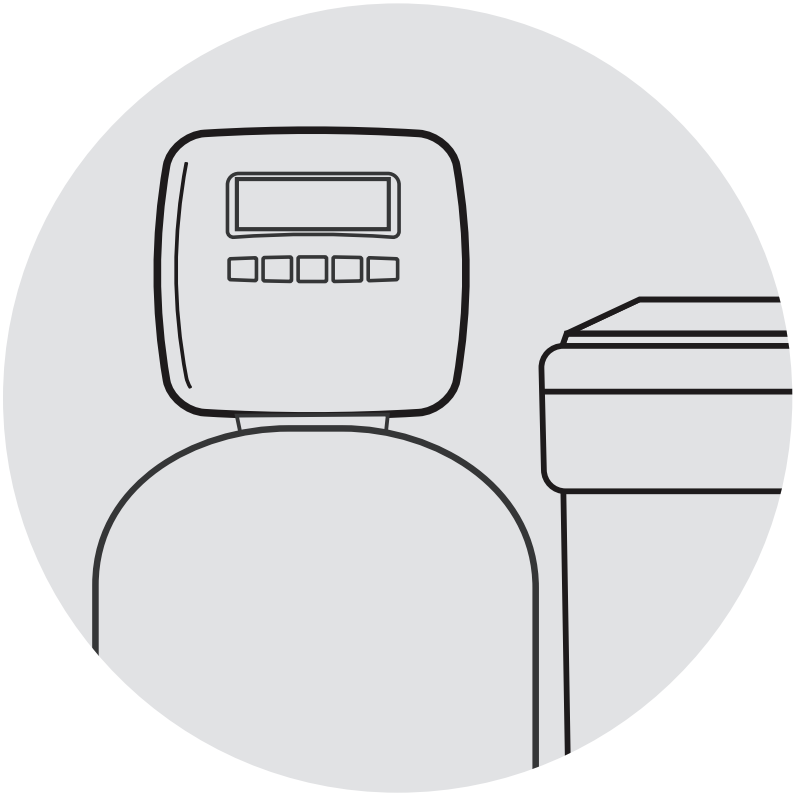
EASYWATER®

SimplySoft™



Installation & Operations

050-062-003 Rev 1

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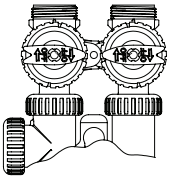
1. Unpacking & Inspection

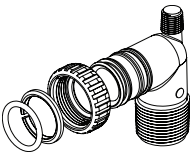
Be sure to inspect the entire shipment immediately upon receipt for any shipping damage or parts loss. **Also note any damage to the shipping carton.** Contact the transportation company for all damages and loss claims. EasyWater is not responsible for damages in transit.

- 1 x SimplySoft Control Valve with Built-In Flow Meter
- 1 x SimplySoft Resin Tank
- 1 x Brine Tank with Salt Grid
- 1 x Owners Packet containing the following;
  - Owners Manual
  - Red-Handled Bypass Assembly (Fig 1-A)
  - Elbow Assembly (2 x Elbow Assemblies, 1" MPT) (Fig 1-B)
  - Silicone Lubricant (Fig 1-C)
  - Drain Nut (Fig 1-D)
  - Polytube Insert (Fig 1-E)
  - Drain Line 5/8"
  - Brine Line 3/8"

Fig 1



A



B

C

D

E

NOT INCLUDED: Piping, Sample Port, Salt, 5 gallon bucket, plumbing fittings/connections to/from Main Control Valve or permits

2. How It Works

Congratulations on the purchase of your new EasyWater SimplySoft. As with every EasyWater product, we are confident that you will be completely satisfied with your purchase. EasyWater is dedicated to providing the healthiest and most eco-friendly products to our customers.

Since 1986, EasyWater has designed and manufactured industry leading equipment for Industrial, Commercial and Residential applications. EasyWater provides a complete line of high quality water treatment systems to solve our customers water quality problems. Our innovative design and advanced filtration methods continually set the tone for the water quality industry.

A water softener works using the process of ion exchange, exchanging the hardness mineral ions, (calcium and magnesium), with the softening ions of the resin. After the system has used all the softening ability it will automatically regenerate, restoring the systems ability to soften. During the regeneration process, a salt solution from the brine tank flushes the hardness ions off the resin recharging the system with sodium, an exchange of ions, before being sent to the drain.

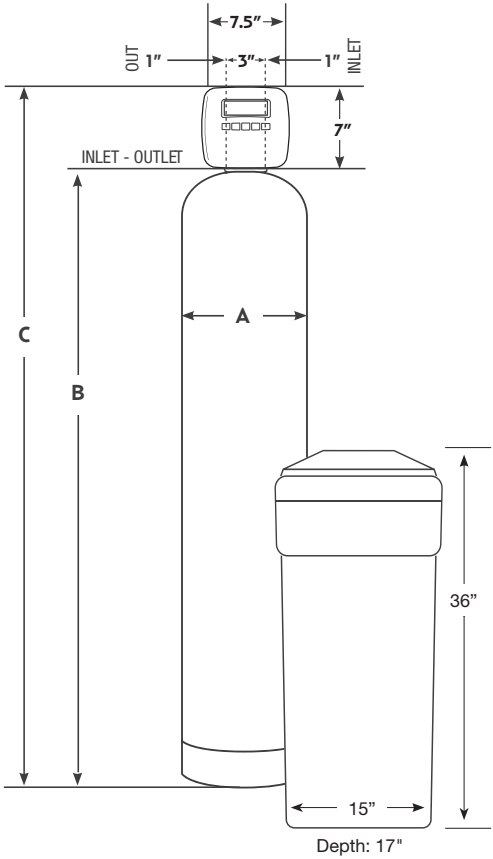
3. Specifications

3.1 SimplySoft Softener Specifications

Model	In/Out	Drain	Brine Refill Line	Volume	Grain	Min/Max Operating Pressure	Min/Max Operating Temp	Optimal Flow Rate	Backwash Flow Rate
32K	1" Male NPT	3/4" Male NPT	3/8" OD Tube	1 ft^3	32K	20-125 psi	40-110ºF	5 gpm	2.2 gpm
48K	1" Male NPT	3/4" Male NPT	3/8" OD Tube	1.5 ft^3	48K	20-125 psi	40-110ºF	8 gpm	2.4 gpm
80K	1" Male NPT	3/4" Male NPT	3/8" OD Tube	2.5 ft^3	80K	20-125 psi	40-110ºF	13 gpm	4.2 gpm

3.2 System Dimensions

	All 10” Diameter Softeners	All 13” Diameter Softeners	All 16” Diameter Softeners
A	10”	13”	16”
B	57”	57”	65”
C	64.5”	64.5”	72.5”
Depth	16”	16”	16”



3.3 EasyWater Control Valve – Electrical Specifications

- Supply Voltage: 100VAC to 120VAC
- Supply Frequency: 50/60 Hz
- Output Voltage: 15VDC
- Output Current: 500 mA

4. Installation

4.1 Pre-Installation

1) Install according to applicable codes in your area. For installation questions or assistance call your EasyWater consultant or Authorized Dealer.
2) Remove all contents from packaging. Identify all components included. Components Included: Tank/ Media, Brine Tank/Well, Main Control Valve, 3/8" brine refill line, inlet/outlet connectors, silicone lubricant, tube stiffener, drain line nut, warranty packet). Not included: fittings and piping for plumbing to 1" Male NPT inlet/outlet connections, sampling port, 5 gallon bucket and drain line.
3) Determine the best installation location based on available floor space, electrical outlets, drain access, future maintenance and piping.
4) Identify the water line that will feed into the system (note: system must be fed with cold water). Close the home's main shutoff valve and open a faucet at the lowest elevation to drain water from plumbing.
5) The brine refill line and drain line compression fittings seal on compression alone- do not use thread sealant or Teflon tape on the threads.

