

## 95 BIF / BAF Filter Manual



**NOTE:**

1.5" RISER / DISTRIBUTOR PIPE SHOULD BE CUT 1/2" BELOW THE TOP SURFACE OF THE TANK INSERT.

1. Read all instructions carefully before operation.
2. Avoid pinched o-rings during installation by applying (provided with install kit) NSF certified lubricant to all seals.
3. This system is not intended for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

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## Safety Guide

*For your safety, the information in this manual must be followed to minimize the risk of electric shock, property damage or personal injury.*

- Check and comply with your provincial / state and local codes. You must follow these guidelines.
- Use care when handling the filter tank. Do not turn upside down, drop, drag or set on sharp protrusions.
- The filter system works on 12 volt-60 Hz electrical power only. Be sure to use only the included transformer.
- Transformer must be plugged into an indoor 120 volt, grounded outlet only.
- **WARNING:** This system is not intended for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

## Unpacking / Inspection

Be sure to check the entire unit for any shipping damage or parts loss. Also note damage to the shipping cartons. Contact the transportation company for all damage and loss claims. The manufacturer is not responsible for damages in transit.

Small parts, needed to install the filter, are in a parts bag. To avoid loss of the small parts, keep them in the parts bag until you are ready to use them.

## Proper Installation

*This water filter system must be properly installed and located in accordance with the Installation Instructions before it is used.*

- Install or store where it will not be exposed to temperatures below freezing or exposed to any type of weather. Water freezing in the system will break it. Do not attempt to treat water over 100°F.
- **Do not** install in direct sunlight. Excessive sun or heat may cause distortion or other damage to non-metallic parts.
- Properly ground to conform with all governing codes and ordinances.
- Use only *lead-free solder and flux* for all sweat-solder connections, as required by state and federal codes.
- Maximum allowable inlet water pressure is 125 psi. If daytime pressure is over 80 psi, night time pressure may exceed the maximum. Use a pressure reducing valve to reduce the flow if necessary.
- **WARNING:** Discard all unused parts and packaging material after installation. Small parts remaining after the installation could be a choke hazard.



AIR TANK

MEDIA TANK

3/8" CHECK VALVE  
(BRINE LINE)

3/4" OR 1" CHECK  
VALVE (INLET)



## Specifications

Specifications	95BAF-100 15054054	95BAF-150 15054055	95BAF-200 15054042	95BAF-300 15054043	95BAF-400 15054044	95BAF-500 15054045
Typical Service Flow Rate	3.0 gpm	4.0 gpm	5.0 gpm	6.0 gpm	7.0 gpm	9.0 gpm
Peak Flow Rate	6.0 gpm	10.0 gpm	12.0 gpm	14.0 gpm	16.0 gpm	18.0 gpm
Backwash Flow Rate	5.0 gpm	5.0 gpm	7.0 gpm	10.0 gpm	14.0 gpm	21.0 gpm
Filter Media Volume - Cubic Feet	1.0 ft <sup>3</sup>	1.5 ft <sup>3</sup>	2.0ft <sup>3</sup>	3.0 ft <sup>3</sup>	4.0 ft <sup>3</sup>	5.0 ft <sup>3</sup>
Filter Tank Size	10x44	10x54	12x52	14x65	16x65	18x65
Air Contact Tank Size	8x44	10x54	12x52	14x65	14x65	14x65
Shipping Weight	150 lbs	188 lbs	248 lbs	368 lbs	443 lbs	518 lbs
Media Loaded	Yes	Yes	No	No	No	No
Maximum Iron	30.0 ppm					
Hydrogen Sulfide	5.0 ppm					
Mangansese	0.0 ppm					
Iron Bacteria Removal	No					
pH	"					
Plumbing Connections	3/4", 1", 1-1/4", 1-1/2"					
Electrical Requirements	Input 120V 60 Hz - Output 12V 650mA					
Water Temperature	Min 39 - Max. 100 degrees Fahrenheit					
Water Pressure	Min. 20 - Max. 125 psi					

Specifications	95BIF-100 15054056	95BIF-150 15054057	95BIF-200 15054046	95BIF-300 15054047	95BIF-400 15054048	95BIF-500 15054049
Typical Service Flow Rate	3.0 gpm	4.0 gpm	5.0 gpm	6.0 gpm	7.0 gpm	9.0 gpm
Peak Flow Rate	6.0 gpm	10.0 gpm	12.0 gpm	14.0 gpm	16.0 gpm	18.0 gpm
Backwash Flow Rate	5.0 gpm	5.0 gpm	7.0 gpm	10.0 gpm	14.0 gpm	21.0 gpm
Filter Media Volume - Cubic Feet	1.0 ft <sup>3</sup>	1.5 ft <sup>3</sup>	2.0ft <sup>3</sup>	3.0 ft <sup>3</sup>	4.0 ft <sup>3</sup>	5.0 ft <sup>3</sup>
Filter Tank Size	10x44	10x54	12x52	14x65	16x65	18x65
Air Contact Tank Size	8x44	10x54	12x52	14x65	14x65	14x65
Shipping Weight	150 lbs	188 lbs	248 lbs	368 lbs	443 lbs	518 lbs
Media Loaded	Yes	Yes	No	No	No	No
Maximum Iron	30.0 ppm					
Hydrogen Sulfide	5.0 ppm					
Mangansese	0.0 ppm					
Iron Bacteria Removal	Yes					
pH	7.0 - 8.5					
Plumbing Connections	3/4", 1", 1-1/4", 1-1/2"					
Electrical Requirements	Input 120V 60 Hz - Output 12V 650mA					
Water Temperature	Min 39 - Max. 100 degrees Fahrenheit					
Water Pressure	Min. 20 - Max. 125 psi					

Specifications	95BIFMN-100 15054058	95BIFMN-150 15054059	95BIFMN-200 15054050	95BIFMN-300 15054051	95BIFMN-400 15054052	95BIFMN-500 15054053
Typical Service Flow Rate	3.0 gpm	4.0 gpm	5.0 gpm	6.0 gpm	7.0 gpm	9.0 gpm
Peak Flow Rate	6.0 gpm	10.0 gpm	12.0 gpm	14.0 gpm	16.0 gpm	18.0 gpm
Backwash Flow Rate	5.0 gpm	5.0 gpm	7.0 gpm	10.0 gpm	14.0 gpm	21.0 gpm
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Filter Tank Size	10x44	10x54	12x52	14x65	16x65	18x65
Air Contact Tank Size	8x44	10x54	12x52	14x65	14x65	14x65
Shipping Weight	150 lbs	188 lbs	248 lbs	368 lbs	368 lbs	368 lbs
Media Loaded	Yes	Yes	No	No	No	No
Maximum Iron	30.0 ppm					
Hydrogen Sulfide	5.0 ppm					
Mangansese	1.0 ppm					
Iron Bacteria Removal	Yes					
pH	6.0 - 6.9					
Plumbing Connections	3/4", 1", 1-1/4", 1-1/2"					
Electrical Requirements	Input 120V 60 Hz - Output 12V 650mA					
Water Temperature	Min 39 - Max. 100 degrees Fahrenheit					
Water Pressure	Min. 20 - Max. 125 psi					

- Continuous operation at flow rates greater than the service flow rate may affect capacity and efficiency performance.
- The manufacturer reserves the right to make product improvements which may deviate from the specifications and descriptions stated herein, without obligation to change previously manufactured products or to note the change.

