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# MicroJect 1000A Pico-Injector

## Quick Start Guide



Download full user's manual at: [www.btxonline.com](http://www.btxonline.com)

### Interconnections and Initial Set-Up

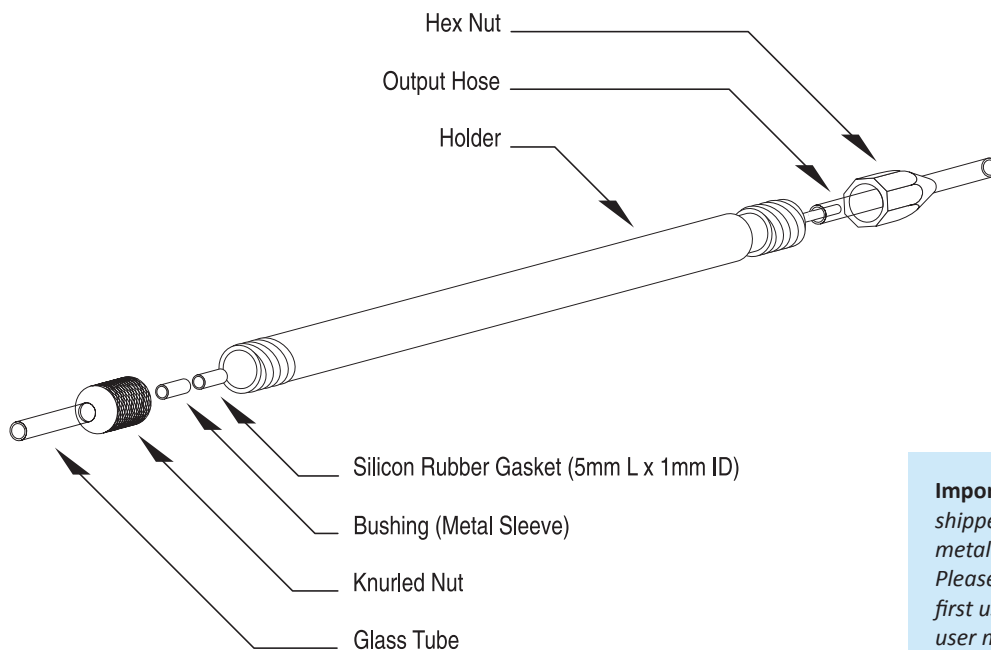
Connect the gas input hose to the rear panel input connector of the MicroJect 1000A Pico-Injector. Connect the other end (with optional input hose adapter, if needed) to the gas supply. Turn on the POWER switch and verify the input gas pressure with the digital meter by setting the PRESSURE METER SELECT switch to  $P_{clear}$ . Practice with the inject and balance pressure controls by first turning the PRESSURE METER SELECT switch and then adjusting each in turn. With non zero values of inject and balance pressure set the PRESSURE METER SELECT switch to  $P_{out}$ . NOTE: The PRESSURE METER SELECT switch must be set to  $P_{out}$  to read changes in pressure on the display or MONITOR output. Set the inject time to five seconds and push the panel INJECT switch to see the temporary change in pressure from balance to inject and back. (A buzzer will sound during injection. If this is not wanted, turn off the switch on the rear panel.)

Two output hoses are supplied with the MicroJect 1000A Pico-Injector. These are designed for any of the optional pipette holders described in the full user's manual Ordering Information table.

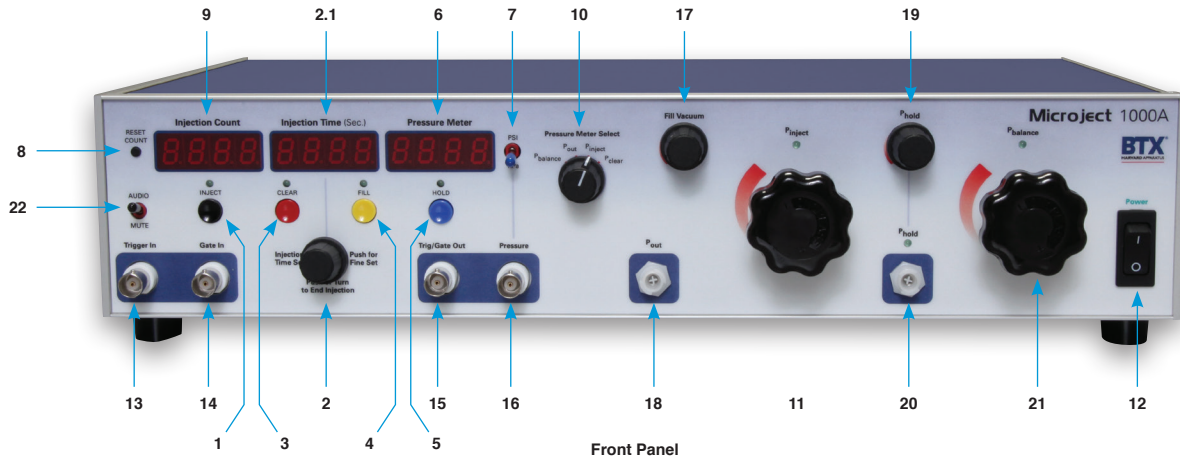
### MicroJect 1000A Glass Pipette Assembly

