

TELEFLEX MORSE Marine Products

S Control

Part Number: 031002-001

Twin S Control

Part Number: 031001-001

Owner's Manual

CAREFULLY READ THESE INSTRUCTIONS IN THEIR ENTIRETY
BEFORE INSTALLING OR OPERATING THIS CONTROL.



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Forward

The model iSî provides remote control operation of throttle or clutch of a gasoline or diesel inboard engine equipped with a hydraulic transmission. The iTwin Sî can control both throttle and clutch of a single engine. Dual station control from both the cabin and the bridge is obtained by using iSî and iTwin Sî 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	
	iSî	iTWIN Sî	iSî	iTWIN Sî
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	---	---	4	4

Optional Equipment Available

Hand Lever Extension 036773
 Neutral Safety Switch Kit 047307
 Heavy Duty Cables, Type 43C 038012-003
 Heavy Duty Cable Attachment Kit 042152
 Cable Transfer Unit 061371

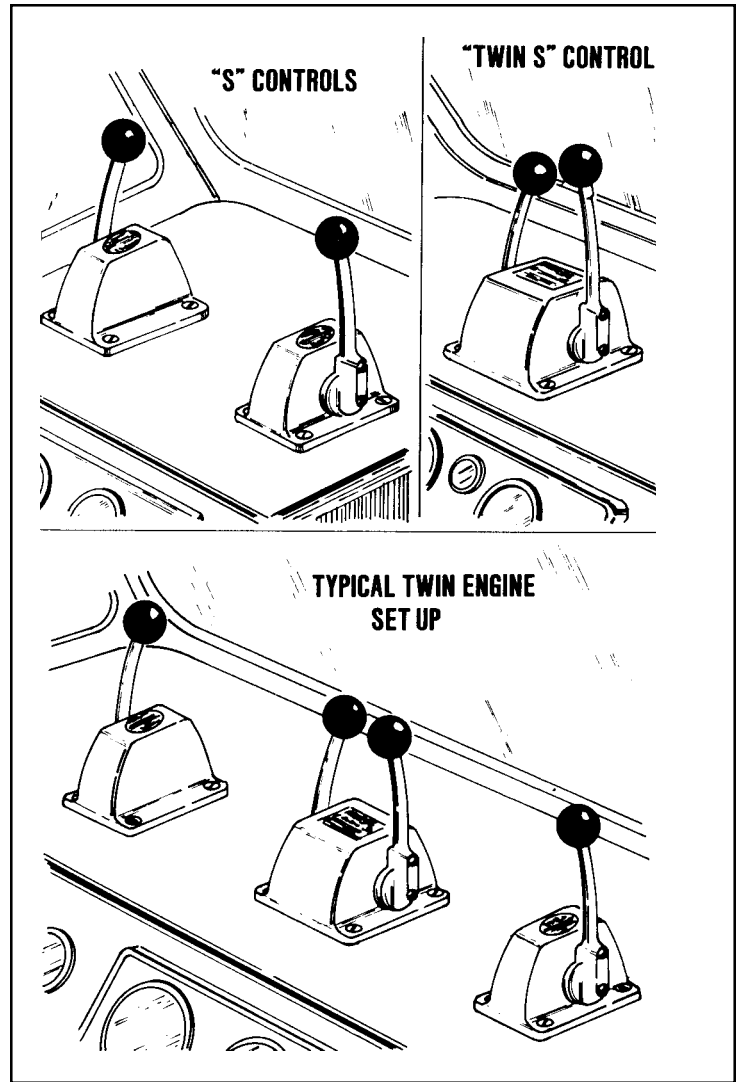


FIGURE 1

Control Head Location

1. Allow clearance for forward and reverse movement of .. the hand lever. (See Figure 2).
2. The bottom of the control assembly should not interfere with the steering or components of the wheel box.
3. The area below the control should allow a clear path for the cables.
4. 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.

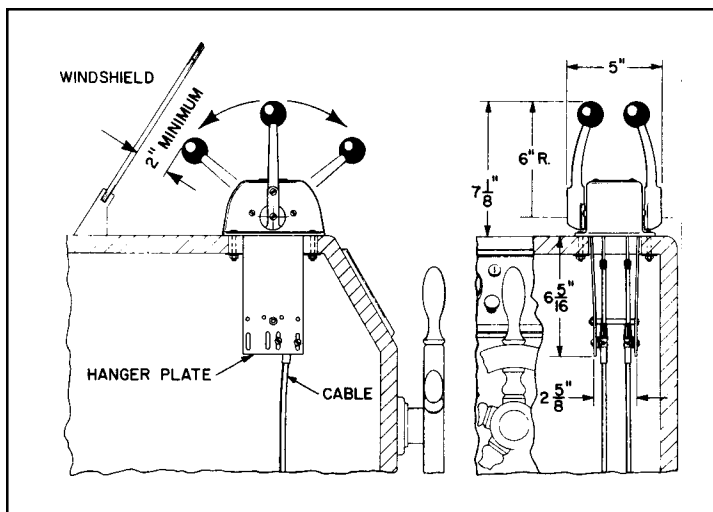


FIGURE 2

Control Cable Installation

1. 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 inches 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.

