



MANITOBA RENAL PROGRAM

SUBJECT ▪ Fresenius AquaC UNO H Reverse Osmosis System; use of	SECTION 30.30 Water Treatment
	CODE 30.30.02
AUTHORIZATION ▪ Professional Advisory Committee, Manitoba Renal Program ▪ Nursing Practice Council, St Boniface Hospital	EFFECTIVE DATE June 19, 2015
	REVISION DATE August 2017

PURPOSE:

To provide instructions for proper use of the Fresenius AquaC UNO H portable reverse osmosis (R.O.) system. The Reverse Osmosis System is a water treatment process whereby organic matter and electrolytes are removed from the water. The High Quality Water (HQW) is required by Hemodialysis delivery systems in the preparation of dialysate.

POLICY:

Nurses, Technologists, Unit Assistants, Nursing Assistants and Patients who have received instruction and have demonstrated competency, may use the AquaC UNO H portable R.O. system.

EQUIPMENT:

Fresenius AquaC UNO H portable R.O. system



PROCEDURE:

1. Connecting the AquaC UNO H

- 1.1. Connect the R.O. water inlet connector to the water supply faucet.

KEY POINTS:

- If the AquaC UNO H is already connected, proceed to step 2.
- The water supply faucet can be found on the wall of dialysis treatment areas that have been equipped with them

PROCEDURE:

KEY POINTS:

1.2. Open the water supply faucet



- After the R.O. water inlet connector has been connected, leave the water supply faucet open 24h a day.. Only close it if the R.O. is being removed, replaced, or if there is a leak from the R.O. or faucet.

1.3. Connect the R.O. drain hose to a drain



1.4. Plug the R.O. power plug into an electrical outlet

- Plug the R.O. into an Emergency Power outlet if available.
- After connecting the power plug, the AquaC UNO H will be in standby mode. The word **STANDBY** will be displayed at the top of the R.O. display screen.

1.5. Connect the R.O. High Quality Water (H.Q.W.) output connector to the back of the dialysis machine system.

- The R.O. H.Q.W. connector is equipped with a collar that needs to be pulled back while connecting the connector to the dialysis machine.



2. Starting Supply Mode (Turning on R.O.)

- Dialysis is only permitted when the R.O. is in **SUPPLY** mode.
- **WARNING!**
If the R.O. is in **DISINFECTION mode or DECALCIFICATION mode or RINSE mode DIALYSIS IS NOT PERMITTED!**
Inform a Dialysis Technologist of the problem.
Use a different R.O. if available.
- The current mode of operation is displayed at the top of the R.O. display screen.

2.1. Look at the R.O. display and determine if the R.O. is in **STANDBY** mode, or **SUPPLY** mode.

- Does display say **STANDBY** at top of screen?




- Does display say **SUPPLY** at top of screen?

PROCEDURE:

2.1.1. If the R.O. is already in **SUPPLY** mode, the R.O. is ready to use, and you may proceed with Dialysis.

2.1.2. If the R.O. is in **STANDBY** mode, you can manually start **SUPPLY** mode as explained in section 2.2


2.2. To begin **SUPPLY** mode, press and hold the **start key**  for 3 seconds..

2.3. Wait for R.O. self-test to complete.

2.4. After the self-test has completed, the display will show the **conductivity** and **temperature of the H.Q.W.**

The RO is now producing High Quality Water (H.Q.W.) for the dialysis machine.

3. Stopping Supply mode (Turning off the R.O.)

3.1. To stop supply mode, press and hold the **stop key**  for three seconds.

The R.O. is in now in STANDBY mode and is no longer producing H.Q.W..

The R.O. is to remain in STANDBY mode overnight and when not in use. (plugged in and connected to water and drain)

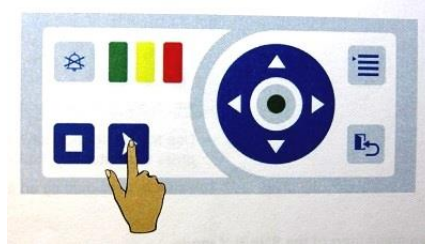
4. Troubleshooting Alarms

4.1. Audible and visual alarms of the AquaC UNO H are coded according to their priority as follows:

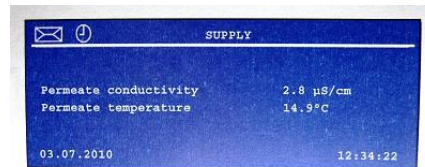
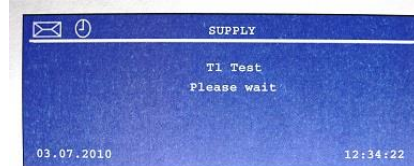
KEY POINTS:



- In some dialysis units the AquaC UNO H is programmed to go into **SUPPLY** mode automatically before the morning shift, and go into **STANDBY** automatically at the end of the day.
- The ROs that are programmed are labeled with their automatic **SUPPLY** and **STANDBY** times.
- The start key is found on the keypad which is located below the display panel on the top of the R.O.



- After selecting SUPPLY mode, the R.O. will perform a 2min **T1 Test** or a 5min **Device test**.



- The R.O. will alarm if the Conductivity or Temperature is outside the acceptable range.



PROCEDURE:

- I. High priority alarms (red warning light):
- II. Low priority alarms (yellow warning light):

Common Faults

1. F-02-60-03 Failure: Run-dry protection (red light flashing)
2. F-02-60-04 Failure: Permeate temp. exceeded. (red light flashing)
3. For all other alarms, Contact a Dialysis Technologist.

KEY POINTS:

- High priority alarms stop the R.O. from operating.
- H.Q.W supply to the dialysis machine is stopped.
- Low priority alarms indicate there is an error, and restrict operation, but do not stop the R.O. from operating.

Possible Solutions

- Make sure R.O. water inlet connector is connected to building water supply. (See step 1.1)
- Turn water supply to R.O. on.
- Check building water pressure. (may be low)
- Check pre-R.O. water filters.
- If unable to clear F-02-60-03 alarm, call a Dialysis Technologist.
- Make sure R.O. drain connector is connected. (See step 1.3)
- Make sure R.O. drain hose is not kinked or obstructed.
- If unable to clear F-02-60-04 alarm, call a Dialysis Technologist.

To contact a technologist:

- **Monday – Friday 0800h to 1615h**

Health Sciences Centre	
Central Dialysis Unit	204 787-7804
Sherbrook Dialysis Unit	204 787 1723
Local Renal Health Centres	204 787 7717
St. Boniface Hospital	204 237 2028
Seven Oaks Hospital	204 632 3458
- **After Hours all units**

Monday thru Friday 0000h to 0800h and	
Friday 1615h to Saturday 2400h	
On Call Cell Phone	204 223 0026

REFERENCES:

Manufacturer's information, Fresenius Medical Care, AquaC UNO H Operating Instructions, Edition: 3/06.13