

Thermo Scientific™ Barnstead™ Pacific AFT Consumables Replacement Information

External Pretreatment Filter Options	Pretreatment is important for the life of the RO membrane. One or more of the following pretreatment cartridges may be used, depending on feed water quality. Check the boxes below for the external pretreatment installed in conjunction with this system. Note: Frequency of replacement may vary based on feed water supply.			
<input type="checkbox"/> 06.5452	Hardness stabilizer: Replace when cartridge is half empty (Check every 3-6 months).			
<input type="checkbox"/> 06.5201	5 µm filter with carbon cartridge: Replace based on feed water chlorine level, see chart below.			
<input type="checkbox"/> 06.5101	10" 1 µm prefilter: Replace 4-6 months or when flow rate is reduced.			

	Consumable	Part #	Estimated Life Time *	When To Change
System Consumables	Pacific AFT 3, 7, 12 – one RO membrane Pacific AFT 20 – two RO membranes	22.0046	Up to 2 years	<ul style="list-style-type: none"> Replace when permeate conductivity limit is reached or "Lim.val.permeate" is displayed
	Pacific AFT 40 – two RO membranes	22.0087		
	DI cartridge	09.4012	Up to 12 months (Note: Two DI cartridges should always be available as reserve)	<ul style="list-style-type: none"> Replace when purity has dropped below acceptable limits or "Lim.val.pure w." is displayed
	Pacific AFT System UV lamp	50139226	When applicable – up to 2 years	<ul style="list-style-type: none"> Replace every 2 years UV duration displayed UV bulb not lighting
Reservoir Consumables	CO ₂ adsorber for storage tank	06.5002	Up to 12 months	<ul style="list-style-type: none"> Color indicator changed from white to blue
Cleaning	Cleaning solution	CMX25	n/a	<ul style="list-style-type: none"> DI cartridge is replaced Bacteria is present in product water Once a year minimum

* The actual life time of the consumables depend on the quality of the feed water and the amount of water used by the system. If feed water is chlorinated, carbon pretreatment is necessary. Set pretreatment timer in menu based on the following guidelines:

	Approximate Hours of Use 1 ppm Chlorine
Pacific AFT 3	1000
Pacific AFT 7	900
Pacific AFT 12	600
Pacific AFT 20	500
Pacific AFT 40	300

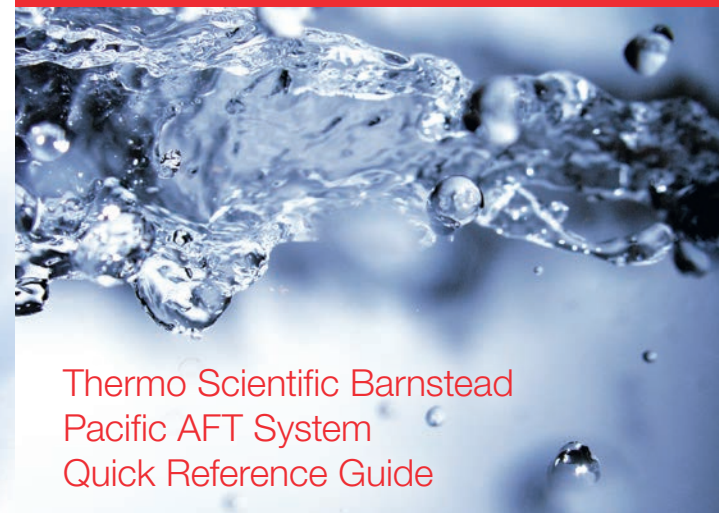
Note: If chlorine level is 2 ppm, reduce hours of operation by half.



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Thermo Scientific Barnstead Pacific AFT System Quick Reference Guide