## Before Starting Installation

### Tools, Pipe, and Fittings, Other Materials

- Pliers
- Screwdriver
- Teflon tape
- Razor knife
- Two adjustable wrenches
- Additional tools may be required if modification to home plumbing is required.
- Plastic inlet and outlet fittings are included with the filter. To maintain full valve flow, 3/4" or 1" pipes to and from the filter fittings are recommended. You should maintain the same, or larger, pipe size as the water supply pipe, up to the filter inlet and outlet.
- Use copper, brass, or PEX pipe and fittings.
- Some codes may also allow PVC plastic pipe.
- ALWAYS install a 3 way shut-off valves bypass. These valves let you turn off water to the filter for repairs if needed, but still have water in the house pipes.
- 3/4" Pipe (1.05" OD) drain line is needed for the valve drain.

### Where To Install The Filter

- Place the filter tank as close as possible to the pressure tank (well system) or water meter (city water).
- Place the filter tank as close as possible to a floor drain, or other acceptable drain point (laundry tub, sump, standpipe, etc.).
- Connect the filter to the main water supply pipe BEFORE the water heater. **DO NOT RUN HOT WATER THROUGH THE FILTER.** Temperature of water passing through the filter must be less than 100 deg. F.
- Do not install the filter in a place where it could freeze. **Damage caused by freezing is not covered by the warranty.**
- Put the filter in a place water damage is least likely to occur if a leak develops. The manufacturer will not repair or pay for water damage.
- A 120 volt electric outlet, to plug the included transformer into, is needed within 6 feet of the filter. The transformer has an attached 6 foot power cable. **Be sure the electric outlet and transformer are in an inside location, to protect from wet weather.**
- If installing in an outside location, you must take the steps necessary to assure the filter, installation plumbing, wiring, etc., are as well protected from the elements, contamination, vandalism, etc., as when installed indoors.
- **Keep the filter out of direct sunlight.** The sun's heat may soften and distort plastic parts.

## Sizing Requirements

### Water Pressure

The water system must have a pump big enough to deliver the recommended backwash rate with a minimum pressure at the inlet of the filter of 30 psi. If the existing system cannot do this, it must be upgraded to do so. Whenever possible, the water system should be adjusted to deliver at least 30 psi for even more satisfactory results.

### Backwash Flow Rates

The most important criteria in sizing a filter is the capacity of the pump. The water must pass through the filter media at the proper service flow rate. The filter must also be backwashed at a flow rate sufficient to dislodge and remove the captured particles. Failure to provide sufficient water will cause a build-up of particles in the filter media, impairing its ability. In order for your filter to backwash and rinse properly, your pump must be capable of providing the backwash flow rates indicated on page 4.

### Check Your Pumping Rate

Two water system conditions must be checked carefully to avoid unsatisfactory operation or equipment damage:

1. Minimum water pressure required at the filter tank inlet is 30 psi.
2. Measuring the pumping rate of your pump:

With the pressure tank full, draw water into a container of known volume, and measure the number of gallons drawn until the pump starts again. This is draw-down. Divide this figure by cycle time and multiply the result by 60 to arrive at the pumping rate in gallons per minute (gpm). To aid in your calculation, insert the data in the following formula:

DRAW-DOWN \_\_\_\_\_ ÷ CYCLE TIME \_\_\_\_\_ x 60 = PUMPING RATE \_\_\_\_\_ (gals)  
(secs.) (Gpm)

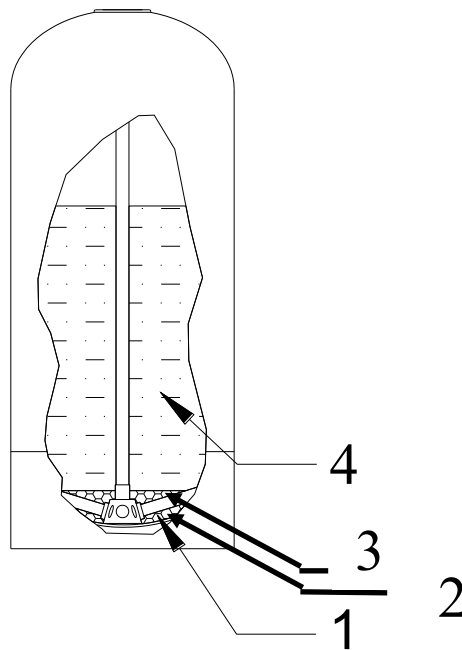
EXAMPLE: CYCLE TIME is 53 seconds. DRAW-DOWN is 6 gallons; then, PUMPING RATE equals:

6 gallons ÷ 53 seconds x 60 = 6.8 gpm

See chart on page 4 for minimum flow rates.

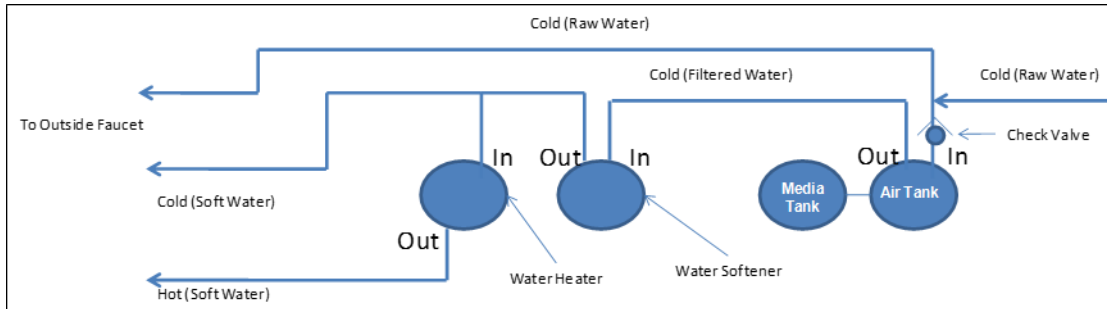
NOTE: If your pumping rate is inadequate for the model, do not install your filter until the problem has been corrected.

