

THROTTLE CABLE REPLACEMENT INSTRUCTIONS

APPLICATION



Use this instruction sheet when replacing the throttle cable on tiller handle equipped **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.

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

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

	CAUTION	
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.		

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.



Throttle Cable Replacement

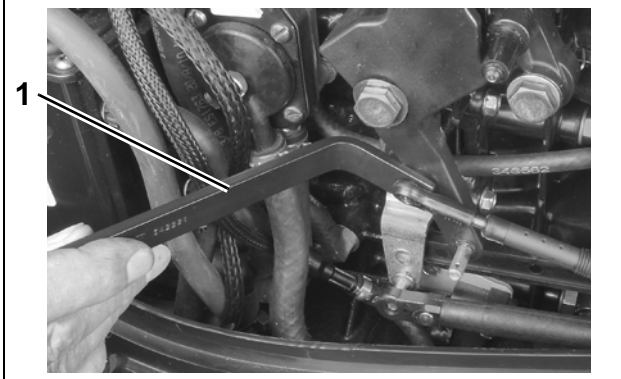


WARNING



To avoid accidental starting of engine while servicing, twist and remove all spark plug leads.

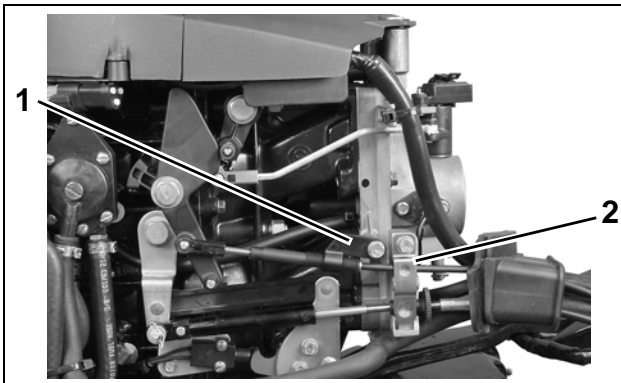
Use Remover tool, P/N 342226, to unsnap the throttle cable clip from the throttle lever.



1. Remover tool

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Remove the throttle cable anchor screw and washer. Remove cable retainer.



1. Throttle cable anchor
2. Cable retainer

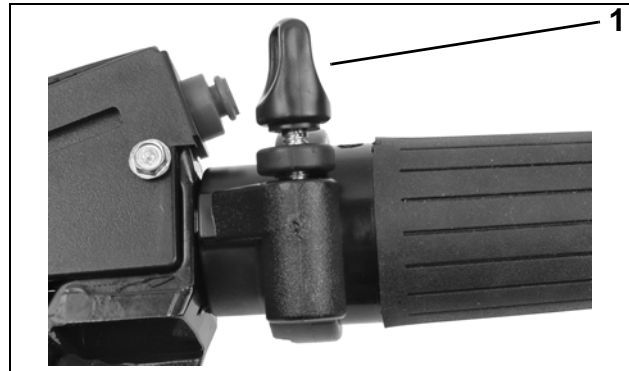
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Remove throttle cable from grommet in lower engine cover.

Disassembly

Loosen throttle friction control so there is no restriction on grip.

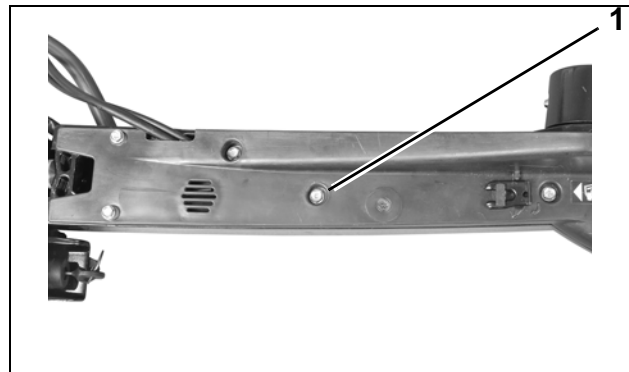
IMPORTANT: Do not back screw out completely. Nut is under spring tension.



