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# Canature

## *65 Series*

### *Valve Operation Manual*

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**Note:**

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.

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# Introduction

## Setting Time of Day & Initiating a Manual Regeneration

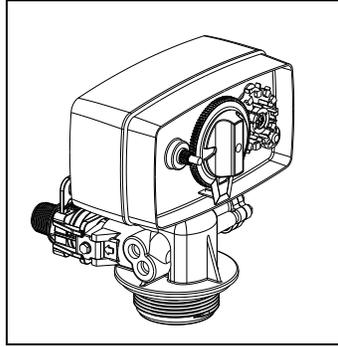


Figure 1. Valve Display

**Setting the Time of Day:** To set the time of day, push the red button and spin the 24-hour gear until the present time of day is visible above the time of day arrow.

**Forcing a Manual Regeneration:** To manually regenerate the system, turn the manual regeneration knob clockwise until it reads “BACKWASH”.

## General Valve Installation

Water Pressure	Minimum 25 PSI
Electrical Supply	Uninterrupted 115V AC
Existing Plumbing	Free of any deposits or build-ups inside pipes.
Softener Location	Locate close to drain and connect according to plumbing codes
Bypass Valves	Always provide for bypass valve if unit is not equipped with one.
Plumbing	Softener and or other water treatment equipment should be installed to local plumbing codes

	<b>CAUTION</b> <ul style="list-style-type: none"><li>Do not exceed 120 psi water pressure.</li><li>Do not exceed 110°F water temperature.</li><li>Do not subject unit to freezing conditions.</li></ul>
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## Installing the Bypass valve

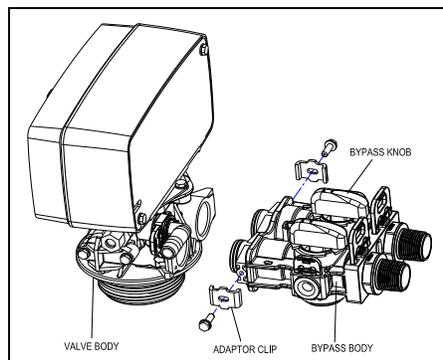


Figure 4. Bypass Assembly View

1. Locate the softener tank and brine tank close to a drain where the system will be installed. The surface should be clean and level.
2. Perform all plumbing according to local plumbing codes.
  - Use a 1/2" minimum pipe or tubing size for the drain line
  - Use a 3/4" pipe or tubing for backwash flow rates that exceed 7 gpm or length that exceeds 20ft (6 m)
3. Only use Teflon tape on the drain fitting. 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.
4. Cut the 1" central pipe flush with top of each tank.
5. Lubricate the large o-ring on the valve that seals against the tank. Screw the valve on to the tank. Be careful to not cross thread the valve into the tank. Only use silicone lubricant.
6. Add water until there is approximately 1" (25 mm) of water above the grid plate. If the tank does not have a grid, add water until it is above the air check in the brine tank. Do not add salt to the brine tank at this time.
7. Place the unit in the bypass position.
8. At a softened faucet near the unit remove the aerator screen, turn the water back on slowly and allow the air and any turbidity as a result of installation to flush from the line.

## Start-up Instructions

1. Turn the knob and index the control into the BACKWASH position. Place the bypass in the Service position and let water flow into the mineral tank. Allow water to run to drain for 3-4 minutes or until all media fines are washed out of the softener or filter.
2. **NOTE:** Manually dial the various regeneration positions by turning the knob on the front of the control until the indicator shows that the softener is in the desired position. *For back wash filters ignore steps 3 to 5 and 7 to 9.*
3. Manually index the control back to the SERVICE position and open a softened water tap until all air is released from the lines. Then close the tap.
4. Remove back cover plate.
5. Make sure that the salt dosage is set as recommended by the manufacturer. If necessary, set salt according to the setting instruction sheet. Manually index the control to the BRINE FILL position and allow the brine tank to fill to the top of the air check.
6. Manually index the control to the BRINE / RINSE position and allow the control to draw water from the brine tank until it stops.
7. Plug in the electrical cord and look in the sight hole in the back of the motor to see that it is running.
8. To set time of day press red time set button and turn 24-hour gear until present time of day is at "time of day."
9. Timer Settings (Filter or Softener)