NOTE:

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

2. 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.
3. Lubricate the terminal and insert it into the outer hole of the arm. Insert the cotter pin and spread.
4. 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.

NOTE:

The iTwin Si follows the same procedure for installation of the second cable.

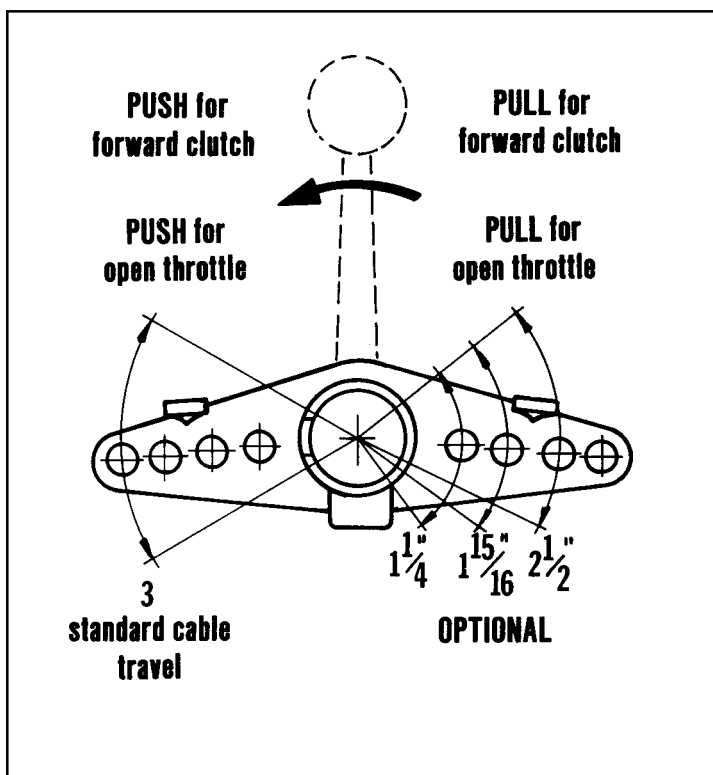


FIGURE 3

5. Use the clutch detent kit (Part Number 22328) with the cable operating the engine shift. Follow the instructions, packed with the kit, for detent installation.

Mounting the Control Head

1. 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.

2. Fasten the controls to the console with the hardware provided.

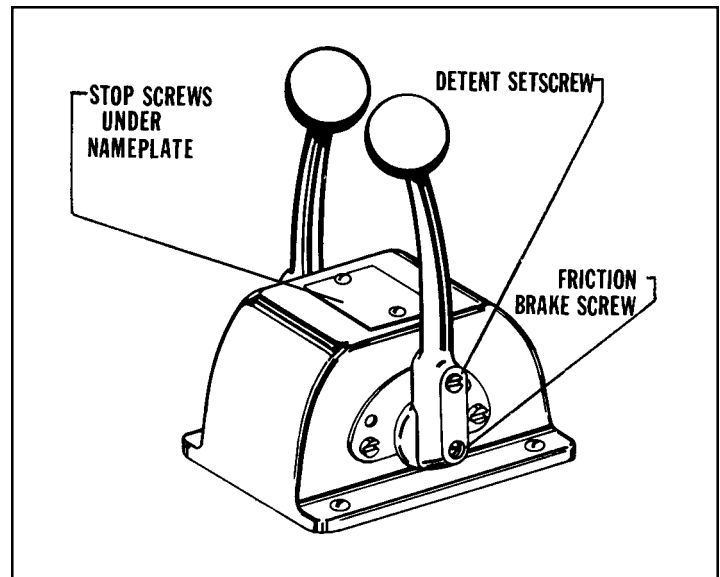


FIGURE 4

Connecting the Cables to the Engine

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

Final Adjustment

1. 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.
2. 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.
3. 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 clockwise to increase drag on the hand lever, or counter-clockwise to decrease drag, as required.

NOTE:

For dual station, brake friction should be at a minimum without allowing the hand levers to be loose.

Complete Installation of the Control

1. 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.
4. 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.

