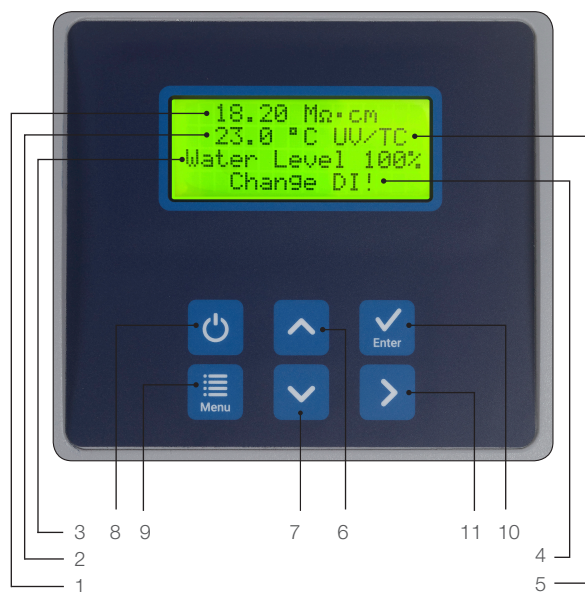


## Display Functionality Keys and Readouts



1. Operation mode:
  - Pure water resistivity/conductivity (Dispense mode)
  - Standby: Press any key (Pressing any key activates dispense mode)
2. Temperature (°C) of pure water
3. Water Tank level indication (10%, 25%, 40%, 55%, 70%, 85% and 100%)
4. System Alert:
  - Message will be displayed in case a fault occur
  - Messages will be displayed alternatively in case there are more than 1 faults
5. UV Light will be active/Temperature Compensation is turned ON
6. Increases a value on the display
7. Decreases a value on the display
8. ON/OFF key
9. Menu key: Scrolls through menu parameters
10. Enter key: Confirms and saves selections
11. Moves cursor to right when changing values

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## Smart2Pure Pro System

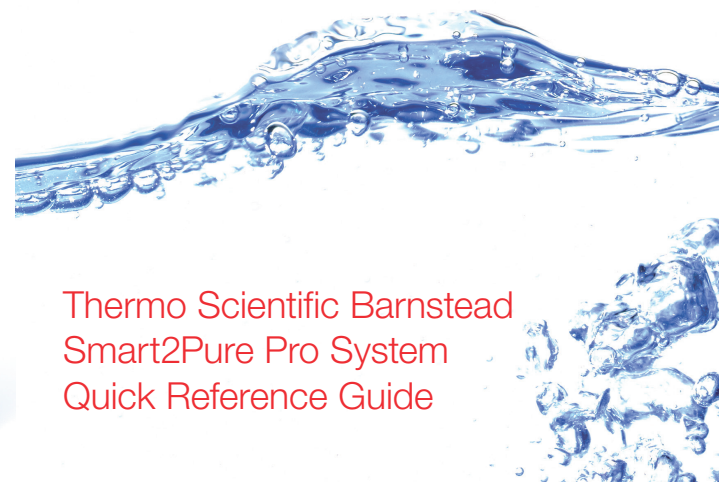


Replace your consumables on a regular basis to provide your lab with the best water quality. To learn more, visit: [thermofisher.com/wpmaintenance](http://thermofisher.com/wpmaintenance).

Find out more at [thermofisher.com/purewater](http://thermofisher.com/purewater)

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## Thermo Scientific Barnstead Smart2Pure Pro System Quick Reference Guide



| Please refer to operation manual for complete instructions

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# Thermo Scientific Barnstead Smart2Pure Pro Consumables Replacement Information