1. Throttle friction control

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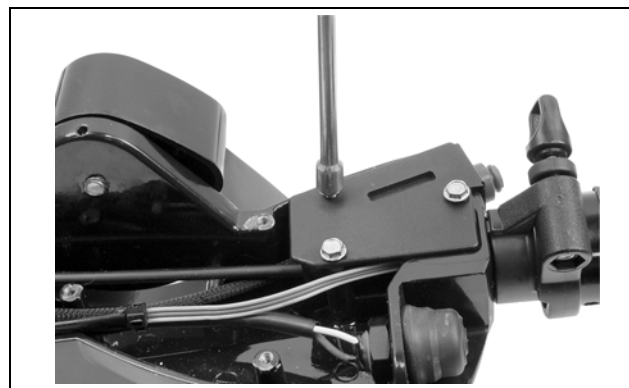
Remove seven screws and bottom cover of tiller handle.



1. Cover screw

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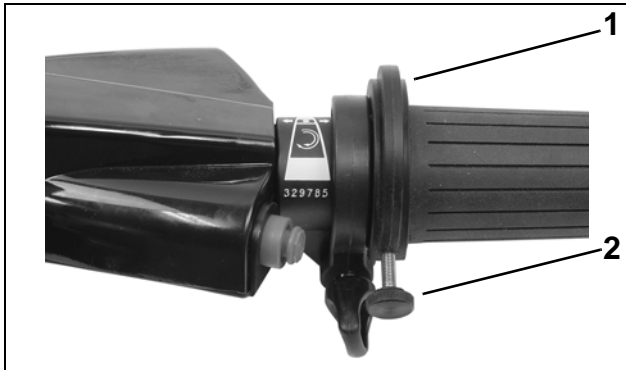
Remove stop switch cover screws. Disconnect the stop switch electrical connector. Remove stop switch assembly.



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Disconnect trim switch connector.

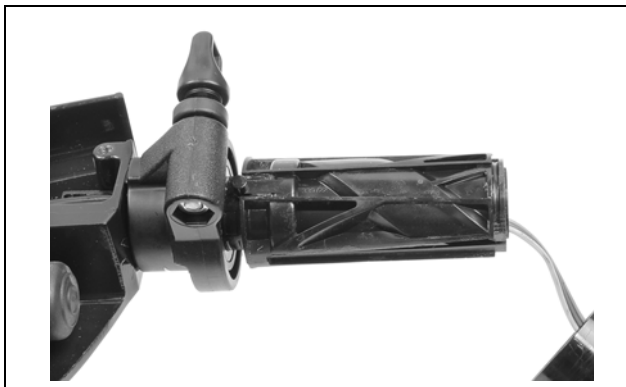
Use *Twist-Grip Remover*, P/N 390767, to depress the grip detents. Tighten screw and remove the grip by pulling grip.



- 1. *Twist-Grip Remover*
- 2. *Screw*

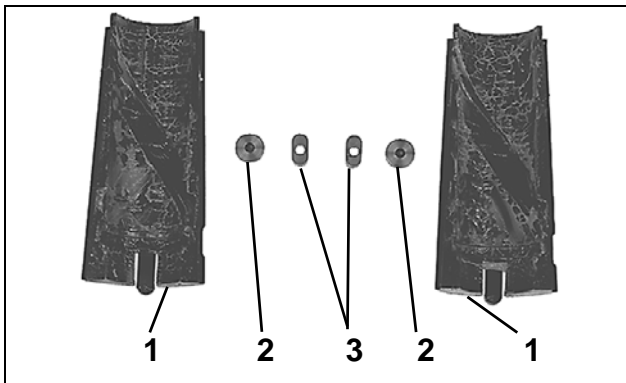
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It is not necessary to completely remove trim switch wiring.