## Filter Media Loading Instructions



Model	Media	95xxx-200	95xxx-300	95xxx-400	95xxx-500
4	Filter Media	2 Bags	3 bags	4 bags	5 bags
3	Fine Gravel 1/8"x1/16"	12 lbs	25 lbs	30 lbs	40 lbs
2	Medium 1/8"x1/4"		25 lbs	30 lbs	40 lbs
1	Coarse Gravel 1/2"x1/4"	12 lbs	25 lbs	30 lbs	40 lbs

## Installation Instructions



1. Locate the Air and Media Tank close to a drain where the system will be installed. The surface should be clean and level.
2. Shut off all water at main supply. On a private well system, turn off power to pump and drain pressure tank. Make certain pressure is relieved from complete system by opening nearest faucet to drain the system. Shut off fuel supply to water heater.
3. Cut the main supply line as required to fit plumbing to the control valve being sure to add a three valve bypass.
4. Solder or solvent weld plumbing. Do not apply heat to any fitting connected to the control valve as damage may result to the internal parts. Check to be certain water supply pipe is connected to the control valve inlet fitting and pipe connected to control valve outlet fitting is in direction of house service.
5. Perform all plumbing according to local plumbing codes.
6. Use a  $\frac{1}{2}$ " minimum pipe or tubing size for the drain line.
7. Use a  $\frac{3}{4}$ " pipe or tubing for backwash flow rates that exceed 7 gpm or length that exceeds 20ft (6 m).  
**NOTE: ON COPPER PLUMBING SYSTEMS BE SURE TO INSTALL A GROUNDING WIRE BETWEEN THE INLET AND OUTLET PIPING TO MAINTAIN GROUNDING.**
8. Any solder joints near the valve must be done before connecting any piping to the valve. Always leave at least 6" (152 mm) between the valve and joints when soldering pipes that are connected to the valve. Failure to do this could cause damage to the valve.
9. Install  $\frac{3}{4}$ " or 1" check valve on inlet of control valve.
10. Connect the drain line to the valve. Only use Teflon tape on the drain fitting.
11. Place unit in the bypass position.
12. Slowly turn on the main water supply.
13. At the nearest cold treated water tap nearby remove the faucet screen, open the faucet and let water run a few minutes or until the system is free of any air or foreign material resulting from the plumbing work. Close the water tap when water runs clean.

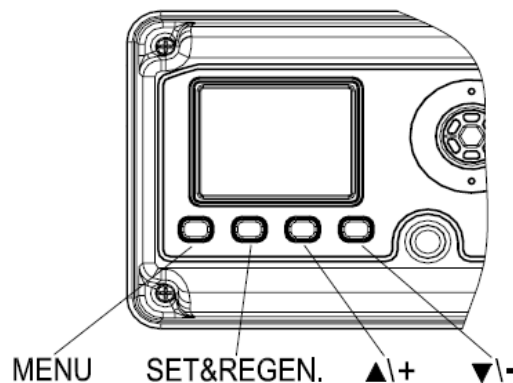


## System Start-Up

### Start-up Instructions

1. Plug the valve into an approved power source.
2. When power is supplied to the control, the screen will display "Advancing to Service Wait Please" while it finds the service position.
3. If screen is locked, press MENU for 3 seconds to unlock. Press and hold the SET / REGEN button for 3 seconds to enter the manual regeneration screen. An option for delayed or immediate regeneration will appear. Press SET REGEN, then press the DOWN button to select IMMEDIATE. Press the MENU button to save setting and immediately start moving to the BACKWASH position. Once in BACKWASH, unplug the power cord.
4. Open the inlet on the bypass valve slowly and allow water to enter the unit. Allow all air to escape from the unit before turning the water on fully then allow water to run to drain for 30 minutes (this is extremely important on BIF/BIFMN models to prevent cementing of the bed). Plug in the power cord.
5. Press any button to advance to the BRINE (AIR DRAW) position. Check the drain line flow.
6. The valve will automatically advance to the SERVICE position after the BRINE (AIR DRAW) cycle is complete. Open the outlet valve on the bypass, then open the nearest treated water faucet and allow the water to run until clear, close the tap and replace the faucet screen.
7. Program time, date, and number of days between regenerations into controller using Programming Instructions

## Programming Instructions



### Key Pad Configuration

MENU	Enter or exit the system menu. Press and hold the button for 3 seconds to unlock the screen.
SET/REGEN	Press this button to select a program or to save the settings. Press and hold the button for 3 seconds to initiate a manual regeneration.
DOWN / UP	Press these buttons to increase or decrease the value of the settings. Press the buttons to enter the previous or the next menu.

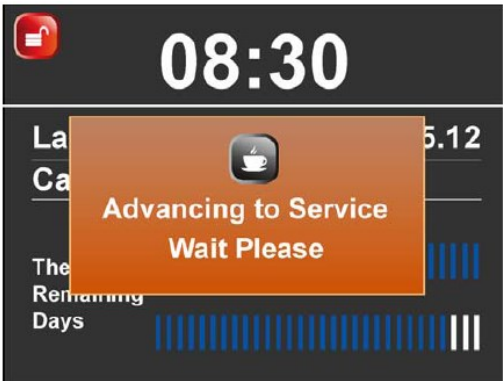
**Change Setting Procedure**

- 1. Press the MENU button to enter and exit the menu.
- 2. Press the UP or DOWN button to select the parameter.
- 3. Press the SET/REGEN button to enter or activate the parameter for editing.
- 4. Press the UP or DOWN button to change the value.
- 5. Press the SET / REGEN button to save the value.
- 6. Press the UP or DOWN button to select other parameters.
- 7. Follow the above steps to change other parameters.
- 8. Press the MENU button to save and exit settings.

**You can only change flashing parameters.**

**Main Display**

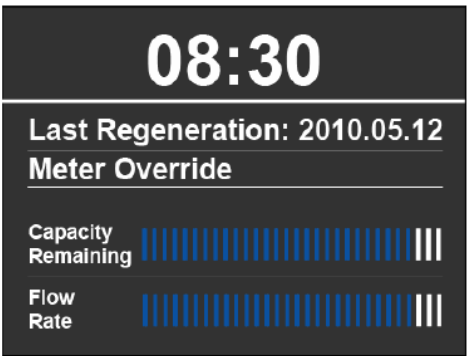
When power is first supplied, the valve may take up to two minutes to find the service position. During this time the valve will show:



Do not touch any buttons at this time. When the valve reaches the service position it will display:



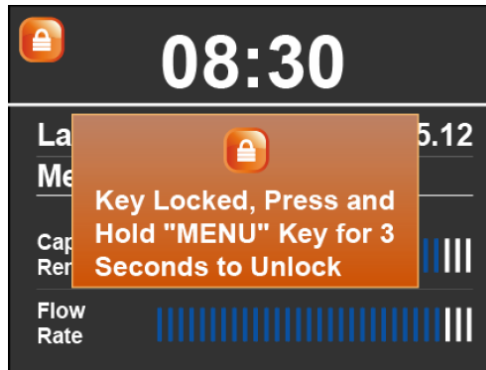
Calendar Clock Mode



Meter Mode (Meter Immediate, Meter Delay, Meter Override)

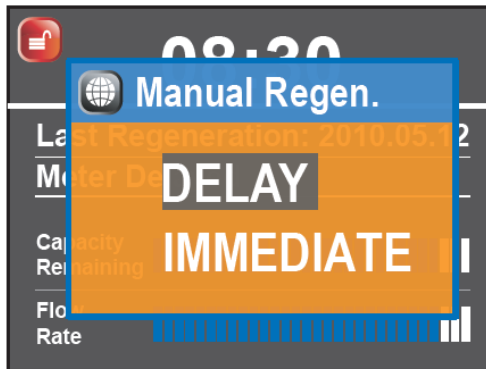
This page shows the current time, last regeneration day, and the regeneration mode. The number of blue bars represent the capacity remaining and the flow rate.