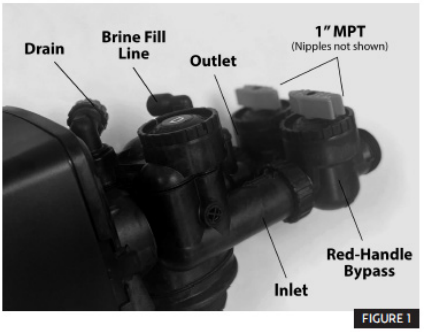


FIGURE 1

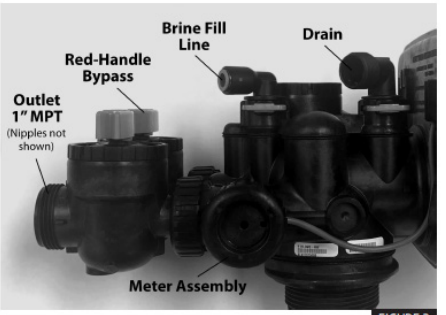


FIGURE 2

4.2 Before You Begin Installation

1) After positioning tank in desired location, remove the shipping cap that is threaded into the tank's top opening and dispose of the cap.

CAUTION: Gently remove the shipping cap to avoid lifting the riser tube.

Note: If the down-tube has risen during shipping and is protruding 1" or less above the highest lip of the media tank (Fig 1), the down tube may need to be trimmed or adjusted so that the top of the down-tube is flush, or as close to flush as possible, with the top lip of the media tank.

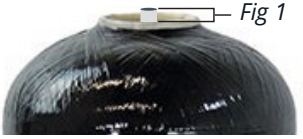
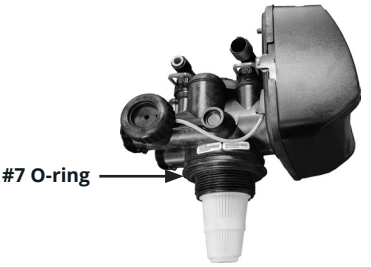


Fig 1

If necessary, the down-tube may be trimmed using a variety of tools such as a pipe/tube cutter, hacksaw, oscillating tool, sawzall etc.

2) Use silicone lubricant to lubricate the bottom large #7 o-ring on the Control Valve.



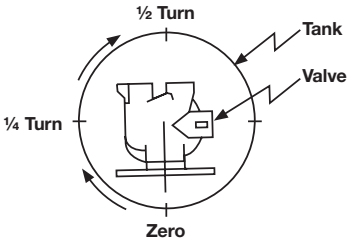
3) Ensuring the male end of the down-tube that comes up from the center of the media tank slides into the bottom female opening directly in the center of the Control Valve, screw the valve onto the tank and hand tighten snug.

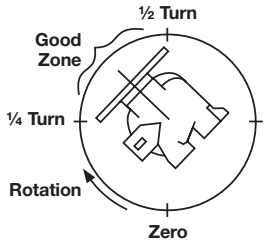
4.3 Installing Control Valve on Tank

DO NOT exceed 25 ft lbs of torque when installing this product. Exceeding this limit may damage the threads and cause failure. DO NOT use the drain connector to tighten the valve on the tank. This can break the drain connection or crack the valve.

Unless special equipment is available to mechanically torque the valve to the tank, please follow the steps below:

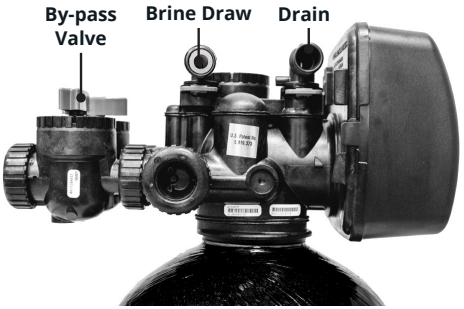
1) Hand spin the valve onto the tank, ensuring the threads are not cross-threaded. Note: Valves are right-hand threads, or clockwise, to install.
2) Rotate the valve freely without using force until it comes to a stop (this position is considered zero).
3) Rotate the valve clockwise from zero to between ¼ turn and ½ turn (see diagram).





4.4 Plumbing Connections

1) Connect the Red-Handled Bypass directly to the Control Valve.



2) Note the inlet/outlet of the system as indicated by the raised black arrows on the Control Valve. **Water will not flow through the SimplySoft if plumbed backwards.**

3) Assemble and connect the Elbow Assemblies to both the inlet and outlet of the Red-Handled Bypass. The Elbow Assemblies terminate as 1" Male NPT connections.

4) Cut the cold water supply line after the shut-off valve in a convenient location as close to the SimplySoft as possible and connect the upstream side to the SimplySoft's inlet elbow (1" NPT connection). Connect the SimplySoft's outlet elbow (1" NPT) back to the downstream side of the break in the cold water supply line. **Water will not flow through the SimplySoft if plumbed backwards.**

Fig 1

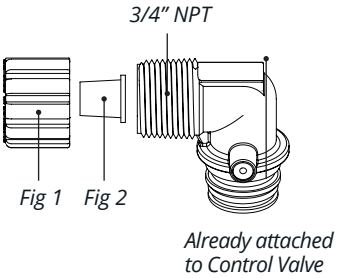
4.5 Drain Options

Plumb the system drain from the drain fitting on the Main Control Valve to a secure drain such as stand pipe, sump pit, washing machine drain, floor drain, utility sink, etc. The drain must have an air gap (open air drain) and be sufficient to handle the load during backwash. Secure the drain line well so that the pressure from backwash will not dislodge the drain line. Use at least a 1/2" ID non-collapsible drain line. Installations where multiple backwashing softeners are installed, do not tie drain lines together; run a separate drain line for each backwashing softener.

Minimum Drain Line Size:

Please consult your EasyWater Consultant or Authorized Dealer if the drain line size is in question. Drain Nut (Fig 1) & Polytube Insert (Fig 2) are only used if plumbing drain line with non-collapsible 5/8" polytube. These items are not used when hard plumbing in PVC, PEX or Copper.

