



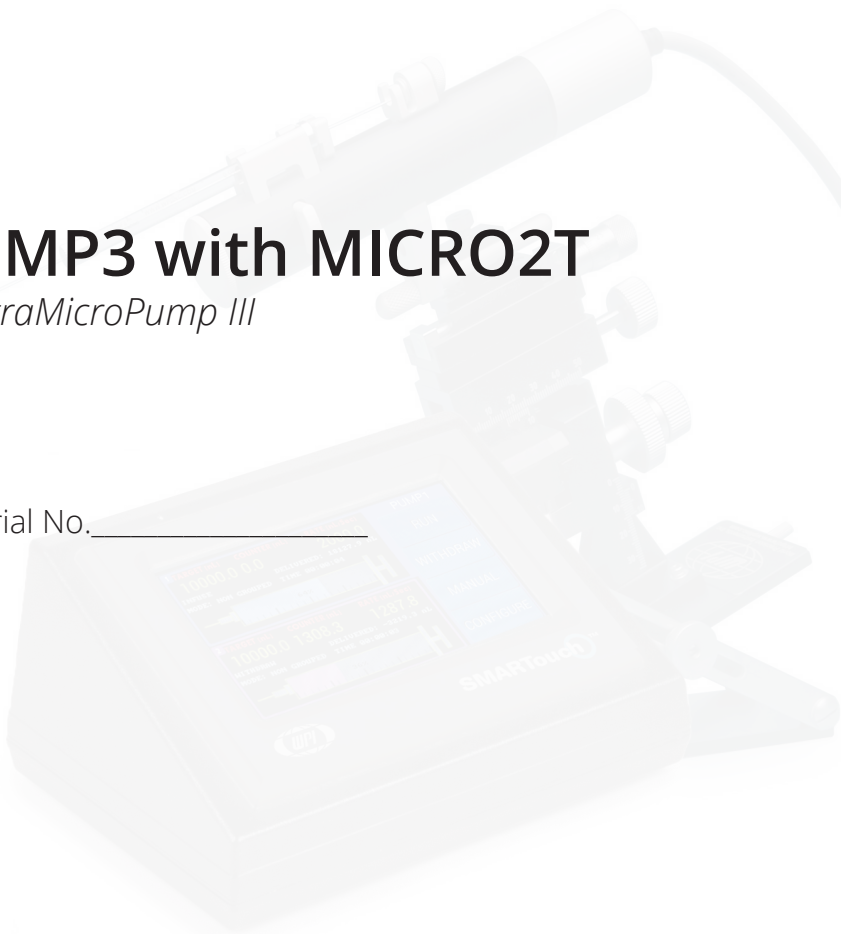
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QUICK START GUIDE

UMP3 with MICRO2T

UltraMicroPump III

Serial No. _____



www.wpiinc.com

033017

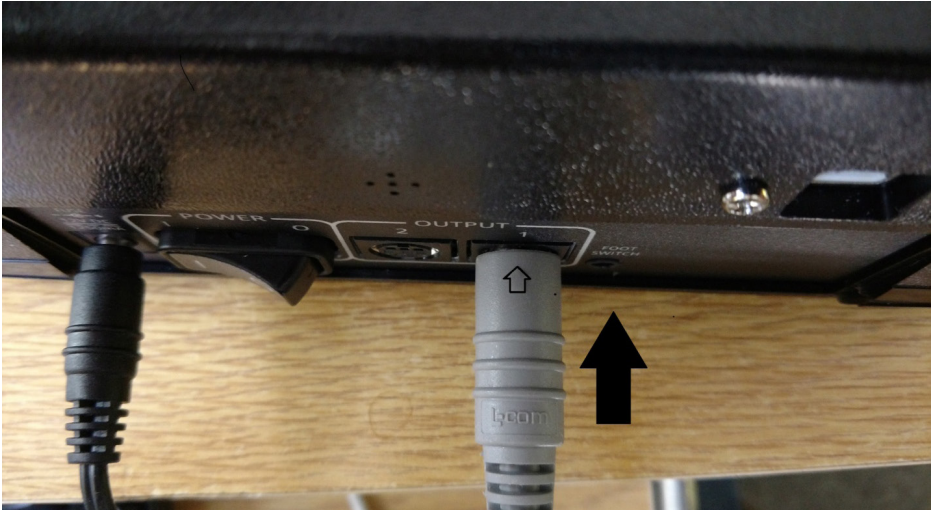
GET STARTED AS QUICKLY AS POSSIBLE USING THESE STEP BY STEP INSTRUCTIONS.