The screen will be locked after 3 minutes. To unlock the screen press and hold the MENU key for 3 seconds.

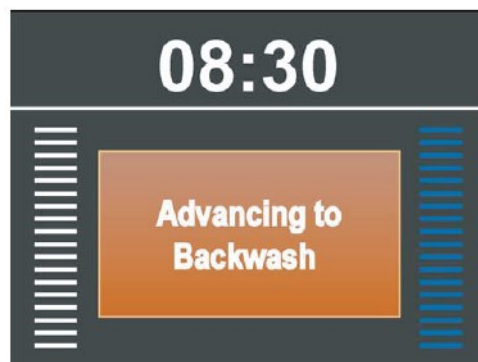


## MANUAL REGENERATION

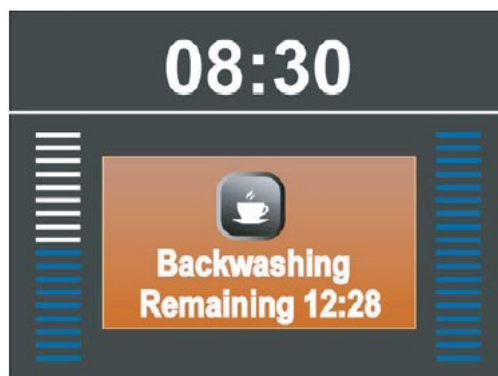
Press and hold the SET REGEN button for 3 seconds to enter the manual regeneration page. The screen will display:



1. Press the UP or DOWN button to choose option.
2. If you choose DELAY, the valve will start a regeneration at the next regeneration time (default is 2:00 AM).
3. If you choose IMMEDIATE, the valve will start a regeneration immediately. When a regeneration is started, the screen will display:



When the valve reaches the Back Wash position. The screen will display:



When Back Wash remaining time reaches zero or any button is pressed, the valve will advance to the BRINE (AIR DRAW) position.

## Main Program

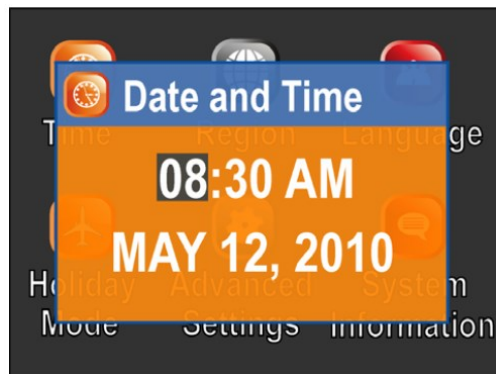
Press the MENU key to view the main page.



1. Press the MENU button to enter and exit the menu.
2. Press the UP or DOWN button to select the parameter.
3. Press the SET/REGEN button to enter or activate the parameter for editing.
4. Press the UP or DOWN button change the value.
5. Press the SET / REGEN button to save the value.
6. Press the UP or DOWN button to select other parameters.
7. Follow the above steps to change other parameters.
8. Press the MENU button to save and exit settings.

**You can only change flashing parameters.**

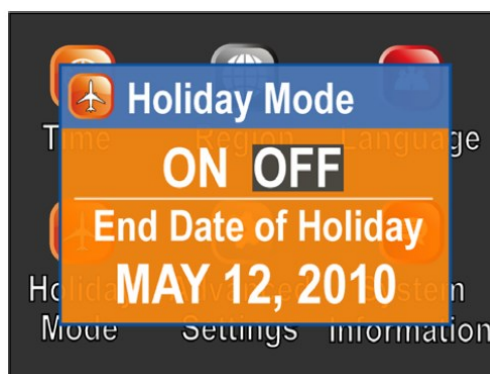
Choose Time icon to adjust the current date and time.



Choose Region icon to change the display unit of measures. Choose Language icon to change the display language. Note English may be only option depending on version of software.



Choose Holiday Mode icon to activate it. The system will perform a brief back wash and rinse every 7 days. When turning Holiday Mode ON, remember to add the end date. This will insure the valve will return to normal operation on that date.



Advance settings has two options. Press SET REGEN button for 3-5 seconds to enter menu. Choose Manual Settings to manually adjust settings.



In Regen Mode you can select four different regeneration modes.



**Calendar Clock:** the unit will initiate regeneration at the next pre-set regeneration time based on the interval of days between regeneration days.

**Meter Immediate:** the unit will initiate regeneration immediately after the volume remaining reaches zero.

**Meter Delayed:** this is the most common setting. When the volume remaining reaches zero, the system will initiate regeneration at the next preset regeneration time.

**Meter Override:** when the volume remaining reaches zero, the system will initiate regeneration at the next pre-set regeneration time. If the days between regeneration are reached before the volume remaining reaches zero, the system will override the meter setting and initiate regeneration.

The menu options will depend on the type of regeneration mode selected.



Calendar Clock



Meter Immediate



Meter Delayed



Meter Override

Choose Regen Time to adjust the time of day for a regeneration to occur.



Choose Regen. Days to adjust the interval (days) between regenerations.



