

Installation Instruction

Summit XLT Tunnel Flush Manifold



INTRODUCTION

The Summit XL Tunnel Flush Manifold (XLT Manifold) is designed to work exclusively with Summit XLTs with Firmware version 2.0 or higher. If you are uncertain as to whether your Summit XL is compatible with the XLT manifold see the *Identifying Compatible Dispensers* section below.

- XLT comes ready to flush up to 8 chemicals into 4 unique delivery zones in a tunnel washer.
- A fifth flush module can be added to allow chemical feed into 5 delivery zones in the tunnel washer.
- All flush modules flush simultaneously.
- If more than one chemical is injected into a flush module they will be flushed in the order they have been programmed, with a water break of 5 seconds in between to avoid unwanted chemical mixing.
- Up to 4 chemicals can be dosed into a single delivery zone.
- The XLT manifold comes set up for 8 chemicals and 4 flush modules.
- Each module comes setup with 2 injection ports. However, module 1 is capable of up to 4 injection ports. Plugs are included to customize setup.

IDENTIFYING COMPATIBLE DISPENSERS

The main PCB of compatible dispensers has all of the following:

- A Molex pin connector J13 labeled “PUMPS 7-8”
- A pin connector J4 labeled “Data Module”
- A light emitting diode (LED)

See Figures 1 for the position of these components.

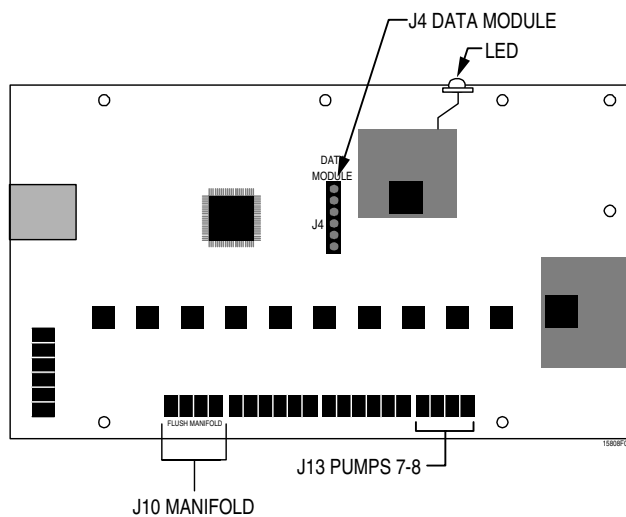


Figure 1. Dispenser main PCB, component locations

Additionally, compatible units can be identified by the firmware version. When the dispenser is first powered up the handheld programmer will display first the *handheld firmware* version for 2 seconds and then the *dispenser firmware* for 2 seconds. The dispenser firmware screen will show “E” or “XL” in the top line and the firmware version in the lower line. **XLT manifold--compatible firmware for both the dispenser and handheld programmer is v. 2.00 or higher..** See Figures 2 and 3 for examples of the firmware version display.

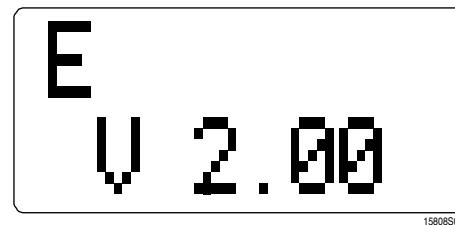


Figure 2. Firmware version display, E dispenser

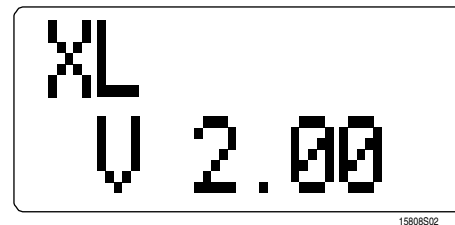


Figure 3. Firmware version display, XL dispenser

RETROFITTING SUMMIT XLS FOR XLT COMPATIBILITY

An existing Summit XL can be upgraded to an XLT manifold-capable unit by changing the main PCB. Spare main PCBs are available through Beta Customer Service (#1205112).

