

1-Channel micro injector/spritzer

- Provides injection and aspiration
- Timer programmable up to 99.9sec
- Manual control and foot control
- Digital pressure and suction reading
- Front panel driven LCD menu





Contents

Specifications	3
ntroduction	3
nstallation Guide	4
Front Panel Controls	6
nputs, Outputs and Back Panel controls	7
Warranty	8



Specifications

Timer: accuracy 0.1sec; duration 99.9sec max

Input: 100PSI max

Size (Controller): 8Wx4Hx9D in.

Power Supply

94 to 234 V AC, 50/60 Hz 35W

Input Ports

4mm O.D. tubing (10-32 threaded) includes adapters for 1/4in. O.D. tubing

Output Port

1/8in O.D. tubing (10-32 threaded)

Introduction

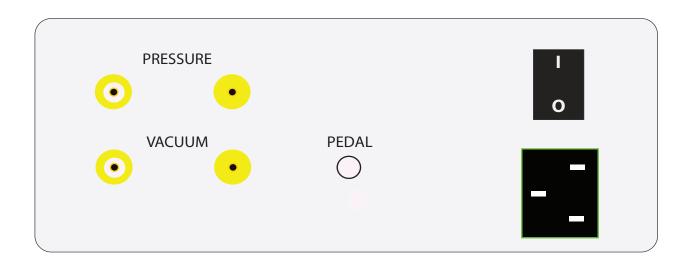
The complete system comes with a controller foot pedal, tubing & fitting to connect to pressure & vacuum sources, and tubing with male luer to connect to injection needles. A source of pressurized gas and vacuum are required to operate the system. The gas source needs to be regulated, since the maximum pressure/vacuum of input should not exceed 100 PSI.

Installation Guide

Using provided fitting and clamps, connect the gas source (cylinder or wall outlet) to the controller. Some tubing and additional fitting might be required to connect to your source as designs vary. Usually some luer-lock fitting or other easy-connect adapters are used to splice different diameter tubing connecting your source to 4mm O.D. translucent tubing, which fits inside WIDER YELLOW INPUT port on the back of the controller. After splicing provided 4mm tubing to the gas source, simply push the tubing inside INPUT port all way, and slightly pull back to clamp. PRESSURE source connects to upper PRESSURE INPUT, and VACUUM source - to bottom VACUUM INPUT. In order to disconnect the source, push YELLOW rim inside the connector, and pull the tubing out. Adjust the regulator on the source to the required output pressure. Usually, very little pressure is required to push liquid through small tubing. Tiny pipettes might require higher pressure.

Similarly, insert a piece of 1/8in. O.D. BLACK tubing inside SMALLER YELLOW OUTPUT port on the back of the controller (PRESSURE output on top, and VACUUM output is on the bottom), and connect the other end of tubing to the needle or a pipette. Connect pedal plug to the PEDAL jack on the back of the controller

Connect power cable. Plug the power cable into wall outlet.



Turn the controller ON. The display will show PRESSURE readings and the timer duration. Press the front GREEN button to open INPUT port and to provide pressure to the output needle. Release the button to close the output.

Press the front BLACK knob twice until the display shows:

timer----> 0.0

Rotate the knob to adjust timer to required duration (sec):

Timer----> 1.5

Wait until the display shows PRESSURE readings and press GREEN button again. This time the output will close automatically after 1.5sec. If you need to close output while the TIMER is still ON, simply push GREEN button again to stop the TIMER and CLOSE the output. The same can be performed using the foot pedal.

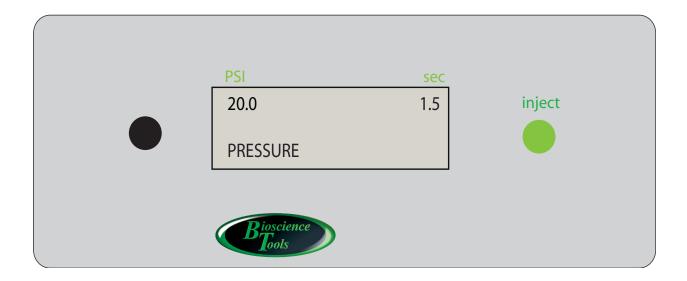
Press the front panel BLACK knob once, so the display shows:

Rotate the knob anti-clock wise to switch the controller to VACUUM mode (clock-wise - to PRESSURE mode):

VACUUM<<<<<<

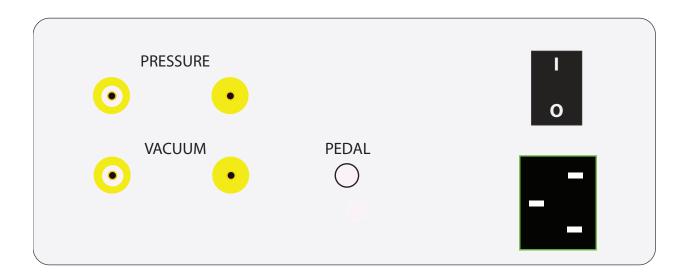
After the controller is switched to VACUUM mode, a separate TIMER for vacuum can be adjusted similar to step 2. In VACUUM mode, GREEN button and the pedal will have similar functions, but applied to VACUUM INPUT and OUTPUT only.

Front Panel Controls



Front Panel Controls	
Black Knob	Adjusts TIMERS and switches between PRESSURE and VACUUM modes
GREEN button	Initializes TIMER and OPEN/CLOSES inputs and outputs

Inputs, Outputs and Back Panel controls



Inputs & Outputs	
INPUT ports	Wider YELLOW ports connect to a sources of PRESSURE (top) and VACUUM (bottom).
OUTPUT ports	Smaller YELLOW ports connect to injection (top) needles. and aspiration (bottom) pipettes.
PEDAL connector	Adjust input pressure inside the controller.

Warranty

This product is warranted to be free from defects in material and workmanship for the duration of one year. Normal wear, or damage resulting from abuse, accident, alteration, misuse, service by an unauthorized party or shipping damage, are excluded from this warranty and are not covered. Bioscience Tools will repair or replace the defective product covered by this warranty free of charge if it is returned, postage prepaid, to Bioscience Tools, ph: 1-877-853-9755.