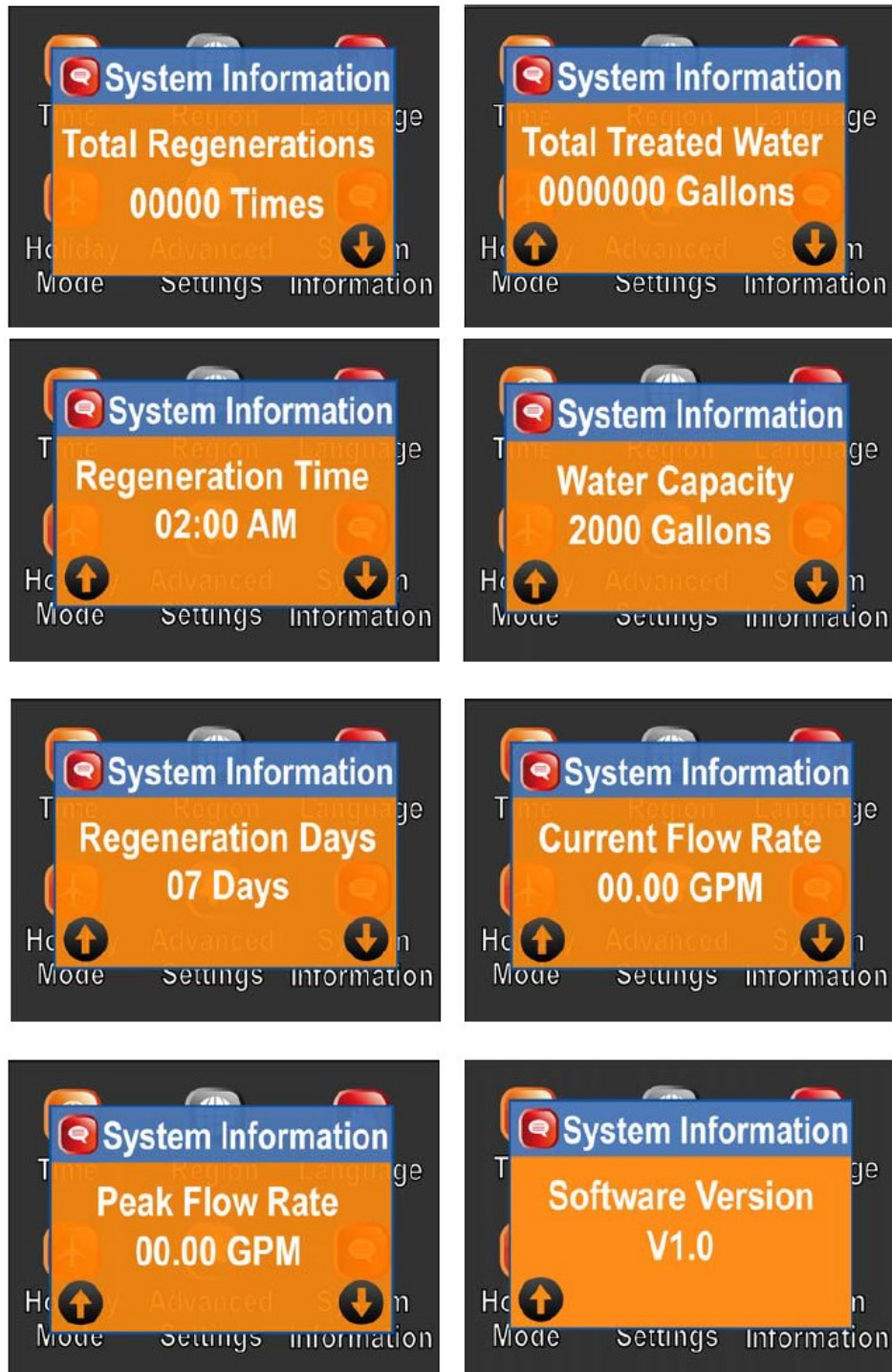
Choose Regen. Cycle to adjust the length of time for each cycle. Note that filter valve mode only has two cycles: Backwash and Rinse.



Restore Defaults will erase all the current settings. Be careful when choosing this since you will lose all the current settings and the default settings loaded back in may not be the correct settings for your system.



System Information will provide diagnostic information about your system. Hold the SET/REGEN button for 3 seconds to reset values to zero.



## About The System

### Control Operation During A Power Failure

In the event of a power failure, the valve will keep track of the time and day for 48 hours. The programmed settings are stored in a non-volatile memory and will not be lost during a power failure. If power fails while the unit is in regeneration, the valve will finish regeneration from the point it is at once power is restored. If the valve misses a scheduled regeneration due to a power failure, it will queue a regeneration at the next regeneration time once power is restored.

### Automatic Raw Water Bypass During Regeneration

The regeneration cycle can last 90 minutes after which filtered water service will be restored. During regeneration, un-filtered water is automatically bypassed for use in the household. Hot water should be used as little as possible during this time to prevent un-filtered water from filling the water heater. This is why automatic regeneration is set for sometime during the night and manual regenerations should be performed when little or no water will be used in the household.

Normal regeneration time is 12:00 AM.

### New Sounds

You may notice new sounds as your filter operates. The regeneration cycle lasts up to 90 minutes. During this time, you may hear water running intermittently to the drain.

### Regeneration Process

Periodically the filter will require a back wash to clean the trapped particles and unpack the filter bed to restore the system flow rates. The table below explains the regeneration steps.

Step	Name	Description
#1	Back Wash	Fresh water is introduced to the bottom of the tank flowing upwards expanding the filter media to rinse out any dirt or small particles to the drain and to uncompact the bed to restore full service flow rates.
#2	Air-Draw	Air is drawn into the system and fills the first and second tank.

Model	CYCLE TIME (MINUTES)			
	BACKWASH	BRINE (AIR DRAW)	RINSE	REFILL
<b>95xxx-100</b>	15	45	0	0
<b>95xxx-150</b>	15	45	0	0
<b>95xxx-200</b>	15	45	0	0
<b>95xxx-300</b>	15	60	0	0
<b>95xxx-400</b>	15	60	0	0
<b>95xxx-500</b>	15	60	0	0

## Maintenance

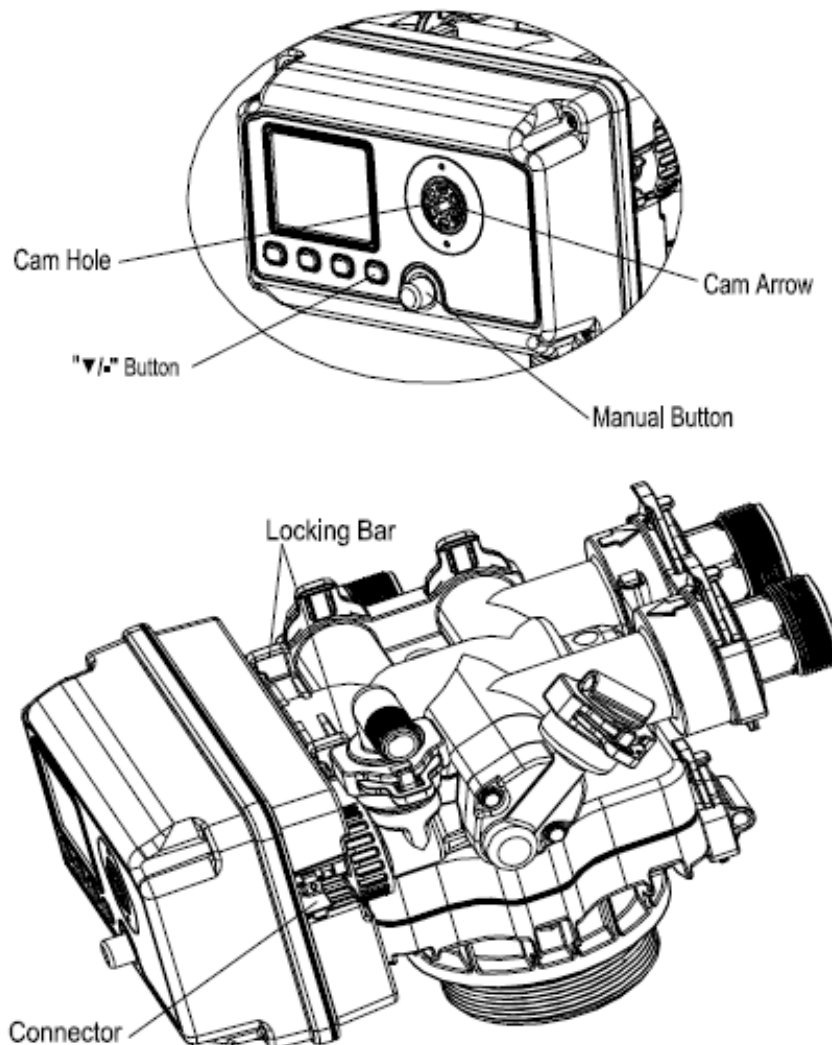
Maintenance of your new water filter requires very little time or effort but it is essential. Regular maintenance will ensure many years of efficient and trouble-free operation.