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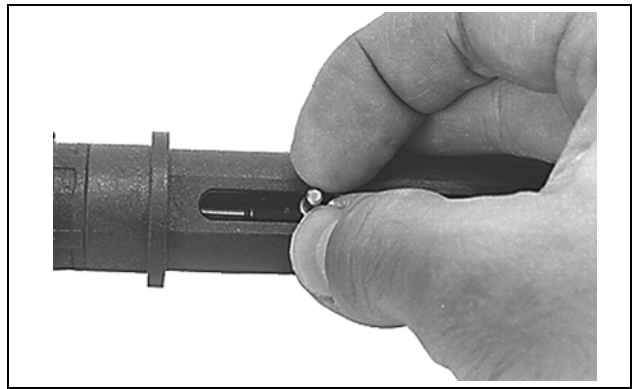
Remove the helix halves, rollers, and guides.



- 1. *Helix halves*
- 2. *Rollers*
- 3. *Guides*

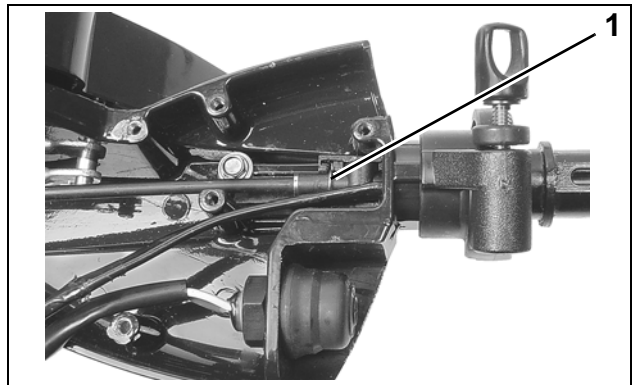
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Pull the throttle pin out of the cable.



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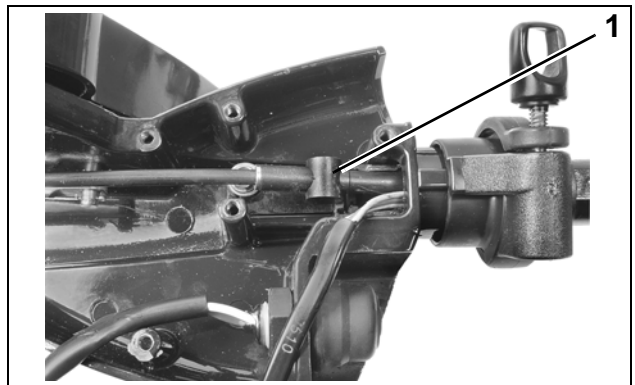
Remove the throttle cable retaining clip.



- 1. *Retainer*

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Pry the cable trunnion out of the steering handle and remove cable.

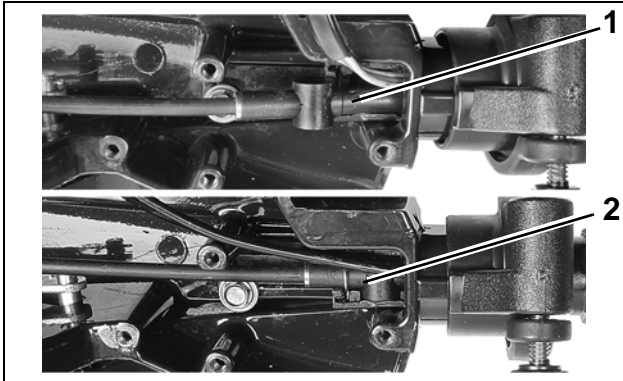


- 1. *Throttle cable trunnion*

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Assembly

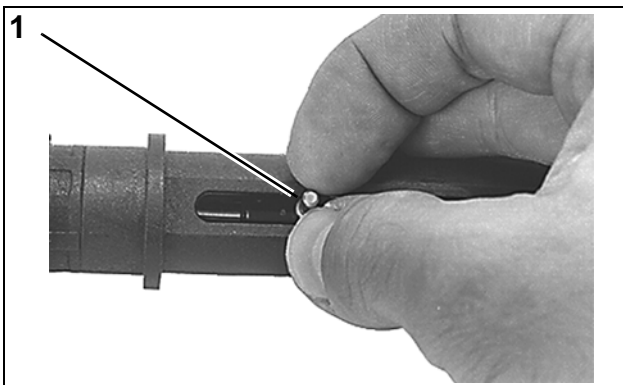
Install the handle end of the throttle cable. Snap the throttle cable trunnion into the recess in the handle. Install new retainer clip.



