Forward

The model "S" provides remote control operation of throttle or clutch of a gasoline or diesel inboard engine equipped with a hydraulic transmission. The "Twin S" can control both throttle and clutch of a single engine. Dual station control from both the cabin and the bridge is obtained by using "S" and "Twin S" controls connected in tandem or parallel. Teleflex Morse 33C Supreme cables are recommended in dual station installations for best results. These controls can be used in combination for any desired grouping of the clutch and throttle functions. (See Figure 1)

An accessory detent kit (Part Number 22328) can be used for clutch control applications (except for dual station). This kit provides detent feel at forward, neutral and reverse.

Equipment Required

The following components make a remote control installation for one engine. For twin engines, each of these should be doubled.

COMPONENTS	SINGLE STATION		DUAL STATION	
	"S"	"TWIN S"	"S"	"TWIN S"
Control Head	2	1	4	2
Clutch Connection Kit	1	1	1	1
Throttle Connection Kit	1	1	1	1
Clutch Detent Kit 22328	1	1		
Teleflex Morse 33C Cables	2	2		
33C Supreme Cables		#1 NO.	4	4

"TWIN S" CONTROL "S" CONTROLS M TYPICAL TWIN ENGIN SET UP

FIGURE 1



Hand Lever Extension	036773
Neutral Safety Switch Kit	
Heavy Duty Cables, Type 43C	038012-003
Heavy Duty Cable Attachment Kit	042152
Cable Transfer Unit	061371



Control Head Location

- Allow clearance for forward and reverse movement of .. the hand lever. (See Figure 2).
- The bottom of the control assembly should not interfere with the steering or components of the wheel box.
- The area below the control should allow a clear path for the cables.
- Cut the opening according to the template provided.

NOTE

Do not cut the opening any larger than the template indicates. Do not mount the control at this time.

Control Cable Installation

- Determine whether PUSH or PULL operation of the cable is for forward operation of the clutch, and if PUSH or PULL operation of the throttle is required. The cable will be installed in the control using the outer hole (3" travel) of the control arm in PUSH or
 - PULL mode.

NOTE:

PUSH is toward the bow and PULL is toward the stern. See Figure 3.

The other holes are for special applications only. Do not use these holes unless they are specified by the instructions packaged in the kits.

- Screw the terminal onto the cable rod until the rod end is flush with the back of the terminal. Tighten the cable jam nut against the terminal.
- Lubricate the terminal and insert it into the outer hole of the arm. Insert the cotter pin and spread.
- Mount the cable hub to the hanger plate using the shim, cable clamp, screws and nuts provided.
 Ensure that the recess in the cable clamp engages the groove in the cable hub.

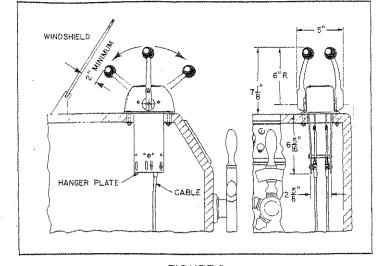
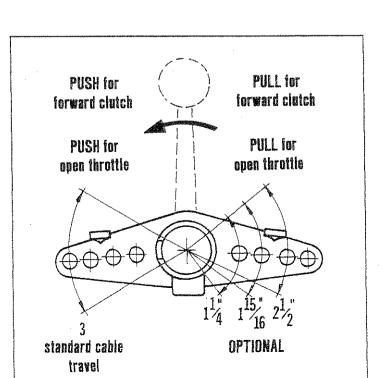
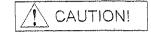


FIGURE 2



Mounting the Control Head

 Feed the control cables down thru the opening cut out to the engine throttle and clutch levers.



ALWAYS RUN THE CABLES AS STRAIGHT AS POSSIBLE.
AVOID ALL SHARP BENDS (8 INCHES MINIMUM RADIUS) WITH

AS FEW BENDS AS POSSIBLE.

Fasten the controls to the console with the hardware provided.

Connecting the Cables to the Engine

- Install the correct engine throttle and clutch connection kits to the engine if not provided with the engine.
- Connect the cables to the engine using the engine connection kit instructions or as provided by the engine manufacturer.

Final Adjustment

- Operate the clutch hand lever. The 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, if necessary, to obtain correct operation.
- Adjust the clutch control hand lever stop screws to prevent operation of the control beyond forward and reverse detent positions. Remove the name plate on top of the control to uncover the stop screws.
- Operate the throttle hand lever. Adjust the throttle cable terminal at the engine to obtain full open throttle movement. Adjust the throttle hand lever stop screws so that the lever rests on the rear stop screw at full open position and on the front screw at idle.
- 4. A friction brake setscrew is located at the hub center of the hand lever. (See Figure 4). Turn the setscrew

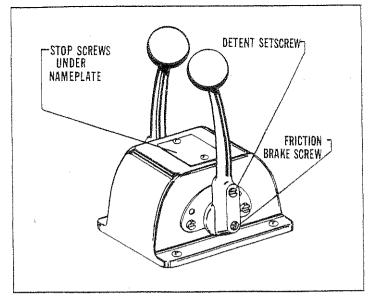


FIGURE 4

Complete Installation of the Control

- Tighten the cable jam nuts securely at the terminals on both ends of the cable.
- 2. Apply oil or light grease to all moving parts just installed.
- 3. Secure all cable supports but do not crush the cable.
- Check the control levers. They should operate freely with light hand pressure. Binding of the levers could be traced to:
 - 1. Excessive number of cable bends
 - 2. Sharp cable bend at engine
 - 3. Bends smaller than 8" min. radius
 - 4. Cable supports clamped too tight
 - 5. Damaged cable
 - 6. Friction brakes too tight
 - 7. Tight/misaligned engine linkage

Dual Station Applications

1. Typical dual station applications are shown in Figure 5.

NOTE:

Teleflex Morse recommends using 33C Supreme Cables on dual station installations for maximum efficiency.

- Cable Transfer Unit (Part Number 61371) may help eliminate some cable bends and promote the use of shorter cables.
- Dual station control operation does not feel as smooth as single station, since the system friction has been doubled. See paragraph 4 under "Complete Installation of the Control."

