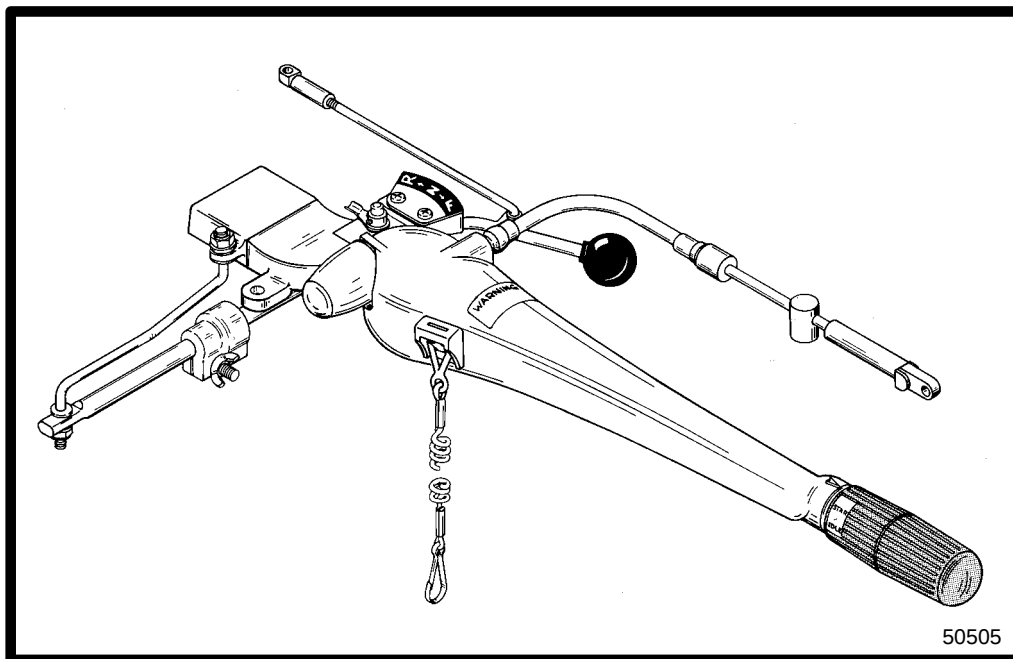




OUTBOARD MOTOR INSTALLATION/ ATTACHMENTS



50505

7

B

TILLER HANDLE AND CO-PILOT



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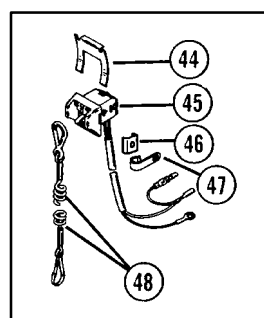
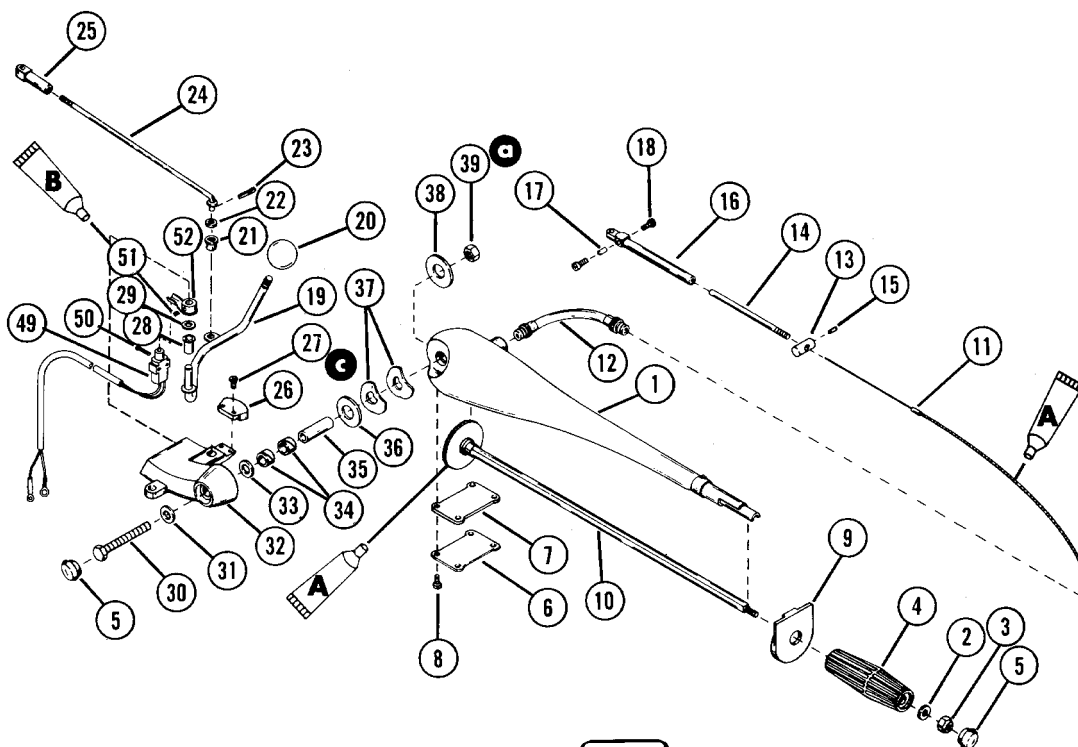
Tiller Handle Components

- 1 - Steering Arm
- 2 - Washer
- 3 - Nut
- 4 - Grip
- 5 - Cap
- 6 - Plate
- 7 - Gasket
- 8 - Screw (4)
- 9 - Housing
- 10- Drive Rod
- 11- Throttle Cable
- 12- Conduit
- 13- Throttle Barrel
- 14- Tube
- 15- Screw

- 16- Guide
- 17- Anchor
- 18- Screw (2)
- 19- Shift Lever
- 20- Knob
- 21- Bushing
- 22- Washer
- 23- Cotter Pin
- 24- Shift Rod
- 25- Rod End
- 26- Detent
- 27- Screw (2)
- 28- Bushing
- 29- Washer
- 30- Screw
- 31- Washer
- 32- Bracket
- 33- Washer
- 34- Bushing (2)
- 35- Spacer
- 36- Washer
- 37- Wave Washer (2)
- 38- Washer
- 39- Locknut
- 40- Spacer
- 41- Stud (2)
- 42- Tab Washer (2)
- 43- Nut (2)
- 44- Retainer
- 45- Stop Switch
- 46- "C" Washer
- 47- Clamp
- 48- Lanyard

Electric Start Models

- 49- Switch Assembly
- 50- Screw (2)
- 51- Set Screw (2)
- 52- Actuator

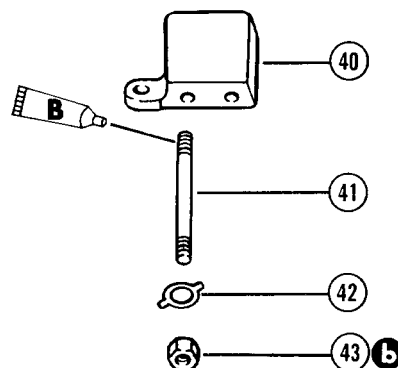


Quicksilver Lubricants and Service Aids

A 2-4-C Marine Lubricant*

B Loctite Grade "A" (271)*

*See Quicksilver Accessories Guide for part numbers.