Accessory/ System	Part Number#	Description	Frequency of Replacement	When to Replace
External Pretreatment	D502113	1 µm prefilter - included in external pretreatment	2 x per year	<ul style="list-style-type: none"> <li>Water flow to the unit is reduced</li> <li>Pressure differential between "Prefilter Inlet" and "Prefilter Outlet" is &gt;10 psi</li> </ul>
	D502114	Hardness stabilizer - included in external pretreatment	2 x per year	<ul style="list-style-type: none"> <li>Hardness stabilizer is half empty or 6 months (whichever comes first)</li> </ul>
	D502115	Carbon cartridge - included in external pretreatment	2 x per year	<ul style="list-style-type: none"> <li>Chlorine is detected in reject water</li> <li>Pressure differential between "Prefilter Outlet" and "Carbon outlet" is &gt;15 psi or if pressure gauge is 0 psi.</li> <li>Water flow to the unit is reduced</li> </ul>
System consumables	**50157608	Smart2Pure Pro RO cartridge	Up to 12 months	<ul style="list-style-type: none"> <li>"Change RO" alert on display</li> <li>Smart2Pure Pro Ultrapure polisher cartridge exhausting quickly</li> </ul>
	**09.1020	Smart2Pure Pro Ultrapure Cartridge	Based on feed water estimate up to 6-12 months	<ul style="list-style-type: none"> <li>"Change DI" alert on display</li> <li>Purity drops below acceptable limits</li> <li>"Pure Water Limit" is shown on display</li> </ul>
	**50157375	Sterile 0.1 µm filter for system	1-2 x per year	<ul style="list-style-type: none"> <li>Low flow from dispenser</li> <li>When 09.1020 Ultrapure Polishing Cartridge is replaced</li> <li>When bacteria is present in product water</li> </ul>
	09.1003	0.2 µm Final Filter for remote hand dispenser	1-2 x per year	<ul style="list-style-type: none"> <li>Low flow from dispenser</li> <li>When 09.1020 Ultrapure Polishing Cartridge is replaced</li> <li>When bacteria is present in product water</li> </ul>
	**50133980	Ultrafilter	2 years	<ul style="list-style-type: none"> <li>"Change UF" alert on display</li> <li>Low flow</li> <li>Endotoxins in product water and doesn't improve with disinfection</li> </ul>
	**09.1002	UV Lamp for Type I system	2 years	<ul style="list-style-type: none"> <li>"Change UV" alert on display</li> <li>TOC levels are not being reduced</li> <li>UV lamp is burned out</li> </ul>
Reservoir consumables	06.5002	CO <sub>2</sub> Vent filter	1-2 x per year	<ul style="list-style-type: none"> <li>Color indicator changed from white to blue</li> </ul>
Disinfection	Bleach	Cleaning Solution - purchased separately	1-2 x per year	<ul style="list-style-type: none"> <li>Smart2Pure Pro Ultrapure Polishing Cartridge is replaced</li> </ul>
	**50133431	Disinfection adapter (Reusable)		<ul style="list-style-type: none"> <li>Minimum once a year</li> <li>Bacteria is present in product water</li> </ul>

\*\*Included with new unit.

Frequency of replacement is only an estimate. The actual lifetime of the consumables depend on the quality of the feed water and the amount of water used by the system.

**Note:** Additional pretreatment may be necessary based on feed water.

## Daily Operation

### • Standby Mode (Default mode when not in Dispense mode)

- Recirculation pump turns on for 10 minutes (factory default) every 2 hours
- During Standby mode, the UV will turn on with recirculation pump and will remain ON for 20 minutes
- System goes into Standby mode:
  - ▶ Upon power up with ON/OFF button or if power was disconnected/reconnected

- ▶ After being in dispense mode for 10 minutes.
- ▶ When tank is full or filling
- ▶ If tank level drops below 25%, system remains in Standby until system has filled the tank above 25%. Keypad buttons will be inactive.

### • Dispense Mode:

- Only dispenses when system is in dispense mode
- Push any key to display purity, activate UV light and dispense water. Tank level must be greater than 25%

– After 10 minutes in dispense mode, system will automatically go into Standby mode

– If system needs to remain ON for longer than 10 minutes, change the Recirculation interval in OEM menu

### • Filling Tank:

- Storage tank of Smart2Pure Pro will monitor water levels in storage tank
- While tank is filling, water will flow from concentrate line until storage tank is full

• **Nights and weekends:** Keep the system power ON, to allow recirculation of water

## Maintenance

- Water in storage tank should be turned over every 2 days
- Replace all consumables based on recommendations in consumable replacement table
- Disinfect system and storage tank before replacing ultrapure cartridge and final filter, when pure limit value is reached or minimum of once a year
- When disinfecting the Smart2Pure Pro, use disinfection adapter supplied with unit
- When RO cartridge is replaced, rinse cartridge with rinse adapter (refer **Operation Manual** for instructions)

## Common Alerts

- **Change DI:** Timer for DI cartridge has expired, replace ultrapure DI cartridge and reset timer
- **Change RO:** Timer for RO cartridge cartridge has expired, replace RO cartridge and reset timer
- **Change UF:** Timer for ultrafilter has expired, replace ultrafilter and reset timer
- **Change UV:** Timer for UV light has expired, replace UV light and reset timer
- **"System Leak Detected":** Display alternates between "System Leak Detected/Turn Feed Water OFF - Contact Service"
  - If a leak is detected, whole system will shut OFF including both pumps, all solenoid valves, and UV
  - Can turn this OFF if in an area with high humidity
  - If a leak is detected, you can unplug and reconnect power. System has 40 seconds delay to allow you to detect leak/fix leak. If leak remains, system will shut down again. This will be repeated as it is necessary to find/fix leak

### • "PURE WATER LIMIT"

- Displayed if purity goes below pure water limit
- System remains operational
- Check DI cartridge
- Check Pure water setting to ensure it is not set too high