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

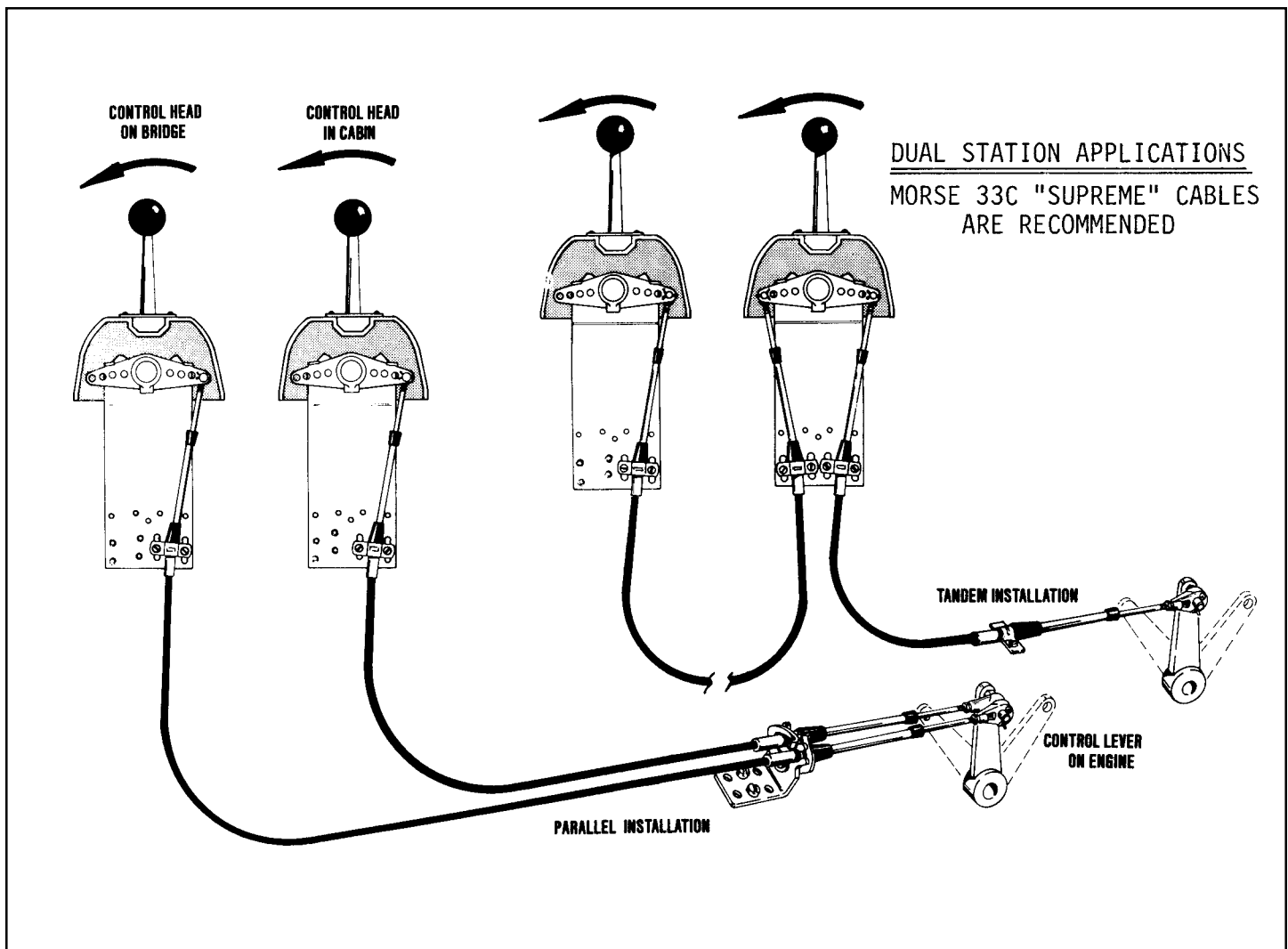


FIGURE 5

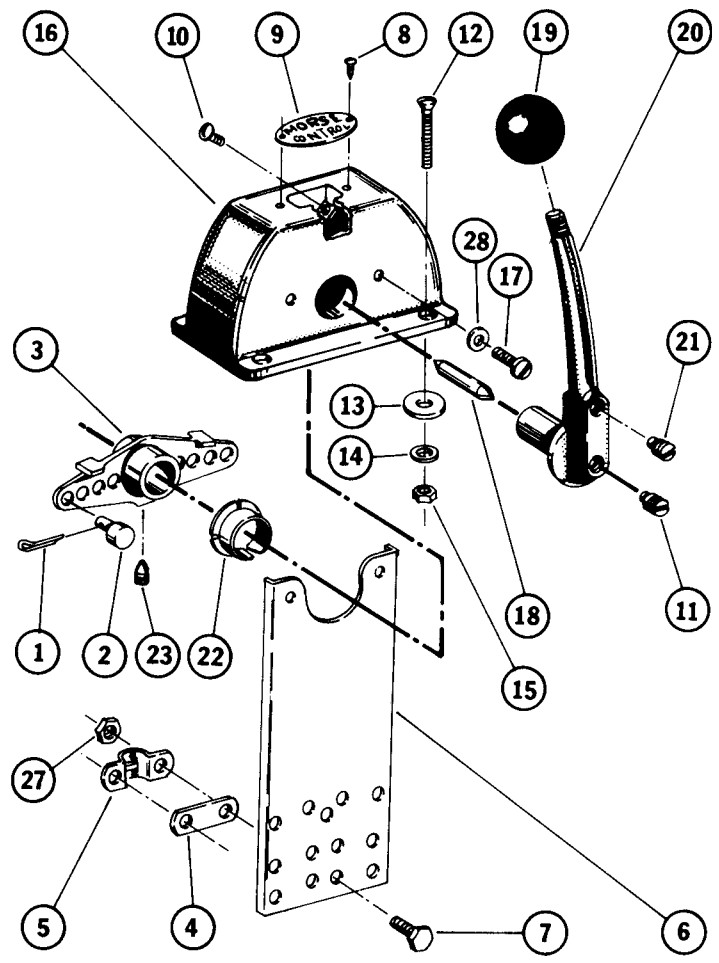
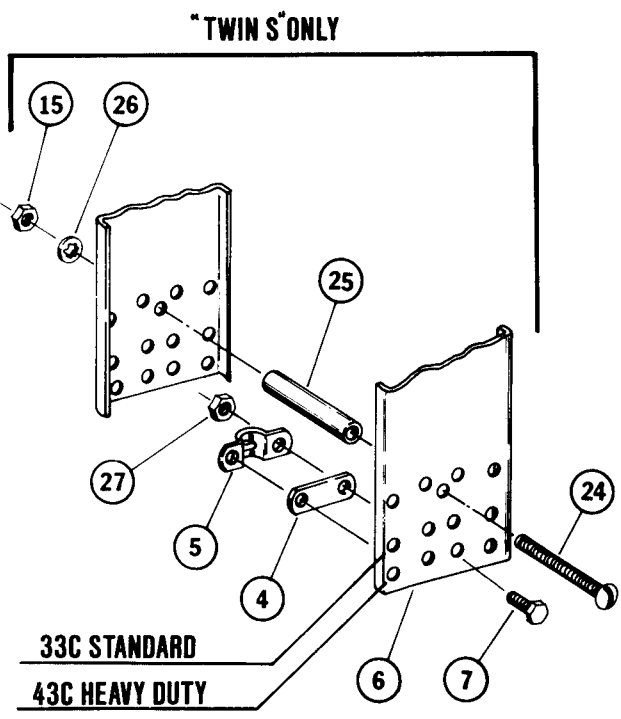
Heavy Duty

1. Heavy duty kits are available to attach Teleflex Morse 43C iRed-Jaketî cables to the iSî controls, if desired. 43C cables have a higher strength capacity, but 33C Supreme cables are recommended for the most efficient system.

Maintenance

1. For the best protection, especially in salt water, wipe all metal parts with oil or a good quality light marine grease. Always rinse with fresh water after every use.

ITEM NUMBER	DESCRIPTION	NUMBER REQUIRED		PART NO.
		i S î	i TWIN S î	
1	Cotter Pin, Brass 3/32î diameter x 1/2	1	2	Commercial
2	Cable Terminal (33C)	1	2	031029
3	Operating Lever	1	2	307206
4	Shim	1	2	031538
5	Cable Clamp (33C)	1	2	031509
6	Hanger Plate	1	2	032637-001
7	Hex Head Machine Screw #10-32 x 3/4	2	4	Commercial
