

**Setting the pump operation unit of measure:**

1. Make sure the pump is in the WAIT condition. Display will read 100% (100% speed) out of the box and not be running. If running, press the START/STOP key to stop the operation.
2. Pressing the DISP key will cycle through the display units available: % speed, SPM, GPH, LPH, and mL/min.

***Once the desired units are on the screen, these are set and used throughout the pump!***

**NOTE:** For the display of flowrate units in GPH, LPH, or mL/min, a calibration *will be necessary* for accurate readings. Out of the box, all pumps have 0.6gph/2.28LPH/38mL/min as default max flow numbers. The pump will physically output the correct ratings of the pump, however the display may show the incorrect range until calibrated. See Calibrating Your Pump.

**NOTE:** In the EWN-Y pump, if the display is dark, the first press of any key will only turn on the display backlight and this first keypress will not register as the function of the key.

**Pump Calibration (for accurate display of flowrate units – mL/min, LPH, GPH):**

1. Before programming the pump, ensure an accurate measurement of volume can be measured with 10 seconds of operation (typically 60 strokes). A common setup to achieve this is to connect the suction tubing of the pump to the bottom of an appropriately sized calibration column. This way accurate discharge pressure is used for a more accurate calibration. Run the pump to ensure there is no air in the suction line or in the pump head and that the pump operates in a steady state (ie. into application pressure) before calibration.
2. Set the pump to operate at 100% SL and at full speed or output.
3. Make sure the pump is in the WAIT condition. You can do this by pressing the START/STOP key until the pump starts pumping in MAN mode, then pressing it one more time.
4. Press and hold the DISP key for 3-4 seconds until "TEST" and a small "!" are displayed.
5. Once the pump is confirmed ready for test, press the STOP/START key and the pump will begin pumping. "10" (seconds) will show on the display and countdown during operation.
6. If the EFS sensor is on the pump (& plugged in during power-up), the display will temporarily show "CAL.OK" if the flow measured was within range and automatically go back to the WAIT mode. It will error out if the flow measure was out of range. Steps 7, 8 and 9 are not necessary.
7. If the EFS Sensor is not connected, the display will change to "000.00 mL" with one digit flashing.
8. Enter the volume dispensed during the test by pressing the UP/DOWN keys to change the flashing digit value. Press the DISP key to move the flashing digit to the next character. Continue with this until volume pumped is entered on the screen. (i.e. "006.33 mL")
9. Press the STOP/START key to enter the value. "SAVE" will momentarily flash on the screen, then it will go back to the WAIT mode, showing the max flowrate setting (100% by default).
10. Changing the Units with the DISP key will now show the flowrate settings in the different values with an accurate output.