

## Standard Operation Procedure DI Water System

The DI water system in the MSAL cleanroom consists of a Barnstead ROpure LP and an E-pure unit.



Fig 1. The Barnstead ROpure LP reverse osmosis system. It is hanging on the center of the left wall from the entrance.



Fig 2. The E-pure water purification unit. It is hanging on the wall between the two fume hoods.

Normally, the Barnstead ROpure LP reverse osmosis system is on all the time. Users need to operate the E-pure water purification unit only. The following is the SOP for E-pure:

## SOP for E-pure

- A. Make sure that the ROpure LP is on.
- B. Turn on the “power”.



Fig 3. The green button at the low left side of E-pure is the power button.

- C. Wait for the resistivity meter to display “18.2”. This means the resistivity of the water is 18.2 Megaohm-cm.

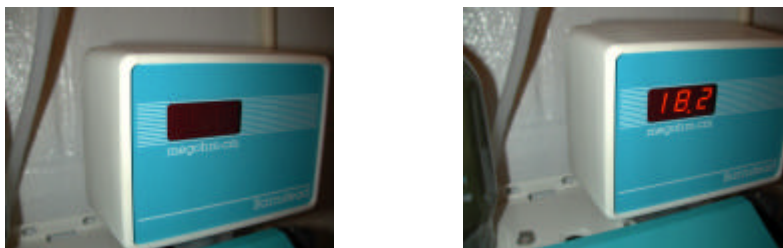


Fig 4. The resistivity meter sits at the low right side of the E-pure

- D. When you finish, turn the “Power” off.

## SOP for ROpure LP

In case the Barnstead ROpure LP reverse osmosis system is off, you need to follow the procedure below to turn it on:

A. Check that the feedwater supply shutoff valve is open. The two green bars are in horizontal position. It is on the left side of ROpure LP.



Fig 5. The shutoff valve is on the left side of LP. The 'power' button is on the left sidewall of LP.

- B. Check to be sure the "Power" on/off switch is in the "off" Position.
- C. Check that the storage interlock jumper plug is plugged into the storage interlock on the right side of the ROpure LP.
- D. Check that the power cord is connected to the appropriate power supply on the upper side of ROpure LP.
- E. Turn the "power" switch to the "on" position.

## How to cope with different situations:

1. I need a large amount of DI water to fill some of the containers in the cleanroom such as the water bath.



Fig 6. The switch on E-pure

Turn on the switch at the central bottom of E-pure and you will get a large amount of water in a short time.

2. I hear a clicking from the ROpure. What is that?

The DI water system is an automatic feedback system. When the water level in E-pure is low, ROpure will automatically start to fill the water in E-pure. You will hear a loud click sound. This is normal. But if you hear several continuous clicks, this means the system has some problem. This won't cause any danger but you should report this to Tom Loughran ([tcl@glue.umd.edu](mailto:tcl@glue.umd.edu), 301-405-3642).

3. When I come in, there is water all around the floor. What shall I do?

DO NOT GET IN. Contact the safety office at 301-405-3960. Call Tom Loughran ([tcl@glue.umd.edu](mailto:tcl@glue.umd.edu), 301-405-3642) and Professor Reza Ghodssi ([ghodssi@eng.umd.edu](mailto:ghodssi@eng.umd.edu), 301-405-8158) immediately.