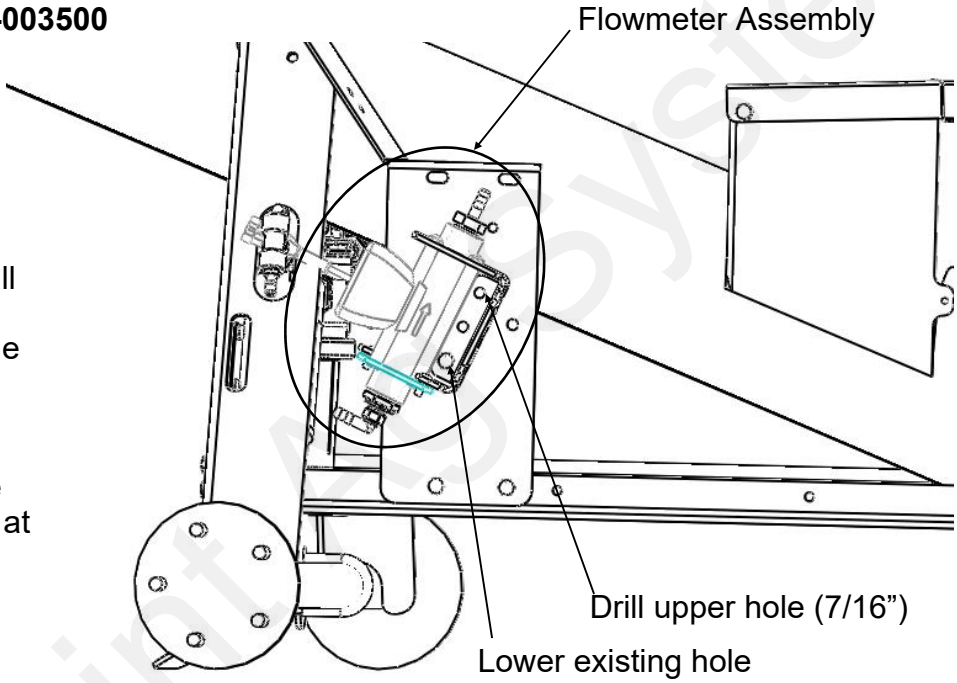
396-001320

SuperTreater 0.3-5 GPM Flowmeter Upgrade Kit

Item Number: 464-003500



The SurePoint Flow meter upgrade kit will provide improved display readout of the Super Treater liquid flow rate. The flow display will be more consistent and more accurate, especially at flow rates under 50 oz/min.

Instructions:

1. Remove the turbine flowmeter and 3/8” hoses to it located on the left side of the treater under the 15 gallon tank.
2. The lower hole for the new flowmeter is existing in the bracket. You will need to drill the upper hole. WARNING - the tank valve is located on the other side of the hole that needs drilled. Drill carefully to avoid damaging the valve. Use the flowmeter bracket as a template to mark the upper hole. The flowmeter should be mounted at approximately 30 degrees or less from vertical for best performance.
3. Attach flowmeter assembly with two 3/8” bolts. Verify flow is traveling in direction of arrow, upwards through meter.
4. Install new 3/8” hose from pump to 90 degree fitting on bottom of flowmeter. Re-use existing hose clamps.
5. Install flowmeter outlet hose from top of meter to 3 way divider fitting mounted on auger application point.
6. Connect flowmeter wiring harness to flow wiring harness from control panel.
7. Re-program flow display per instructions on following page.

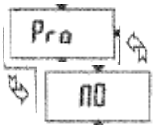
These calibration numbers are for flowmeters purchased after 10/15/2012 (flowmeter will have a blue label with white text). Earlier flowmeters (white label with black text) use different numbers.

Re-Programming the Flow Display

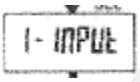
The flow display will have to be re-programmed due to the new flow meter output being different from the old flow meter. These instructions will provide the necessary settings for each item in the setup menus so you can make the necessary changes while also verifying no unintended changes are made.

Instructions to Change Scale Factor in 1-INPut menu:

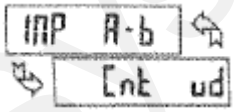
Push and Hold SEL button until meter reads:



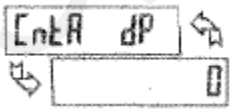
Push RST once, meter will read:



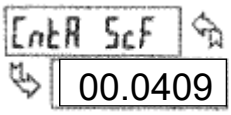
Push SEL to enter Input menu. Cnt ud is the correct setting for INP A-b.