1. Periodically make sure your pump is performing satisfactorily to ensure sufficient water is available for backwashing the filter.
2. Periodically test your raw and filtered water to ensure conditions are still the same for your original settings and that the unit is working the way it is intended to. Water testing is often the best way to determine when the filter media will require replacement.
3. Periodically check that the drain line is clear and free from any obstructions.

## Care of Your System

To retain the attractive appearance of your new water filter, clean occasionally with mild soap solution. Do not use abrasive cleaners, ammonia or solvents. Never subject your filter to freezing or to temperatures above 100°F.

## Removing Power Head Assembly



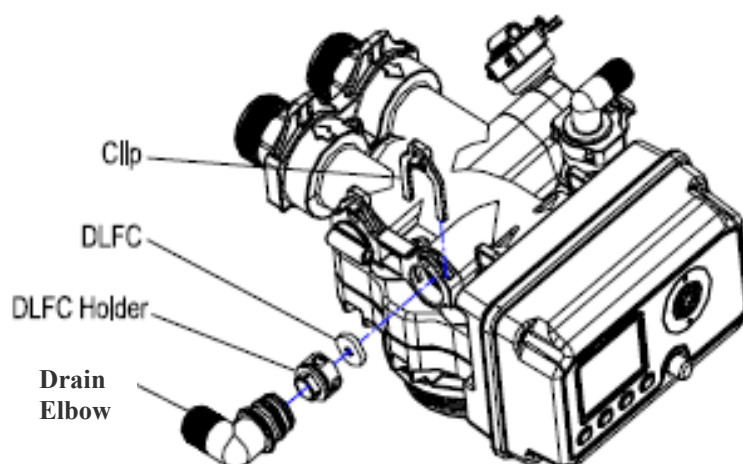
Manually remove the Power Head Assembly:

- Press and hold Manual Button
- With 8 hex key, insert Cam Hole, turn the Cam anti-clockwise to the marked position
- Remove the Connector
- Remove the Locking Bar
- Pull the Power Head Assembly outwards.

Automatic remove the Power Head Assembly:

- Unlock the screen
- Press and hold Down button, the valve will advance the Cam to the marked position
- Remove the Connector
- Remove the Locking Bar
- Pull the Power Head Assembly outwards.

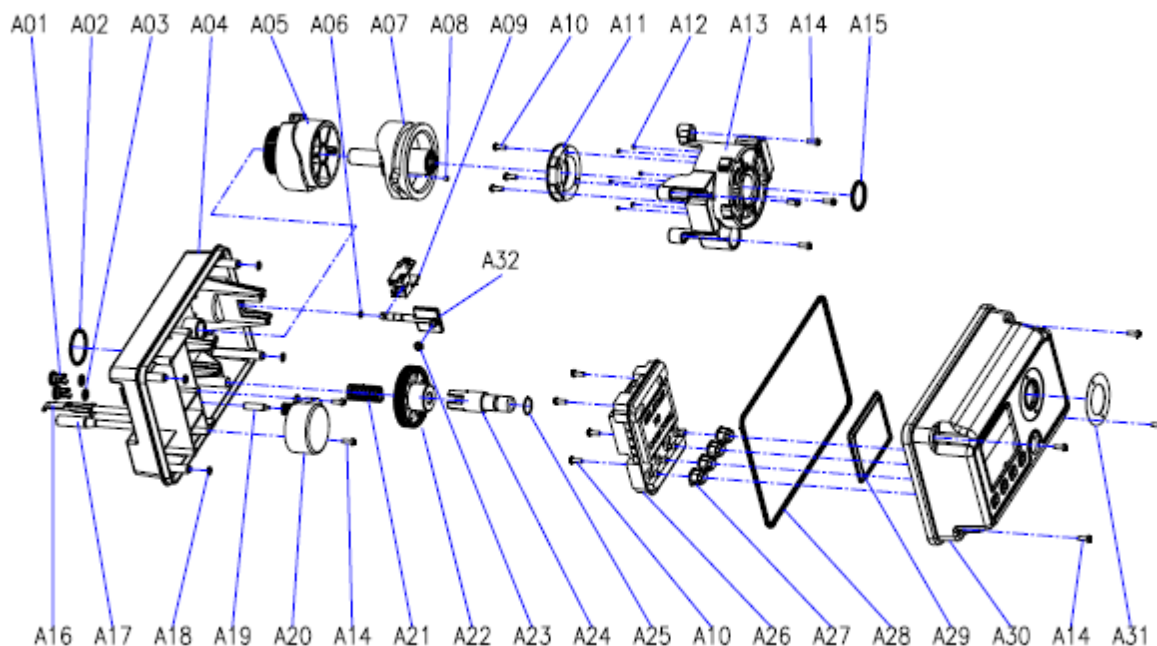
## Replace Drain Line Flow Control (DLFC)



To replace the Drain Line Flow Control (DLFC):

- Remove the Clip
- Pull the Drain Elbow outward
- Pull the DLFC Holder outward from the Drain Elbow
- Replace the DLFC (Note: Check that your unit has a DLFC installed correctly. The bevelled edge should face the direction of the flow)