NOTE: This quick start assumes that you have prepared a 10 μ L/60 mm scale length micro-injection syringe, and it has been installed on the UMP3 pump. For instructions on how to prepare a syringe, see the UMUMP3 Instruction Manual. Instructions for how to install a syringe onto the UMP3 pump are at the end of this quick start.

1. Connect the AC power cord to the power supply unit and connect the power supply unit to the MICRO2T controller. Plug the AC power cord into a wall outlet.



2. Connect the UMP3 pump cable to the output of channel 1 of SMARTouch controller.
Make sure the embossed arrow on the connector is facing upwards for proper pin alignment.



3. Power on the unit. The following screen appears.



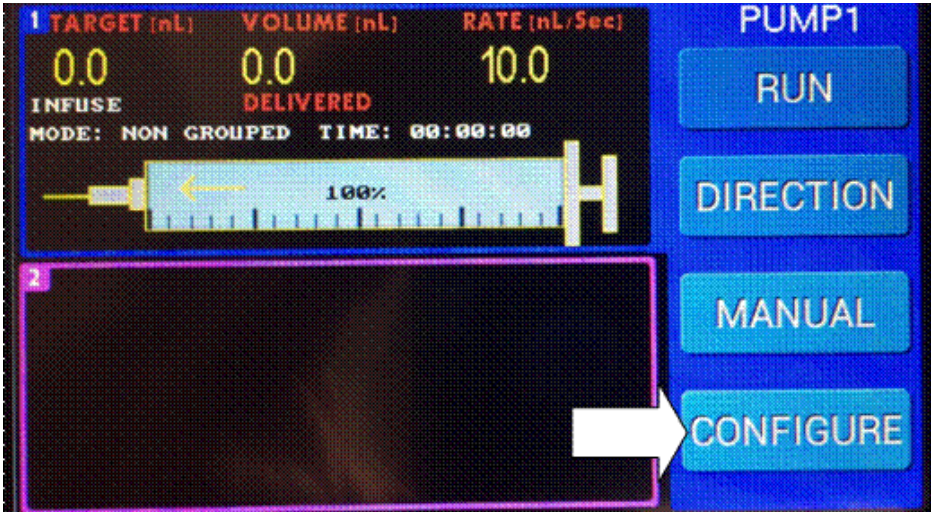
4. Touch the Initial Splash Screen anywhere. The MAIN MENU appears. Touch "DISPLAY ALL CHANNELS".



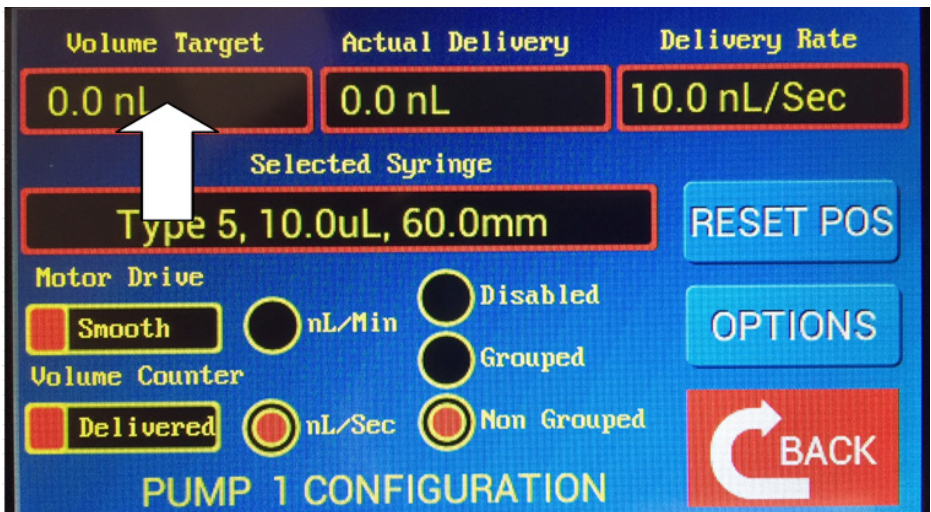
5. The syringe status screen appears. Press anywhere in the PUMP 1 Display Area to make Pump 1 the "Active Pump".