1. Throttle cable trunnion
2. Retainer

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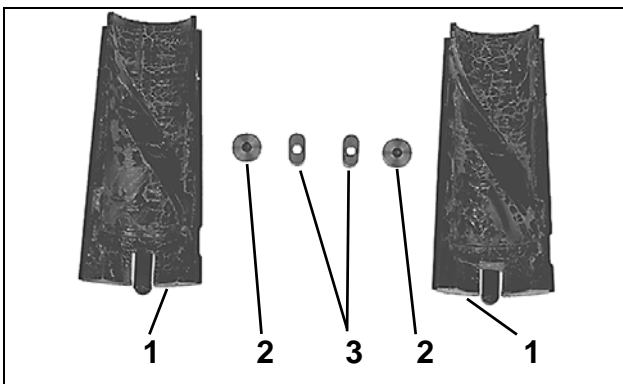
Push the throttle cable pin through the end of the throttle cable.



1. Pin

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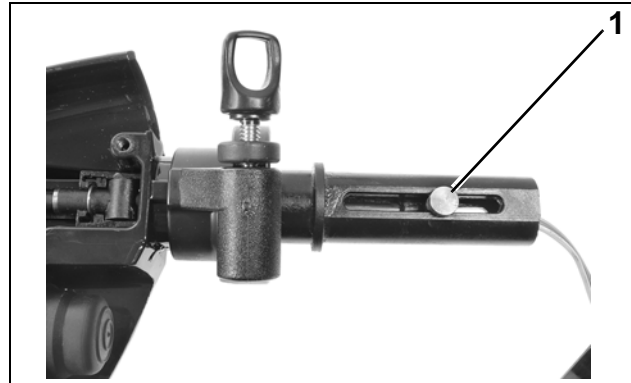
Lubricate end of the pin, guides, rollers, helix halves, and inner steering handle with *Moly Lube*.



1. Helix halves
2. Rollers
3. Guides

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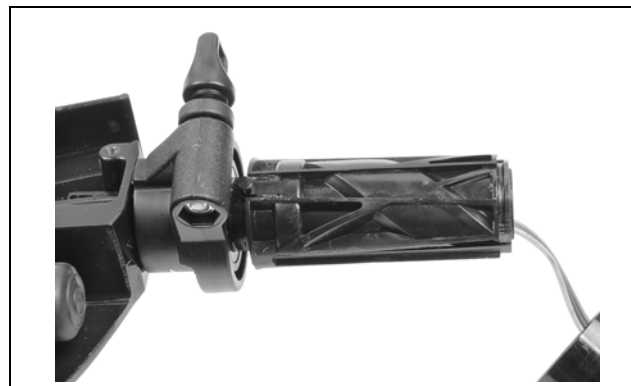
Place the guides over the roller pin and into the slots of the inner handle. Place the rollers on the ends of the roller pin.



1. Roller

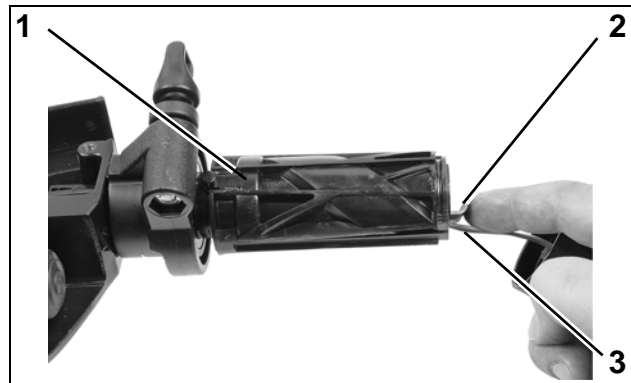
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Assemble the helix halves on the handle.