3/4" Drain Elbow Assembly (Part: 022-226-075)



Already attached to Control Valve

4.6 Drain

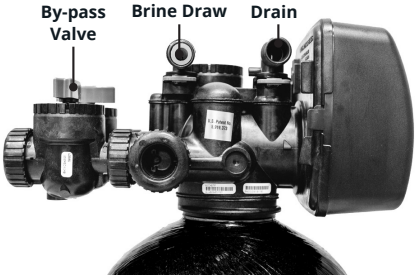
1) Plumb the system's drain from the drain fitting to a secure and sufficient drain such as stand pipe, sump pit, washing machine drain, floor drain, utility sink, etc. If multiple backwashing systems are to be installed, be sure that each drain line is independently ran to an open air drain. **If multiple products are installed, do not connect the drain lines together.**
2) Secure the drain line well so that the pressure from backwash will not dislodge the drain line. If the drain line is not secured, water will leak out of the equipment during regeneration at high pressure. EasyWater is not responsible for any damage associated with such leaks.
3) Use a non-collapsible drain line that meets the minimum drain line size requirements such as non-collapsible polytubing, PVC, PEX or copper. Garden hose or other collapsible tubing/hosing is not sufficient and may damage filtration media.

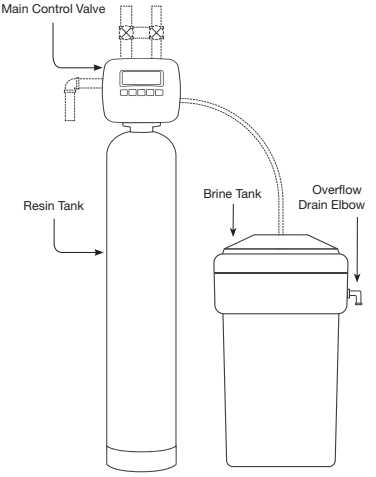
4.7 Brine

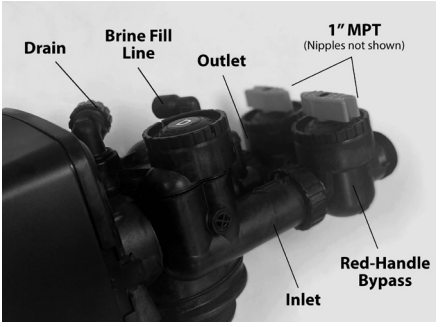
1) Connect one end of the 3/8" Brine Fill Line to the Main Control Valve. Connect the remaining end to the Brine Elbow which is located inside of the Brine Well and secure. Do not connect the Brine Fill Line to the Overflow Drain Elbow. See illustration below.

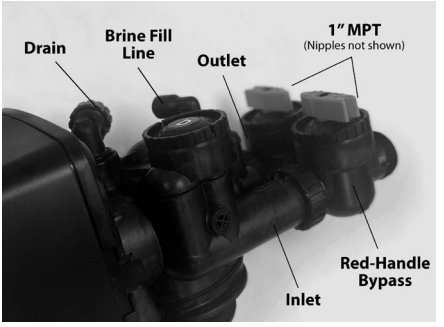
2) The brine tank is equipped with an overflow drain. This is to be installed as a seperate drain.

DO NOT TIE THE CONTROL VALVE DRAIN AND OVERFLOW TOGETHER.









5. System Startup

1) Turn the Inlet side on the Red-Handled Bypass to the Diagnostic Mode (leave the outlet closed for now) (See 'Diagnostic Mode' pg 15, Fig 3). Slowly open the home's main shutoff valve (only partially at this time) and allow the softener to fill. Check for leaks. Address any leaks. If no leaks are present, open the home's main shutoff valve.
2) Plug the Control Valve into an electrical/power outlet (requires approximately 1/2 amp at 110VAC).
3) The Control Valve is pre-programmed and only requires the current time of day to be set. To set the time of day:
    - Press "CLOCK" to set the time of day.
    - Set the hour using the "DOWN" and "UP" arrows.
    - Advance to the minutes by pressing the "CLOCK" button.
    - Use the "DOWN" and "UP" arrows to set the minutes. Press the "CLOCK" button to save.
4) DO NOT ADD SALT TO BRINE TANK. (This is the last step)
5) Using a bucket or hose, add approximately 5 gallons of water to the Brine Tank.
6) Press and hold the 'REGEN' button for approximately 3 seconds to initiate an immediate regeneration. You do not need to run through a full length regeneration at this time. There are 4 stages of the regeneration cycle all of which are listed below.
    a. Allow the first Stage to run for 1 full minute before advancing to Stage 2.
    b. During Stage 2 confirm that the water line inside of the Brine Tank is lowering(this may take several minutes). Once you have confirmed that the water line is lowering inside of the Brine Tank, advance to Stage 3.
    c. Allow Stage 3 to run for 1 full minute before advancing to Stage 4.
    d. Allow Stage 4 to fully complete and confirm that the water line inside of the Brine Tank has risen.

    Once the regeneration cycle begins, pressing and releasing the 'REGEN' button will advance the process to the next Stage.

There are 4 separate Stages of the regeneration cycle:

Stage 1: Backwash (BW) 8 minutes

Stage 2: Brine Draw (BD) 60 minutes

Stage 3: 2nd Backwash (BW) 8 minutes

Stage 4: Rinse/Fill 8 minutes

Each of these 4 Stages of regeneration listed above have their own countdown clock that will display on the Main Control Valve and count backwards to 0 before moving on to the next stage.

7. Add sodium chloride to the Brine Tank and initiate a second regeneration cycle, allowing the full cycle to complete.

    a. The Brine Tank can hold up to 200lbs of salt or 5 x 40lb bags.
    b. When adding salt be careful not to fill above the Brine Well Cap.
    c. If using potassium chloride please contact your EasyWater Representative for assistance in adjusting the Main Control Valve programming (The salt settings will need to be doubled that of NaCL+).

    Fully open the homes main shutoff valve and open the outlet side of the Red-Handle Bypass to place the unit in to service. Once the regeneration cycle is complete the water is now treated.

8. Open the outlet on the Red Handled Bypass (See 'Normal Operation' pg 14, Fig 1).

9. Open the nearest cold faucet in the home and let the water run until any air trapped in the plumbing lines is purged and the water runs clear. The initial water will likely be gray in color. This is normal and will clear up as the water is run. Failing to follow this step may result in media entering the home's plumbing system, toilets, showers, etc.

