

## SHIFT CABLE REPLACEMENT INSTRUCTIONS

### APPLICATION



Use this instruction sheet when replacing the tiller handle shift cable on **Evinrude® E-TEC® 40 – 115 HP model outboards**.



### SAFETY INFORMATION

For safety reasons, this kit should be installed by an authorized *Evinrude®/Johnson®* dealer. This instruction sheet is not a substitute for work experience. Additional helpful information may be found in other service literature for your engine.

This instruction sheet uses the following signal words identifying important safety messages.

	<b>DANGER</b>	
<b>Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.</b>		

	<b>WARNING</b>	
<b>Indicates a potentially hazardous situation which, if not avoided, CAN result in severe injury or death.</b>		

	<b>CAUTION</b>	
<b>Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate personal injury or property damage. It also may be used to alert against unsafe practices.</b>		

**IMPORTANT:** Identifies information that will help prevent damage to machinery and appears next to information that controls correct assembly and operation of the product.

These safety alert signal words mean:

**ATTENTION!  
BECOME ALERT!  
YOUR SAFETY IS INVOLVED!**

Always follow common shop safety practices. If you have not had training related to common shop safety practices, you should do so to protect yourself, as well as the people around you.

It is understood that this instruction sheet may be translated into other languages. In the event of any discrepancy, the English version shall prevail.

**DO NOT** do any repairs until you have read the instructions and checked the pictures relating to the repairs.

Be careful, and never rush or guess a service procedure. Human error is caused by many factors: carelessness, fatigue, overload, preoccupation, unfamiliarity with the product, and drugs and alcohol use, to name a few. Damage to a boat and outboard can be fixed in a short period of time, but injury or death has a lasting effect.

When replacement parts are required, use *Evinrude/Johnson Genuine Parts* or parts with equivalent characteristics, including type, strength and material. Using substandard parts could result in injury or product malfunction.

Torque wrench tightening specifications must be strictly followed. Replace any locking fastener (locknut or patch screw) if its locking feature becomes weak. Definite resistance to turning must be felt when reusing a locking fastener. If replacement is specified or required because the locking fastener has become weak, use only authorized *Evinrude/Johnson Genuine Parts*.

If you use procedures or service tools that are not recommended in this instruction sheet, **YOU ALONE** must decide if your actions might injure people or damage the outboard.

**TO THE INSTALLER:** Give this sheet and the operating instructions to the owner. Advise the owner of any special operation or maintenance information contained in the instructions.

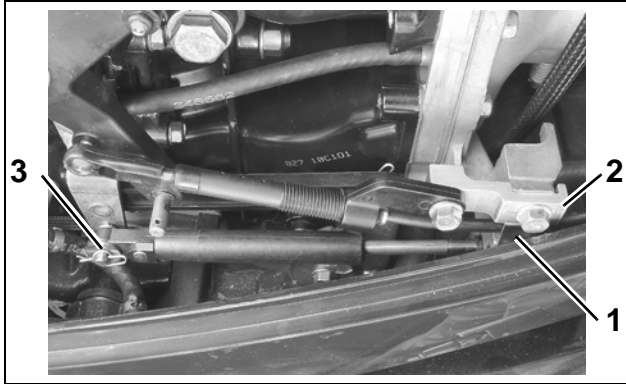
**TO THE OWNER:** Save these instructions in your owner's kit. This sheet contains information important to the use and maintenance of your engine.



## Shift Cable Replacement

### Removal

Remove cable retainer. On 3-cylinder or V4 models, remove anchor bracket. Remove retainer clip from shift cable.

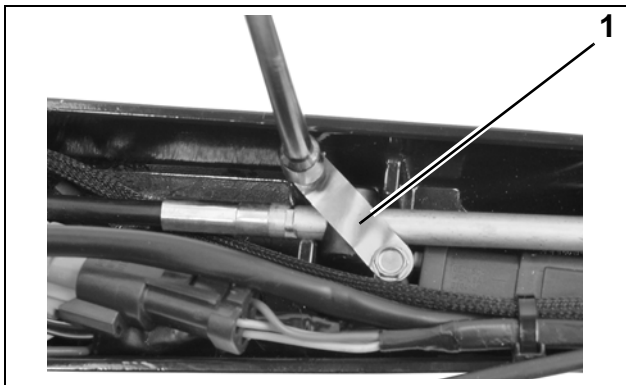


- 1. Cable retainer 005096
- 2. Anchor bracket (3-cylinder & V4 models only)
- 3. Retainer clip

Remove seven screws and bottom cover of tiller handle.