6. Touch the "CONFIGURE" button.



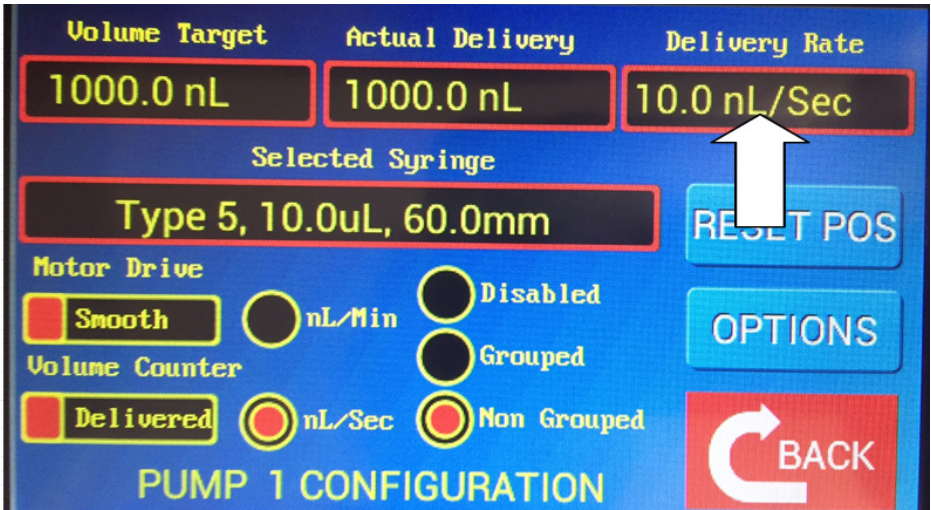
7. The "CONFIGURATION" screen appears. Touch the "Volume Target" display.



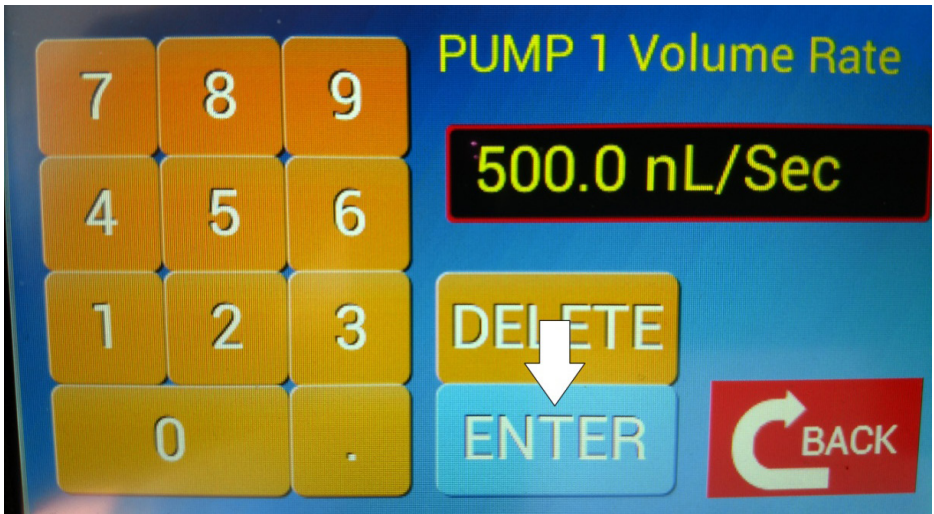
8. The "Volume Target" screen appears. Use the numerical keypad to enter the volume you wish to dispense in nanoliters. The value used in this quick start example is 1000 nL. Touch "ENTER" to set the volume and return to the CONFIGURATION screen.



