

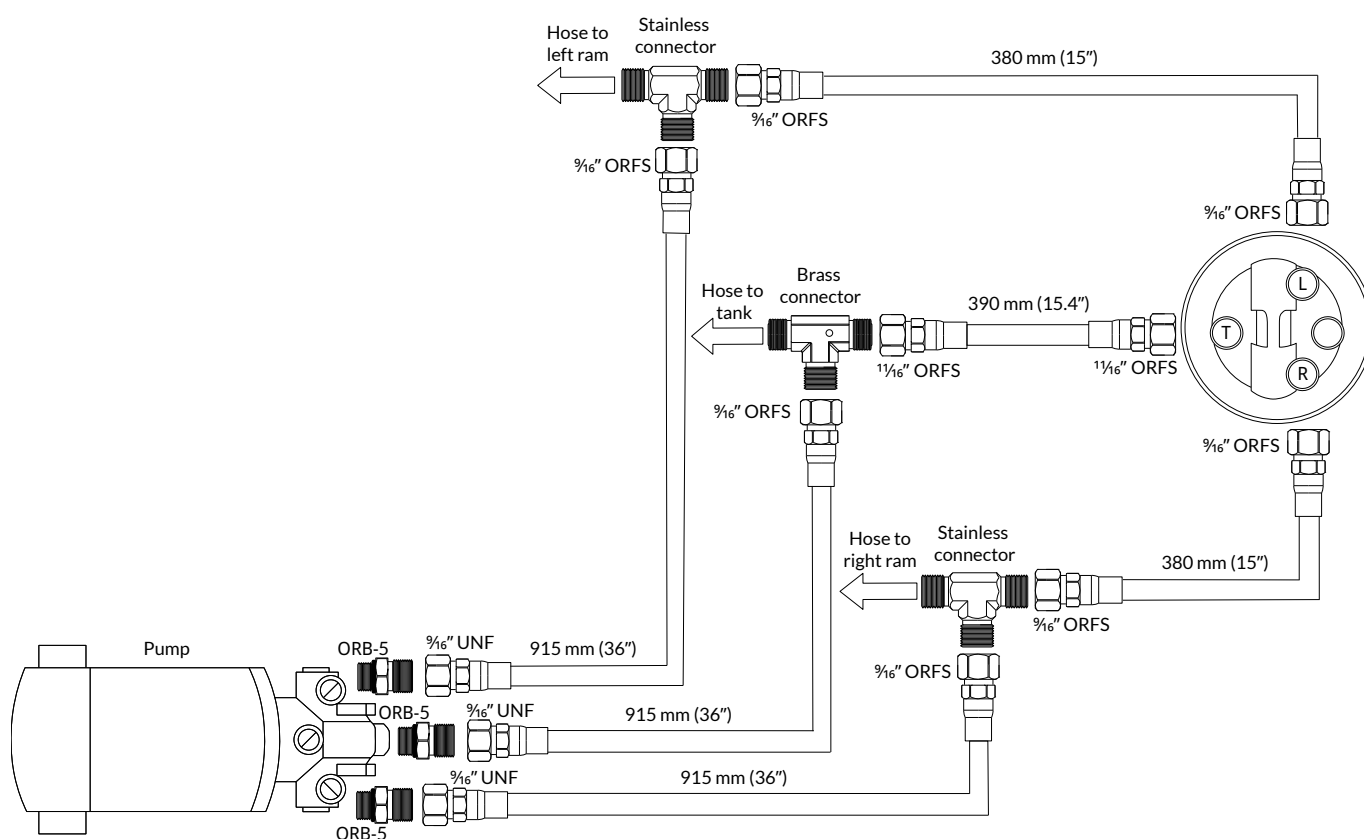
Autopilot Pump Fitting Kits for Mercury® Verado® Steering Systems

Installation Guide

Tools required: Safety glasses, wrenches 14 mm ($\frac{9}{16}$ "), 16 mm ($\frac{5}{8}$ "), 17 mm ($\frac{11}{16}$ ") and 22 mm ($\frac{7}{8}$ "), liquid Teflon® sealant (SteadySteer™ kit only)

Autopilot pump fitting kit (000-15943-001)

- 3 x hoses, 3000 PSI max, 915 mm (36"), $\frac{9}{16}$ " UNF to $\frac{9}{16}$ " ORFS
- 2 x hoses, 3000 PSI max, 380 mm (15"), $\frac{9}{16}$ " ORFS to $\frac{9}{16}$ " ORFS
- 1 x return hose, 2250 PSI max, 390 mm (15.4"), $\frac{11}{16}$ " ORFS to $\frac{11}{16}$ " ORFS
- 2 x stainless steel tee connectors, $\frac{9}{16}$ " ORFS
- 1 x brass tee connector, $\frac{11}{16}$ " ORFS > $\frac{11}{16}$ " ORFS > $\frac{9}{16}$ " ORFS