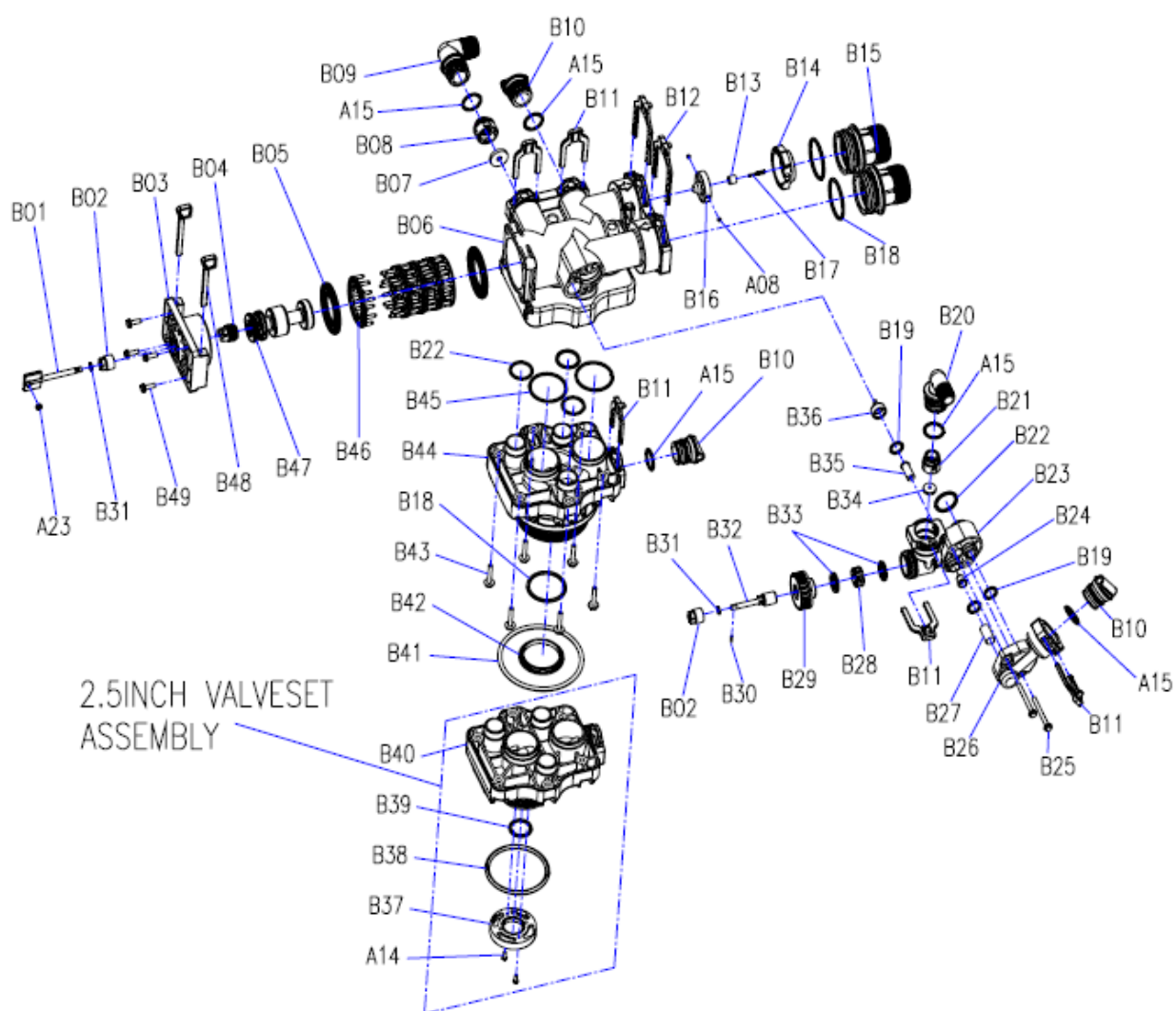
## Power Head Exploded View



Item No.	Part No.	Part Description	Quantity
A01	05040038	Bnt95 Cable Jacket(without hole)	2
A02	26010028	O-Ring-Ø28×2.65	1
A03	05040086	O-Ring-Ø8×2	2
A04	05040005	Bnt95 Housing	1
A05	05040008	Bnt95 Driving Cam	1
A06	05040032	O-Ring-Ø4×1.5	1
A07	05040009	Bnt95 Driven Cam	1
A08	05010078	Magnet-Ø4x3	1
A09	05040095	Bnt95 Brine Valve Connector	1
A10	05056085	Screw-ST2.9×9.5(Large Wafer)	7
A11	05040052	Bnt95 Sensor Pcb	1
A12	05010047	Friction Point	6
A13	05040007	Bnt95 Mounting Plate	1
A14	05056084	Screw-ST3.5×13	10
A15	05056129	O-Ring-Ø23×3	1
A16	05040054	Bnt95 Meter Cable	1
	05040039	Bnt95 Meter Cover	1
	05040037	Bnt95 Cable Jacket(with hole)	1
	05040086	O-Ring-Ø8×2	1
A17	05040053	Bnt95 Power Cable	1
	05040037	Bnt95 Cable Jacket(with hole)	1
	05040086	O-Ring-Ø8×2	1
A18	05040087	O-Ring-Ø5.5×1.5	4
A19	05040044	Bnt95 Motor Pin	1

Item No.	Part No.	Part Description	Quantity
A20	05040047	Bnt95 Motor (AC12V, 2RPM)	1
A21	05040046	Bnt95 Gear Spring	1
A22	05040040	Bnt95 Gear	1
A23	05040033	Bnt95 Piston Rod Bush	1
A24	05040041	Bnt95 Manual Button	1
A25	05040085	O-Ring- $\varnothing 10 \times 2.5$	1
A26	05040051	Bnt95 Main PCB	1
A27	05056529	Bnt465 Button	4
A28	05040043	Bnt95 Housing Seal	1
A29	05040036	Bnt95 Clear Cover	1
A30	05040006	Bnt95 Cover	1
A31	05040092	Bnt95 Label (Filter)	1
	05040093	Bnt95 Label (Softener)	1
A32	05040026	Bnt95 Brine Valve Piston Rod	1

## Control Valve Exploded View



## Control Valve Parts List

Item No.	Part No.	Part Description	Quantity
B01	05040025	Bnt95 Piston Rod	1
A23	05040033	Bnt95 Piston Rod Bush	1
B02	05040029	Bnt95 Quad Ring Holder	2
B03	05040004	Bnt95 End Plug Retainer	1
B04	05040024	Bnt95 Piston Rod Holder	1
B05	05040022	Bnt95 Spacer Seal	5
B06	05040002	Bnt95 Valve Boby	1
	05040049	Bnt95 Nut M6	6
	05056101	Nut M5	6
B07	05040104	DLFC #3S (4.5 GPM)	1
	05040105	DLFC #4S (5.0 GPM)	1
	05040107	DLFC #6S (6.0 GPM)	1
	05040108	DLFC #7S (7.0 GPM)	1
	05040069	DLFC #1 (8.0 GPM)	1
	05040070	DLFC #2 (11.0 GPM)	1
	05040071	DLFC #3 (14.0 GPM)	1
	05040072	DLFC #4 (17.0 GPM)	1
	05040073	DLFC #5 (21.0 GPM)	1
	05040074	DLFC #6 (24.0 GPM)	1
B08	05040030	Bnt95 Dlfc Holder	1
B09	05040012	Bnt95 Drainlet	1
A15	05056129	O-Ring-Ø23×3	5
B10	05040015	Bnt95 Plug	3
B11	05040018	Bnt95 Clip (S)	5
B12	05040017	Bnt95 Clip (L)	2
B13	05040034	Bnt95 Impeller Bush	1
B14	05040020	Bnt95 Impeller Holder	1
B15	05040014	Bnt95 Adaptor	2
B16	05040019	Bnt95 Impeller	1
A08	05010078	Magnet-Ø4x3	2
B17	05040045	Bnt95 Impeller Pin	1
B18	26010030	O-Ring-Ø48.7×3.55	3
B19	05040084	O-Ring-Ø14×3	3
B20	05040013	Bnt95 Brinelet	1
B21	05040031	Bnt95 BLFC Holder	1
B22	26010046	O-Ring-Ø27×3	4
B23	05040010	Bnt95 Injector Body	1