Set the days that regeneration is to occur by sliding tabs on skipper wheel outward to expose trip fingers. Each tab is one day. Finger at red pointer is tonight. Moving clockwise from red pointer, extend or retract fingers to obtain the desired regeneration schedule.

The adjacent table can be used to determine the regeneration frequency.

Sand Filters	Sediment Turbidity	Mild			Average					Extreme							
Activated Carbon Filters	Taste Odor	Mild			Average					Extreme							
Iron Filters	PPM Iron X1 PPM Manganese X2 PPM Sulphur X3	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8
Softeners	Grains of Hardness	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80
No. Of Persons		Calendar Clock Regenerations Frequency - No. Of Tabs Pushed Outwards															
2	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3
3	1	1	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4
4	1	2	2	2	3	3	3	4	4	4	4	6	6	6	6	6	6
5	2	2	3	3	4	4	4	4	6	6	6	6	6	12	12	12	12
6	2	2	3	3	4	4	4	6	6	6	6	6	6	12	12	12	12
7	2	3	3	4	4	6	6	6	6	12	12	12	12	12	12	12	12
8	2	3	3	4	6	6	6	6	6	12	12	12	12	12	12	12	12
9	3	3	4	4	6	6	12	12	12	12	12	12	12	12	12	12	12
10	3	4	4	6	6	12	12	12	12	12	12	12	12	12	12	12	12

Figure 5. Valve Cycle Settings

## Injector and Drain Line Flow Control

Suggested Softener Valve Configuration				Suggested Filter Valve Configuration	
Tank Size (Diameter)	Injector Set	Brine Line Flow Control (BLFC)	Drain Line Flow Control (DLFC)	Tank Size (Diameter)	Drain Line Flow Control (DLFC)
6"	#000 Brown	#1 (0.30 GPM)	#1 (1.5 GPM)	8"	#4 (3.5 GPM)
7"			#2 (2.0 GPM)	9"	#6 (4.0 GPM)
8"	#1 White		#3 (2.4 GPM)	10"	#7 (5.0 GPM)
9"			#4 (3.5 GPM)	12"	none
10"			#2 Blue	#6 (4.0 GPM)	
12"	#7 (5.0 GPM)				
13"	#3 Yellow			none	
14"					
16"					

Suggested Iron Filter Valve Configuration			
Tank Size (Diameter)	Injector	Brine Line Flow Control (BLFC)	Drain Line Flow Control (DLFC)
8"	#2 Blue (PVC)	(0.30 GPM)	#4 (3.5 GPM)
9"			#6 (4.0 GPM)
10"			#7 (5.0 GPM)
12"			none