INSTALLATION OF THE XLT MANIFOLD

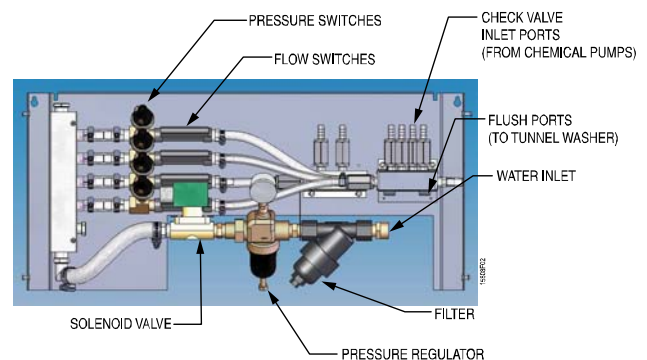


Figure 4. Tunnel Flush Manifold, Front View

1. Verify that the dispenser is off by disconnecting the power (the LED should not be lit).

2. Mount XLT manifold 10 to 12 inches below and centered under the Summit XL dispenser.
3. Connect the water inlet to the manifold with 3/4-inch garden hose. Because the manifold requires enough water to flush up to 5 zones simultaneously, we recommend that the delivery line be at least 3/4-inch.
4. Define which chemicals are to be dosed to which zones and add or remove check valve inlet ports as necessary (extra check valve inlet ports area included). Use Teflon tape to seal all threaded connections. Remove check valves that are not being used and replace them with plugs (extra plugs are included).
5. Connect the chemical lines from the outlet side of the chemical pumps to the check valve inlet ports on the individual flush modules. Be sure to leave sufficient slack in these lines to allow service access.
6. Bundle the chemical lines as necessary using the available tie wraps.
7. Connect the deliver lines to the flush ports on the flush modules to their respective injection points, fastening them with hose clamps.



IMPORTANT: Dynamic water pressure should always be within the range of 15 to 35 PSI. For optimal performance, water pressure should be between 25 and 30 PSI. This will allow the inlet water pressure to always remain above the minimum of 15 PSI throughout water pressure variations that occur during normal laundry operation. Use the pressure regulator (included) to adjust the pressure if necessary. Adjustments should be done while water is flowing (dynamic water pressure).

If inlet dynamic water pressure falls below the minimum of 15 PSI, it is assumed that there is not enough water for chemical delivery and the XLT will stop pumping and will mark a "No Flow" error.

If inlet dynamic water pressure goes above 35 PSI, it is assumed that the chemical delivery lines are blocked; the dispenser will stop pumping and a "No Flow" error will be displayed.

Wiring Instructions



It is important that the specified groups of wires go to the area on the manifold specified in this instruction. However, polarity of the wires within these parameters is not important. For example, the red and black wires from the 2-wire cable (Figure 7) **MUST** connect to pressure switches, but it doesn't matter which wires connects to which connector.

8. Pass the wire harness through one of the available holes in the bottom of the dispenser.

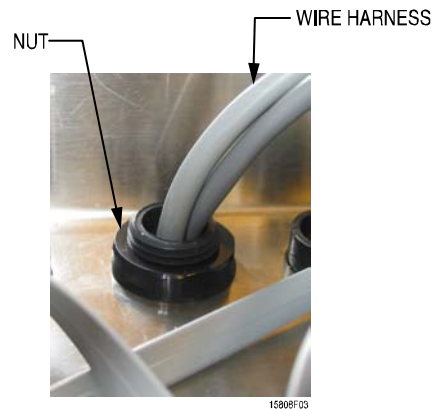


Figure 5. Wire harness passing through bottom of dispenser, held in place with nut

9. Place the nut over the wires and gently tighten.
10. Connect the 2 and 4 pin Molex connectors to the 2 and 4 pin positions on the XLT-to-PCB harness adapter.
11. Connect the XLT-to-PCB harness adapter to the J10 position on the Main PCB labeled **Manifold**. See Figure 1 for position.

