Satloc Falcon Installation & Setup on SwathPRO

Note: The following instructions are applicable to the Satloc Falcon Pro, or the Satloc Falcon with a paid upgrade.

Wiring

1. **DO NOT** attach any Satloc wires to SwathPRO wires.

   Note: Satloc wires cannot be connected to voltage.

2. Use the Triple Pole (TP) switch as the **Narrow Swath** switch and the Double Pole Single Throw (DPST) switch as the **Right Boom Shutoff** switch.

3. Install ring terminals (P/N: 715005-151) on the ends of all four of the narrow swath wires for the SwathPRO (See Boom Shutoff Kit Schematic).

4. Locate the **Pilot Boom Input** group of wires from the Satloc.

   - Securely attach two additional wires to the end of the **Toggle Signal-GND** wire of appropriate length to allow it to connect to both the TP **Narrow Swath** switch and the DPST **Right Boom Shutoff** switch.

5. **Right Boom Shutoff** switch.

   a) Install a size #6 ring terminal to the **Valve 2 Toggle-Signal** wire and connect it to Terminal 1 on the **Right Boom Shutoff** switch.

   b) Install size #6 ring terminals on both **Valve Toggle-GND** wires and connect one of them to Terminal 3 on the **Right Boom Shutoff** switch.

6. **Narrow Swath** switch.

   a) Install size #6 ring terminals to the **Valve 1 Toggle-Signal** and **Valve 3 Toggle-Signal** wires and connect them to Terminal 1 on the **Narrow Swath** switch.

   b) Connect the unused **Valve Toggle-GND** wire from Step 5b to Terminal 2 on the **Narrow Swath** switch.

7. Secure the unused **Valve 4 Toggle-Signal** wire so that it makes no contact with any wires or other components.

Setup

Navigate: **Menu**>**Diagnostics**>**IO Diagnostics** and check the circuit state of the Pilot Switch Inputs.

1. Flip the switches and verify that Valves 1–3 change states. The valve 1–3 icons (1) should each turn red when their corresponding switches are closed (valves are pulsing).

Navigate: **Menu>Devices>Booms** to create a new boom. Note that each menu will appear upon making a selection in the previous menu. In the following figure, we show all menus for the sake of conciseness.
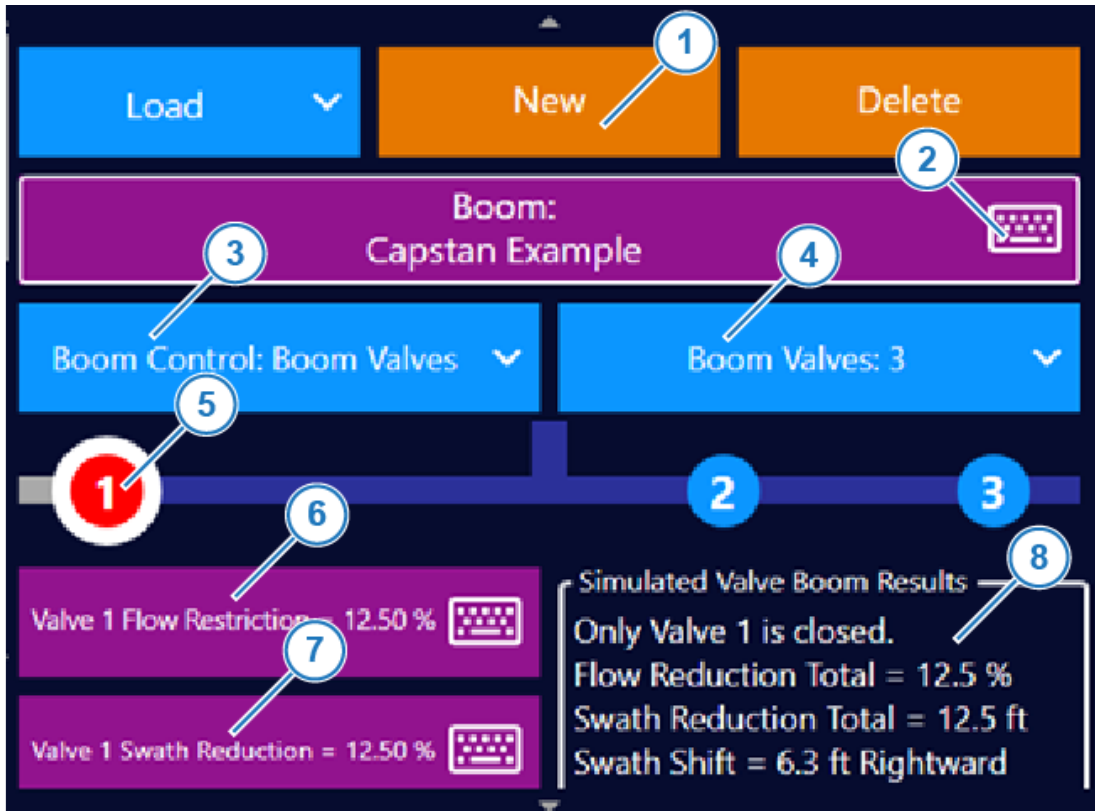
2. Create a new Boom.

    a) Select New (1) and select the keyboard icon (2) to name the new boom.

    b) Select Boom Control (3) and choose Boom Valves.

    c) Select Boom Valves (4) and select 3.

3. Set the Valve 1 parameters.

    a) Select the Valve 1 icon (5)

    b) Set both the Flow Restriction (6) and Swath Reduction (7) to **12.50%**.

    c) Tap the Valve 1 icon again (it will now display as a red dot) to observe the simulated boom results (8) of closing Valve 1.