Figure 6. Valve Configurations

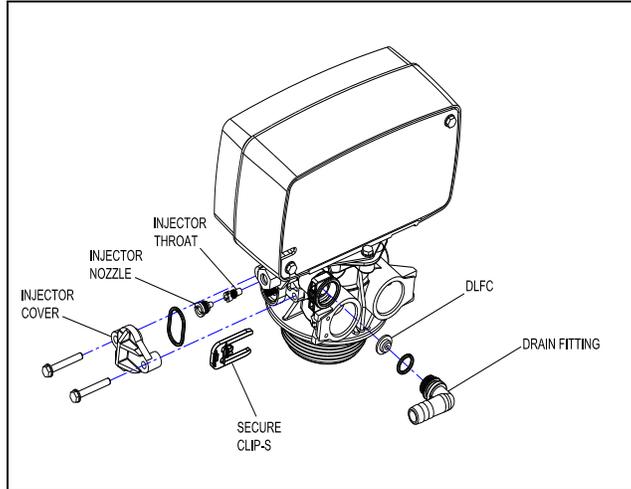
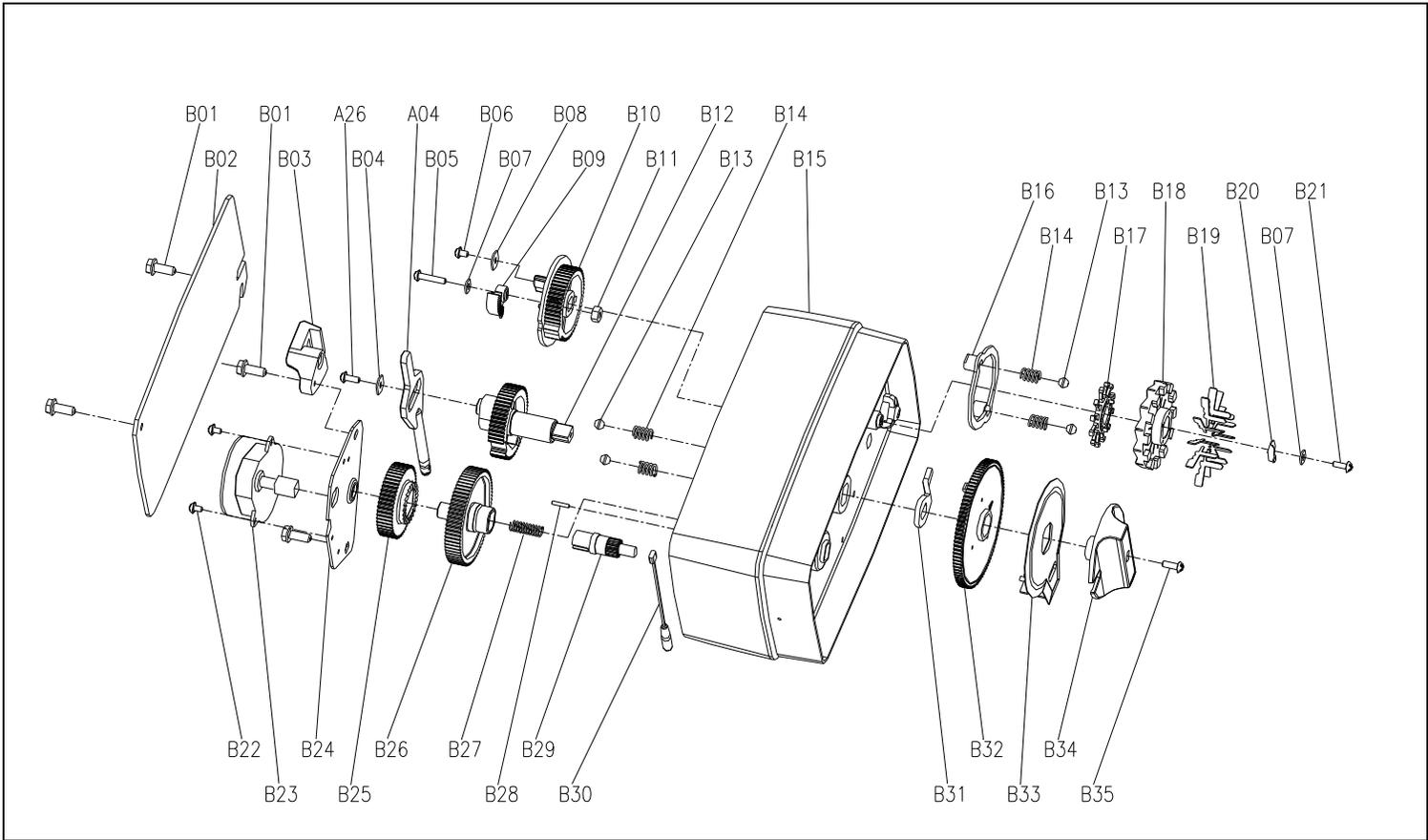