6. Bypass Configuration

1) Normal Operation Position: The inlet and outlet handles point in the direction of flow indicated by the engraved arrows on the Control Valve. Water flows through the Control Valve during normal operation and this position also allows the Control Valve to isolate the media bed during the regeneration cycle. (See 'Normal Operation' Fig 1)
2) Bypass Position: The inlet and outlet handles point to the center of the bypass, the Control Valve is isolated from the water pressure contained in the plumbing system. Untreated water is supplied to the plumbing system. (See 'Bypass Operation' Fig 2)
3) Diagnostic Position: The inlet handle points in the direction of flow and the outlet handle points to the center of bypass valve. System water pressure is allowed to the Control Valve and the plumbing system while not allowing water to exit from the Control Valve to the plumbing. (See 'Diagnostic Mode' pg 15, Fig 3)
4) Shut Off Position: The inlet handle points to the center of the bypass valve and the outlet handle points in the direction of flow. The water is shut off to the plumbing system. If water is available on the outlet side of the softener it is an indication of water bypass around the system (i.e. a plumbing connection somewhere in the building bypasses the system). (See 'Shut Off Mode' pg 15, Fig 4)

Figure 1

NORMAL OPERATION

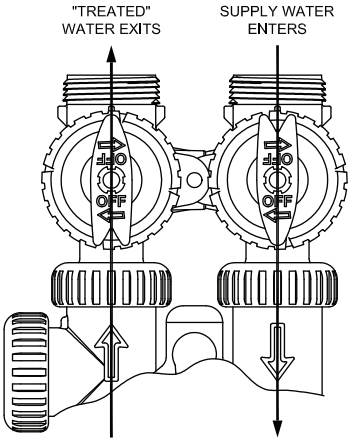


Figure 2

BYPASS OPERATION

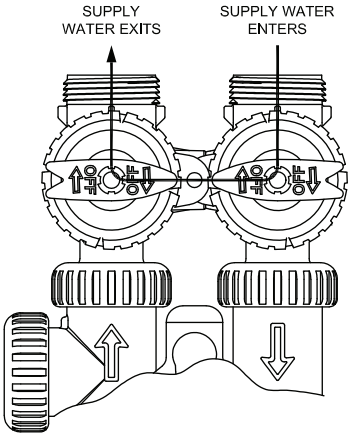


Figure 3

DIAGNOSTIC MODE

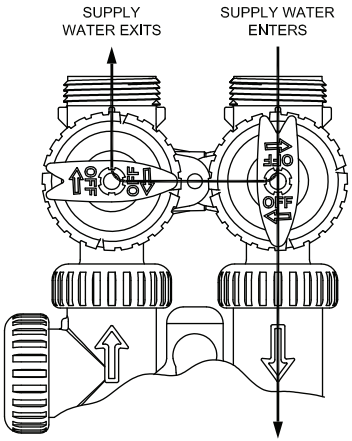
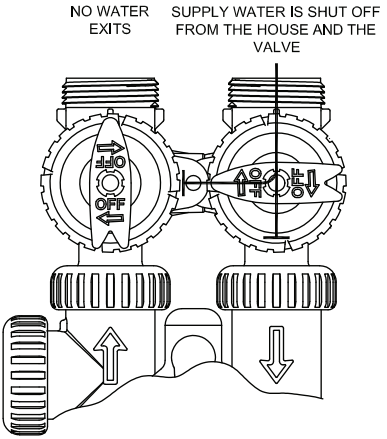


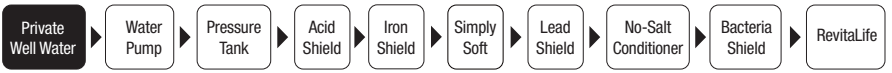
Figure 4

SHUT OFF MODE



IMPORTANT: In the event of a system leak, place system into bypass. (See 'Bypass Operation' pg 14 Fig 2)

7. Sequence of Installation



If a lawn or garden irrigation system or open loop heating/cooling system is to be treated, a separate SimplySoft may be necessary.

Give as much room as possible between the systems to allow for each treatment phase to take effect before entering the next phase.

Contact your EasyWater Consultant or Authorized Dealer for more information on these types of installations.

8. System Programming

8.1 Programming Regeneration Time & Frequency

1) To access the Regeneration settings below, press and hold the 'NEXT' and 'UP' buttons simultaneously for 3 seconds.
2) Use the 'UP' and 'DOWN' buttons to change the settings as needed.
3) Press and release the 'NEXT' button to save the setting and advance to the next setting.

All SimplySoft Models

Day Override:	**28**
Regeneration Time:	**12:00am**
Light Normally:	**ON**

Softening DN Post

Normal = Delayed

Service Alarm: Off

Note: Higher levels of water hardness and/or homes in which a lot of water is used, the regeneration frequency may need more frequent regeneration.

If other backwashing equipment is being used, ensure that the regeneration times do not overlap. Allow at least 1 hour intervals between the end of one system's completed regeneration and the beginning of the next system's regeneration.

8.2 Programming Settings

Note: Equipment arrives pre-programed and only requires Time of Day to be set before operation (See Pg 10, Section 5.4 to set time of day). Hardness and capacity adjustments impact gallons throughout. If hardness levels at your home differ significantly than default, reach out to your sales rep for custom programming.

1) To access the basic Programming settings below, press and hold the 'NEXT' and 'DOWN' buttons simultaneously for 3 seconds.
2) Use the 'UP' and 'DOWN' buttons to change the settings as needed.
3) Press and release the 'NEXT' button to save the setting and advance to the next setting.

SimplySoft or Nexus 32,000 Grain 1.2 GPM	SimplySoft or Nexus 48,000 Grain 2.1 GPM	SimplySoft or Nexus 80,000 Grain 4.2 GPM
BackWash Program	**BackWash Program**	**BackWash Program**
"NEXT" & ▼ simultaneously	**"NEXT" & ▼ simultaneously**	**"NEXT" & ▼ simultaneously**
Set Softening ON hit "NEXT" *NOT FLTR*	**Set Softening** ON hit "NEXT" *NOT FLTR*	**Set Softening** ON hit "NEXT" *NOT FLTR*
REGEN **'dn'** hit 'NEXT' **'POST'** hit 'NEXT'	**REGEN** **'dn'** hit 'NEXT' **'POST'** hit 'NEXT'	**REGEN** **'dn'** hit 'NEXT' **'POST'** hit 'NEXT'
1 Backwash **8** hit "NEXT"	**1 Backwash** **8** hit "NEXT"	**1 Backwash** **8** hit "NEXT"
Brine "DN" **60** hit "NEXT"	**Brine "DN"** **60** hit "NEXT"	**Brine "DN"** **60** hit "NEXT"
3 Backwash **8** hit "NEXT"	**3 Backwash** **8** hit "NEXT"	**3 Backwash** **8** hit "NEXT"
Rinse Min **8** hit "NEXT"	**Rinse Min** **8** hit "NEXT"	**Rinse Min** **8** hit "NEXT"
Set LBS **"12"** hit "NEXT"	**Set LBS** **"14"** hit "NEXT"	**Set LBS** **"25"** hit "NEXT"
Set Capacity x1,000 **27** hit "NEXT"	**Set Capacity** x1,000 **43** hit "NEXT"	**Set Capacity** x1,000 **60** hit "NEXT"
REG **"Auto"** hit "NEXT" **"NORMAL'** hit 'NEXT'	**REG** **"Auto"** hit "NEXT" **"NORMAL'** hit 'NEXT'	**REG** **"Auto"** hit "NEXT" **"NORMAL'** hit 'NEXT'
Relay *1* **OFF** hit "NEXT"	**Relay *1*** **OFF** hit "NEXT"	**Relay *1*** **OFF** hit "NEXT"
Relay 2 **OFF** hit "NEXT"	**Relay 2** **OFF** hit "NEXT"	**Relay 2** **OFF** hit "NEXT"
Regeneration Time **"NEXT"& ▲ simultaneously.**	**Regeneration Time** **"NEXT"& ▲ simultaneously.**	**Regeneration Time** **"NEXT"& ▲ simultaneously.**
Set Hardness **25** hit "NEXT"	**Set Hardness** **25** hit "NEXT"	**Set Hardness** **25** hit "NEXT"
Set REGEN DAY **28** hit "NEXT"	**Set REGEN DAY** **28** hit "NEXT"	**Set REGEN DAY** **28** hit "NEXT"
REGEN TIME **3:00 AM** hit "NEXT"	**REGEN TIME** **3:00 AM** hit "NEXT"	**REGEN TIME** **3:00 AM** hit "NEXT"
LT [Light] On/Off[Preference]	**LT [Light]** On/Off[Preference]	**LT [Light]** On/Off[Preference]