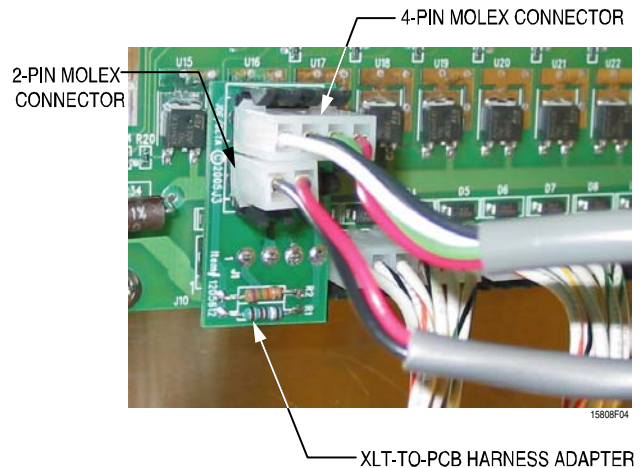


Figure 6. 2 and 4-pin Molex connectors connected to XLT-to-PCB harness adapter, which is connected to J10 on the main dispenser PCB

12. Use available tie wrap and tie wrap base to secure the wire inside the dispenser housing and provide additional strain relief.
13. Run the other end of the wire harness to the Tunnel Flush manifold. Connect the two-wire cable to the pressure switches using the red connectors. Polarity does not matter.

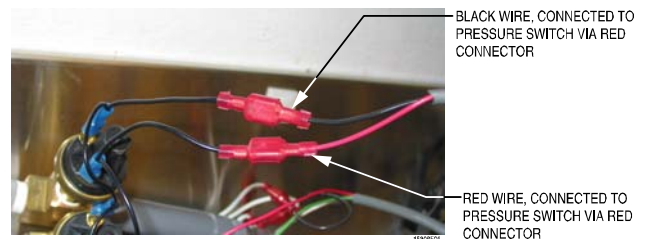


Figure 7. Red and black wires from 2-wire cable connected to pressure switches

14. Connect the red and green wire from the 4-wire cable to the solenoid valve using the red connectors. Polarity does not matter.

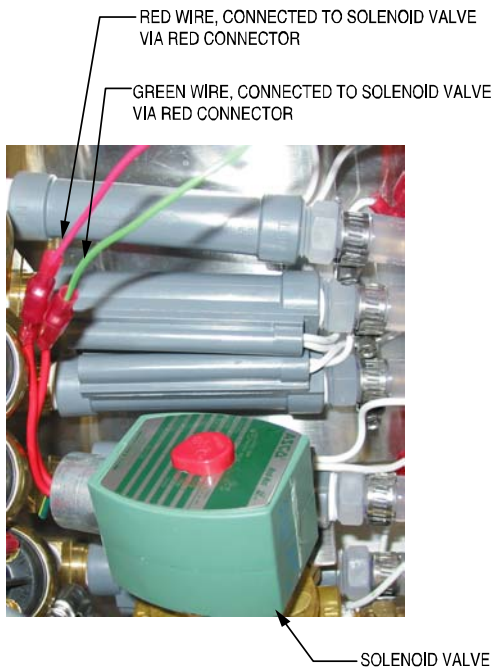


Figure 8. Red and green wires from 4-wire cable connecting to solenoid valve

15. Connect the black and white wires from the 4-wire cable to the flow switches using the red connectors. Polarity does not matter.

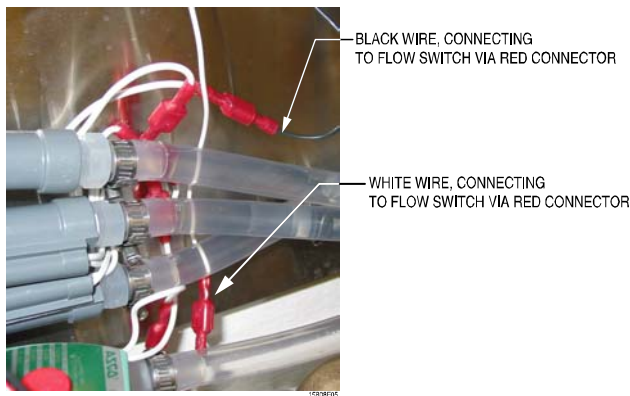



Figure 9. Black and white wires from 4-wire cable connecting to flow switches

16. Use available tie wrap and tie wrap base to secure the wire inside the flush manifold housing and provide additional strain relief.

17. Adjust the length of the cables/wires as needed and tighten the strain relief nut.
18. Once these things have been done follow the steps for programming in **TAFS Mode** (Tunnel Automatic Formula Select) on page 5 and page 27 in the Summit E and XL Installation and Operation manual.

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