Figure 7. Injector Assembly

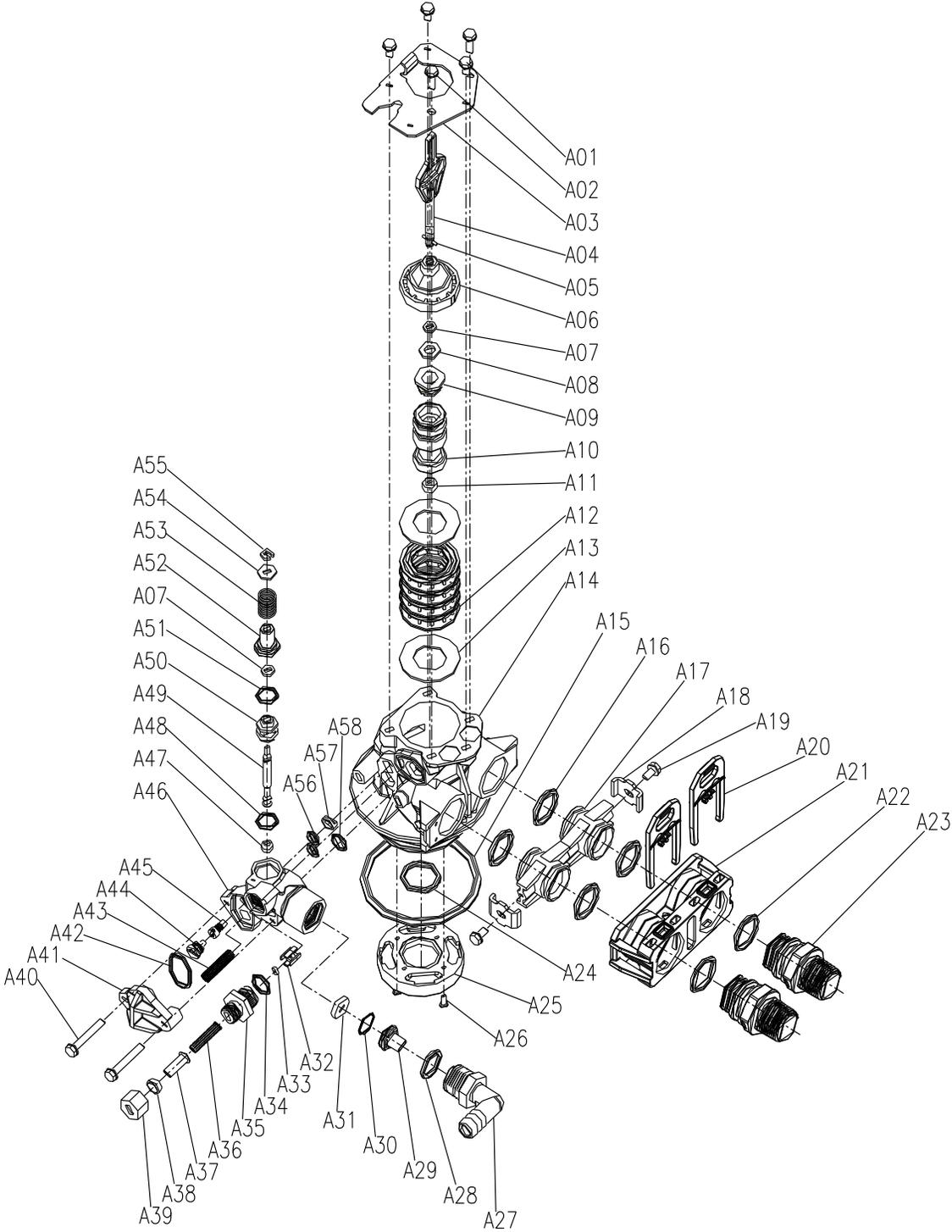
# Power Head Exploded View



## Power Head Parts List

Item No.	Part No.	Part Description	Quantity
B01	5056136	Screw-ST3.5x13(Hexagon with Washer)	4
B02	5056014	Bnt65 Back Cover	1
B03	5010045	Piston Stem Holder	1
A26	13000426	Screw-ST2.9x13(Large Wafer)	1
B04	5056139	Washer-3x13	1
A04	5010081	Bnt65 Piston Rod	1
B06	5056083	Screw-M4x14	1
B05	5056166	Screw-ST4.2x12(Large Wafer)	1
B07	13111004	Washer-4x9	2
B08	5056141	Washer-4x12	1
B09	5056016	Refill Regulator	1
B10	5056015	Brine Gear	1
	5056061	Meter Label	1
B11	5056089	Nut-M4	1
B12	5056005	Main Gear	1
B13	5056092	Ball-1/4inch	4
B14	5056095	Spring Detent	4
B15	5056001	Bnt65 Housing	1
	5056057	Ring Label	1
	5056056	Bnt65 Label	1
B16	5056011	Skipper Wheel Ring	1
B17	5056010	Skipper Retainer	1
B18	5056009	Skipper Wheel	1
B19	5056048	Skipper	12
B20	5056012	Reneneration Pointer	1
B21	5010037	Screw-ST2.9x10	1
B22	5056082	Screw-M3x5	2
B23	5056049	Motor(12V3W)	1
	11700005	Wire Connector	2
B24	5056045	Motor Mounting Plate	1
B25	5056004	Driven Gear	1
B26	5056002	Idler Gear	1
B27	5056094	Spring Idler	1
B28	5056098	Motor Pin	1
B29	5056003	Idler Pinion	1
B30	5010029	Power Cable	1
	5056013	Bnt65 Power Strain Relief	1
B31	5056007	Cycle Actuator Gear	1
B32	5056006	Timer Gear	1
	5056059	Timer Gear Label	1
B33	5056017	Reneneration Pointer Plate	1
B34	5056008	Bnt65 Knob	1
	5056111	Bnt65 Knob Label	1
B35	5056084	Screw-ST3.5x13	5

# Control Valve Exploded View



See parts listing on next page (12)

## Control Valve Parts List

Item No.	Part No.	Part Discription	Quantity
A01	05056087	Screw-M5×12(Hexagon)	3
A02	05056088	Screw-M5×16(Hexagon with Washer)	2
A03	05056047	End Plug Retainer	1