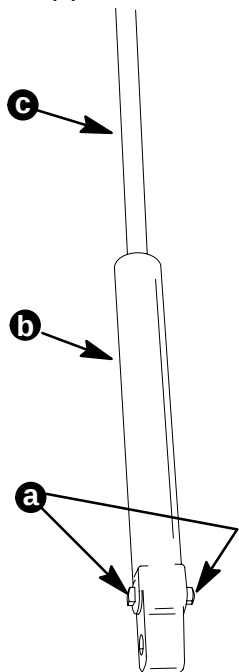
Torque Specifications

- a** 30 lb. in. (3.3 N·m)
- b** 33 lb. ft. (45 N·m)
- c** 40 lb. in. (4.4 N·m)



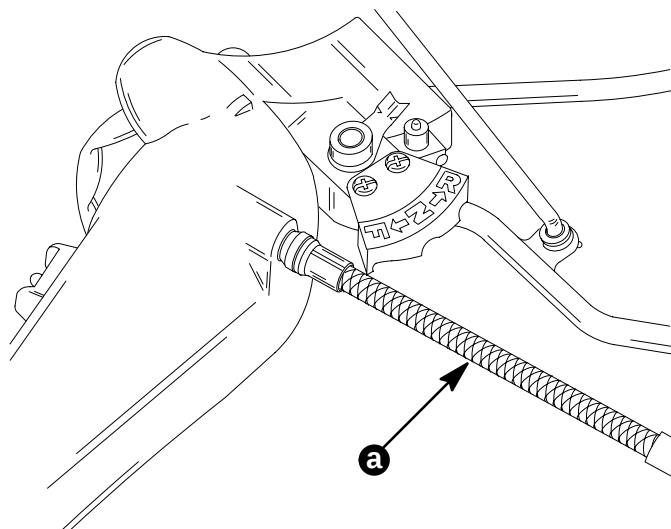
Tiller Handle Throttle Cable Replacement

1. Remove tiller handle from outboard.
2. Remove throttle twist grip.
3. Loosen screws (a) securing cable guide (b) to throttle cable (c).



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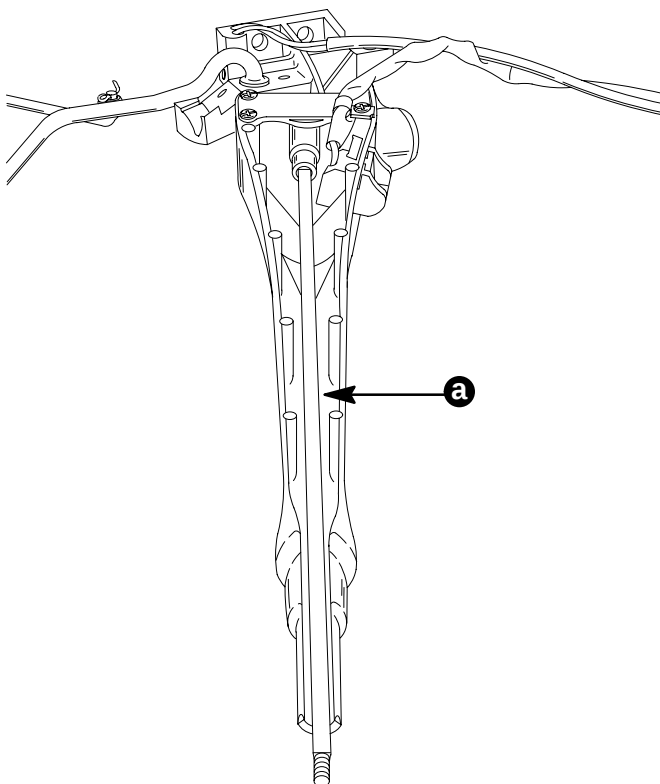
4. Remove conduit (a) and throttle cable from tiller handle.



54820

5. Install throttle cable.

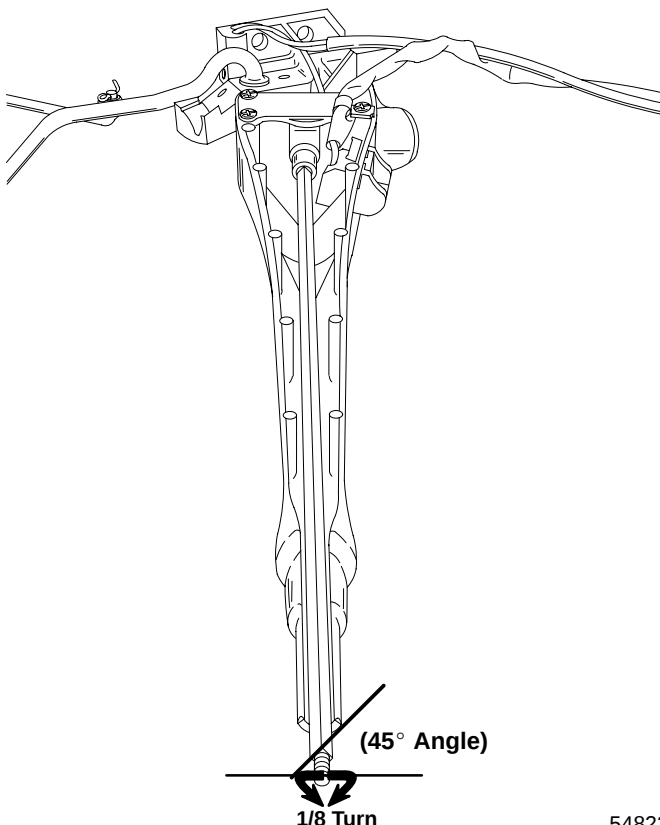
- a. Position drive rod flat surface parallel to work surface.



54821

a - Drive Rod

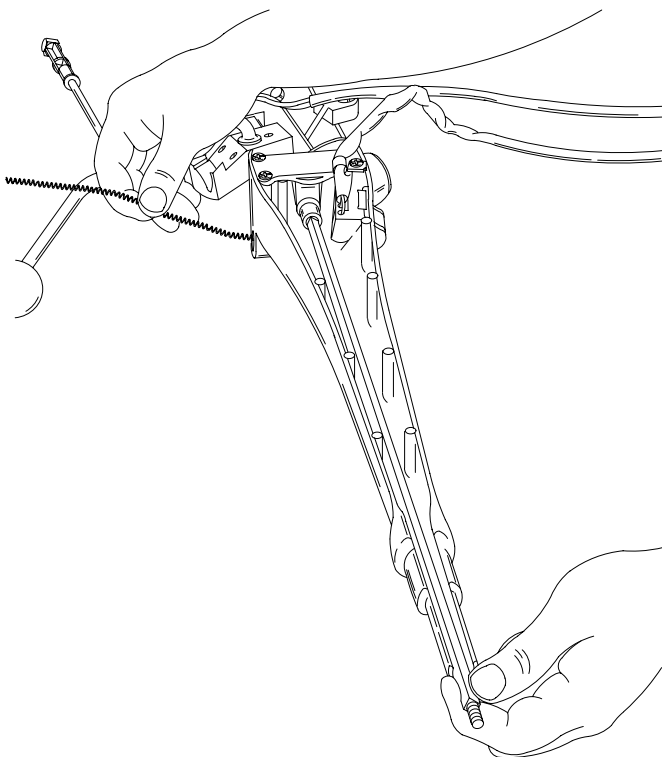
- b. Rotate drive rod (either direction) 1/8 turn to attain drive rod flat surface of 45°.