9. Maintenance

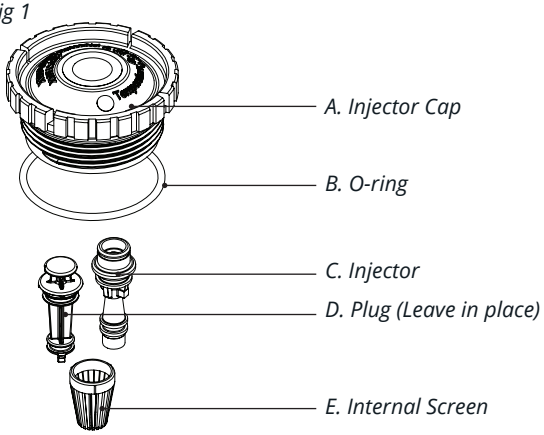
IMPORTANT: <u>Always</u> disconnect the power before servicing equipment.

9.1 Recommended Maintenance

Clean Injector	Every 12 Months
Clean Screen	Every 12 Months

9.2 Cleaning the Injector & Internal Screen

Fig 1



1) Place the system into bypass. (See 'Bypass Operation' pg 14, Fig 2)
2) Initiate a manual regeneration by pressing and holding down the "REGEN" button for 3 seconds. This will allow the water and air pressure to be released down the drain.
3) Allow the first stage of the regeneration cycle to run, allowing water to drain, for approximately 1 minute.
4) After the first stage of the regeneration cycle has run for approximately 1 minute, use the REGEN button on the Control Valve to manually advance the Control Valve through each step of the regeneration sequence.

- Each of the stages of regeneration begin with a new countdown on the clock. You must wait until each new countdown clock begins within each stage of the regeneration, before advancing the Control Valve to the next stage. If the REGEN button is pressed prior to the new countdown timer beginning, the valve will not advance to the next stage.

5) Locate, unscrew (counter clockwise) and remove the Injector Cap (See Pg 19, Fig 1-A), Internal Screen and Injector.
   - The Injector Cap (See Pg 19, Fig 1-A) is located on the top side of the Control Valve and is a 2 1/2" round black plastic cap. The Injector Cap ships with a 'white' sticker of a letter from the alphabet on top of the Injector Cap. *Note the Injector Cap has a large black o-ring (See Pg 19, Fig 1-B) just underneath the upper lip of the Cap. If this o-ring is lost or damaged during this process, the Control Valve will leak once reinstalled.
   - The Internal Screen (See Pg 19, Fig 1-E) is located on the underside of the Injector Cap, directly in the center and is removed simply by pulling it loose. This internal screen is not threaded or glued and simply sits inside of the Cap.
   - The Injector (See Pg 19, Fig 1-C) color will differ based on tank size and is located directly underneath the Injector Cap.

Injector Color	Tank Diameter
Red	9"
White	10"
Blue	12"
Yellow	13"
Green	14"
Orange	16"

   - Remove the Injector using either the edge of the Injector Cap to pry up the Injector or carefully use a pair of needle-nose pliers to gently pull the Injector up and out of the Control Valve Body.

- The Injector is not glued or threaded into the Control Valve Body, it is seated with an o-ring and pulls directly up and out, with the right amount of pressure.

- **NOTE:** There is also a Plug (See Pg 19, Fig 1-D) located underneath the Injector Cap that must remain seated inside of the Control Valve Body in the port titled 'UP'. Do not remove this plug. If accidentally removed, place it firmly back into the port titled 'UP' until it bottoms out.

6) Clean the Internal Screen and Injector

   - Soak the Internal Screen and Injector in Iron Out or a peroxide solution before cleaning with a wire brush or old toothbrush. The Internal Screen has slits that are angled and each needs to be clean and free of debris. **The Internal Screen and Injector may be stained in color. If this is the case, this staining itself does not impact system performance.**
   - **IMPORTANT:** Using a small paperclip, straighten one side of the paperclip and insert it directly down the center hole of the Injector, all the way through and out the other side. Do this even if you believe the Injector is clear and clean. Failing to do so will result in poor system performance and you may be unable to draw peroxide into the valve during the Peroxide Wash maintenance.

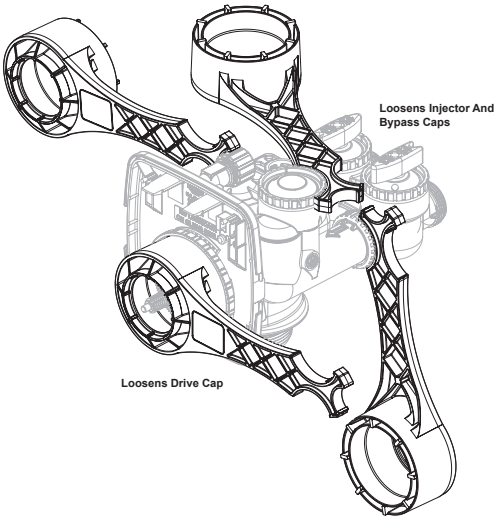
7) Once cleaned, reinstall the Internal Screen and Injector by pressing them firmly in place. The Injector will seat down into the Valve Body and should be firmly pressed down into the Valve Body until it bottoms out.
8) Reinstall the Injector Cap. Hand tighten, do not use a wrench. Lubrication of the Injector Cap o-ring (2) with silicone is recommended.
9) Return the handles on the Red-Handled Bypass to the Normal Operation position (both red-handles should be parallel to the Control Valves inlet and outlet (See 'Normal Operation' pg 14, Fig 1).
10) Check for, and address, any leaks. If none are present, initiate a manual backwash and advance the Control Valve through each stage of the regeneration cycle manually using the REGEN button. A full regeneration cycle is not needed at this time.