4. Set the Valve 2 parameters.

    a) Select the Valve 2 icon and set both the Flow Restriction and Swath Reduction to **50%**.

    b) Tap the icon again to observe the simulated results as before.

5. Set the Valve 3 parameters.

    a) Select the Valve 3 icon and set both the Flow Restriction and Swath Reduction to **12.50%**.

    b) Tap the icon again to observe the simulated results as before.

6. Scroll down and select the Valve Control Setup Wizard icon.

7. Input the following answers to the five questions in the wizard:

   Note: If you do not have the Falcon PRO, or haven't paid for the upgrade for the Falcon, only questions b, c, and d will be asked.

   a) **NO** – Question: Is the Falcon set up to control the boom valves?

   b) **YES** – Question: Are there any other switches, a controller, or handles to actuate the boom valves?

   c) **YES** – Question: Are there any other switches, a controller, or handles on the Pilot Boom Inputs on the IO cable to indicate valve actuations?

   d) **YES** – Question: On the signals from the other switches, controller, or handles, do HIGH values indicate the valves are energized to CLOSE? (YES = HIGH to close; NO = LOW to close).

   e) **NO** – Question: Are there return signals from the boom to verify the Boom Valves are closed?
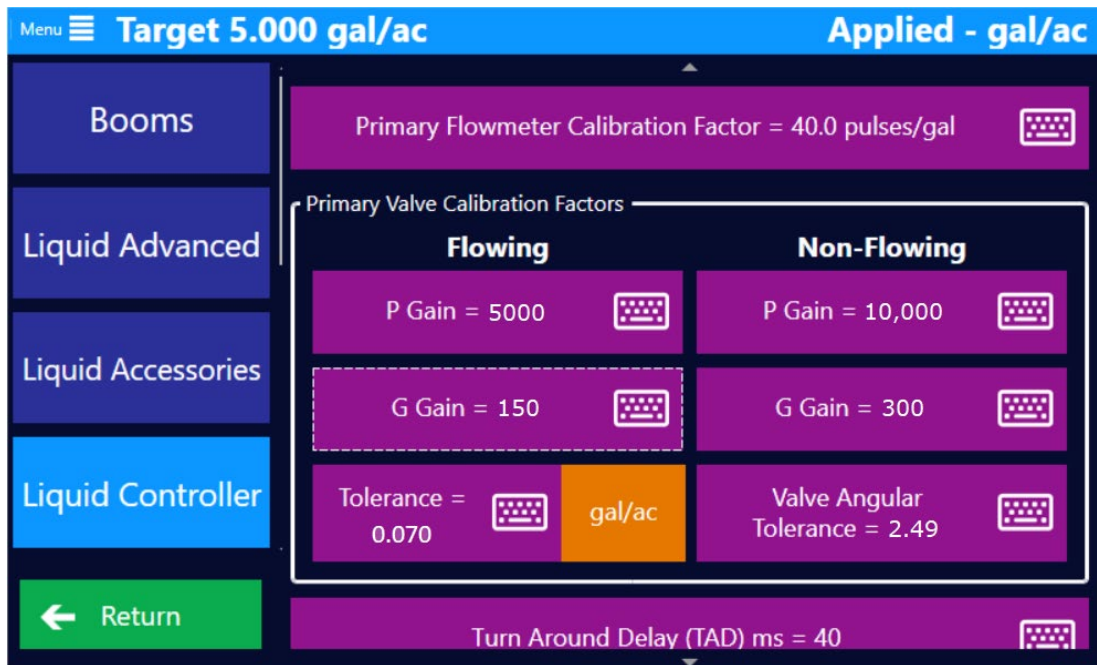
Navigate: **Menu>Application>Boom Dispersal**. This screen is a real-time image and data for valve state based on the switch inputs.
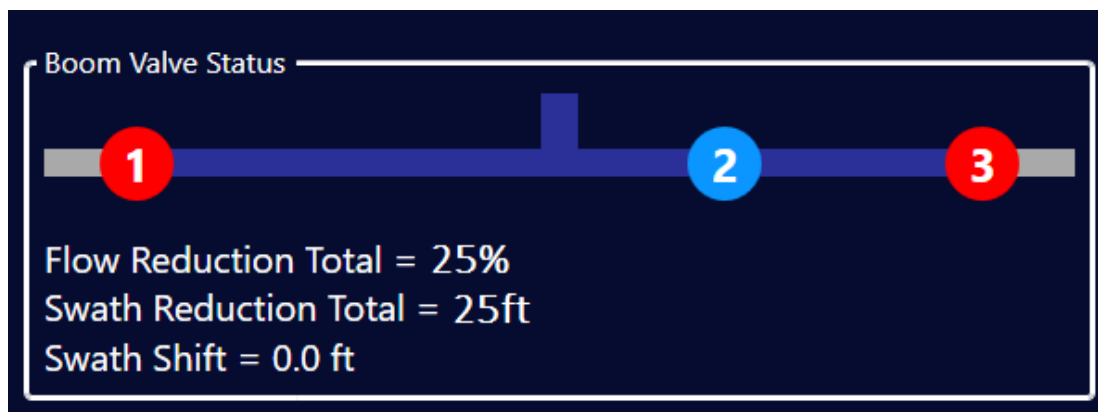
8. Cycle each of the switches and verify this screen updates appropriately.

Navigate: **Menu**>**Devices**>**Liquid Controller**.

9. Change the Primary Valve Calibration Factors as follows:

Flowing

P Gain = 5000

G Gain = 150

Tolerance = 0.070

Non-Flowing

P Gain = 10000

G Gain = 300

Valve Angular Tolerance = 2.49

Satloc Falcon setup for SwathPRO is now complete!