



Manufactured by
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SA 39329 **CABLE-GARD™** TILT TUBE SEAL KIT INSTRUCTIONS

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

THESE INSTRUCTIONS DESCRIBE HOW TO INSTALL AN SA 39329 TELEFLEX **CABLE-GARD™** TILT TUBE SEAL KIT TO OUTBOARD ENGINES WITH TILT TUBE-MOUNTED STEERING CABLES. THE KIT IS DESIGNED TO FIT ENGINES HAVING A TILT TUBE WITH A MINIMUM OF 3/8" LENGTH OF EXPOSED 7/8" DIAMETER THREADS (7/8-14 UNF) AND/OR AN EXPOSED LOCK NUT MEASURING 1 1/4" ACROSS THE FLATS.

NOTE: CABLE-GARD™ WILL NOT FIT ENGINES HAVING A RECESSED NUT AND/OR THREADS.

THIS KIT CONTAINS:

(1) **CABLE-GARD™** Tilt Tube Seal

(1) Auxiliary Lock Nut (Required only if the threads of the tilt tube are too long to allow the Seal to mount to the engine's existing tilt tube lock nut)

CAUTION

DO NOT LOOSEN OR REMOVE THE ENGINE'S EXISTING TILT TUBE LOCK NUT.

WARNING

READ THESE INSTRUCTIONS THOROUGHLY BEFORE STARTING INSTALLATION. FAILURE TO FOLLOW THESE INSTRUCTIONS AND ENGINE MAKER'S INSTRUCTIONS MAY RESULT IN LOSS OF ENGINE CONTROL WITH SUBSEQUENT PROPERTY DAMAGE AND PERSONAL INJURY.

ADDING CABLE-GARD™ TO AN INSTALLED STEERING SYSTEM

NOTE: BEFORE INSTALLING, THE CABLE SHOULD BE DISCONNECTED FROM THE ENGINE AND REMOVED FROM THE ENGINE'S TILT TUBE. THE TILT TUBE SHOULD BE THOROUGHLY CLEANED AND REGREASED WITH A MARINE GRADE LUBRICANT, AND THE OUTPUT END OF THE CABLE SHOULD BE FULLY EXTENDED AND GREASED WITH A MARINE GRADE LUBRICANT.

1. Turn the steering wheel so that the cable is fully extended.
2. Disconnect the link arm from the cable, noting carefully how the connection was made.
3. Turn the steering wheel so the output end of the cable is fully retracted.
4. Undo the large nut retaining the cable to the engine's tilt tube and remove the output end of the cable from the tilt tube.

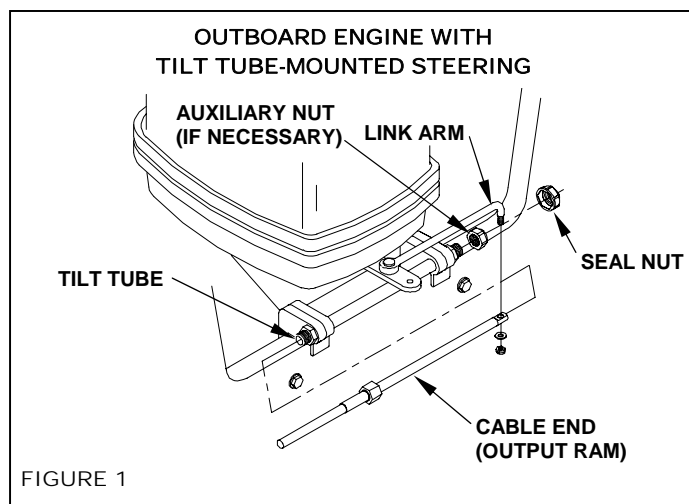


FIGURE 1

CAUTION

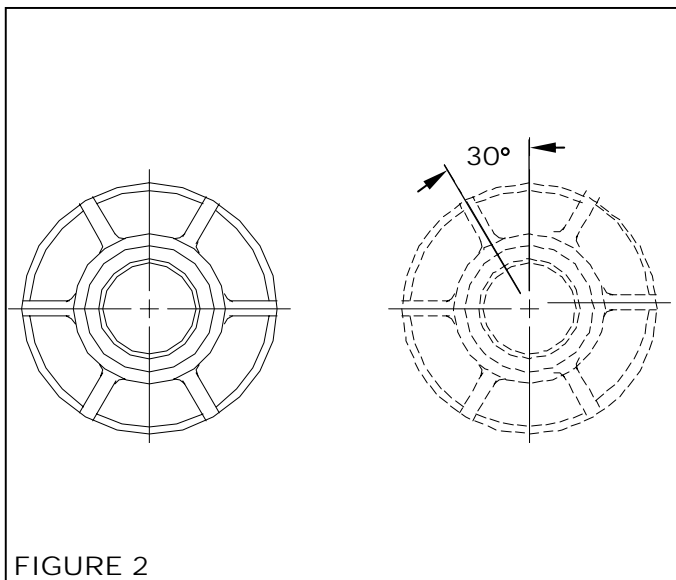
ENSURE THAT THE CABLE OUTPUT END IS NOT BENT WHEN REMOVING FROM (OR REINSTALLING TO) THE ENGINE'S TILT TUBE. IF NECESSARY THE ENGINE MUST BE REMOVED FROM THE BOAT.