- Each of the **4 stages** of regeneration begin with a new countdown on the clock. You must wait until each new countdown clock begins within each stage of the regeneration before advancing the Control Valve to the next stage. If the REGEN button is pressed prior to the new countdown timer beginning, the valve will not advance to the next stage.

9.3 Optional Service Wrench

[Part: 080-043-001]

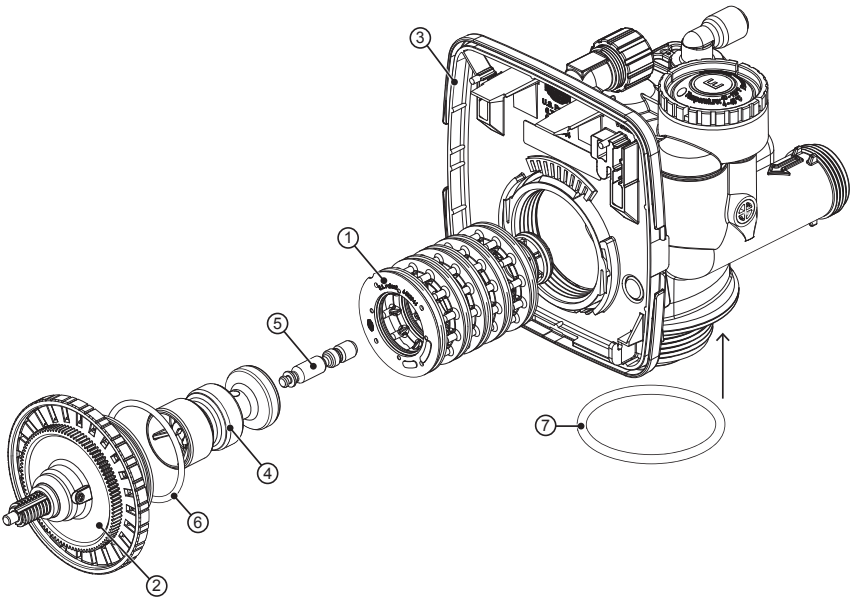
Although no tools are required to service the EasyWater SimplySoft Control Valve, the tool shown below may be purchased to aid in assembly, disassembly and service.



9.4 Control Valve Exploded View

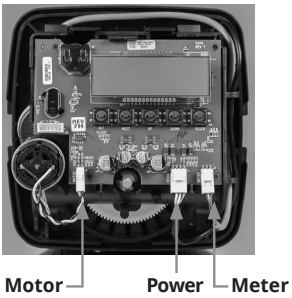
Drawing No.	Part No.	Description	Quantity
1	RPL-A-1109	Stack Assembly	1

Drawing No.	Part No.	Description	Quantity
2	A-1108	Drive Cap Assembly	1
3	RPL-005-002	Back Plate	1
4	A-1110	Piston	1
5	A-1111	Regenerant Piston	1
6	A-1125	O-ring 228	1
7	080-092-001	O-ring 337	1

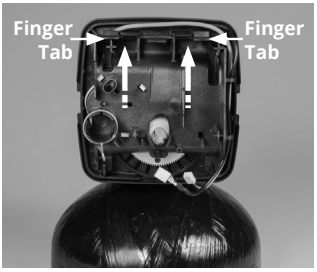


9.5 Stack Assembly/Piston Service

- Coin Cell Lithium Battery (3 volt type 2032)
- Drive bracket modular design allows easy access to components
- Coin Cell Lithium Battery back-up with 8-hour power carry over



1) Removing the Drive Bracket



a. Disconnect the power/unplug.

b. Place the system into bypass or turn main water supply off.

c. Remove the Valve Cover to access the Drive Bracket.

d. Lift up on the two tabs as indicated.

e. Pull top of drive bracket forward, using finger tabs.

f. The PC board can be removed separately from the drive bracket but is not recommended.

2) Removing the Drive Cap Assembly

a. Unscrew drive cap assembly with service wrench or flathead screwdriver **(If no service wrench, use flathead screwdriver and follow instructions on Pg 25, 2-b)**

Service Wrench

Unscrew drive cap assembly counter-clockwise

Drive cap assembly removed

b. Flathead Screwdriver Instructions Only:

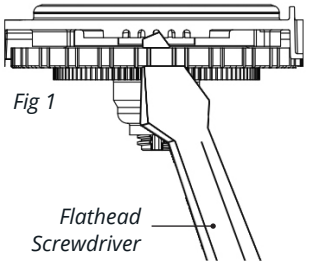
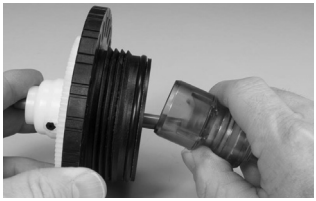


Fig 1



Have a towel handy for this step. Water may leak out momentarily. The Drive Cap Assembly is threaded into the control Valve Body and seals with an O-ring. To remove the Drive Cap Assembly use the Valve Wrench (Purchased Separately) or insert a ¼" to ½" flathead screwdriver into one of the slots around the top 2" of the Drive Cap Assembly so it engages the notches molded into the Drive Back Plate (See Pg 24, Section 9.5) around the top 2" of the piston cavity (See Fig 1 above). The notches are visible through the holes. Lever the screwdriver so the Drive Cap Assembly turns counter clockwise. Once loosened unscrew the Drive Cap Assembly by hand and pull straight out.

3) Instructions

a. The Main Piston is attached to the Drive Cap Assembly and will slide out as the Drive Cap Assembly is removed.

b. Detach the Main Piston from the Drive Cap Assembly (see figures below on Pg 26, steps 4-5).

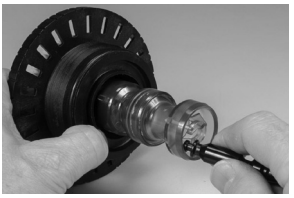
c. Remove the Stack Assembly. The Stack Assembly can be removed without tools by using thumb and forefinger. Do not disassemble the stack assembly. The Stack Assembly may be chemically cleaned using peroxide, Iron-Out or diluted vinegar, or wiped with a soft cloth.

d. Insert the new/cleaned Stack Assembly back into the Valve Body by hand. Do not force the Stack Assembly in. The control Valve Body bore interior can be lubricated with silicone to allow for easy insertion of the entire Stack Assembly

e. Reattach or attach the new Main Piston to the Drive Cap Assembly

f. Slide the Main Piston inside of the Stack Assembly and thread the Drive Cap Assembly back onto the Valve Body.

4) Regenerant Piston Removal



a. Regenerant Piston is easily removed from the snap lock horseshoe connection.

5) Main piston

a. Main piston is attached to piston rod with a snap-off connection.

b. Rotate white gear to expose piston.

c. Put a slight pressure on the middle of the piston to be able to roll off the piston. Do this by rolling in hand and not snapping.