A04	05010081	Bnt65 Piston Rod	1
A05	05056097	Piston Pin	1
A06	05056023	End Plug	1
A07	05056070	Quad Ring	2
A08	05056024	End Plug Washer	1
A09	05056022	Piston Retainer	1
A10	05056181	Piston (Electrical)	1
A11	05056104	Muffler	1
A12	05056021	Spacer	4
A13	05056073	Seal	5
A14	05056019	Bnt65 Valve Body	1
A15	05056063	O-ring-φ78.74×5.33	1
A16	05056129	O-ring-φ23×3	4
A17	05056025	Adaptor Coupling	2
A18	05056044	Adaptor Clip	2
A19	05056090	Screw-ST4.2×13(Hexagon with Washer)	2
A20	21709003	Secure Clip	2
A21	05056140	Valve Connector	1
A22	05056065	O-ring-φ23.6×2.65	2
A23	21319006	Screw Adaptor	2
A24	26010103	O-ring-φ25×3.55	1
A25	07060007	Valve Bottom Connector	1
A26	13000426	Screw-ST2.9×13(Large Wafer)	2
A27	05056038	Drain Fitting	1
A28	26010003	O-Ring-φ18×2.65	1
A29	05056036	DLFC Button Retainer	1
A30	05056079	O-Ring-φ15×0.8	1
A31	05056143	DLFC-2#	1
A32	05056035	BLFC Button Retainer	1
A33	05056191	BLFC-2#	1
A34	05056138	O-Ring-φ14×1.8	1
A35	05056100B	BLFC Fitting	1
A36	05056106	Brine Line Screen	1
A37	05056107	BLFC Tube Insert	1
A38	05056033	BLFC Ferrule	1
A39	05056108	BLFC Fitting Nut	1
A40	05056086	Screw-M5×30(Hexagon with Washer)	2
A41	05056029	Injector Cover	1
A42	05056072	O-Ring-φ24×2	1
A43	05056103	Injector Screen	1
A44	05056027	Injector Nozzle	1
A45	05056028	Injctor Throat	1
A46	05056177	Injector Body	1
A47	05056075	Injector Seat	1
A48	05056134	O-Ring-φ12×2	1
A49	05056054	Injector Stem	1
A50	05056031	Injector Spacer	1
A51	05056081	O-Ring-φ12.5×1.8	1
A52	05056030	Injector Cap	1
A53	05056093	Injector Screen	1
A54	05010049	Special Washer	1
A55	05056105	Retaining Ring	1
A56	05056067	O-Ring-φ7.8×1.9)	2
A57	05056037	Air Disperser	1
A58	05056066	O-Ring-φ11×2	1