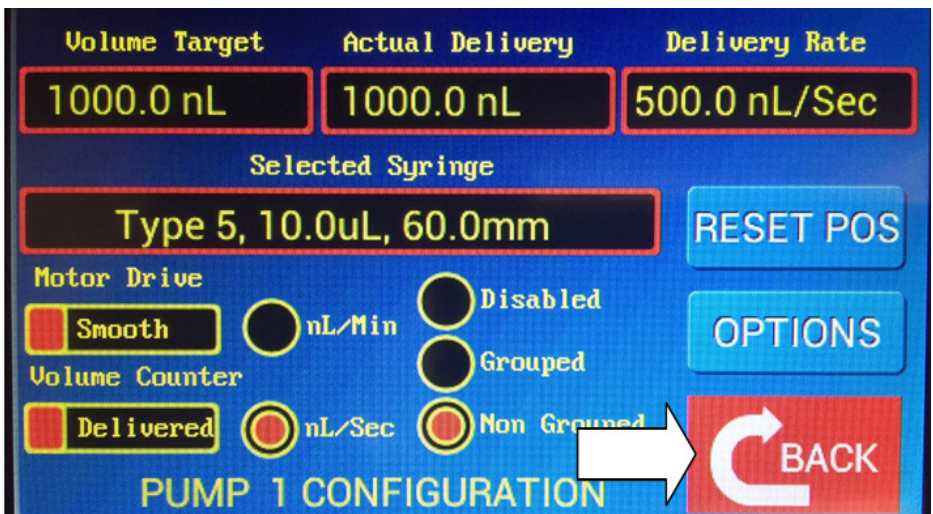
9. Touch the "DELIVERY RATE" display.



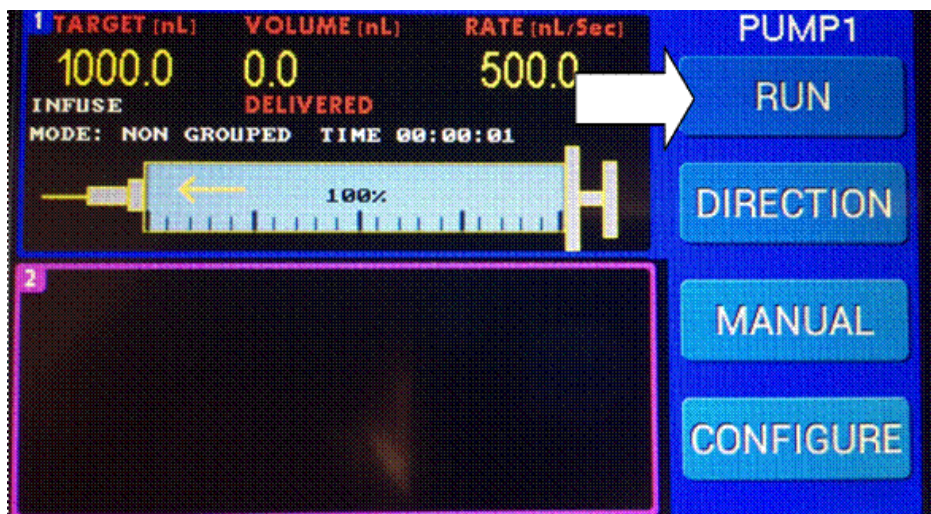
10. The "Volume Rate" screen appears. Use the numerical keypad to enter a desired injection rate in nL/sec. In this example 500 nL/sec has been entered. Touch "ENTER" to set the delivery rate and return to the "CONFIGURATION" screen.



11. The configuration screen shows that a target volume of 1000 nL has been entered and a delivery rate of 500 nL/s has been entered. Touch "BACK" to return to the syringe status {Home} screen.



12. Verify that the arrow inside the syringe is yellow and pointing in the injection direction. If the arrow is not yellow and pointing to the left, touch "DIRECTION" to change it. Touch the "RUN" button to start the injection.