**IMPORTANT:** Throttle and shift cable routing has changed for later model tiller arms. If your tiller arm does NOT have the bottom cover with cut-out on starboard side, the throttle and shift cables will be re-routed during assembly. In this case, use remover tool, P/N 342226, to unsnap the throttle cable clip from the throttle lever. Remove throttle cable from lower motor cover and grommet.

Remove shift cable retainer from shift cable trunnion.



- 1. Shift cable retainer 006721

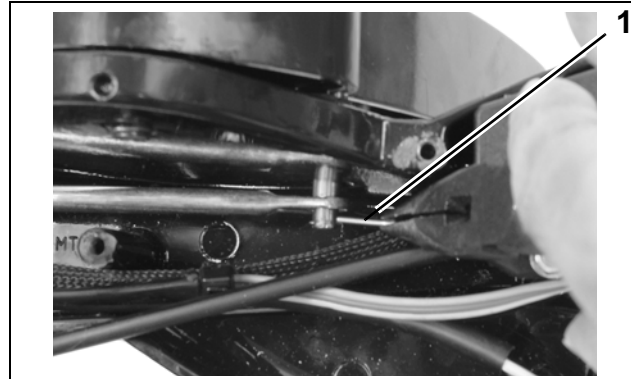
Remove cotter pin from shift handle pin and discard. Remove shift cable from tiller arm and lower motor cover and grommet.



- 1. Cotter pin 006708

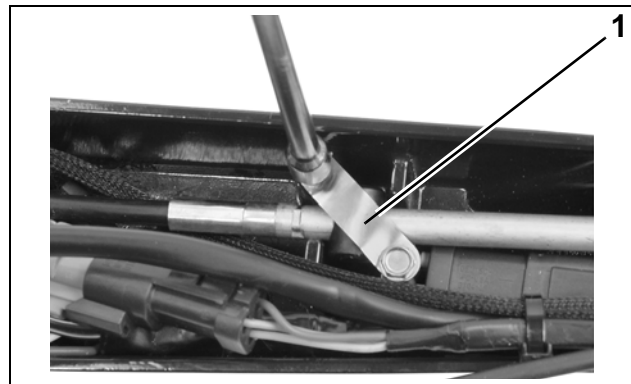
### Installation

Install shift cable on shift pin with NEW cotter pin provided in kit.



- 1. Cotter pin 006720

Install shift cable retainer on shift cable trunnion.

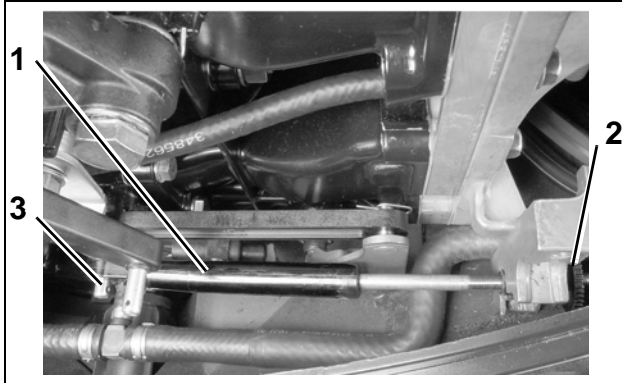


- 1. Shift cable retainer 006721

Refer to **Cable Routing** on p. 4 and install shift cable(s) through lower motor cover and grommet.

## Shift Cable Adjustment

Pull firmly on shift cable casing to remove backlash. With outboard and tiller handle shift lever in NEUTRAL, place the cable trunnion into the lower anchor pocket. Adjust the trunnion nut so the casing fits onto the shift lever pin. Install shift cable on shift lever pin and install retainer clip.



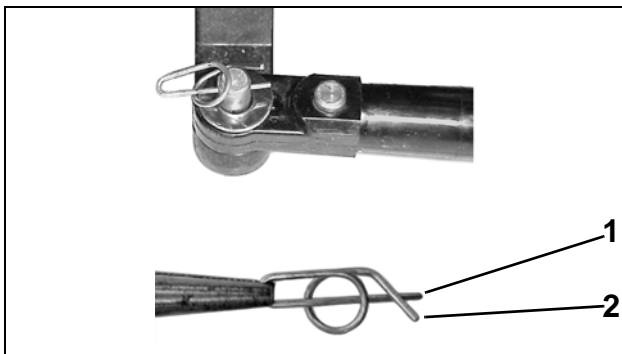
1. Shift cable casing
  2. Trunnion nut
  3. Shift lever pin
- 002100

## Retainer Clip Installation

When installing retainer clips on control arm linkage pins, clips should be locked and **must not** be bent or deformed.