Install pump (pump kit sold separately)

1. Pick an installation location for your pump. It must be within the combined length of the hoses from the pump and the back of the Verado® helm.
2. Install the pump so the pump and hoses are below the helm to eliminate air trapped in the lines. You can mount the pump in any orientation (horizontal or vertical).
 - ➔ **Note:** If mounting vertically, do not mount the pump above the motor.
3. Connect the ORB-5 > $\frac{9}{16}$ " UNF fittings to the pump and tighten.

Connect hoses to pump

- ➔ **Warning:** Before you tighten any hose fitting, check the O-ring is inserted in the fitting.
 - ➔ **Warning:** Never use Teflon® tape or liquid sealant on UNF hose fittings.
 - ➔ **Warning:** After you connect a hose fitting, tighten it with the correct wrench. Never overtighten.
4. Connect the $\frac{9}{16}$ " UNF ends of the 3 x 915mm hoses to the pump fittings and tighten.

Connect hoses to connectors (center ports)

5. Connect the 2 outer hoses coming from the pump to the center $\frac{1}{16}$ " ORFS ports on the stainless connectors.
6. Make sure the 2 open ends of the connector are in line with each other so they can connect to the steering hoses once they are removed from the helm.
7. Connect the inner hose coming from the pump to the center $\frac{1}{16}$ " ORFS port on the brass connector.

Connect hoses to connectors (side ports)

8. Connect the 2 x 380 mm hoses to the 2 stainless $\frac{1}{16}$ " ORFS connectors. Make sure the hoses are connected on the same side on both connectors.
9. Connect the 390 mm $\frac{1}{16}$ " ORFS return hose to the same side of the brass connector.

Disconnect hoses from helm

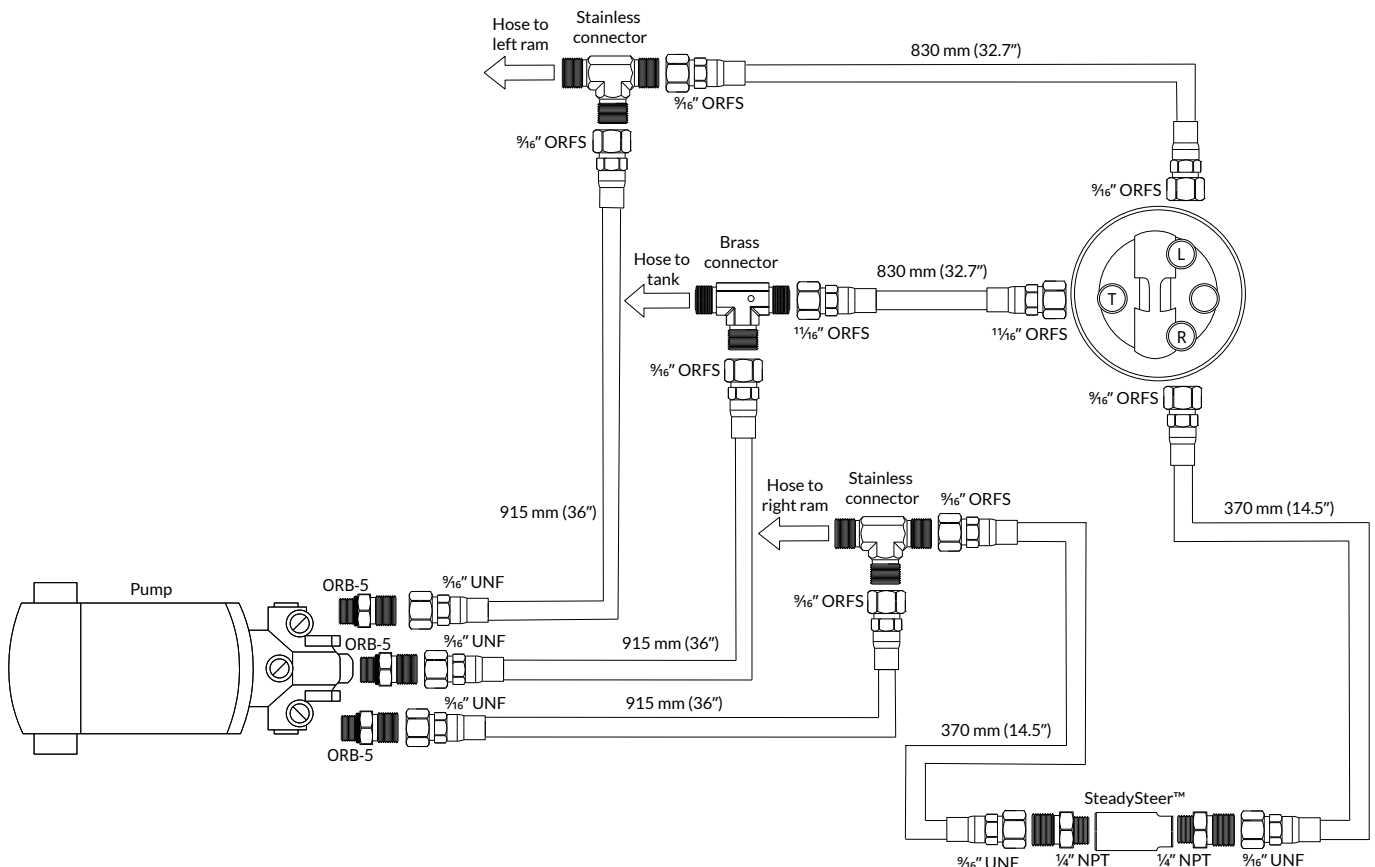
10. Make sure the battery switch to the boat is off and the motor key switches are in the off position.
11. Remove the hose connected to the L port (port hydraulic line) on the back of the Verado® helm and connect it to the remaining port on one of the stainless connectors.
12. Remove the hose connected to the R port (starboard hydraulic line) on the back of the Verado® helm and connect it to the remaining port on the other stainless connector.
13. Remove the hose connected to the T port on the back of the Verado® helm and connect it to the remaining port on the brass connector.

