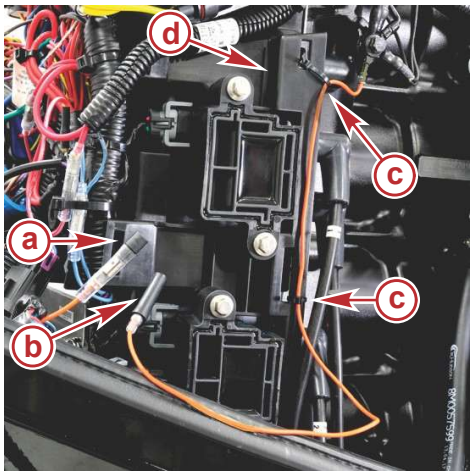
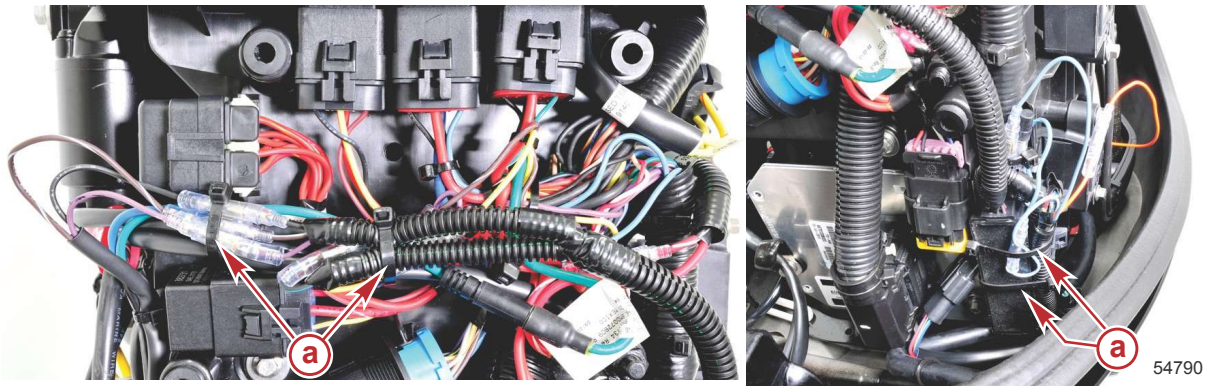
10. Tilt the engine below the memorized set point.
11. Tilt the engine up to confirm the tilt limit set point is memorized.
12. Cap and plug the orange wire bullet connectors.
    NOTE: *The orange wire remains attached to the engine ground in case future recalibration is required.*
13. Secure the orange calibration wire to the coil bracket with two cable ties (not provided in the kit).



56546

a - Bullet connector plug
b - Bullet connector cap
c - Cable tie
d - Coil bracket

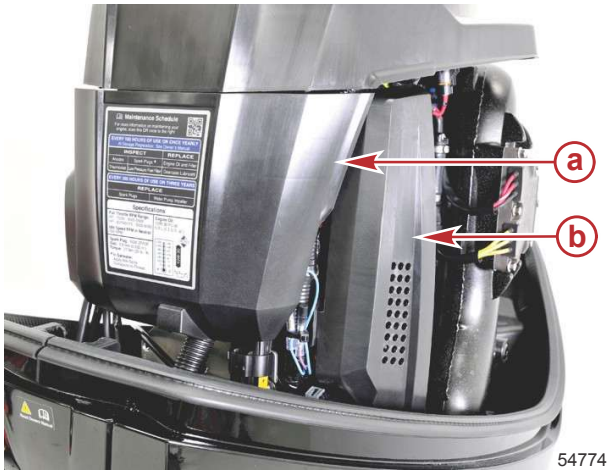
14. Bundle the bullet connectors and tilt limit module harness to the start solenoid cable with two cable ties.
15. Bundle the tilt limit module and blue/white wire to the engine harness with two cable ties.



54790

a - Cable tie

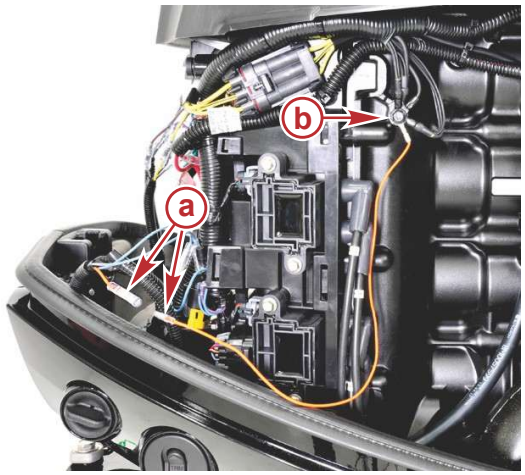
16. Install the covers. Ensure that the tilt limit module does not interfere with the front cover.