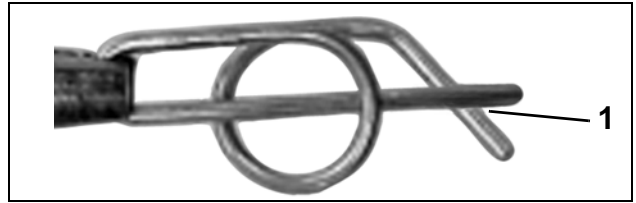
For proper installation, review the following steps:

- Place washer on pin.
- Position retainer clip with straight section on the bottom and angled section on the top.
- Use long nose pliers to insert straight section of clip into linkage pin hole.



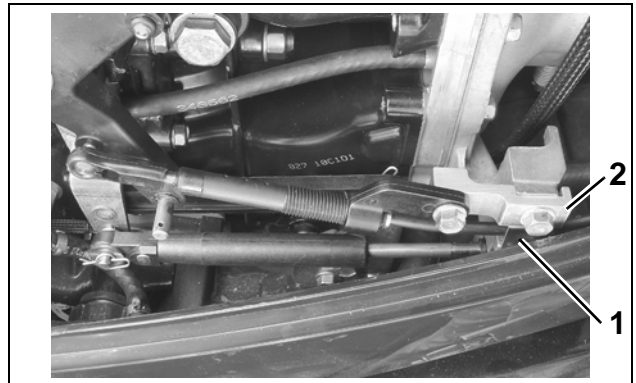
1. Straight section
  2. Angled section
- DP0818  
DP0817

- Push the clip towards the hole while lifting on the curved end with the pliers.
- Be sure retainer clip fully engages the pin.
- Lock the retainer by moving the angled section **behind** the straight section.



**Locked Retainer Clip** DP0817a  
1. Angled section behind straight section

Install cable retainer. On 3-cylinder or V4 models, install anchor bracket.