54822

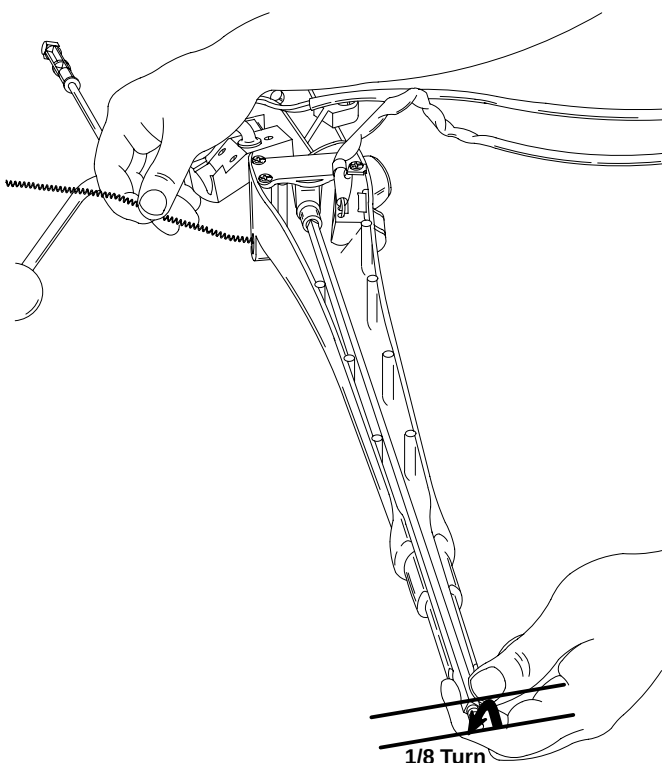


- c. Install throttle cable into tiller handle port until movement is felt in drive rod.



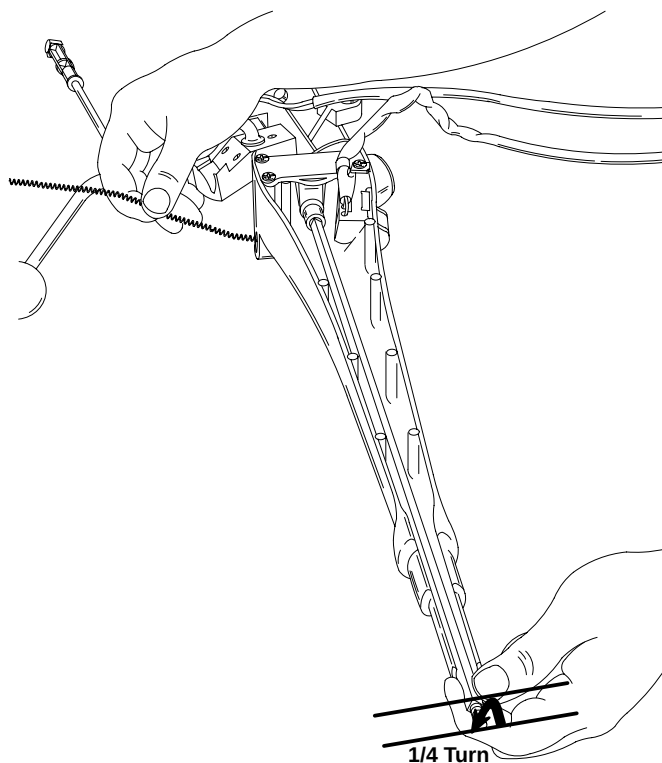
54823

- d. Rotate drive rod counterclockwise 1/8 turn (45°) until flat surface becomes parallel with work surface.



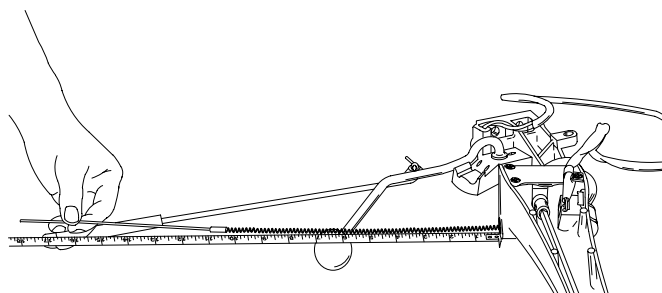
54823

- e. Rotate drive rod counterclockwise 1/4 turn (90°) until flat surface becomes parallel with work surface.



54823

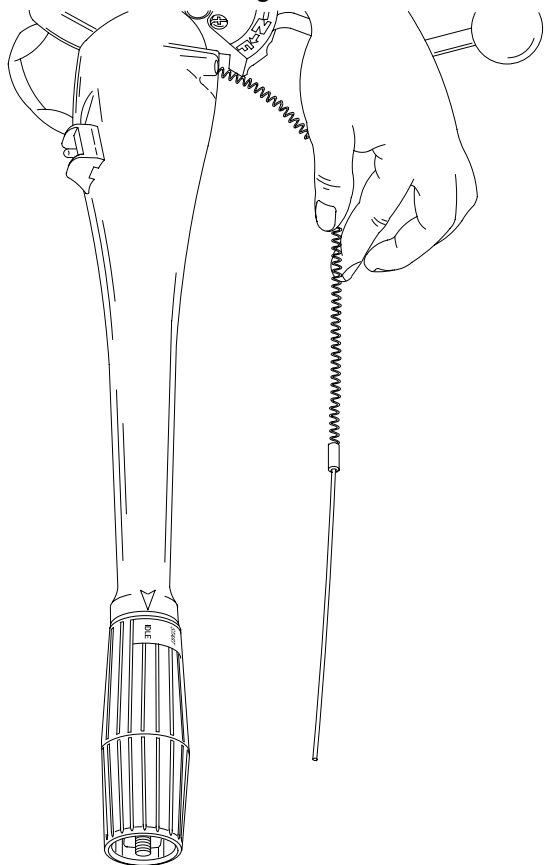
- f. Measure distance between tiller handle port and end of throttle cable. A measurement of 18 in. (457mm) must be attained for throttle shutter plates to open and close properly.



54824

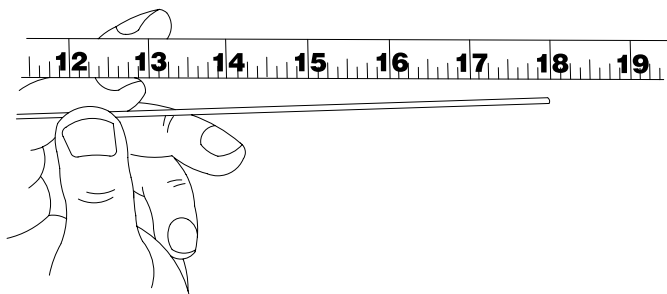


- g. Install throttle handle to tiller handle. Align "IDLE" on throttle handle with arrow on tiller handle without moving drive rod. Recheck throttle cable length.