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Make sure wire guide is in place in inner steering handle.

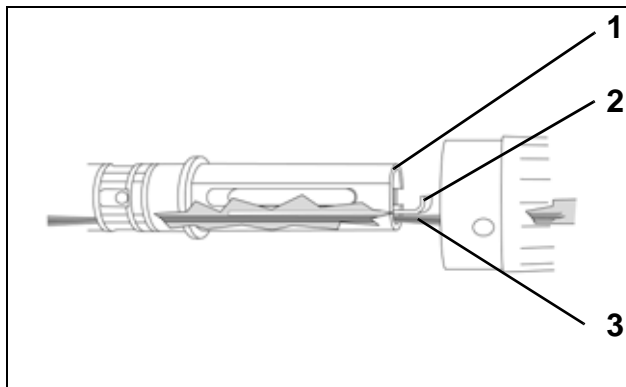


1. Inner steering handle
2. Wire guide
3. Trim switch wires

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IMPORTANT: Trim switch wiring must NOT be twisted through the inner steering handle and wire guide.

Make sure trim switch wiring is NOT twisted before proceeding.

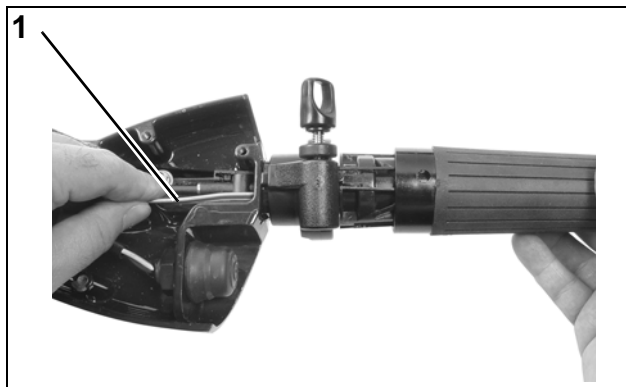


- 1. Inner tiller handle
- 2. Wire guide
- 3. Trim switch wires

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Carefully pull trim switch wires through inner tiller handle as twist grip assembly is installed.

IMPORTANT: Binding indicates trim switch wire twisting. Do NOT force into place, it WILL damage trim switch wiring.

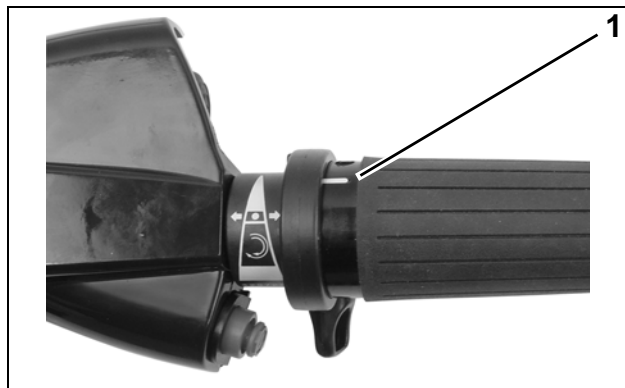


- 1. Trim switch wiring

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Connect trim switch connector.

Be sure the indicator line is positioned with the speed range symbol on the handle. Snap the grip into place.



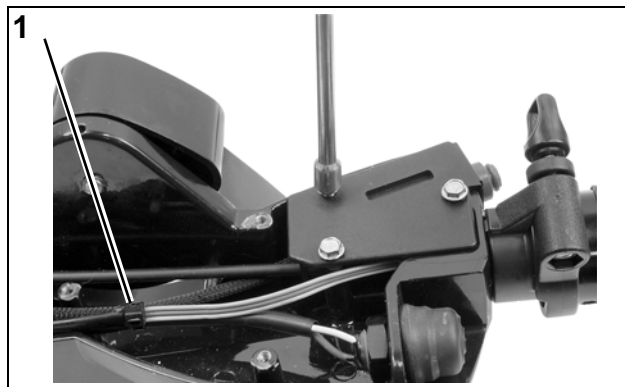
- 1. Indicator line

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Install stop switch assembly.

