Trinity

Model Numbers: Lx500-800
Version Date: 8-Mar-2023

FLOW SWITCH REPLACEMENT (P/N 87741) INSTALLATION INSTRUCTIONS

NTI.
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Installer Responsibilities

As the installing technician, it is your responsibility to ensure the installation is performed in accordance with the NTI instructions included with the flow switch. Refer to replacement procedure below for paddle cut lengths by boiler model and assembly instructions.

Contents (P/N 87741)

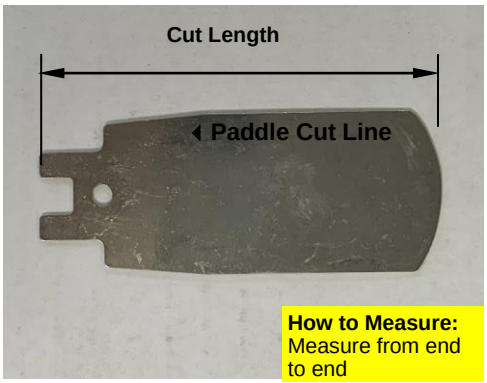
- 87741 - Flow Switch FS8-W
- Replacement Instructions
- 99984129 Conduit

⚠ WARNING Failure to follow these instructions may permit burner operation when no water or no water flow is present resulting in fire, property damage or loss of life.

Replacement Procedure

1. **Power Down:**
   Turn off power to the boiler
2. **Removing the Flow Switch:**
   a. With power off, close boiler isolation valves, drain the boiler.
   b. Pull conduit away from flow switch to create slack in wiring. Detach the electrical conduit where it enters the boiler.
   c. Remove flow switch cover and detach wires from terminals.
   d. Disconnect electrical conduit/fitting from flow switch.
   e. Remove flow switch from the boiler.
3. **Paddle Cut Length:**
   a. Measure paddle cut length from the mounting side of the paddle to the length shown in Figure 2.
   b. Cut paddle to specified length based on boiler model (**Fig. 2**).
   c. Chamfer the paddle. To look like figure 3. (Fig. **2**)
4. **Paddle Assembly:**
   a. Locate flow direction arrow on brass housing, verify it points to the front of the flow switch.
   b. Place the cut paddle on the flat side of the flow switch lever.
   c. Secure the paddle with the screw and tighten securely.
   d. Refer to "Final Paddle Assembly" (**Fig. 3**).

Fig. 2 - Paddle Cut Lengths



Model	Lx500	Lx600	Lx700	Lx800	Ti400
Cut Length	3 1/8"	2-7/8"	2-1/2"	2-1/2"	1 5/8"

5. **Replacing the Flow Switch:**
   a. Apply thread sealant to flow switch threads, securely tighen in place. Final flow switch position should be level, with flow arrow pointing away from the boiler and conduit connection facing the front of the boiler.
   b. Remove flow switch cover, feed wires through the new electrical conduit fitting first and then into switch housing. (**Fig. 4, Fig.5**)
   c. Attach orange wire to center contact (COM), purple wires to the N/O contact.
   d. Secure electrical conduit/fitting to flow switch.
   e. Replace the flow switch cover.
6. **Leak Check:**
   a. Fill boiler with water before powering up. **DO NOT fire boiler without water in it.**
   b. Check for water leaks around flow switch connection.
7. Turn on power to the boiler.
8. **Verify Flow Switch Operation:**
   a. Test 1 - With isolation valves open and flow on, verify burner operation.
   b. Test 2 - With isolation valves closed 75%, verify burner Lockout.
   c. Return isolation valves to open position, clear Lockout, verify burner operation again.

For the Ti400 you do not have to reinstall the flow switch cover

Fig. 3 Final Paddle Assembly

Fig. 4 Final Paddle Assembly

Fig. 5 Final Paddle Assembly