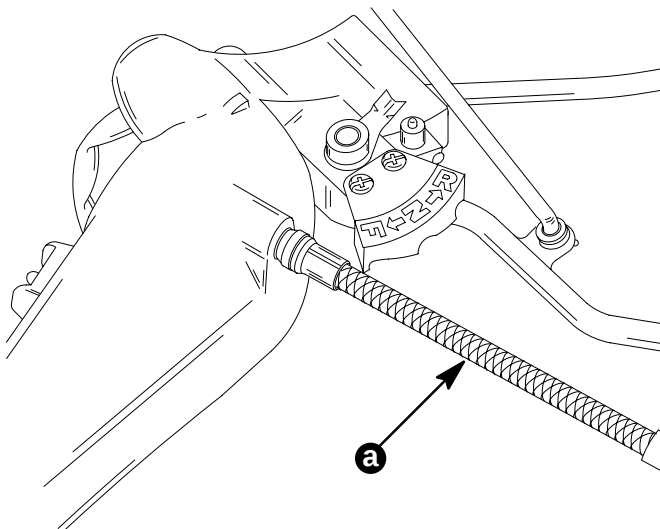
54825

IMPORTANT: If 18 in. (457mm) measurement is not attained following throttle cable installation, repeat steps a-g.



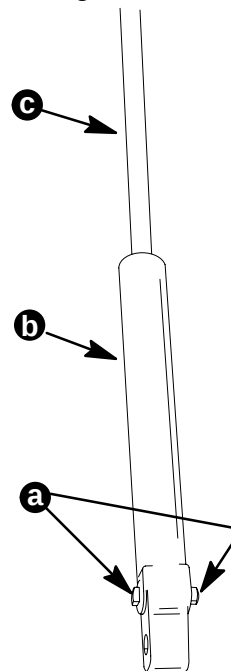
54826

6. Install washer, nut and end cap to throttle grip. Tighten nut snugly allowing grip to turn freely.
7. Install conduit (a) to tiller handle. Turn conduit in until bottomed out on tiller handle, then back off one turn.



54820

8. Reinstall cable guide to throttle cable.



54819

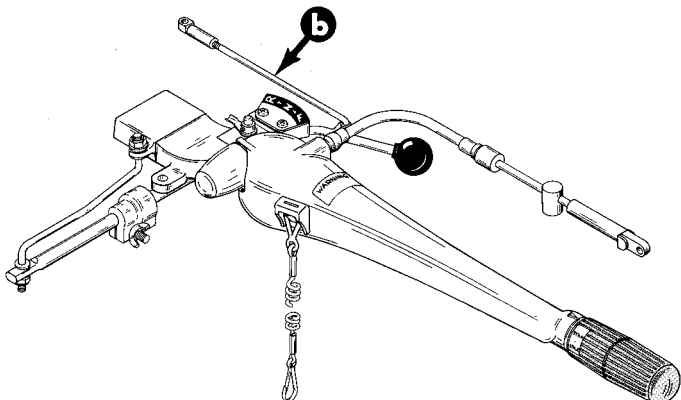
- a - Screws
b - Cable Guide
c - Throttle Cable



Tiller Handle Installation

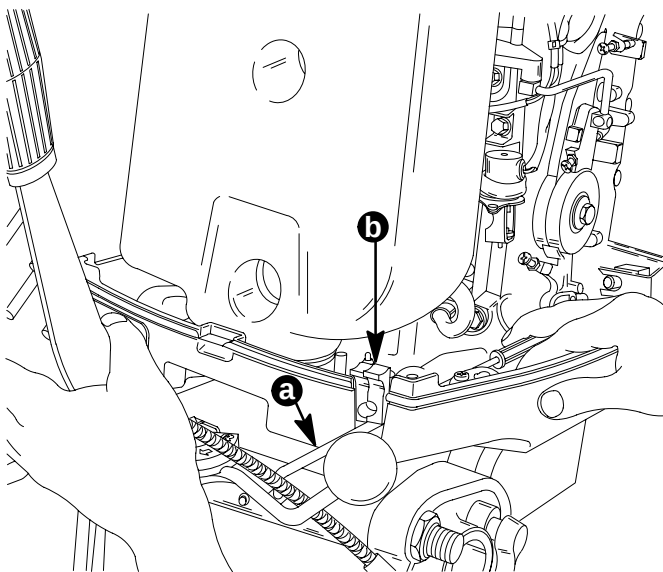
(ELECTRIC START MODEL SHOWN)

1. Insert shift link rod (b) thru opening in the bottom cowl.



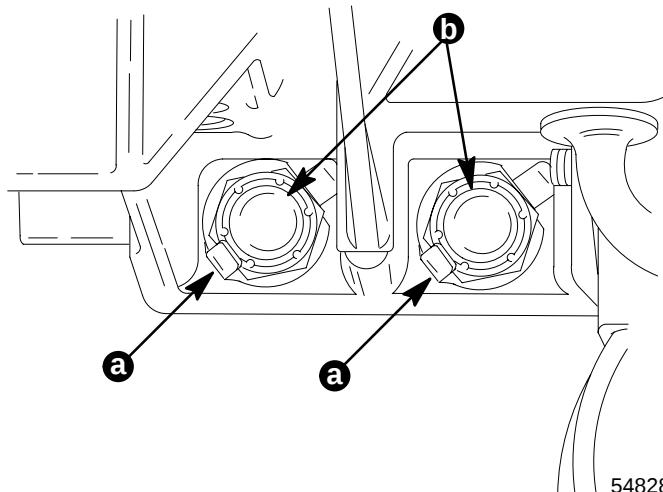
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2. Route shift link rod (a) around port side of outboard and position through lower opening in rubber grommet (b).



54827

3. Secure tiller handle assembly to studs of outboard steering arm using tab washers (a) and locknuts (b). Torque locknuts to 33 lb. ft. (45 N·m) and bend tab washers against hex of locknuts.



54828



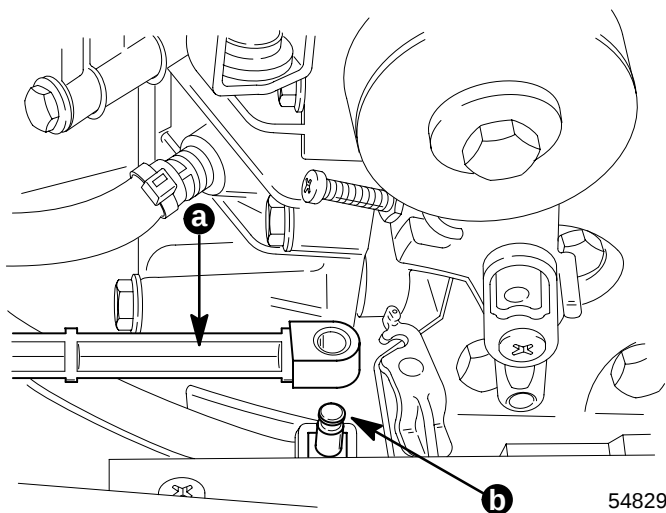
Shift Link Rod Installation

1. Place shift lever (located on tiller handle) in "N" (Neutral) position.

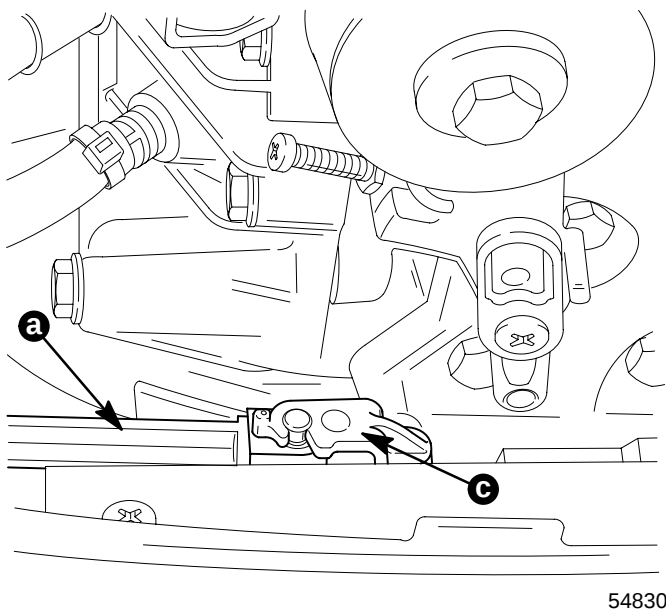
⚠ CAUTION

To avoid accidental starting, which could result in personal injury, remove and isolate high tension spark plug leads from spark plugs before working near propeller.