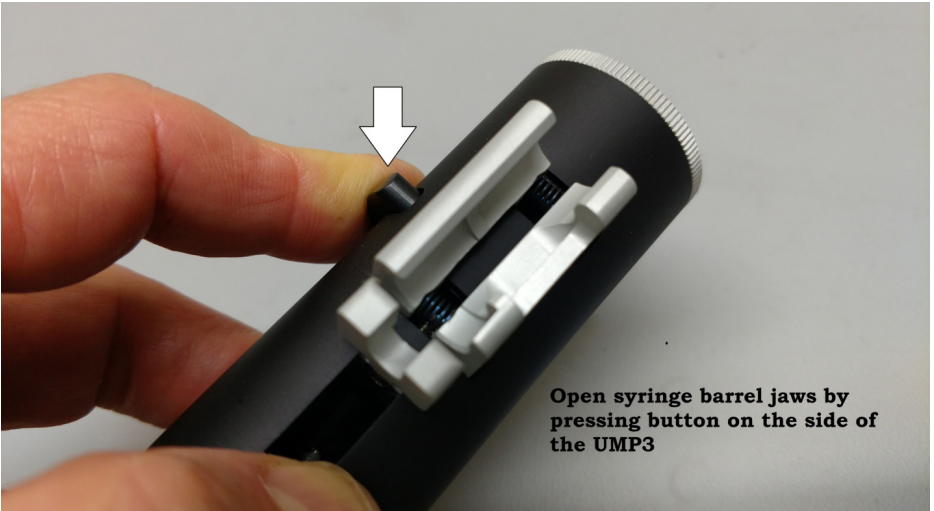


13. The injection will run until 1000 nL is injected, and will then halt automatically. Press the "STOP" button at any time to manually halt the injection before the programmed amount is dispensed. Pressing "Stop" resets the volume counter.