54774

a - Front cover
b - Side cover

2. Apply Liquid Neoprene to the ring terminal and ground screw.



54777

a - Orange wire bullet connectors (disconnected)
b - Orange calibration wire ring terminal and engine ground

Description	Nm	lb-in.	lb-ft
Ground screw	6	53.1	–

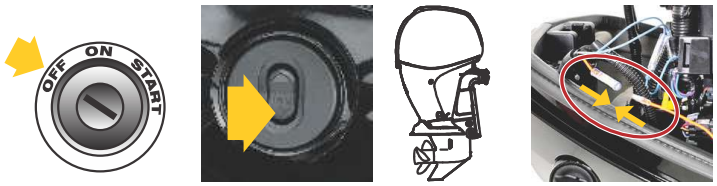
Tube Ref No.	Description	Where Used	Part No.
25	Liquid Neoprene	Ring terminal and ground screw	92- 25711 3

Calibration Procedure

IMPORTANT: The calibration instructions must be followed exactly for the tilt limit module interface to function correctly and accurately.

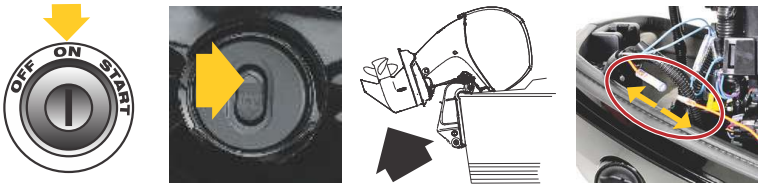
IMPORTANT: There should be several inches between the engine cowl and the motor well (or other obstructions) in the full tilt position. The tilt limit module tolerance is ± 5° from the calibrated set point.

1. Install the battery cables to the battery. Be sure to connect the negative (–) (grounded) battery cable to the negative (–) battery terminal and the positive (+) battery cable to the positive (+) battery terminal.
2. Turn the ignition key switch to the off position.
3. Tilt the engine to the full tucked-in position.
4. Connect the orange calibration wire bullet connector to the tilt limit module orange wire.



61123

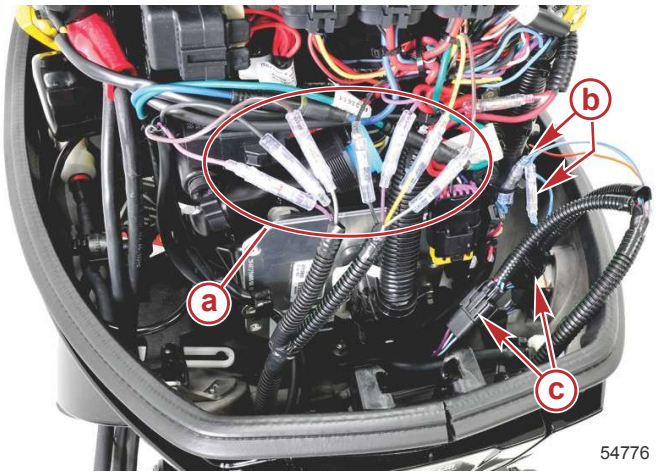
5. Turn the ignition key switch to the on position.
6. Tilt the engine up to the desired tilt limit position.
   NOTE: *If the tilt limit feature is not required, calibrate the module so that the upper tilt limit is at the full up tilt position.*
7. Disconnect the orange calibration wire at the bullet connector.



61124

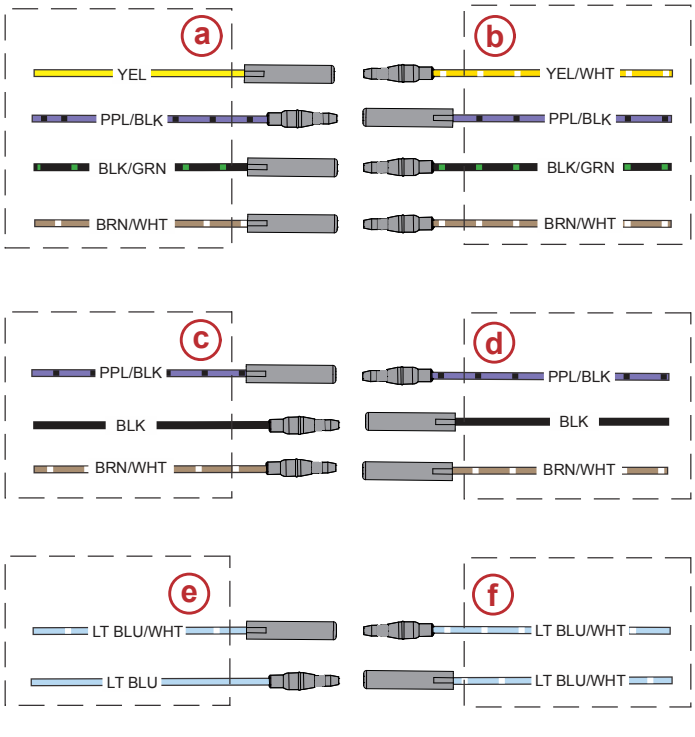
8. Turn the ignition key switch to the off position.
9. The tilt limit is now a memorized set point.