2. Place engine shift actuating slide to neutral position (propeller turns freely in both directions).
3. Adjust shift link rod (a) to fit over peg (b) of shift actuating slide without moving shift lever or actuating slide.



4. Secure shift link rod end (a) onto shift peg, using rod end retainer (c).

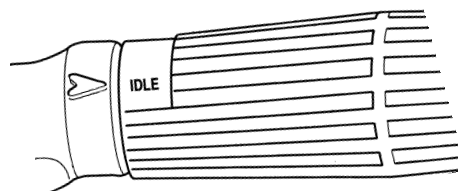


5. Check shift link rod adjustment as follows:

- a. Place outboard shift lever in "F" (Forward) position. Propeller should not rotate in a COUNTERCLOCKWISE direction. If propeller does rotate COUNTERCLOCKWISE, length of shift link rod must be reduced and Step "a" repeated.
- b. Place outboard shift lever in "N" (Neutral) position. Propeller should rotate freely without drag. If not, length of shift link rod must be increased and Steps "a" and "b" repeated.
- c. While rotating propeller, place outboard shift lever in "R" (reverse) position. If propeller can be rotated in either direction, length of shift link rod must be increased and Steps "a" thru "c" repeated.
- d. Place outboard shift lever in "N" (Neutral) position. Propeller should turn freely without drag. If not, length of shift link rod must be decreased and Steps "a" thru "d" repeated.

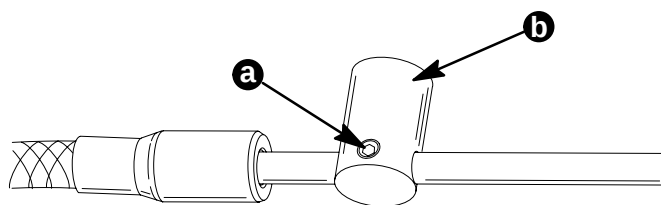
Throttle Cable Installation

1. Rotate throttle twist grip fully clockwise to stop "IDLE" position.



20888

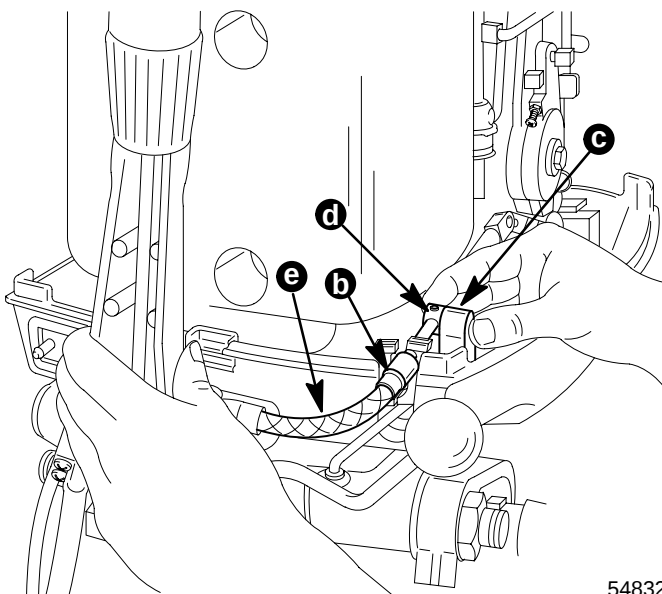
2. Back out set screw (a) from throttle cable barrel (b) until 2 or 3 threads of set screw are exposed.



54831

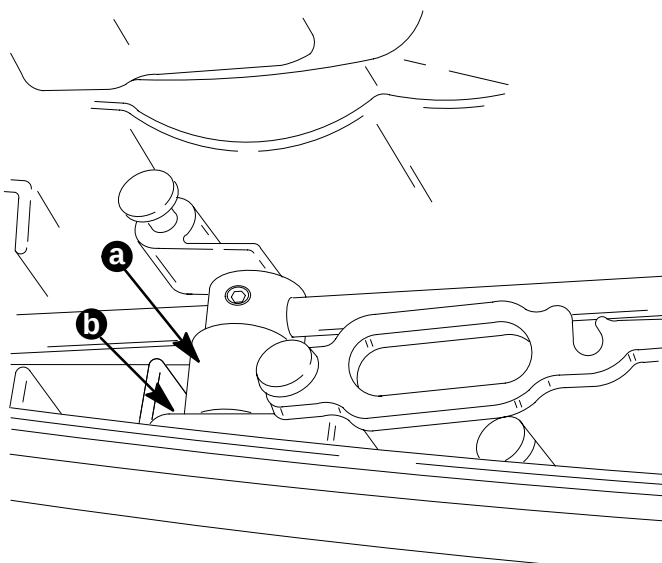


3. Place barrel receptacle (c) onto throttle barrel (d). Route throttle cable (e) around port side of outboard and position throttle cable through center opening in rubber grommet (b).