6) Spacer Stack Assembly Removal

a. Spacer stack assembly is removed by simply pulling stack out

10. Troubleshooting

1.	No Display on PC Board	a.	No power at electric outlet	a. Repair outlet or use working outlet
		b.	Control valve Power Adapter not plugged into outlet or power cord end not connected to PC board connection	b. Plug Power Adapter into outlet or connect power cord end to PC Board connection
		c.	Improper power supply	c. Verify proper voltage is being delivered to PC Board
		d.	Defective Power Adapter	d. Replace Power Adapter
		e.	Defective PC Board	e. Replace PC Board
2.	PC Board does not display correct time of day	a.	Power Adapter plugged into electric outlet controlled by light switch	a. Use uninterrupted outlet
		b.	Tripped breaker switch and/or tripped GFI	b. Reset breaker switch and/or GFI
		c.	Power outage	c. Reset time of day. If PC Board has battery back up present the battery may be depleted. See front cover and drive assembly drawing for instructions
		d.	Defective PC Board	d. Replace PC Board
3.	Display does not indicate that water is flowing. Refer to user instructions for how the display indicates water is flowing	a.	Bypass valve in bypass position	a. Turn bypass handles to place bypass in service position
		b.	Meter is not connected to meter connection on PC Board	b. Connect meter to three pin connection labeled METER on PC Board
		c.	Restricted/stalled meter turbine	c. Remove meter and check for rotation or foreign material
		d.	Meter wire not installed securely into three pin connector	d. Verify meter cable wires are installed securely into three pin connector labeled METER
		e.	Defective meter	e. Replace meter
		f.	Defective PC Board	f. Replace PC Board
4.	Control valve regenerates at wrong time of day	a.	Power outage	a. Reset time of day. If PC Board has battery back up present the battery may be depleted. See front cover and drive assembly drawing for instructions
		b.	Time of day not set correctly	b. Reset to correct time of day
		c.	Time of regeneration set incorrectly	c. Reset regeneration time
		d.	Control valve set at "on 0" (immediate regeneration)	d. Check programming setting and reset to NORMAL (for a delayed regen time)
		e.	Control valve set at "NORMAL + on 0" (delayed and/or immediate)	e. Check programming setting and reset to NORMAL (for a delayed regen time)
5.	Time of day flashes on and off	a.	Power outage	a. Reset time of day. If PC Board has battery back up present the battery may be depleted. See front cover and drive assembly drawing for instructions
6.	Control valve does not regenerate automatically when the REGEN button is depressed and held	a.	Broken drive gear or drive cap assembly	a. Replace drive gear or drive cap assembly
		b.	Broken Piston Rod	b. Replace piston rod
		c.	Defective PC Board	c. Defective PC Board
7.	Control valve does not regenerate automatically but does when the REGEN button is depressed and held	a.	Bypass valve in bypass position	a. Turn bypass handles to place bypass in service position
		b.	Meter is not connected to meter connection on PC Board	b. Connected meter to three pin connection labeled METER on PC Board
		c.	Restricted/stalled meter turbine	c. Remove meter and check for rotation or foreign material
		d.	Incorrect programming	d. Check for programming error
		e.	Meter wire not installed securely into three pin connector	e. Verify meter cable wires are installed securely into three pin connector labeled METER
		f.	Defective meter	f. Replace meter
		g.	Defective PC Board	g. Replace PC Board
8.	Hard or untreated water is being delivered	a.	Bypass valve is open or faulty	a. Fully close bypass valve or replace
		b.	Media is exhausted due to high water usage	b. Check program settings or disgnostics for abnormal water usage
		c.	Meter not registering	c. Remove meter and check for rotation or foreign material
		d.	Water quality fluctuation	d. Test water and adjust program values accordingly
		e.	No brine or low level of brine in brine tank	e. Add proper salt to tank
		f.	Control fails to draw in brine	f. Refer to Trouble Shooting Guide number 12
		g.	Insufficient brine level in brine tank	g. Check refill setting in programming. Check refill flow control for restrictions or debris and clean or replace
		h.	Damaged seal/stack assembly	h. Replace seal/stack assembly
		i.	Control valve body type and piston type mix matched	i. Verify proper control valve body type and piston type match
		j.	Fouled media bed	j. Replace media bed

9.	Control valve uses too much brine	a.	Improper refill setting	a. Check refill setting
		b.	Improper program settings	b. Check program setting to make sure they are specific to the water quality and application needs
		c.	Control valve regenerates frequently	c. Check for leaking fixtures that may be exhausting capacity or system is undersized
10.	Residual brine being delivered to service	a.	Low water pressure	a. Check incoming water pressure - water pressure must remain at minimum of 25 psi
		b.	Incorrect injector size	b. Replace injector with correct size for the application
		c.	Restricted drain line	c. Check drain line for restrictions or debris and clean
11.	Excessive water in brine tank	a.	Improper program settings	a. Check refill setting
		b.	Plugged injector	b. Remove injector and clean or replace
		c.	Drive cap assembly not tightened in properly	c. Re-tighten the drive cap assembly
		d.	Damaged seal/stack assembly	d. Replace seal/stack
		e.	Restricted or kinked drain line	e. Check drain line for restrictions or debris and or un-kink drain line
		f.	Plugged backwash flow controller	f. Remove backwash flow controller and clean or replace
		g.	Missing refill flow controller	g. Replace refill flow controller
12.	Control valve fails to draw in brine	a.	Injector is plugged	a. Remove injector and clean or replace
		b.	Faulty brine piston	b. Replace brine piston
		c.	Brine line connection leak	c. Inspect brine line for air leak
		d.	Drain line restriction or debris cause excess back pressure	d. Inspect drain line and clean to correct restriction
		e.	Drain line too long or too high	e. Shorten length and or height
		f.	Low water pressure	f. Check incoming water pressure - water pressure must remain at minimum of 25 psi
13.	Water running to drain	a.	Power outage during regeneration	a. Upon power being restored control will finish the remaining regeneration time. Reset time of day
		b.	Damaged seal/stack assembly	b. Replace seal/stack assembly
		c.	Piston assembly failure	c. Replace piston assembly
		d.	Drive cap assembly not tightened in properly	d. Re-tighten the drive cap assembly
14.	E1, Err - 1001, Err - 101 = Control unable to sense motor movement	a.	Motor not inserted full to engage pinion, motor wires broken or disconnected	a. Disconnect power, make sure motor is fully engaged, check for broken wires, make sure two pin connector on motor is connected to the two pin connection on the PC Board labeled MOTOR. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		b.	PC Board not properly snapped into drive bracket	b. Properly snap PC Board into drive bracket and then Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		c.	Missing reduction gears	c. Replace missing gears
15.	E2, Err - 1002, Err - 102 = Control valve motor ran too short and was unable to find the next cycle position and stalled	a.	Foreign material is lodged in control valve	a. Open up control valve and pull out piston assembly and seal/stack assembly for inspection. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		b.	Mechanical binding	b. Check piston and seal/stack assembly, check reduction gears, check drive bracket and main drive gear interface. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		c.	Main drive gear too tight	c. Loosen main drive gear. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		d.	Improper voltage being delivered to PC Board	d. Verify that proper voltage is being supplied. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect

