# CA27494P ADAPTOR KIT MERCURY OUTBOARD AND MERCRUISER I/O ENGINES INSTRUCTIONS

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

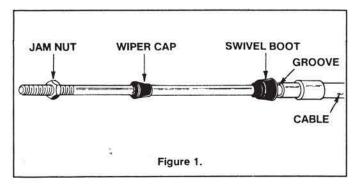
These kits are used to adapt 3300/33C type control cables manufactured by SeaStar Solutions to throttle and shift levers on Mercruiser I/O engines and Mercury outboard engines.

#### WARNING

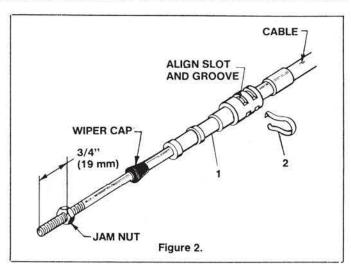
- BEFORE STARTING INSTALLATION READ THESE INSTRUCTIONS THOROUGHLY. FAILURE TO FOLLOW THESE INSTRUCTIONS OR INCOR-RECT ASSEMBLY CAN RESULT IN LOSS OF CONTROL AND CAUSE PROPERTY DAMAGE OR INJURY.
- DO NOT SUBSTITUTE PARTS FROM OTHER MANUFACTURERS. THEY MAY CAUSE A SAFETY HAZARD FOR WHICH SEASTAR SOLU-TIONS CANNOT ACCEPT RESPONSIBILITY.
- CABLE INSTALLATION AND MOTOR CONNEC-TION MUST BE MADE IN ACCORDANCE WITH THE MOTOR MANUFACTURER'S INSTRUCTIONS.
- TO ENSURE THE BEST REMOTE CONTROL PER-FORMANCE, FREE OPERATION OF ALL MOTOR LINKAGE IS ESSENTIAL. FOLLOW ALL THE MOTOR MANUFACTURER'S RECOMMENDED PROCEDURES FOR ADJUSTMENT AND LUBRI-CATION.

## ASSEMBLY INSTRUCTIONS.

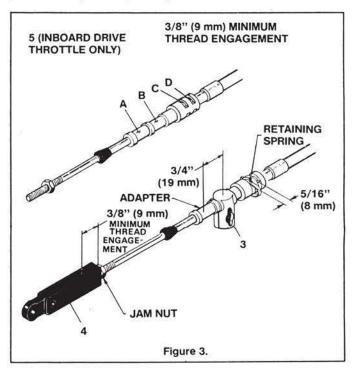
**Step 1.** Remove Jam Nut, Wiper Cap, and Swivel Boot from one end of each cable (See Figure 1). Save Jam Nut and Wiper Cap for reuse.



Step 2. Slide one Adaptor (item 1) over engine end of each cable until slot in Adaptor hub is aligned with groove in cable end fitting, as shown in Figure 2. Insert Retainer Spring (item 2) into slot as shown, and snap into place. Use position "C" for 1978 model year engines, with the exception of Shift for 40 H.P. outboard. In this case, the Spring should be a position "D" (See Figure 3). For other model year engines, consult the manufacturer's manual for cable travel dimensions. Make sure Retainer Spring is fully seated locking Adaptor securely to cable.



**Step 3.** Place an Anchor Nut (item 3) over undercut "B" as shown in Figure 3. Press firmly on Anchor Nut to snap it into position. Replace wiper cap over swivel tube as shown.



**Step 4.** Thread a jam nut onto each cable rod, exposing 3/4" (19 mm) of thread. Thread a Connector (item 4) onto rod end of each cable until jam nut is touched. Tighten jam nuts securely against Connectors.

#### ASSEMBLY ADJUSTMENT

In order to meet the proper dimensional requirements specified by the motor manufactuer for different installations, a number of adjustments are possible (See Figure 3). The Anchor Nut may be placed in one of the two grooves in the Adaptor, providing an adjustment of 3/4" (19 mm).

The cable end of the Adaptor has two locating slots 5/16" (8 mm) apart for additional adjustment. Should this be required, remove the Retaining Spring, being careful not to damage or deform it.

## WARNING

DO NOT ATTEMPT TO REPAIR A BENT OR DAMAGED SPRING. IT MUST BE REPLACED. A DAMAGED SPRING COULD ALLOW THE ADAPTOR TO SLIDE FREELY ON CABLE, WITH SUBSEQUENT LOSS OF CONTROL.

Align the desired locating slot with groove in cable end fitting, and replace Retaining Spring. Check to make sure that Adaptor is locked securely to cable end.

The Connector may be un-threaded up to 3/8" (9 mm) for fine adjustment. A minimum thread engagement of 3/8" (9 mm) **MUST** be maintanined to ensure mechanical integrity. After this adjustment has been made, tighten jam nut securely against base of Connector.

### CAUTION

BEFORE STARTING ENGINE, CHECK THE ENTIRE ASSEMBLY. OPERATE THE CONTROLS AND WATCH MOTIONS OF THROTTLE AND SHIFT CONNECTIONS. ENSURE THAT ALL CONNECTIONS ARE CORRECT AND TIGHTENED SECURELY.

## WARNING

ON SOME ENGINE IT IS NECESSARY TO ROTATE THE PROPELLOR IN ORDER TO ENGAGE THE SHIFT POSITIONS. DISCONNECT THE BATTERY TO AVOID INADVERTENTLY STARTING THE ENGINE.

PARTS LIST		
Item	Description	Quantity
1	Adaptor	2
2	Retainer Spring	2
3	Anchor Nut	2
4	Connector	2