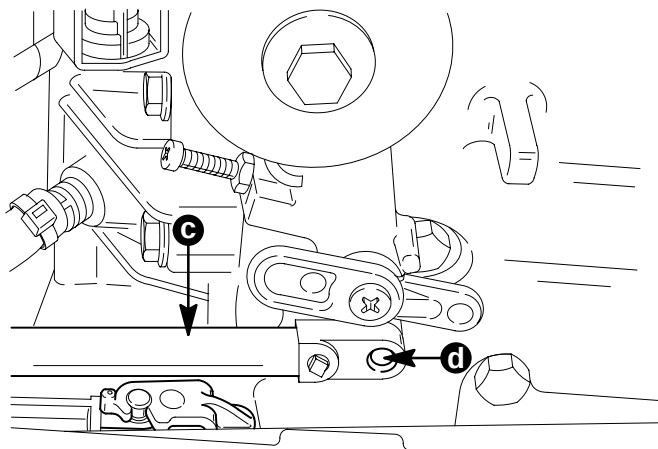
54832

4. Position barrel receptacle (a) into receptacle guide (b).



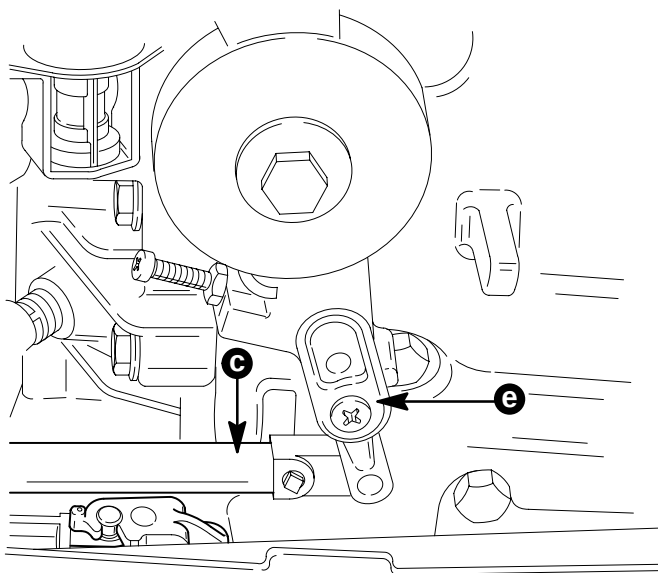
54833

5. Place end of throttle cable (c) on peg of throttle lever (d).



54834

6. Secure throttle cable (c) with latch (e).



54835

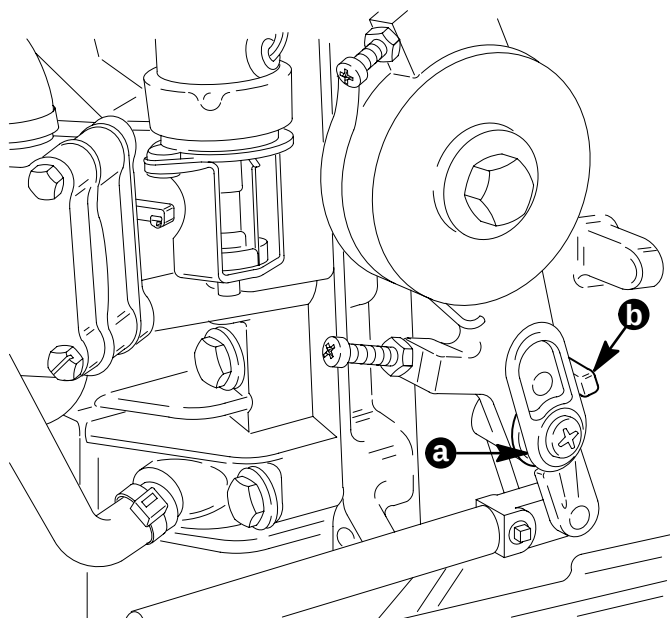
7. Apply a drop of Loctite 271 onto exposed threads of throttle cable barrel set screw. (DO NOT tighten set screw at this time.)

⚠ CAUTION

DO NOT exceed 1/4-turn on set screw after it has bottomed-out.

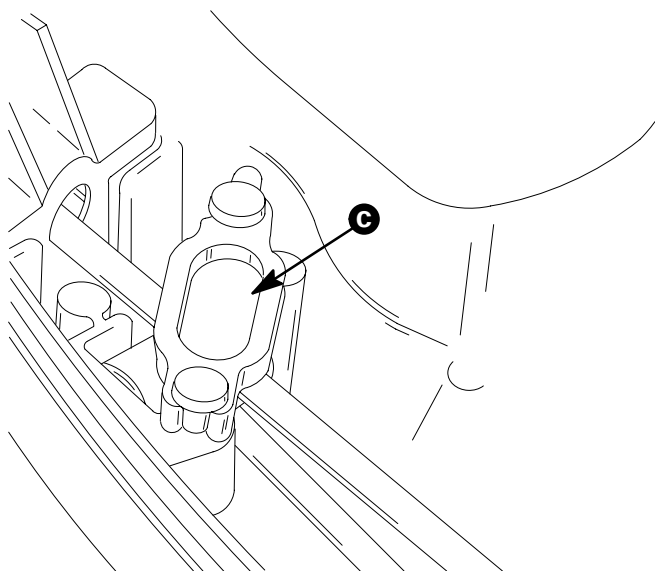


8. With throttle lever (a) held **lightly against** stop (b) and throttle twist grip at "IDLE", turn set screw of throttle cable barrel in until it bottoms-out on tube, then tighten screw an additional 1/8 turn.



54836

9. Secure barrel receptacle using barrel retainer (c).

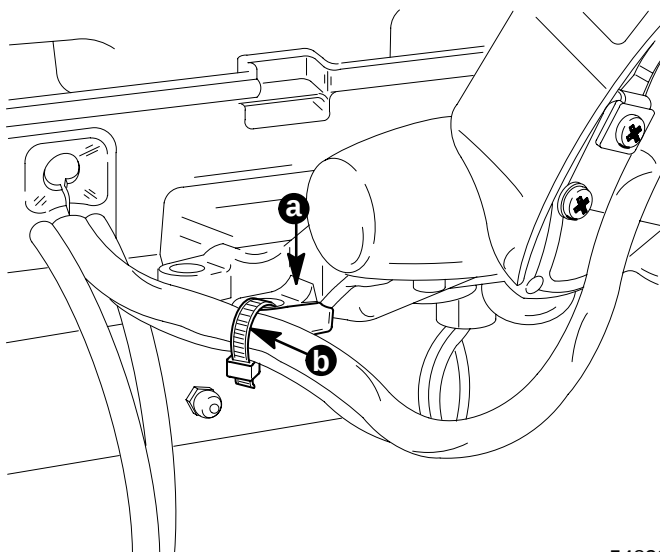


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10. Check preload on throttle cable, by placing a thin piece of paper between idle stop screw and idle stop. Preload is correct when paper can be removed without tearing, but has some drag on it. Readjust throttle cable barrel, if necessary.

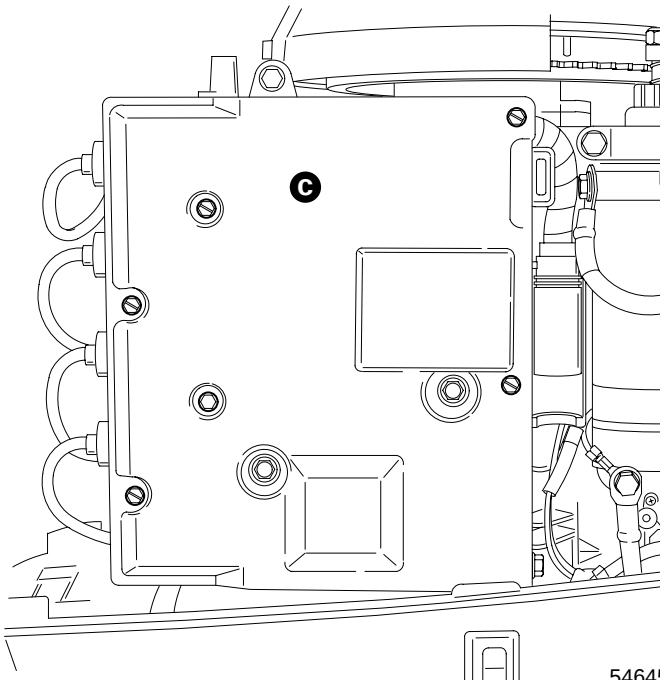
Lanyard Stop Switch Wiring

1. Route Lanyard Stop Switch and Neutral Start Switch wiring through bushing as shown. Secure wiring to tiller bracket (a) using sta-strap (b).