Item No.	Part No.	Part Description	Quantity
B24	05040112	Bnt95 Nozzle-4S	1
	05040113	Bnt95 Nozzle-5S	1
	05040059	Bnt95 Nozzle-3	1
	05040061	Bnt95 Nozzle-4	1
	05040063	Bnt95 Nozzle-5	1
	05040065	Bnt95 Nozzle-6	1
B35	05040117	Bnt95 Throat-4S	1
	05040118	Bnt95 Throat-5S	1
	05040060	Bnt95 Throat-3	1
	05040062	Bnt95 Throat-4	1
	05040064	Bnt95 Throat-5	1
	05040066	Bnt95 Throat-6	1
B25	05040099	Screw-M5×55 (Hexagon with Washer)	2
B26	05040011	Bnt95 Injector Cover	1
B27	05040048	Bnt95 Brine Valve Screen	1
B28	05040027	Bnt95 Brine Valve Spacer	1
B29	05040028	Bnt95 Brine Valve Seal Cover	1
B30	05040050	Bnt95 Brine Valve Rod Pin	1
B31	05056070	Quad Ring	2
B32	05040023	Bnt95 Brine Valve Piston	1
B33	05040042	Bnt95 Brine Valve Seal	2
B34	05040081	Bnt95 BLFC-6 (0.9 GPM)	1
	05040083	Bnt95 BLFC-7 (1.35 GPM)	1
B36	05040035	Bnt95 Air Disperser	1
B37	07060007	Valve Bottom Connector	1
B38	05056063	O-Ring-Ø78.74×5.33	1
B39	26010103	O-Ring-Ø25×3.55	1
B40	05040001	Bnt95 Valveset (2.5inch)	1
B41	05040094	O-Ring-Ø108×5.3	1
B42	05040091	Bnt95 Seal Holder	1
B43	05040088	Screw-M6×30 (Hexagon with Washer)	6
B44	05040090	Bnt95 Valveset (4inch)	1
B45	05040082	O-Ring-Ø47×3	2
B46	05040003	Bnt95 Spacer	10
B47	05040021	Bnt95 Piston	1
B48	05040016	Bnt95 Housing Locking Bar	2
B49	05056088	Screw-M5×16 (Hexagon with Washer)	4

## Trouble Shooting

Issue	Possible Cause	Possible Solution
A. Water clear when drawn; turns red upon standing (stain producing)	1. Insufficient air in air tank.	a) Increase Brine Time (air draw) b) Check valve not working.
	2. Bypass open or leaking	Close bypass and/or repair as necessary.
	3. Filter bed overloaded with precipitated iron due to insufficient backwash	Increase backwash frequency. Upon correction of problem, manually backwash until backwash water starts to clear. In more severe iron-fouling cases, bed may need chemical cleaning - contact dealer.
	4. Presence of manganese or tannins	Recheck water analysis
	5. Flow rate excessive for model	Reread "Sizing Requirements" Page 5-6.
B. Water red when drawn from tap	1. Filter bed overloaded with precipitated iron due to insufficient backwash flow rate	a. Recheck well pumping rate for backwash and repair or replace as required. b. Check for obstructions or kink in drain line c. For proper drain line flow controller, see specs. Upon correction of this problem, if manually backwashing does not clear bed of iron, filter bed may need chemical cleaning - contact dealer.
	2. Filter bed overloaded with precipitated iron due to insufficient backwash	Increase backwash frequency. Upon correction of problem, manually backwash until backwash water starts to clear. In more severe iron-fouling cases, bed may need chemical cleaning - contact dealer.
	3. Insufficient air in air tank.	a) Increase Brine Time (air draw) b) Check valve not working.
C. Excessive pressure loss through filter	1. Filter bed overloaded with precipitated iron.	See problem above
	2. Control inlet/outlet valve(s) not fully open	Open valves
	3. Sand, silt or mud collecting in filter bed	Check well for these conditions
	4. Filter bed not properly classified	Manually backwash to reclassify
D. Milky or bubbly water (appears to contain small bubbles)	1. Excess air draw.	Reduce air draw time.
	2. Excess gases in water (carbon dioxide, hydrogen sulphide, methane)	May require draining of water system or installation of air relief control - contact dealer.
E. Unit fails to initiate a regeneration cycle.	1. No power supply.	Check electrical service, fuse, etc.
	2. Defective circuit board.	Replace faulty parts.
	3. Power failure.	Reset time of day.
F. Low water pressure.	1. Iron or scale build up in line feeding unit.	Clean pipes.
	2. Iron build up inside valve or tank.	Clean control and add resin cleaner to clean bed. Increase regeneration frequency.
	3. Inlet of control plugged due to foreign material.	Remove piston and clean control valve.
G. Filter media in drain line.	1. Air in water system.	Check well system for proper air eliminator control.
	2. Incorrect drain line flow control (DLFC) button.	Check for proper flow rate.
H. Valve continuously cycles.	1. Defective position sensor PCB.	Replace faulty parts.
I. Flow to drain continuously.	1. Valve settings incorrect.	Check valve settings.
	2. Foreign material in control valve.	Clean control.
	3. Internal leak.	Replace seals, spacers, and piston assembly.

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## Warranty

### Limited Warranty

Fiberglass tanks - 5 years; Control valves and electronics - 5 years under normal use (excludes normal maintenance items such as seals/spacers, pistons & brine valves);-Brine tanks and assemblies - 1 year; All other components - 1 year;-Any other components not manufactured by Canature is limited to the warranty given by the manufacturer of the component. The warranty is limited to the replacement of the defective parts, FOB our factory and does not cover any payment for damages or labor charges. If a part proves to be defective within the warranty period, it should be returned to the factory, freight prepaid together with information on the unit and date purchased. A replacement part will be supplied free of charge.

All products supplied by Canature are subject to the warranties of their respective manufacturers.

RETURN OF GOODS: Authorization number must be obtained before returning any merchandise. NOTE: All material returned to Canature must be returned freight prepaid.

Goods returned under warranty, found defective – Will be repaired, replaced, or credited under warranty, no charge to the customer, return freight prepaid. Warranty does not obligate Canature to bear the cost of field labor or mileage.

Goods returned out of warranty for repair and returned to the customer – These will be repaired and returned at normal charges for this work.

### General Conditions

Damage to any part of this water system as a result of misuse, misapplication, neglect, alteration, accident, installation or operation contrary to our printed instructions, damage to ion exchange resin and seals caused by chlorine / chloramines in the water supply, or damage caused by any force of nature is not covered in this warranty. We will repair or replace defective parts if our warranty department determines it to be defective under the terms of this warranty. Canature assumes no responsibility for consequential damage, labour or expense incurred as a result of a defect or failure.