5. Thoroughly clean the inside of the tilt tube and regrease using marine grade lubricant.
6. Turn the steering wheel to fully extend the cable and apply a marine grade grease to the complete length of the inner and outer tubes of the cable's output end.
7. Turn the steering wheel to fully retract the cable and reinstall in the tilt tube by installing the output end fully through and tightening the nut of the cable.

NOTE: Make sure the nut is drawn up fully when tightened. If you do not tighten this nut fully there will be excessive play in the steering system.

8. Count the number of threads of the tilt tube that extend beyond the engine's tilt tube lock nut at the tiller arm side of the engine. If three (3) or more threads extend beyond the nut, then the auxiliary nut will have to be installed. If required, install the auxiliary lock nut, with internal plastic locking ring facing out, until the threads of the tilt tube just meet flush with the end of the nut. Do not allow the threads of the tube to extend more than two threads beyond the auxiliary nut. **NOTE: It may be possible for the plastic lock ring inside the auxiliary nut to extrude out during installation which may interfere with the seal. If necessary, trim the protruding plastic with a knife to allow the seal to fit properly to the auxiliary nut.**

9. Slide the **CABLE-GARD™** seal nut onto the output end of the cable, sliding it down until it completely covers either the tilt tube lock nut or auxiliary lock nut, and give the seal a 30° turn as shown in figure 2 to lock in place.



10. Turn the steering wheel to fully extend the cable and reconnect the tiller arm to the cable using the original hardware. **NOTE:** If any hardware is replaced it must be replaced with locking hardware. **DO NOT SUBSTITUTE PLAIN NUTS, ENGINE VIBRATION WILL LOOSEN THEM AND CAUSE LOSS OF STEERING. IF THERE ARE ANY QUESTIONS REGARDING RECONNECTION TO THE ENGINE REFER TO YOUR ENGINE MANUFACTURER'S INSTRUCTION MANUAL FOR DETAILS.**

11. Turn the wheel fully to both extremes of rotation and check that the reconnection to the engine and seal installation was made properly.

ADDING CABLE-GARD™ WHILE INSTALLING A NEW STEERING SYSTEM

1. Install steering cables, helms, bezels and wheels per the instruction sheets provided by these products. Before connecting the cable to the engine, the remaining steps should be followed.

2. Thoroughly clean the inside of the tilt tube and regrease using a marine grade lubricant.

3. Turn the steering wheel to fully extend the cable and apply a marine grade grease to the complete length of the inner and outer tubes of the cable's output end.

4. Turn the steering wheel to fully retract the cable and reinstall in the tilt tube by installing the output end fully through and tightening the nut of cable.

NOTE: Make sure the nut is drawn up fully when tightened. If you do not tighten this nut fully there will be excessive play in the steering system.

5. Count the number of threads of the tilt tube that extend beyond the engine's tilt tube lock nut at the tiller arm side of the engine. If three (3) or more threads extend beyond the nut, then the auxiliary nut will have to be installed. If required, install the auxiliary lock nut, with internal plastic locking ring facing out, until the threads of the tilt tube just meet flush with the end of the nut. Do not allow the threads of the tube to extend more than two threads beyond the auxiliary nut. **NOTE:** It may be possible for the plastic lock ring inside the auxiliary nut to extrude out during installation which may interfere with the seal nut. If necessary, trim the protruding plastic with a knife to allow the seal nut to fit properly to the auxiliary nut.

6. Slide the **CABLE-GARD™** seal nut onto the output end of the cable, sliding it down until it completely covers either the tilt tube lock nut or auxiliary lock nut, and give the seal a 30° turn as shown in figure 2 to lock in place.

7. Turn the steering wheel to fully extend the cable and reconnect the tiller arm to the cable using the original hardware. **NOTE:** If any hardware is replaced it must be replaced with locking hardware. **DO NOT SUBSTITUTE PLAIN NUTS, ENGINE VIBRATION WILL LOOSEN THEM AND CAUSE LOSS OF STEERING. IF THERE ARE ANY QUESTIONS REGARDING CONNECTION OR RECONNECTION TO THE ENGINE REFER TO YOUR ENGINE MANUFACTURER'S AND CONNECTION KIT MANUFACTURER'S INSTRUCTIONS FOR DETAILS.**

8. Turn the wheel fully to both extremes of rotation and check that the connection to the engine and seal installation was made properly.