professional Parkway East
Sarasota, FL 34240.

If found to be defective, and if all return charges have been prepaid, Teleflex Morse will repair or replace the product and return it freight prepaid.