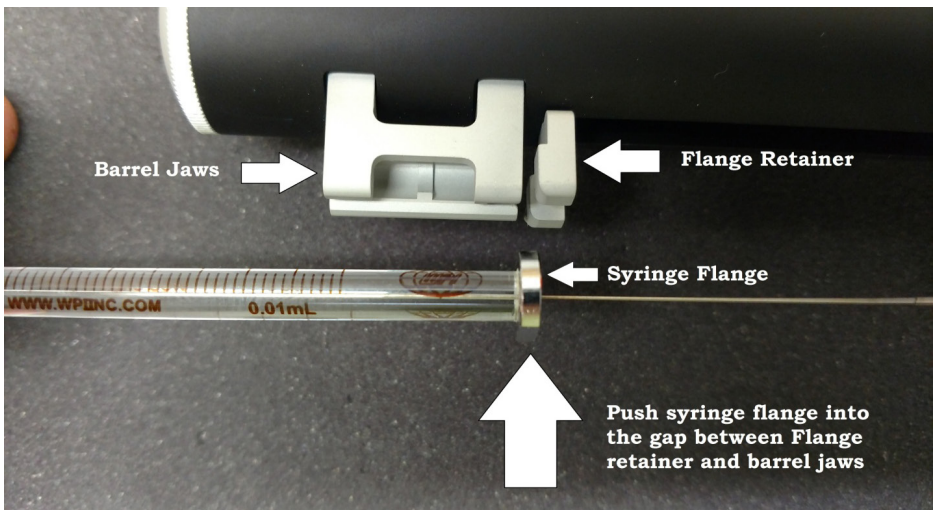


INSTALLING A SYRINGE ONTO THE UMP3 MICRO INJECTION PUMP

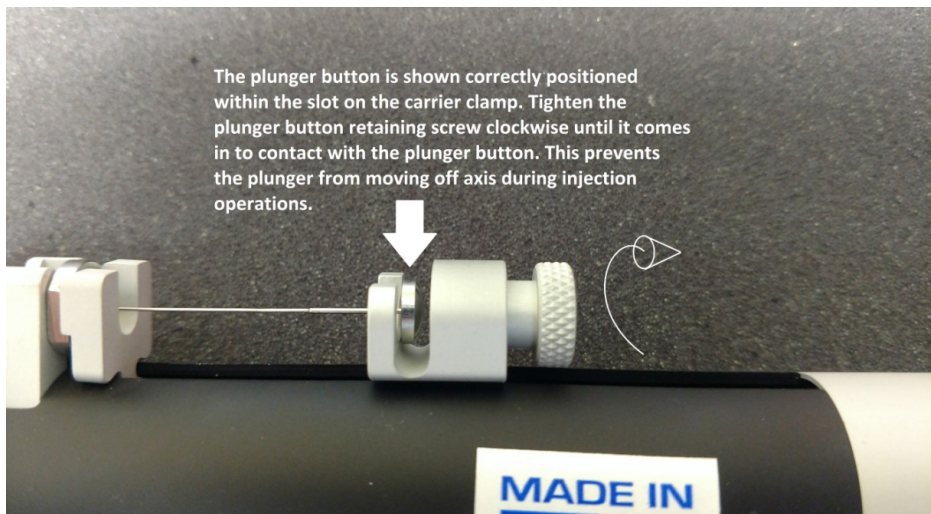
1. Open the barrel jaws by pressing the button on the side of the UMP3.



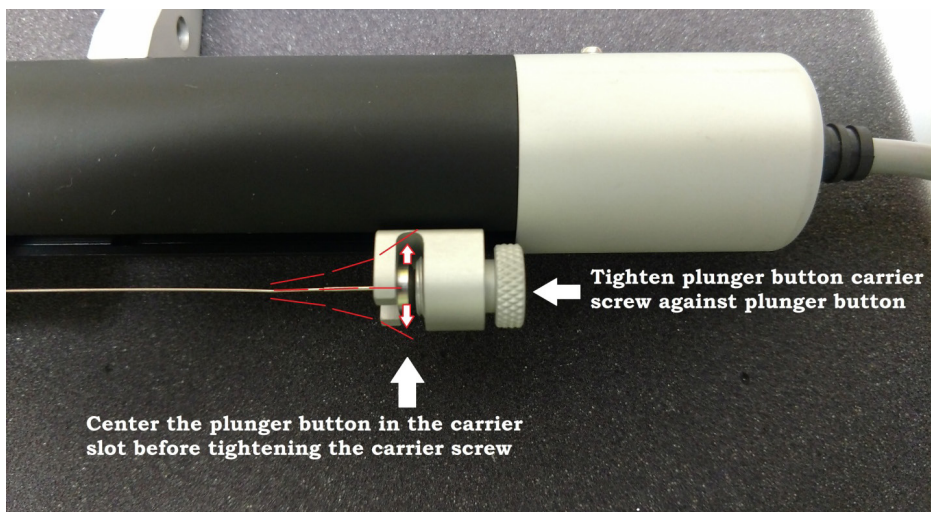
2. With the jaws held open, install the barrel of the syringe into the jaws with the flange of the syringe located between the jaws and the flange retainer. Release the button. The jaws close by spring action.



3. Loosen the plunger carrier retaining screw counterclockwise and place the syringe plunger button into the slot on the plunger carrier.



4. Center the plunger button in the carrier slot and then tighten the carrier retaining screw so that it comes into contact with the plunger button to secure it. The plunger button should be centered in the carrier slot so that the plunger shaft is parallel with the axis of the syringe body.



PREPARING A MICROINJECTION SYRINGE

The example in the Quickstart assumes that a 10 μL /60 mm scale length microinjection syringe is being used with the UMP3 pump. If the syringe to be mounted on the pump is not 10 μL /60 mm, refer to the UMP3 with MICRO2T Instruction Manual on page 21, under the heading “Defining a Custom Syringe.” In this section, you will see how to select a syringe from the existing library of pre-programmed syringes, or how to set a syringe type to “A”, “B” for “C” for a custom syringe.

NOTE: Pre-conditioning a micro-injection syringe involves ensuring that an aqueous solution is present in the lumen of the syringe. The aqueous solution will function as a lubricant for the plunger seal. Filling a NanoFil syringe is easily accomplished through the front by removing the needle cap, needle and seal. This exposes the lumen of the syringe and provides access for the use of MicroFil needle to fill the lumen of the syringe with an aqueous solution. To see a video describing this method, search for the Youtube video: “How to Frontfill a NanoFil Syringe using MicroFil”. <https://www.youtube.com/user/WPIInc>

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