## Trouble Shooting

Issue	Possible Cause	Possible Solution
A. 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.
B. Water is hard.	1. By-pass valve open.	Close by-pass valve.
	2. Out of salt.	Add salt to tank.
	3. Plugged injector / screen.	Clean parts.
	4. Flow of water blocked to brine tank.	Check brine tank refill rate.
	5. Hard water in hot water tank.	Repeat flushing of hot water tank required.
	6. Leak between valve and central tube.	Check if central tube is cracked or o-ring is damaged. Replace faulty parts.
	7. Internal valve leak.	Replace valve seals, spacer, and piston assembly.
C. Salt use is high.	1. Refill time is too high.	Check refill time setting.
D. 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.
E. Resin 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.
F. Too much water in brine tank.	1. Plugged injector or screen.	Clean parts.
	2. Valve not regenerating.	Replace circuit board, motor, or control.
	3. Foreign material in brine valve.	Clean parts.
G. Unit fails to draw brine.	1. Drain line flow control is plugged.	Clean parts.
	2. Injector or screen is plugged.	Clean parts.
	3. Inlet pressure too low.	Increase pressure to 25 PSI.
	4. Internal valve leak.	Replace seals, spacers, and piston assembly.
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.

# CANATURE LIMITED WARRANTY

**CANATURE** guarantees that your new water conditioner is built of quality material and workmanship. When properly installed and maintained, it will give years of trouble free service.

## **Five Year Complete Parts Guarantee:**

**CANATURE** will replace any part which fails within 60 months from date of manufacture, as indicated by the serial number, provided the failure is due to a defect in material or workmanship. The only exception shall be when proof of purchase or installation is provided and then the warranty period shall be from the date thereof.

## **Ten Year Guarantee on Mineral Tanks and Brine Tanks:**

**CANATURE** will provide a replacement mineral tank or brine tank to any original equipment purchaser in possession of a tank that fails within 120 months, provided that the water conditioner is at all times operated in accordance with specifications and not subject to freezing.

## **General Provisions:**

**CANATURE** assumes no responsibility for consequential damage, labour or expense incurred as a result of a defect or for failure to meet the terms of these guarantees because of circumstances beyond its control.

The logo for Canature features the word "Canature" in a bold, sans-serif font. The letters "C", "a", "n", "a", "t", "u", "r", and "e" are dark blue. The letters "n", "a", and "t" are highlighted with a red-to-white gradient, giving them a three-dimensional appearance. A small white starburst is positioned above the letter "a".