10. Connect the tilt limit module trim switch connectors in line with the cowl-mounted tilt switch connectors.



a - Brown/white (2), black/green, purple/black (2), black, and yellow, yellow/white wire bullet connectors (7 total)
b - Blue and blue/white wire bullet connectors
c - 3-pin tilt switch connectors

Power Trim Sensor Converter/Tilt Limit Module to Outboard Bullet Connector Diagram

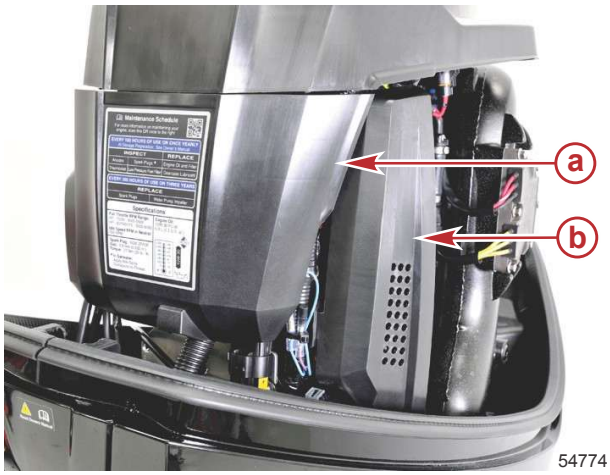


a - Trim limit module 4-wire side harness
b - Engine harness
c - Trim limit module 3-wire side harness
d - Outboard trim position sensor
e - Trim limit module
f - Engine harness

Orange Calibration Wire Installation

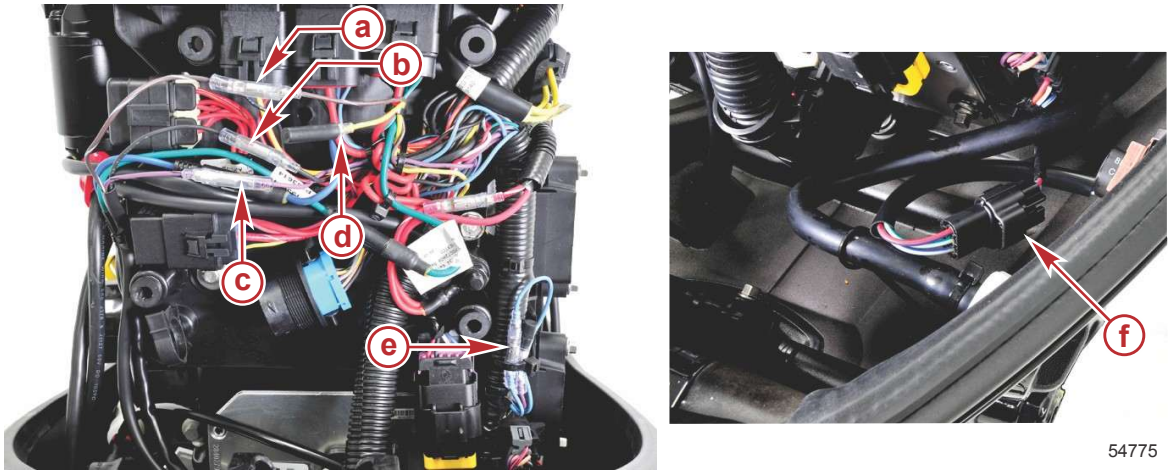
1. Connect the orange calibration wire ring terminal to the engine ground. Tighten the ground screw to the specified torque.

2. Remove the covers.



a - Front cover
b - Side cover

3. Disconnect the trim position sensor's brown/white, black (black/green wire to engine), and purple/black wire bullet connectors.
4. Remove the cap from the engine harness yellow/white wire bullet connector.
5. Disconnect the blue/white wire bullet connectors located on the engine near the diagnostic port.
6. Disconnect the cowl-mounted trim switch 3-pin connectors located on the port cowl.