IMPORTANT: Turn self-tapping screw counter-clock-wise until threads of screw engage threads of screw boss. Failure to follow this procedure will damage the screw boss threads.

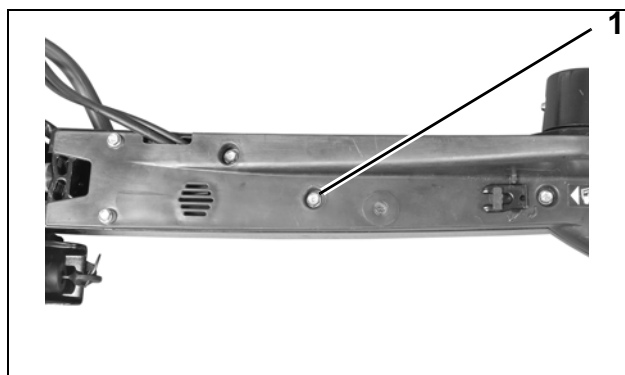
Install tie strap. Connect stop switch connector.



- 1. Tie strap

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Install new tie straps in locations shown, refer to **Control cable routing** on p. 7. Install bottom cover of tiller handle with seven screws.



- 1. Cover screw

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Throttle Cable Adjustment

Route throttle cable through grommet in lower motor cover. Apply soapy water to the cable and the inside surfaces of grommet. Place throttle cable in position. Use Ball Socket Installer tool, P/N 342225, to snap throttle cable connector onto throttle lever.



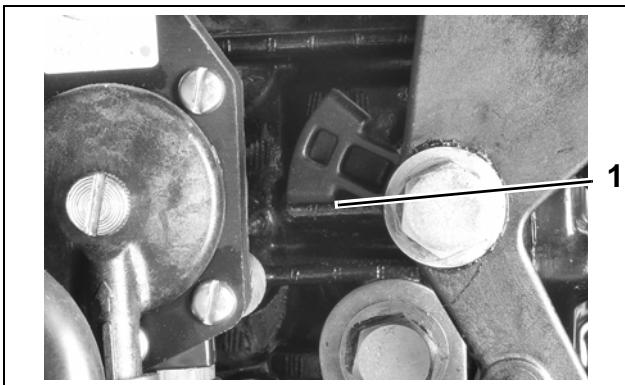
1. Installer tool

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Place throttle cable in upper anchor pocket. Install cable retainer on anchor block.

Hold twist grip in full SLOW position. Pull firmly on cable to remove backlash.

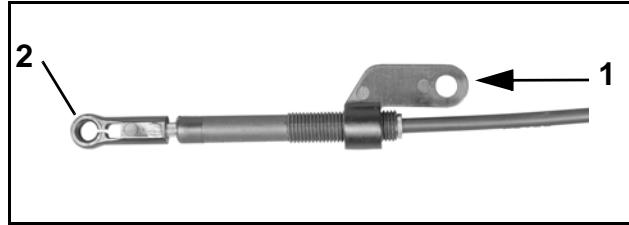
Adjust cable anchor so throttle cam is against idle stop when throttle cable anchor aligns with mounting hole in throttle body.



1. Throttle lever stop

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Then, rotate anchor four turns toward the end of the cable.