8	Round Head Machine Screw #6-32 x 1/4	2	2	Commercial
9	Nameplate (single)	1		021256
	Nameplate (twin)		1	013251
10	Round Head Machine Screw #10-32 x 1/2î	2	4	Commercial
11	Brake Setscrew	1	2	035297
12	Oval Head Machine Screws #10-32 x 1-1/2î	4	4	Commercial
13	Flat Washer #10	4	4	Commercial
14	Split Lockwasher #10	4	4	Commercial
15	Hex Nut, #10-32	4	5	Commercial
16	Housing, single	1		031030
	Housing, twin		1	031031-004
17	Fill Head Machine Screw #10-32 x 3/8î	2	4	Commercial
18	Brake Pin, single	1		031039
	Brake Pin, twin		1	031036
19	Knob, black	1	1	035232-004
	Knob, red		1	035232-001
20	Hand Lever	1	2	021572-001
21	Retaining Screw, detent	1	2	025319-001
22	Bearing	1	2	032660
23	Tapered Locking Setscrew	1	2	029498-04L
24	Round Head Machine Screw #10-32 x 2-1/2		1	Commercial
25	Spacer, twin		1	031034
26	Internal Tooth Lockwasher #10		1	Commercial
27	Hex Nut #10-32	2	4	Commercial
28	Fiber Washer	2	4	041640





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