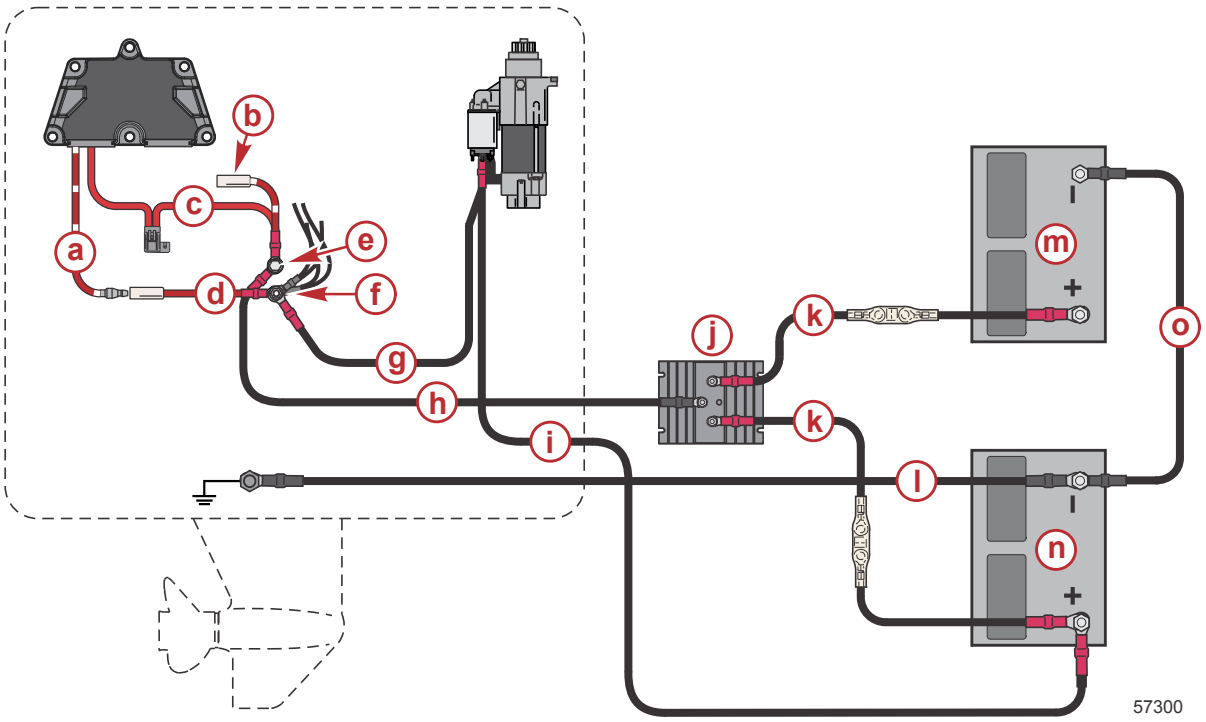
a - Brown/white wire bullet connector
b - Black/green and black wire bullet connector
c - Purple/black wire bullet connector
d - Yellow/white engine harness wire bullet connector cap
e - Blue/white wire bullet connectors
f - Cowl-mounted trim switch 3-pin connectors

7. Connect the tilt limit module black, brown/white, black/green, and purple/black bullet connectors in line with the engine harness and the trim position sensor. Refer to the **Power Trim Sensor Converter/Tilt Limit Module to Outboard Bullet Connector Diagram**.

   NOTE: *The 4-wire side harness wires connect to the engine harness wires and the 3-wire side harness wires connect to the trim position sensor harness wires.*
8. Connect the tilt limit module yellow wire bullet connector to the engine harness yellow/white wire. Refer to the **Power Trim Sensor Converter/Tilt Limit Module to Outboard Bullet Connector Diagram**.
9. Connect the tilt limit module blue and blue/white bullet connector to the engine harness blue/white bullet connectors. Refer to the **Power Trim Sensor Converter/Tilt Limit Module to Outboard Bullet Connector Diagram**.

   NOTE: *Ensure that the module's wires are connected to the engine harness wires.*

Battery Isolator Wiring Diagram - 75/80/90/100/115 FourStroke 2.1L Models



- **a -** Red/white sense lead from voltage regulator
- **b -** Unused female bullet connector on voltage regulator cable - insert supplied plug
- **c -** Voltage regulator lead with fuse
- **d -** 16 AWG red jumper with ring terminal and bullet connector (supplied)
- **e -** M8 x 10 screw on electrical plate
- **f -** Power stud on electrical plate
- **g -** Starter cable
- **h -** 10 AWG red cable with black sleeve (supplied) - route from power stud to battery isolator
- **i -** Battery positive (+) cable
- **j -** Battery isolator
- **k -** Fused battery isolator cables, 5.0 mm^2 (10 AWG) minimum - obtain locally
- **l -** Battery ground (–) cable
- **m -** Auxiliary battery
- **n -** Start battery
- **o -** 10 AWG black cable (supplied)

Power Trim Sensor Converter/Tilt Limit Module Installation and Calibration

The module provides two functions:

- Converts the analog signal from the trim position sensor to a digital signal required for the SmartCraft digital trim/tilt gauge.
- Provides a variable, user-defined tilt limit for the up/out travel of the outboard to minimize the potential interference with the motor well or other obstructions.

Installation

1. Remove the battery cables from the battery.