#### Connect the hoses to the chosen holder(s) as follows:

- Unscrew the end of the holder with the 2 mm diameter hole.
- This end hex piece should be placed over the end of the output hose. Thread the hex piece on the holder and tighten firmly.
- On the opposite end, the gasket is inserted into the pipette holder barrel first, then the bushing is inserted next. The gasket and bushing should fit flush against each other. The bushing should protrude from the barrel approximately 2 mm. Partially tighten the knurled nut a couple of turns. Insert the 1 mm OD glass capillary or 1.5 mm OD glass capillary tube through the knurled nut, bushing and through its "O" ring (silicon rubber gasket). Finish completely tightening down the knurled nut.
- Attach output and holding hose to the appropriate front panel gas ports. Tighten them securely so that the valves within these ports are open, allowing pressure to be controlled in the hose and connecting micropipette.

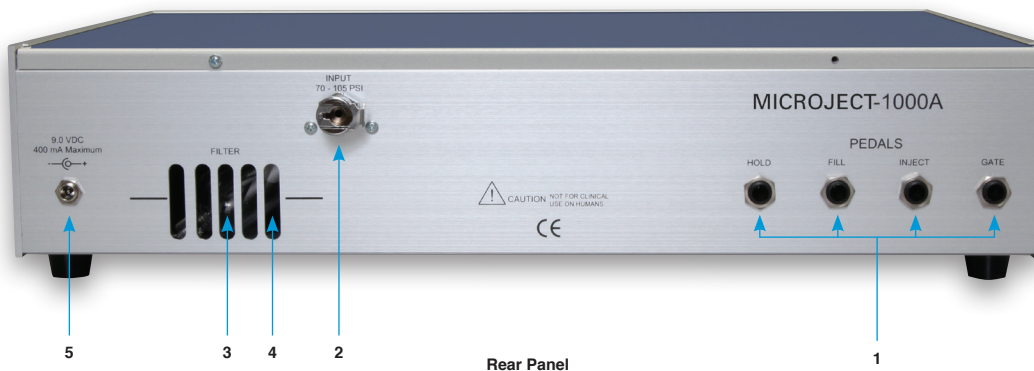


**Important Note:** The Glass Pipette Assembly is shipped with a metal cleaning wire holding the metal bushing and silicon rubber gasket in place. Please remove and save this wire prior to the first use of the glass pipette assembly. Please see user manual page 13 for more information.



## Front Panel Connectors and Controls

1. **INJECT pushbutton** manually triggers injection pressure
2. **Injection Time Setting Dial**
- 2.1. **Injection Time** Displays injection time in seconds
3. **CLEAR pushbutton** delivers half second pressure sure to clear pipette
4. **FILL pushbutton** applies suction to fill delivery pipette from the tip
5. **HOLD pushbutton** applies suction to holding pipette to hold cell for injection
6. **Pressure Meter** displays “gauge” pressure selected by PRESSURE METER SELECT switch
7. **Pressure Units** toggle between displaying injection pressure in psi or kPa
8. **RESET COUNT** pushbutton resets injection count display to zero
9. **INJECTION COUNT** displays total number of injections triggered manually since last reset
10. **Pressure Meter Select** switches between places where pressure may be monitored
11. **P<sub>inject</sub>** regulator used to set injection pressure
12. **Power** rocker switch
13. **Trigger In** BNC connector for electrically initiating injection
14. **Gate In** BNC connector for external timing of the duration of injection
15. **Trig/Gate Out** TTL output used to trigger or synchronize other instruments
16. **Pressure Monitor** BNC connector gives actual pressure applied to meter in electrical output of 10 mV/psi
17. **Fill Vacuum** regulator sets vacuum applied to the P<sub>out</sub> connector
18. **P<sub>out</sub>** connector is attached to injection pipette using supplied output hose
19. **P<sub>hold</sub>** regulator sets suction pressure applied to P<sub>hold</sub> connector
20. **P<sub>hold</sub>** connector is attached to supplied holding hose
21. **P<sub>balance</sub>** regulator sets the balance pressure from 0.1 to 10 psi
22. **AUDIO/MUTE** switch controls injection sound



## Rear Panel Connectors and Controls

1. **Foot Switch Inputs** for optional MicroJect 1000A footswitch connection
2. **Pressure Input Connector** for input of 70 to 105 psi of compressed gas
3. **Input Filter** Drain by pushing the button on the underside of its transparent case
4. **Filter Window** View filter through this window to determine when to drain
5. **Power Input Connector** Universal AC input 9 volt 6 watt DC output power supply