1. Cable retainer  
2. Anchor bracket (3-cylinder & V4 models only)

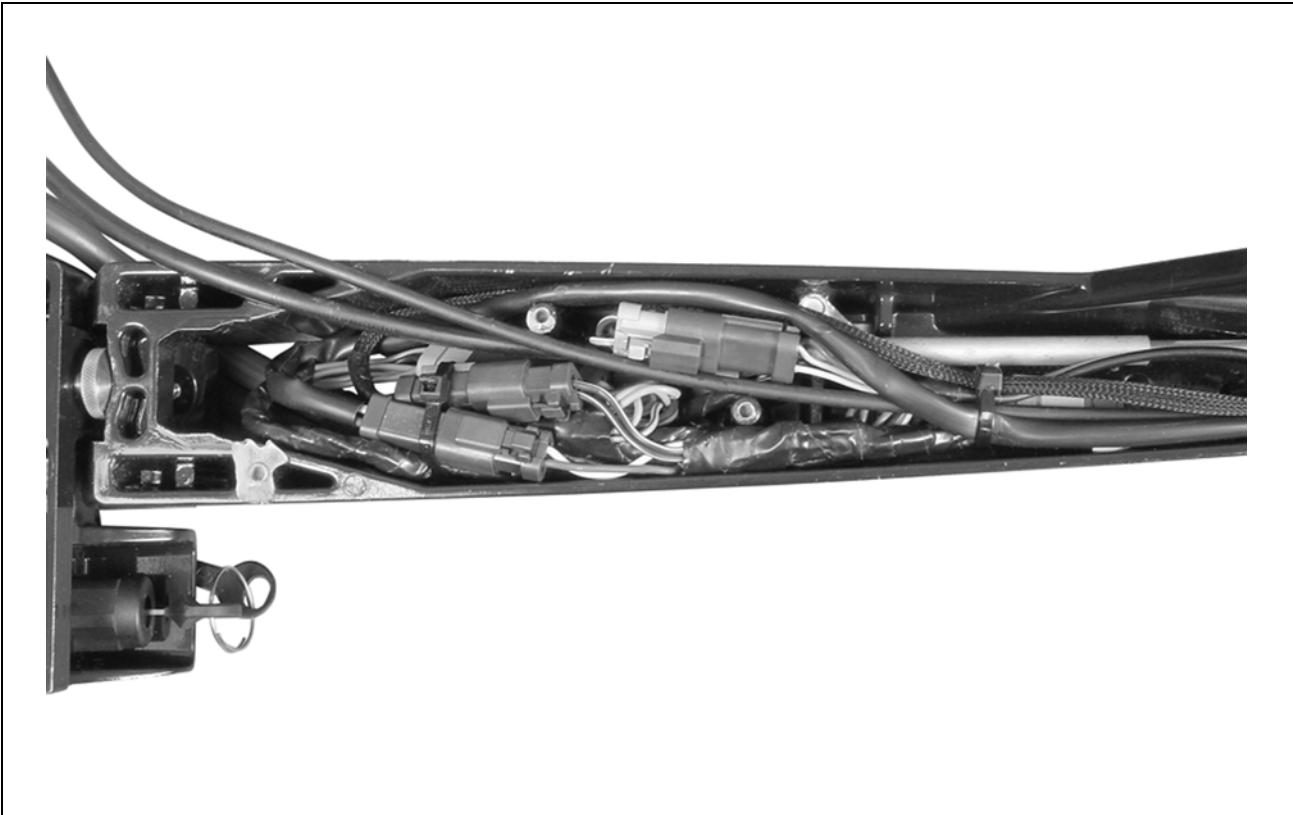
005096

Make sure shift control provides accurate shift operation. Then, torque anchor bracket / cable retainer screw 60 to 84 in. lbs. (7 to 9.5 N·m).

If previously removed, place throttle cable in position. Use Ball Socket Installer tool, P/N 342225, to snap throttle cable connector onto throttle lever.

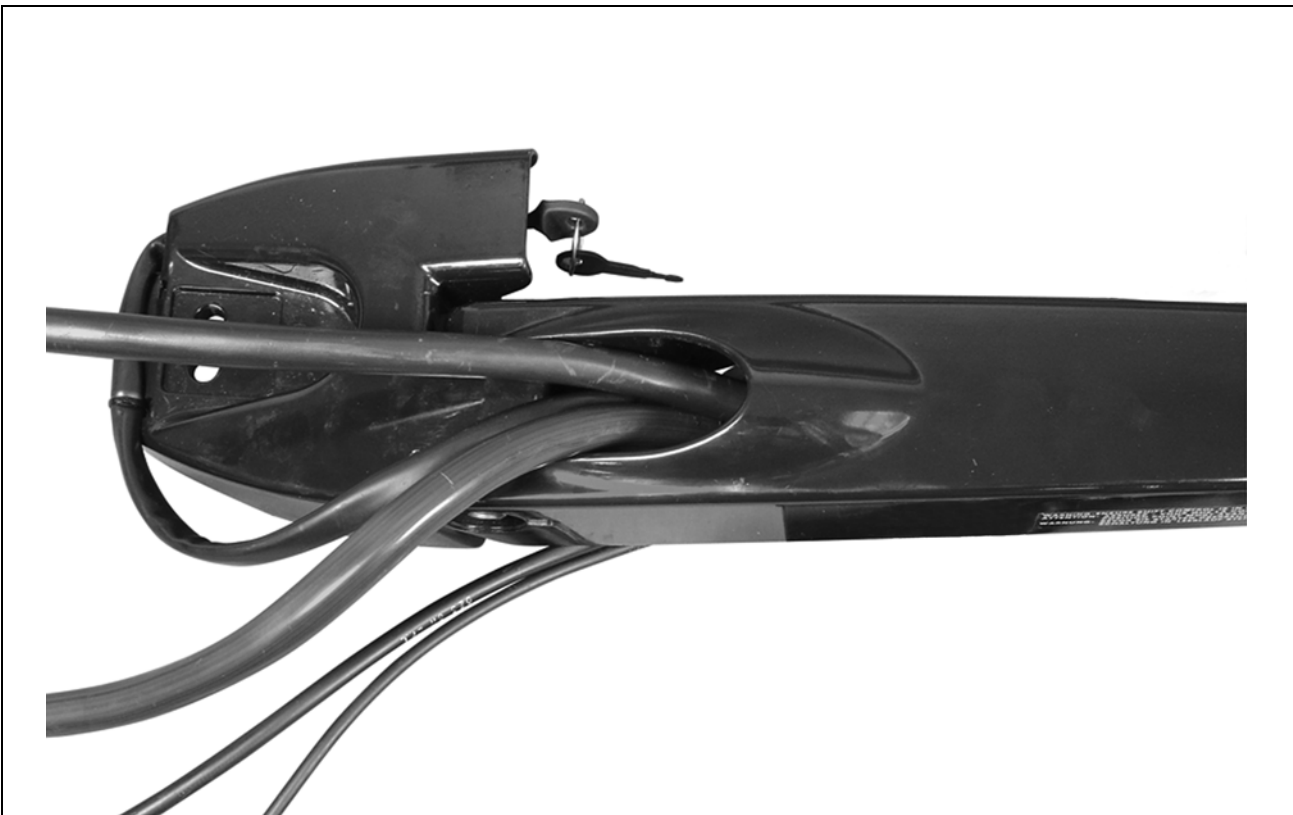
Install NEW bottom cover provided with kit, on tiller handle with seven screws.

## Cable Routing



Control cable routing

006571



Control cable routing

006568