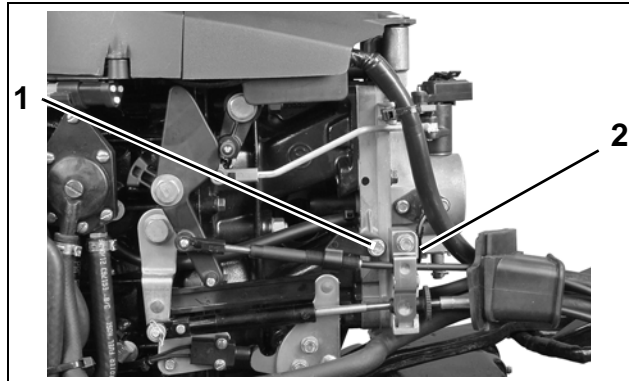


1. Turn anchor four turns toward cable end.

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2. End of cable

Install washer, cable anchor, and cable anchor screw on throttle body. Tighten screw securely.



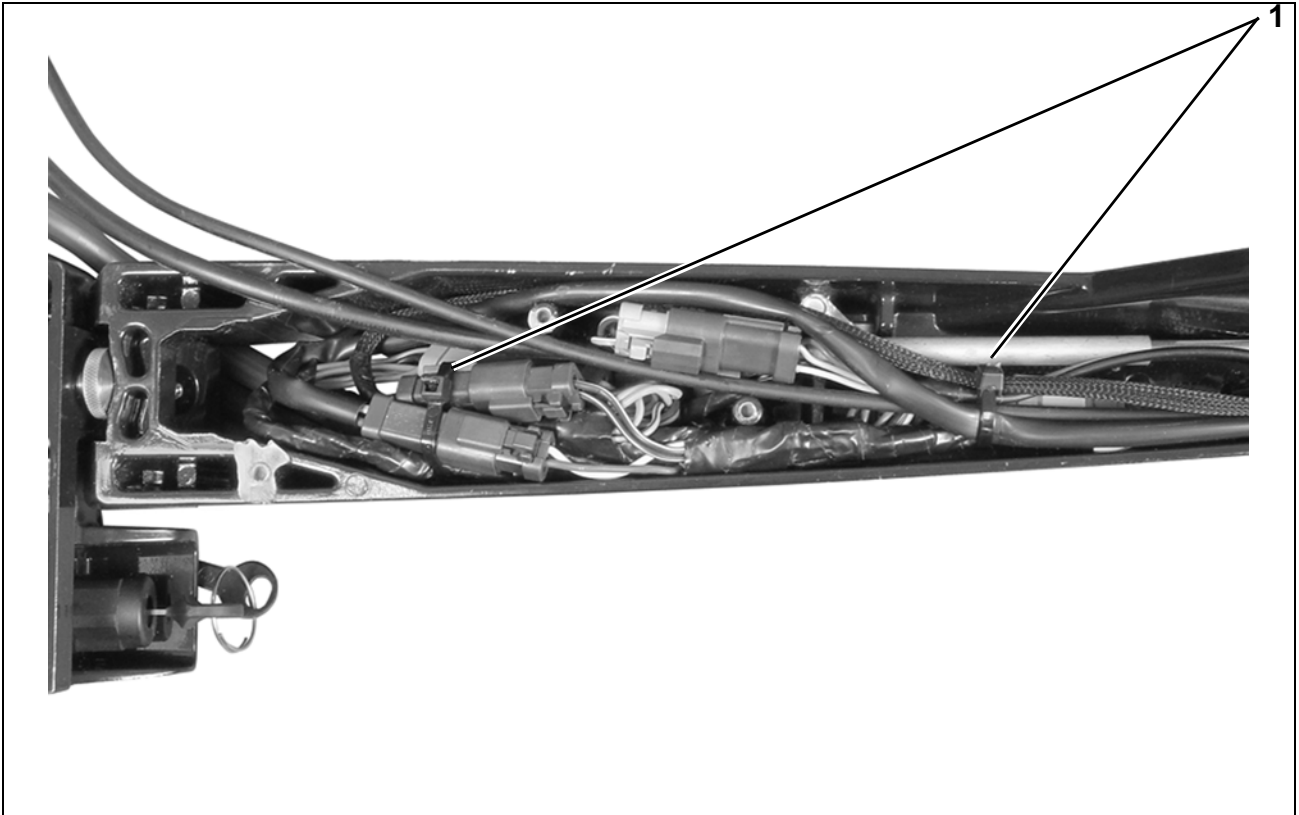
1. Cable anchor screw and washer

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2. Cable retainer