Please refer to operation manual for complete instructions



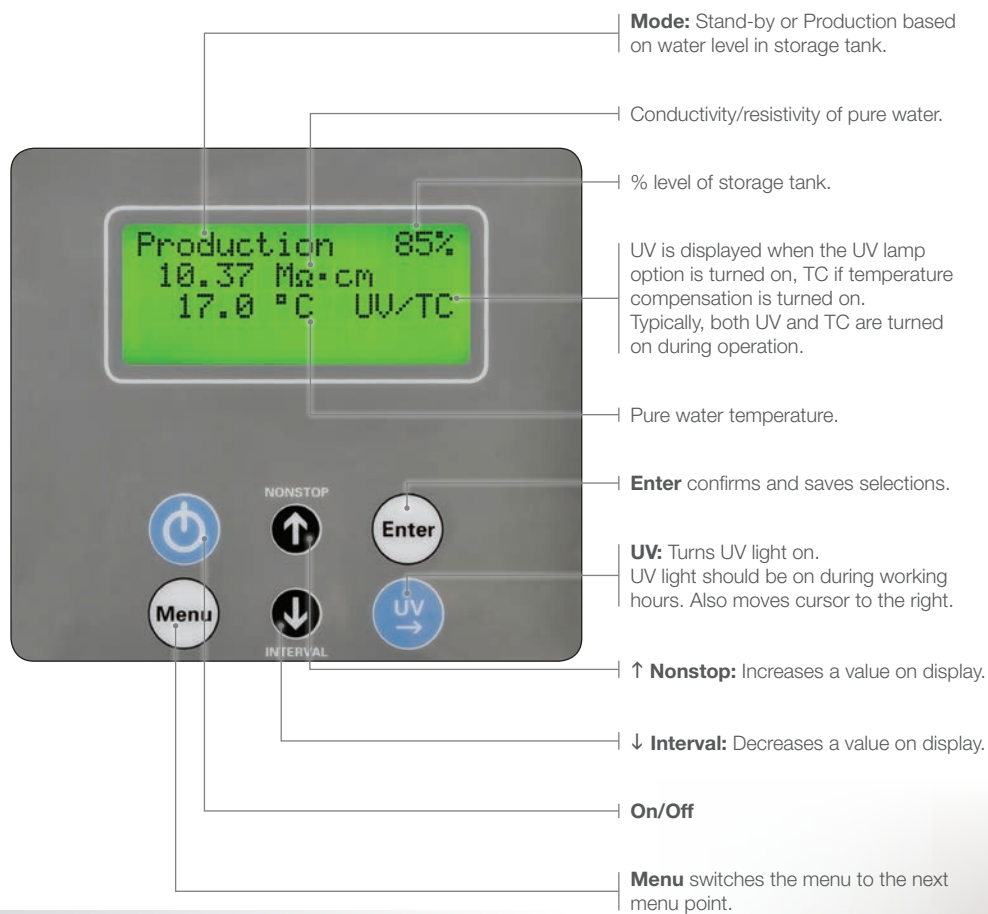
Find out more at thermofisher.com/purewater

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Display Functionality Keys and Readout



Maintenance

- Regular maintenance and replacement of pretreatment and system consumables is important for optimal performance.
- It is suggested that a maintenance log be kept for the following parameters: conductivity/resistivity of pure water, temperature, RO permeate purity, concentrate flow rate, operating hours for pretreatment and UV.
- Clean system at a minimum of once a year.
- To reset UV and/or Pretreatment timers, press Menu until “Code” displays. Enter 0150, press Enter, then press Menu and UV buttons simultaneously. Press Menu to New UV? Or New Pretreatment? Press Enter to reset, then press Menu until you return to main display.



Operation

- **Production Mode:** System is producing water to fill storage tank.
- **Standby Mode:** Storage tank level reached set point.
 - **Nights and Weekends:** Leave water system on over the weekend, evenings and holidays.
- **Dispense:** Type 2 water from front tank outlet.
 - **Tank Pressure Pump:** Delivers pressurized water to clinical analyzer.

Emergency Operation Mode

- **Emergency Supply Valve**
 - Activate valve for any of the following conditions:
 - Low feed water pressure to water system <2 bar (29 psi).
 - Little or no water flow into storage tank.
 - Internal leak in system (e.g., solenoid valve, pump, RO membrane).
 - Electro/mechanical failure (e.g., loss of power, inlet solenoid valve or pump failure).
 - In case of a system alert for low RO permeate purity, check RO permeate flow. If the flow rate is too low, activate emergency valve.
- The system can only be used in emergency mode for a limited time, as the capacity of the DI cartridge can exhaust quickly.
- Steps to activate Emergency Supply (see manual for more detail):
 1. Should a fault occur that cannot be remedied, please contact local service:

Company : _____

Phone Number : _____
 2. Turn off system and water supply.
 3. Activate Emergency Supply valve by turning counterclockwise.
 4. Move tubing with quick connector on left side of storage tank from “Normal Use” to “Emergency Supply”.
 5. Turn on system and water supply.
 6. Check water pressure on right side of storage tank. Adjust pressure to 2 bar (29 psi) if necessary by locating pressure reducing valve inside back panel of storage tank and pulling out the adjusting knob. Turn counterclockwise to reduce pressure, clockwise to increase. Press in the adjusting knob on the pressure reducing valve to lock.

Important: Do not forget to readjust the pressure on returning to normal use.

DI Cartridge Replacement Instructions

1. Switch off Pacific AFT and turn off the feed water supply.
2. Remove front cover of unit.
3. Release DI cartridge quick connectors and remove exhausted DI cartridge.
4. Insert new DI cartridge and insert the quick connect couplings back onto the new cartridge.
5. Replace the front cover.
6. Turn on the feedwater supply and switch Pacific AFT on.

Common Alerts

- **Lim.val.permeate:** Low RO purity, replace RO membrane.
- **Lim.val.pure w.:** Low DI purity. Replace DI cartridge.
- **Pretreatment:** Replace pretreatment cartridges and reset the operating hours counter.
- **UV Duration:** Replace the UV-lamp and reset the operating hours counter.