Push SEL to move to next parameter. 0 is correct setting for CntA dP (decimal place).

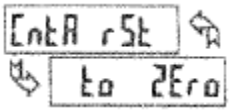


Push SEL to advance to **Scale Factor**. You must change this parameter to **0.0409**. Push the RST key to begin changing. Push the RST key to change the digits (beginning at the left). Push the SEL key to advance to next digit. Display must read 0.**0409.**

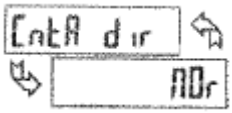


Change

When display is correct, hold SEL key to exit change mode and advance to next parameter. To Zero is correct setting for CntA rSt.

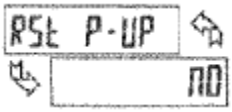


Push SEL to move to next parameter. NOr is correct setting for CntA dir.

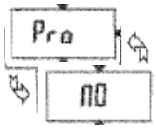


Push SEL to move to next parameter. 500 is correct setting for CntA Ld.

Push SEL to move to next parameter. No is correct setting for RSt P-UP.



Push SEL to advance. This the end of parameters in 1-INPut. Display will read Pro/No. Push RST twice to display 2-rATE setup menu. (Pushing SEL at this screen will exit setup mode).

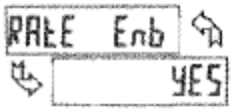


Re-Programming the Flow Display (cont.)

Instructions to Change Rate Input in 2-rATE menu:

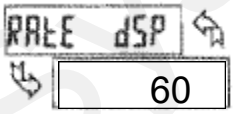
After pushing RST twice meter should read:

Push SEL to enter Rate menu. YES is the correct setting for RATe Enb.

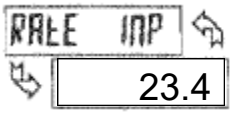


Push SEL to move to next parameter. 0 is correct setting for RATe dP (decimal place).

Push SEL to advance to RAte dSP. This must be set to 60, which is NOT the display default setting. However, if only performing the mag meter upgrade, setting should already be 60 from SurePoint factory.



Push SEL to advance to RAte INP. This must be changed to **23.4** Push the RST key to begin changing. Push the RST key to change the digits (beginning at the left). Push the SEL key to advance to next digit. Display must read **23.4**.

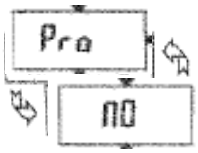


Change

When display is correct, hold SEL key to exit change mode and advance to next parameter. 01.0 is correct setting for LO-Udt.

Push SEL to move to next parameter. 02.0 is correct setting for HI-Udt.

Push SEL to advance. This the end of parameters in 2-rATE . Display will read Pro/No. Push SEL at this screen to exit setup mode.



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Verify Flow Display correctly calibrated

Instructions to check flow display calibration. You will need a stopwatch to catch a 60 second sample. Catching a 60 second sample allows us to verify the Scale Factor and Rate Input are both entered correctly (Scale Factor = 1 ÷ Rate Input)

1. Remove spray nozzles and caps from check valves. Remove check valves from box lids by twisting until slots align with check valve tabs. Re-attach spray nozzles and place nozzles into a measuring pitcher (50-100 oz sample required).
2. Fill 15 gallon tank with water or RV anti-freeze. Set dial to 3-4. Turn pump on and get system primed. Adjust dial to a flow rate between 50-60 oz/min.
3. Empty pitcher. Reset meter counter to zero.
4. Catch 60 second sample in pitcher. Watch Rate (R showing on display) to see how much should be dispensed in 1 minute.
5. Does volume counter on display approximately match rate? (For a 1 minute sample, counted volume should = rate in oz/minute). If not, double check both Scale Factor and Rate Input. Scale Factor must equal 1 ÷ Rate Input.
6. Is amount caught in pitcher within 5% of counted volume on display? If not, re-run test. SurePoint recommends re-calibrating the meter based on the average of 3 one minute samples; OR you can run one long test for 3-5 minutes and measure total volume.

Calculations to Re-Calculate Calibration Factors

New Rate Input = Old Rate Input (23.4 initially) X (displayed value / measured value)

New Scale Factor = 1 / New Rate Input

The complete manufacturers information on the flow display settings for menu 1-INPut and 2-RAte follow. These should only be needed for reference. The preceding step by step instructions show all meter settings necessary for the Flowmeter Upgrade kit and SuperTreater Operation.

To prevent damage to the flowmeter, always disconnect the flowmeter before doing any welding on the SuperTreater unit.