16.	E3, Err - 1003, Err - 103 = Control valve motor ran too long and was unable to find the next cycle position	a. Motor failure during a regeneration	a. Check motor connection then Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		b. Foreign matter built up on piston and stack assemblies creating friction and drag enough to time out motor	b. Replace piston and stack assemblies. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		c. Drive bracket not snapped in properly and out enough that reduction gears and drive gear do not interface	c. Snap drive bracket in properly then Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
17.	Err - 1004, Err - 104 = Control valve motor ran too long and timed out trying to reach home position	a. Drive bracket not snapped in properly and out enough that reduction gears and drive gear do not interface	a. Snap drive bracket in properly then Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
18.	Err - 1006, Err - 106, Err - 116 = MAV/ SEPS/NHBP/AUX MAV valve motor ran too long and unable to find the proper park position Motorized Alternating Valve = MAV Separate Source = SEPS No Hard Water Bypass = NHBP Auxiliary MAV = AUX MAV	a. Control valve programmed for ALT A or B, NHBP, SEPS, or AUX MAV with out having a MAV or NHBP valve attached to operate that function	a. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect. Then re-program valve to proper setting
		b. MAV/NHBP motor wire not connected to PC Board	b. Connect MAV/NHBP motor to PC Board two pin connection labeled DRIVE. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		c. MAV/NHBP motor not fully engaged with reduction gears	c. Properly insert motor into casing, do not force into casing. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		d. Foreign matter built up on piston and stack assemblies creating friction and drag enough to time out motor	d. Replace piston and stack assemblies. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
19.	Err - 1007, Err - 107, Err - 117 = MAV/ SEPS/NHBP/AUX MAV valve motor ran too short (stalled) while looking for proper park position Motorized Alternating Valve = MAV Separate Source = SEPS No Hard Water Bypass = NHBP Auxiliary MAV = AUX MAV	a. Foreign material is lodged in MAV/NHBP valve	a. Open up MAV/NHBP valve and check piston and seal/stack assembly for foreign material. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect
		b. Mechanical binding	b. Check piston and seal/stack assembly, check reduction gears, drive gear interface, and check MAV/NHBP black drive pinion on motor for being jammed into motor body. Press NEXT and REGEN buttons for 3 seconds to resynchronize software with piston position or disconnect power supply from PC Board for 5 seconds and then reconnect

11. Error Codes

Error	Description of Error	
101	UNABLE TO START	Valve not sensing valve movement with motor output energized
102	MOTOR STALLED	Valve unable to find next cycle position (stalled)
103	MOTOR RAN TOO LONG	Valve unable to find next cycle position
104	VALVE HOMING	Valve unable to find Home position
106	ALT MAV RAN TOO LONG	Alt MAV motor RAN TO LONG - unable to find proper park position
107	ALT MAV STALLED	Alt MAV motor RAN TO SHORT, STALLED - unable to find proper park position
109	INVALID MOTOR STATE	Control can no longer operate properly due to the detection of an invalid motor state
116	AUX MAV RAN TOO LONG	Aux MAV motor RAN TOO LONG - unable to find proper park position
117	AUX MAV STALLED	Aux MAV motor RAN TOO SHORT, STALLED - unable to find proper park position
201	INVALID REGEN STEP	Control can no longer operate properly due to the detection of an invalid regeneration cycle step - Internal Software Error
202	UNEXPECTED STALL	Motor encountered a unexpected stall which it was able to recover from and proceed normally
402	POWER DOWN MEMORY	Control can no longer operate properly due to a check sum error for the Operational Data and Status Section of E^2PROM memory
403	PROGRAM MEMORY	Control can no longer operate properly due to a check sum error for the Programming Section of E^2PROM memory
404	DIAGNOSTIC MEMORY	Control can no longer operate properly due to a check sum error for the Diagnostic Section of E^2PROM memory
405	HISTORY MEMORY	Control continues to operate normally w/check sum error for the History Section of E^2PROM memory, however error is recorded in Error Log
406	CONTACT MEMORY	Control can no longer operate properly due to a check sum error for the Contact Screen Section of E^2PROM memory
407	STATUS RAM	STATUS RAM MEMORY FAILURE - Error generated when the microcontroller can't operate properly due to corrupted data contained in the Operational Data/Status Section of RAM memory. When this error is generated, like a "405" or "408" Error, a "407" is recorded in the Error Log, but the control does not enter Error Mode and continues to operate normally using previously stored Status RAM data (that can be up to 6 hrs. old). This portion of memory includes the state of motors, relays, flow, regen, and more. Most things that are tracked on a moment-by-moment basis that need to be able to recover in the event of a power loss or reset is saved here.
408	DIAGNOSTIC RAM	DIAGNOSTIC RAM MEMORY FAILURE - Error generated when the microcontroller can't operate properly due to corrupted data contained in the Diagnostic Section of RAM memory. When this error is generated, like a "405" or "407" Error, a "408" is recorded in the Error Log, but the control does not enter Error Mode and continues to operate normally using previously stored Diagnostic RAM data (that can be up to 6 hrs. old). This portion of memory includes parameters normally displayed in the diagnostic branch of the menu map.
410	CONFIG DOWNLOAD	Configurator file downloaded to the control was not originally uploaded from another control with the identical software revision

12. Limited Warranty

EasyWater, Inc., Fishers, IN warrants this EasyWater SimplySoft (referred to as Softener) as stated herein:

From the date of shipment from EasyWater, Inc., within the warranty period described below, we will repair or replace any part which we find defective because of faulty materials or workmanship. You pay only freight to our factory and local labor charges.

- Five years on valve body
- Five years on electronic control
- Ten years on media tank, excluding softener media
- Three years on brine tank and components

Damage to any part of Softener because of misuse, misapplication, neglect, alteration, accident, installation or operation contrary to printed instructions, or damage caused by an act of terrorism or any unusual force of nature such as, but not limited to, freezing, flood, hurricane, tornado or earthquake is not covered by this warranty. In all cases, regular parts and service charges will apply.

We assume no warranty liability in connection with this Softener other than specified herein. This warranty is in lieu of all other warranties, express or implied, including warranties of fitness for a particular purpose. We do not authorize any person or representative to assume for us any other obligations on the sale of this softener.

Should a defect or malfunction occur, contact your EasyWater Consultant or Authorized Dealer. If you are unable to contact your EasyWater Consultant or Authorized Dealer, contact EasyWater, Inc. at (888) 766-7258 or via email at contact@easywater.com. We will repair or replace the part at no cost if our repair department determines it to be defective under the terms of the warranty.

Feed water quality must meet the requirements for this system on an ongoing basis in order for this warranty to be valid.

This warranty is valid for the original purchaser only and gives you specific legal rights. You may have other rights which vary from state to state.

EasyWater, Inc.
9910 N by NE Blvd, Ste 200, Fishers, IN 46037 (888) 766-7258

EasyWater is not responsible for damages incurred during product installation or while performing maintenance, recommended or otherwise.

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