Connect hoses to helm

14. Connect the outer hoses from the stainless connectors to the L and R ports on the Verado® helm.
15. Connect the inner hose from the brass connector to the T port on the Verado® helm.

Autopilot pump fitting kit with SteadySteer™ (000-15950-001)

- 3 x hoses, 2800 PSI max, 915 mm (36"), $\frac{1}{16}$ " UNF > $\frac{1}{16}$ " ORFS
- 1 x hose, 2800 PSI max, 830 mm (32.7"), $\frac{1}{16}$ " ORFS > $\frac{1}{16}$ " ORFS
- 1 x return hose, 2250 PSI max, 830 mm (32.7"), $\frac{1}{16}$ " ORFS > $\frac{1}{16}$ " ORFS
- 2 x hoses, 2800 PSI max, 370 mm (14.5"), $\frac{1}{16}$ " ORFS > $\frac{1}{16}$ " UNF
- 2 x stainless steel tee connectors, $\frac{1}{16}$ " ORFS > $\frac{1}{16}$ " ORFS > $\frac{1}{16}$ " ORFS
- 1 x brass tee connector, $\frac{1}{16}$ " ORFS > $\frac{1}{16}$ " ORFS > $\frac{1}{16}$ " ORFS
- 1 x SteadySteer™ hydraulic flow switch
- 2 x adaptors, $\frac{1}{4}$ " NPT > $\frac{1}{16}$ " UNF



Install pump (pump kit sold separately)

1. Pick an installation location for your pump. It must be within the combined length of the hoses from the pump and the back of the Verado® helm.
2. Install the pump so the pump and hoses are below the helm to eliminate air trapped in the lines. You can mount the pump in any orientation (horizontal or vertical).
→ **Note:** If mounting vertically, do not mount the pump above the motor.
3. Connect the ORB-5 > 1/16" UNF fittings to the pump and tighten.

Connect hoses to pump

- **Warning:** Before you tighten any hose fitting, check the O-ring is inserted in the fitting.
 - **Warning:** Never use Teflon® tape or liquid sealant on UNF hose fittings.
 - **Warning:** After you connect a hose fitting, tighten it with the correct wrench. Never overtighten.
4. Connect the 1/16" UNF ends of the 3 x 915mm hoses to the pump fittings and tighten.

Connect hoses to connectors (center ports)

5. Connect the 2 outer hoses coming from the pump to the center 1/16" ORFS ports on the stainless connectors.
6. Make sure the 2 open ends of the connector are in line with each other so they can connect to the steering hoses once they are removed from the helm.
7. Connect the inner hose coming from the pump to the center 1/16" ORFS port on the brass connector.

Connect hoses to SteadySteer™

- **Note:** The SteadySteer™ flow switch must be fitted horizontally on either the starboard or port hydraulic line.
8. Coat the 1/4" NPT ends of the 2 adapters with liquid Teflon® sealant (never use Teflon® tape).
 9. Connect the 1/4" NPT ends of the 2 adapters to each end of the SteadySteer™ flow switch.
 10. Connect the 1/16" UNF fittings on the 2 remaining hoses (370 mm) to the 1/16" UNF ends of the 2 adapters.