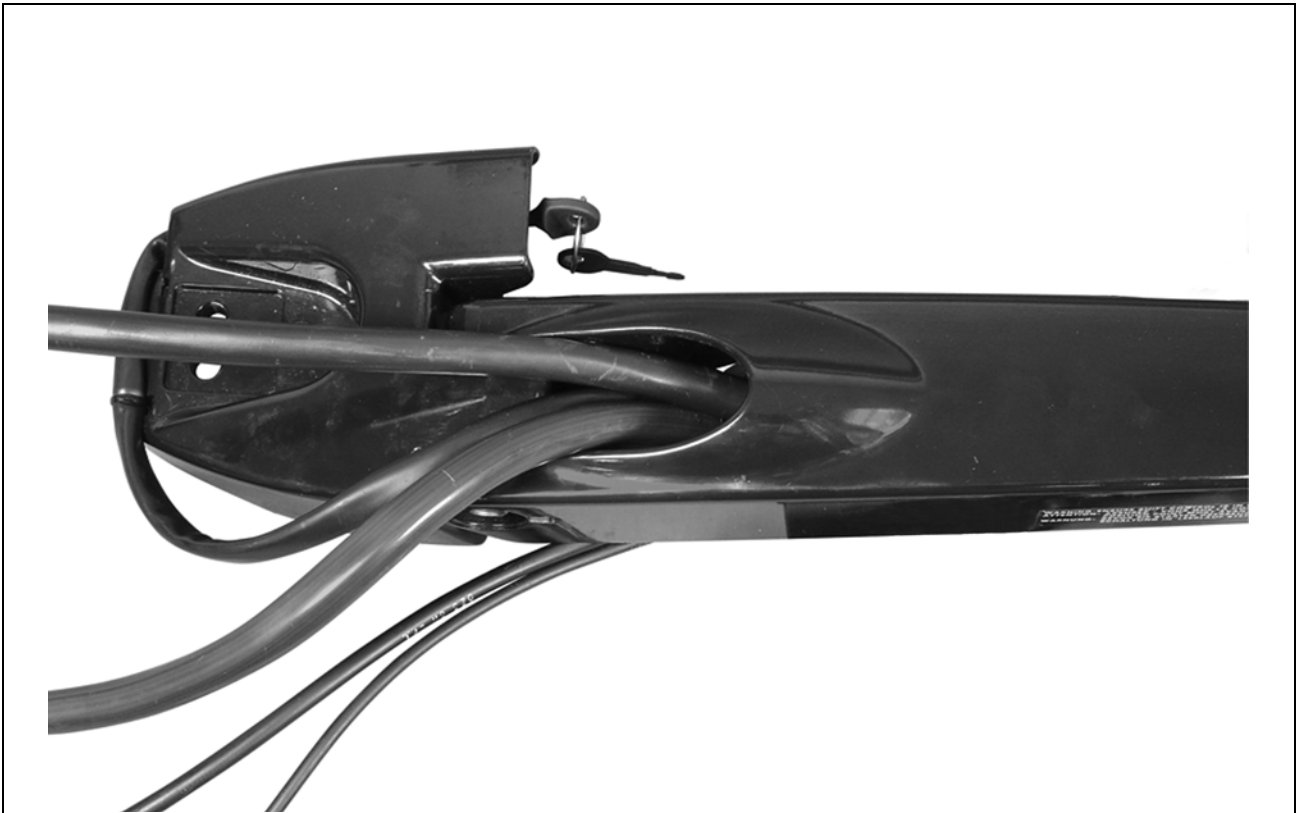
IMPORTANT: Rotate twist grip. Make sure throttle cam goes to full throttle without bending cable, and still returns to IDLE stop.

Cable Routing



Control cable routing
1. Tie straps

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Control cable routing

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