54838

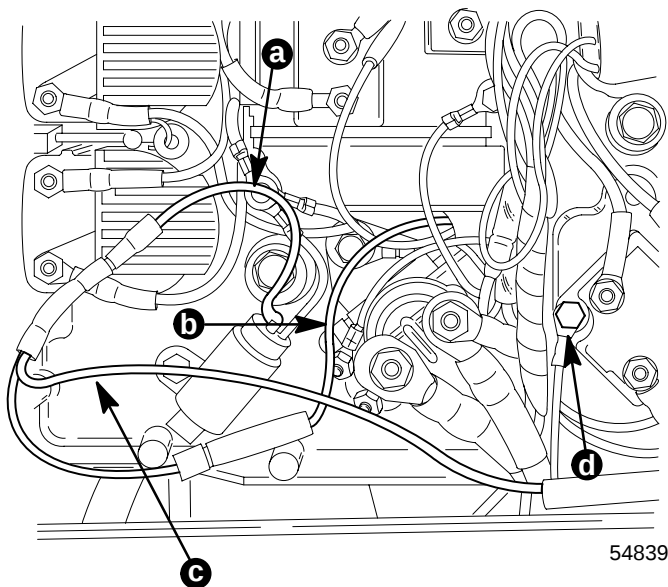
2. Remove electrical box side cover (c).



54645

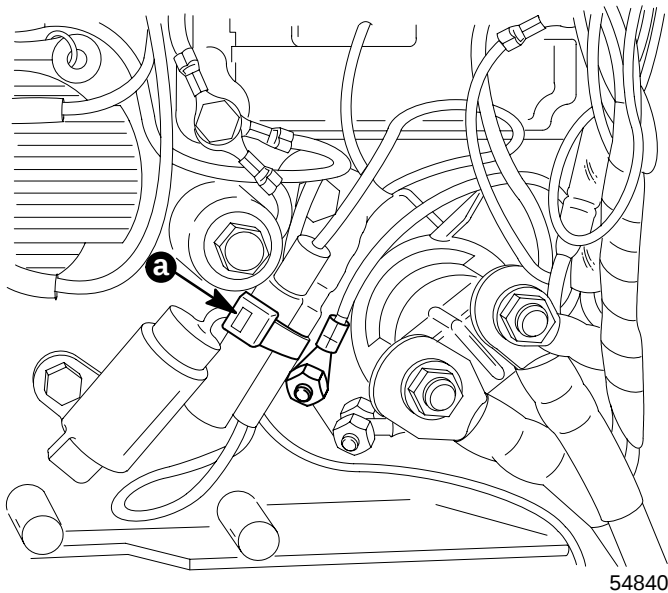


3. Connect lanyard stop switch wiring harness as shown.



- a - Black/Yellow Lead from Mercury Stop Switch
- b - Black/Yellow Lead from Outboard Wiring Harness
- c - Black/Yellow Leads from Lanyard Stop Switch
- d - Black Lead (to Outboard Ground)

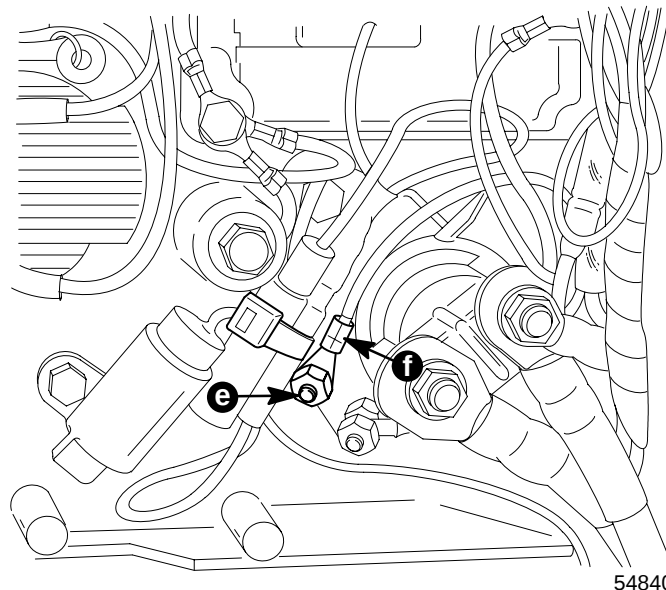
4. Secure lanyard stop switch leads with sta-strap (a).



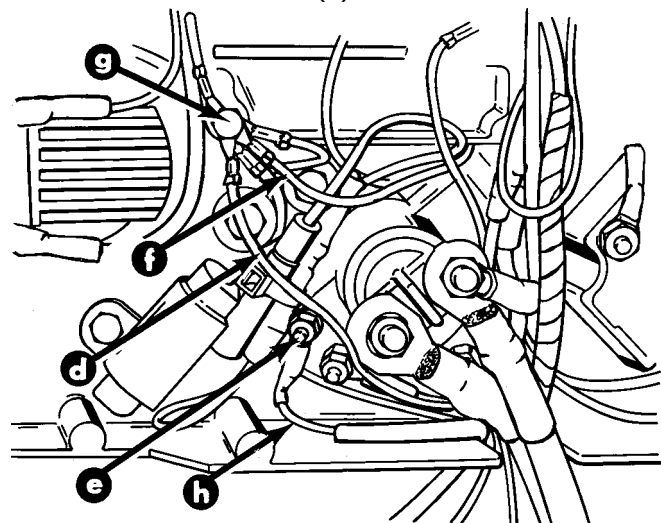
Neutral Start Switch Wiring

NOTE: Electric Start Models

1. Remove ground lead (f) from solenoid terminal (e).



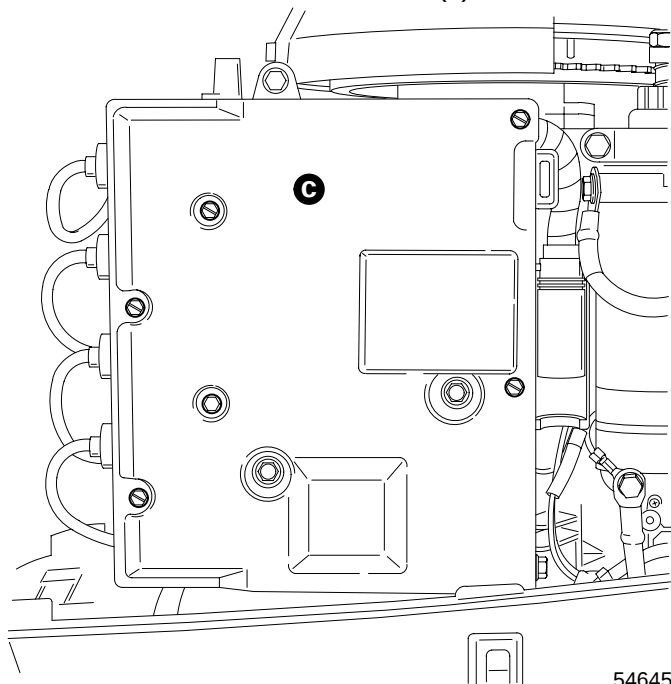
2. Connect ground lead (f) and ground lead (d) from Neutral Start Switch to switch box ground (g). Connect remaining Neutral Start Switch wire (h) to solenoid terminal (e).



- d - Ground Lead (Large Ring Terminal) from Neutral Start Switch
- e - Solenoid terminal
- f - Ground Lead (Removed from Solenoid)
- g - Engine Ground
- h - Ground Lead (Small Ring Terminal) from Neutral Start Switch



3. Reinstall electrical box cover (c).



Battery Connections

⚠ CAUTION

Failure to observe correct polarity when connecting battery cable to battery, will result in damage to the charging system.

1. A battery with a minimum reserve capacity rating of 100 minutes (minimum cold cranking rating of 350 amperes) is recommended.
2. House battery in a battery box and secure in a favorable position in boat.
3. Connect battery cables to battery by connecting BLACK lead to negative (–) terminal and connecting RED lead to positive (+) terminal on battery.