Connect hoses to connectors (side ports)

11. Connect one 370 mm hose coming from the SteadySteer™ to one of the stainless connectors.
12. Connect the 1/16" ORFS > 1/16" ORFS 830 mm hose to the same side of the other stainless connector.
13. Connect the 1/16" ORFS > 1/16" ORFS 830 mm return hose to the same side of the brass connector.

Disconnect hoses from helm

14. Make sure the battery switch to the boat is off and the motor key switches are in the off position.
15. Remove the hose connected to the L port (port hydraulic line) on the back of the Verado® helm and connect it to the remaining port on one of the stainless connectors.
16. Remove the hose connected to the R port (starboard hydraulic line) on the back of the Verado® helm and connect it to the remaining port on the other stainless connector.
17. Remove the hose connected to the T port on the back of the Verado® helm and connect it to the remaining port on the brass connector.

Connect hoses to helm

18. Connect the 830 mm outer hose to the L or R port on the Verado® helm.
→ **Note:** The port depends on which hydraulic line you installed the SteadySteer™ flow switch.
19. Connect the 370 mm outer hose to the L or R port on the Verado® helm.
→ **Note:** The port depends on which hydraulic line you installed the SteadySteer™ flow switch.
20. Connect the inner hose from the brass connector to the T port on the Verado® helm.

SteadySteer™ key features

- Allows autopilot to keep you going straight between the turns
- Allows immediate manual control at any time
- Detects helm movement and temporarily overrides autopilot while turning
- Re-engages autopilot upon exiting the turn
- No key-press, no alarms, no fuss, simply turn the helm
- Usable in steering modes: Auto, NoDrift and Navigation

SteadySteer™ compatibility

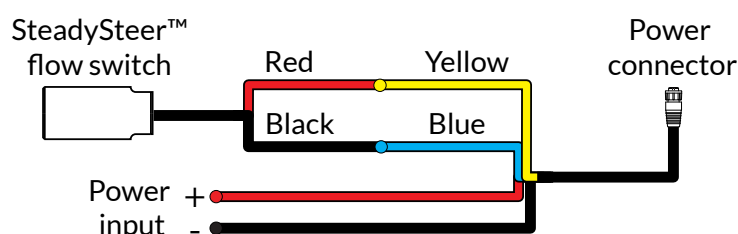
- Fully compatible with:
 - NAC™ 2 and NAC™ 3 autopilot computers with minimum software version 1.1.05
 - NAC™ D autopilot computers with minimum software version 1.0.01.01
 - AP™ 44 and AP™ 48 autopilot controllers with minimum software version 2.2.57.3.163
 - Simrad® MFD with minimum software version 20.2
 - Lowrance® HDS® Live with minimum software version 22.1
- Compatible with older Simrad® MFDs when an AP™ 44 or AP™ 48 is used to configure the digital input port for the flow switch.
- Pumps 2,3,4, or 5 with part numbers ending in -002, and legacy RPU pumps.

Wiring and configuration

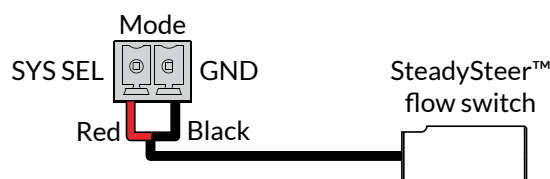
For wiring details refer to the documentation for your autopilot computer.

Before the SteadySteer™ can be used, make sure that the proper autopilot setting have been configured. Refer to the documentation for your autopilot computer.

System wiring example NAC™ 2



System wiring example NAC™ 3



Bleeding the steering system

For how to bleed the steering system, see the Verado® Steering System installation manual.

Compliance statements

Declarations
The relevant declarations of conformity are available at: www.simrad-yachting.com, www.lowrance.com and www.bandg.com.

United Kingdom
This product complies with UKCA under Electromagnetic Compatibility Regulations 2016.

Europe
This product complies with CE under EMC Directive 2014/30/EU.

United States of America
Note: The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Australia and New Zealand
This product complies with the requirements of Level 2 devices of the Radiocommunications (Electromagnetic Compatibility) Standard 2017.

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Trademarks
®Reg. U.S. Pat. & Tm. Off. and ™ common law marks. Visit www.navico.com/intellectual-property to review the global trademark rights and accreditations for Navico Holding AS and other entities.

Warranty
The warranty card is supplied as a separate document. In case of any queries, refer to the brand website of your unit or system.

