Overview

After a Flō unit with a water source condenser is installed on a customer site, the water loop must be balanced outside the Flō unit to ensure that the unit's GPM is set within the designed range of the Flō submittal.

The Flō controller is equipped with a "Water Balance Mode" to ensure that the modulating water actuator valve is in the correct maximum position during the loop balancing. **IMPORTANT NOTE:** Water Balance Mode is not intended to be the building balance point.

The factory default position of the water actuator modulation during normal compressor operation is 60% minimum and 85% maximum. When compressors are not operational, the water actuator will modulate to 30%. The purpose of the modulating water actuator is to maintain the required temperature differential between discharge or suction (depending on operating mode) between the compressor and the water.

How To Utilize The Water Balance Mode in i-Controller REV.201

1. From the Visograph splash screen press T2 and T3 simultaneously on the Visograph display buttons to enter the *"Detailed Version Info"* screen.
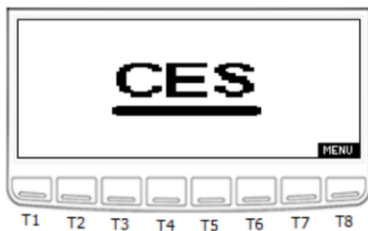

Figure 1. Introduction Splash Screen

2. Confirm that the version number is 201.11 or higher on the *"Detailed Version Info"* screen.

    IMPORTANT NOTE: If the version is below 201.11, the Maximum and Minimum Input Val settings in water balance mode are displayed with a decimal point that is off by one position to the left (i.e 8.50 is actually 85.0 or 85%).
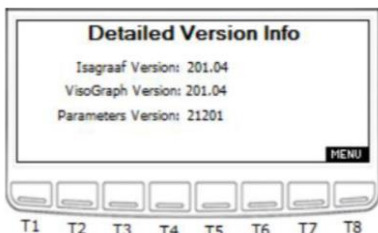

Figure 2. Detailed Version Info Screen

3. Press The T8 button (as displayed in figure 1 & 2) to enter the *"Main Menu"*.

4. Now that you are in the *"Main Menu"* press and hold the T7 button, and then press T1 to open the *"Field Technician Options"* menu.
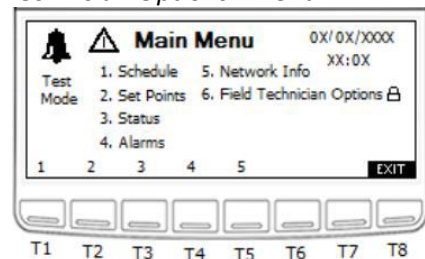

Figure 3. Main Menu Screen

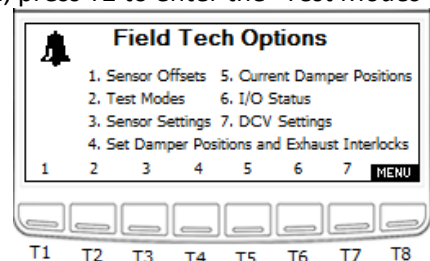5. Now that you are in the *"Field Tech Options"* menu, press T2 to enter the *"Test Modes"* menu.

Figure 4. Field Tech Options Screen

6. Now that you are in *"Test Modes"*, press T1 to enter "*System Tests*".
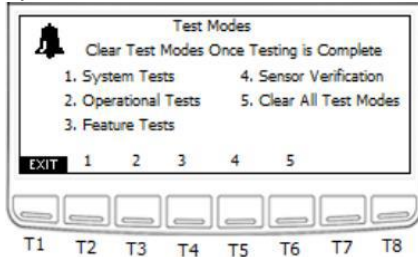
Figure 5. Test Modes Screen

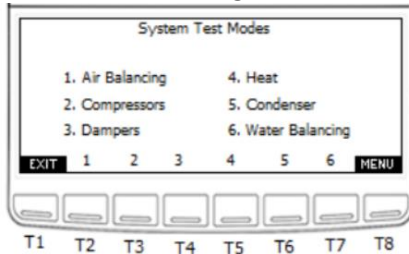7. Now that you are in *"System Tests"*, press T7 to enter the *"Water Balancing"* mode.

Figure 6. System Tests Screen

8. Now that you are in *"Water Balance Mode"*, confirm that your cursor is flashing on the *Water Balance Mode:* line, then press T5 (Enter), then T4 (Up Arrow) or T6 (Down Arrow) until your see "MAX", and then T5 (Enter) to set the balance mode to MAX.

   REMINDER NOTE: The factory default of the Maximum Input Val setting should be 85% (displayed as 8.5 in software versions 201.10 and below, displayed as 85.0 in software versions 201.11 and above).
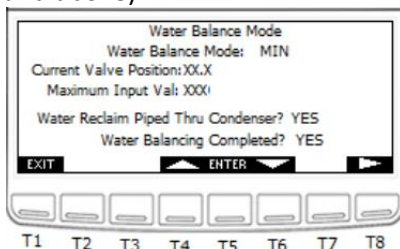
Figure 7. Water Balance Mode screen 1

9. If the *Water Balance Mode* MAX is not set to the 85% position, adjust it to 85% by pressing T5 (Enter), then either T4 (Up Arrow) or T6 (Down Arrow). Once 85% has been set, press T5 (Enter) to save your *Maximum Input Val* setting.

10. Measure and confirm that the GPM meets the design specification of the Flō submittal.

11. If the GPM does not meet the design specification, adjust the Maximum Input Val within the *"Water Balance Mode"* until the *Maximum Input Val* results in the GPM design specification of the Flō submittal.

    IMPORTANT NOTE: *Maximum Input Val* can be set between 70% and 90% to meet the GPM design specification of the Flō submittal. Any further adjustments outside of 70-90% must be made on the valve upstream of the Flō unit.

12. Once the *Maximum Input Val* setting meets the GPM design specification of the Flō submittal, move the cursor down to *Water Balancing Completed?* line using T6 (Down Arrow), then press T5 (Enter), select YES by using either T4 (Up Arrow) or T6 (Down Arrow), then press T5 (Enter) to save your changes.

13. Exit the balance mode by pressing T1.

FINAL NOTES: Do not adjust the Water Balance Mode MIN position and disregard the 2nd screen in Water Balance Mode (see figure 8.)
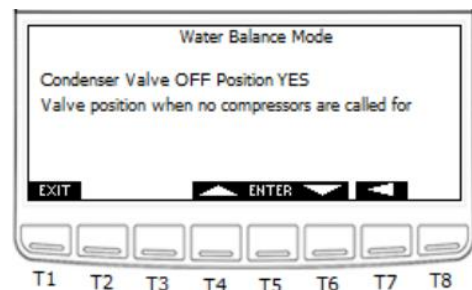
Figure 8. Water Balance Mode screen 2 (Not required during water balance)

If you need any assistance during this process, please call Flō technical support at 888-598-1198 or email us at techsupport@systemsflo.com.