

# Water Purification Systems

## General shutdown procedure

During normal operating conditions, Thermo Scientific™ Water Purification Systems are designed to be always connected to water and power and left in an operating or standby state. Please see the owner's manual for your system for more information on normal operation.

There may come a time when you need to shut down your water purification system, for example, during a natural disaster, planned shutdown, water or power outage, or to move the system. General recommendations for shutting down each type of water purification system are given below.

If a water purification system is to remain powered on and connected to water during a longterm shutdown, safety measures such as an adequate drain (floor drain is best), leak-detection system, or periodically checking on the system are best-practices in case of system malfunction. If these conditions cannot be met, it may be best to fully shut the system down.

### Shutdown procedure

- Turn off water supply and unplug power to system.
- If the system has a storage tank drain the contents of the storage tank.
- Depending on the length of time the system will be inactive, drain water from system and discard external and internal pretreatment cartridges, Deionization cartridges\* and 0.2 um final filters.
  - Ultrafilters can remain in place if a disinfection is performed at start up.
  - Reverse Osmosis systems – Reverse Osmosis membranes remain in system.

### Restart procedure

- Follow system instructions for cleaning and disinfection.
- Connect water and power to the system.
- Install new cartridges, pretreatment cartridge and final filter for those that were discarded.
- Systems with Reverse Osmosis (Thermo Scientific™ Pacific™, LabTower™, and Barnstead™ Water Purification Systems RO) – upon start-up, run system for several hours and check RO permeate quality to determine if RO membrane(s) need replacement. Replace RO membranes if necessary, then follow instructions in manual for cleaning and disinfection.

## Thermo Scientific™ MegaPure™ Glass Stills and Classic Distillation Systems

- Drain the water from system and storage tank and allow system to dry.
- Disconnect power and shut off water supply.
- Classic stills only – unplug UV lamp.
- Pretreatment: Drain water from system and discard cartridges.\*

### Restart procedure for distillation

- Turn on water and power and operate as normal, discard the first tank of water.
- This may be a good time to clean the distillation system per the instructions in the manual.
- Pretreatment: Follow system instructions for cleaning and disinfection Install new cartridges.

## Can I preserve the deionization cartridges?

If the cartridges were recently installed (<1 month), you could try to extend life by removing them from the system, bagging them, and placing them in a refrigerator to prevent cartridges from drying out and prevent the growth of bacteria. Note, there can be no guarantee that the cartridges will function upon re-installation. It may be required to replace them.

Do not freeze.