Co-Pilot Installation Instructions

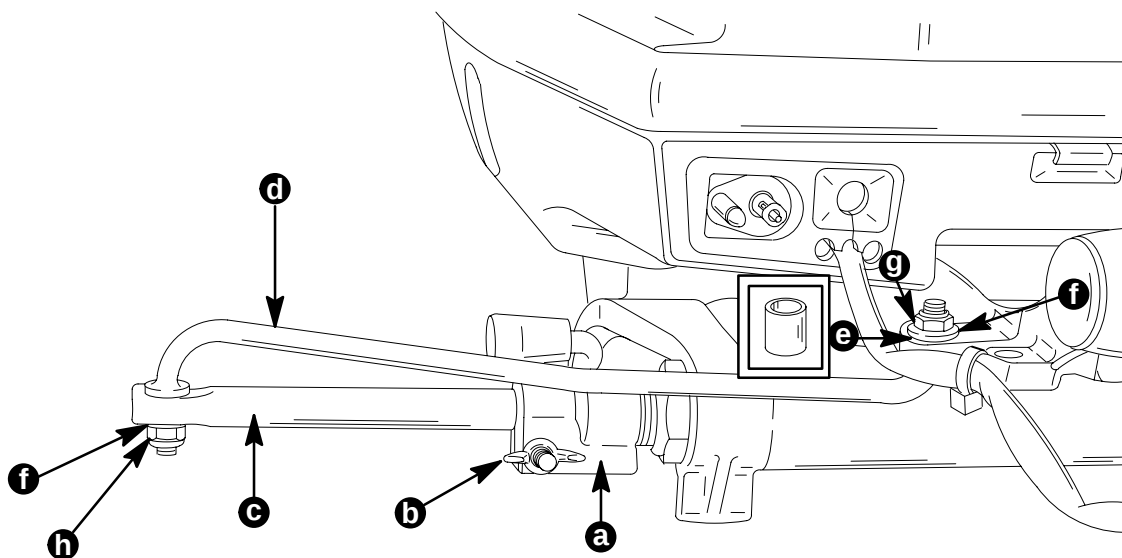
1. Thread friction device (a) onto starboard end of tilt tube until securely tightened and wind nut will be positioned toward front of outboard.
2. Loosen wing nut on friction device and insert pilot rod (c) into friction device and tilt tube.
3. Lubricate each end of link rod with Quicksilver 2-4-C Marine Lubricant.
4. Install link rod ("d" longer end) into hole in steering handle bracket and other end of link rod into hole in pivot rod, as shown.
5. Secure link rod to steering handle spacer bracket with spacer, flat washer and locknut. Torque locknut to 120 lb. in. (13.6 N·m).

6. Secure link rod to pilot rod with flat washer and locknut. Tighten locknut until it seats. DO NOT exceed 120 lb. in. (13.6 N·m), then back off 1/4-turn.
7. Adjust wing nut on friction device to provide desired steering control.

IMPORTANT: Tighten wing nut (b) to increase friction; loosen to decrease friction.

WARNING

If the wing nut (b) is overtightened it may not be possible to steer the outboard in an emergency.



- a - Friction Device [Position so Wing Nut (b) will be Positioned Toward Front of Outboard]
- b - Wing Nut
- c - Pivot Rod
- d - Link Rod
- e - Spacer (Hidden); Place in Hole
- f - Flat Washer
- g - Locknut; Torque to 120 lb. in. (13.6 N·m)
- h - Locknut; Tighten Until it Seats; DO NOT Exceed 120 lb. in. (13.6 N·m), then Back Off 1/4-Turn

26381



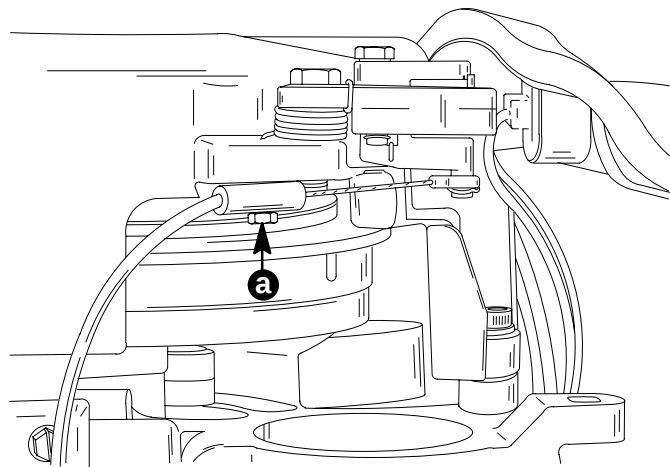
Shift Interlock Adjustment

(MANUAL START MODEL)

⚠ CAUTION

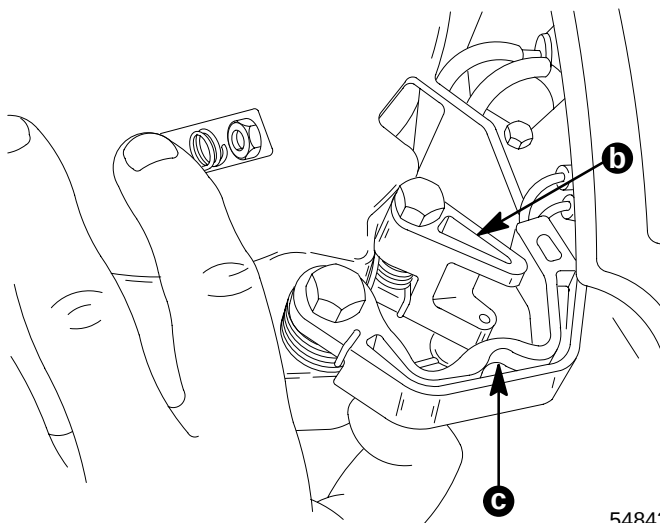
DO NOT shift into “R” (reverse gear) position when engine is not running, as shifting mechanism could be damaged.

1. Shift outboard into neutral position.
2. Loosen cable attaching screw (a) to allow cable movement.

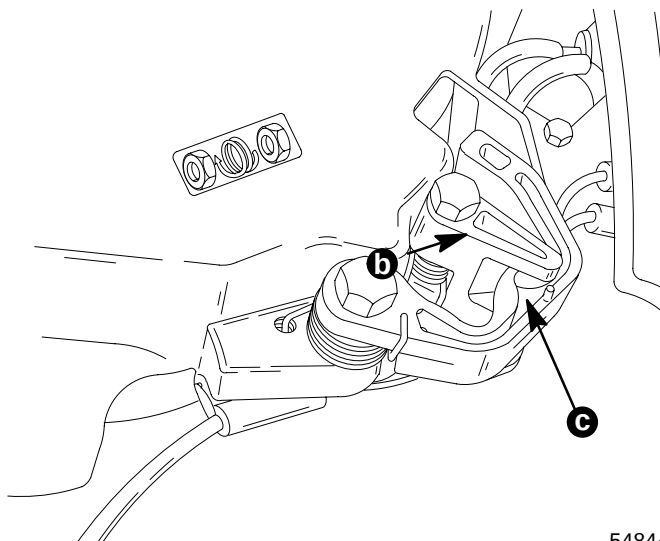


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3. Interlock actuator (b) must align with rise of interlock cam (c) while shift lever is in the neutral position.
4. Tighten cable attaching screw securely.



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- b - Interlock Actuator
c - Interlock Cam