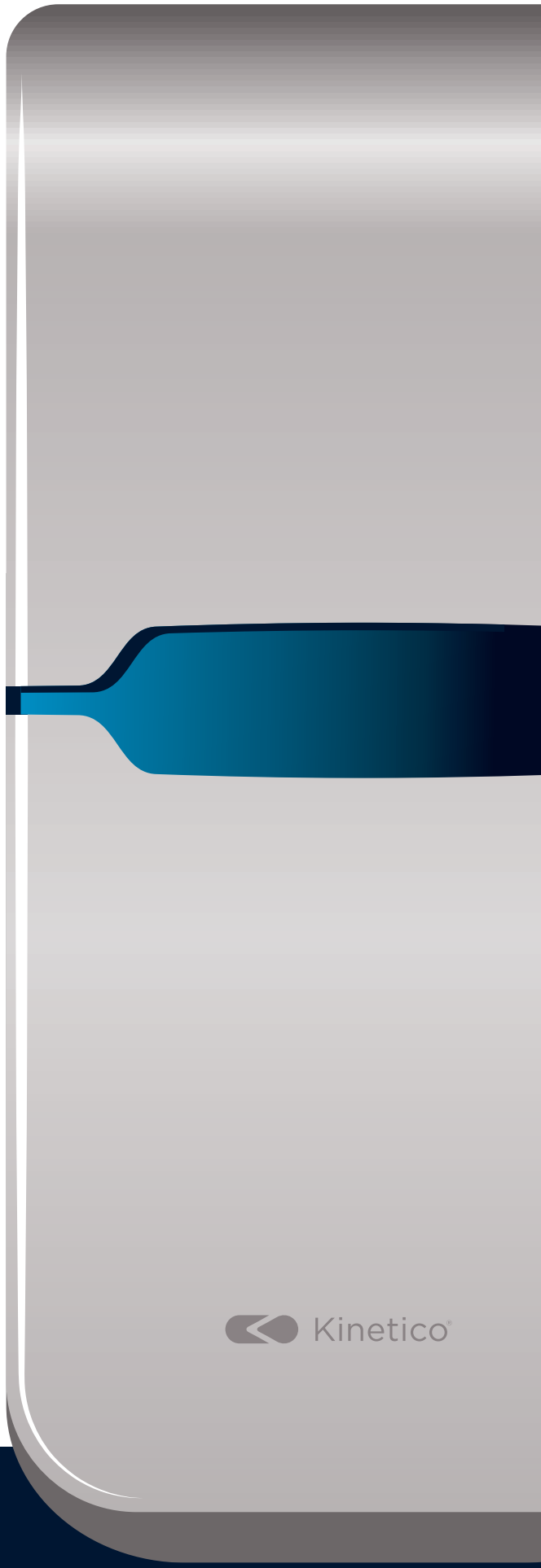
Kinetico®
water systems

premier
COMPACT



Water Softener
Technical Manual

PREMIER COMPACT HE INT

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About this Manual

This manual provides additional technical information regarding Kinetico Premier Compact softeners. This additional technical information gives guidance for the advanced service and set-up of these products.

Series Overview

Kinetico Premier Compact water softeners are the ultimate water conditioning solution. Knowing that water and electricity don't mix, it just makes sense (and is brilliant) that these systems operate without the use of electricity. Engineered to tackle your tough water challenges, Premier Compact water softeners work more efficiently and reliably without electrical components or computers that need to be set, adjusted, repaired or replaced.

Automatic, Metered Regenerations

Designed with today's demanding households and larger plumbing in mind, Premier Compact softeners deliver generous flow rates without forfeiting water softness. And the multiple tank system design assures you have around-the-clock soft water, even during the regeneration (cleaning) process. One tank is always in service while the other tank is either on standby or regenerating. Premier Compact systems regenerate at any time of the day or night to ensure you will always have a supply of soft water. Single-tank systems simply can't offer this. So if you have a house full of guests or are running multiple loads of laundry, you'll never run out of soft water. And if you're away from home, the system stays ready without wasting water or salt.

Series Range

Three models of the Premier Compact are available:

	Premier Compact HE UK	**Premier Compact HF UK**	**Premier Compact HE INT**
Tank Size	152 x 330 mm (6.0 x 13.0 inch)	152 x 330mm (6.0 x 13.0 inch)	152 x 330 mm (6.0 x 13.0 inch)
Flow Rate @ 1 Δ bar	16.6 lpm (4.4 gpm)	33.3 lpm (8.8 gpm)	22.7 lpm (6.0 gpm)
Resin Type	Non-Solvent Fine Mesh Cation Resin	Non-Solvent Standard Mesh Cation Resin	Non-Solvent Fine Mesh Cation Resin
Maximum Hardness as $CaCO_3$	507 ppm	474 ppm	507ppm

System Data Sheets

Premier Compact HE UK:

Design Specifications		
Part Number		16143
Model Name		Premier Compact HE UK
Flow Configuration		Alternating
Flow Rate @ 1 Δ bar		16.6 lpm (4.4 gpm)
Pressure Range		1.8 - 6 bar (26 - 87 psi) Dynamic Pressure
Temperature Range		2 - 23˚C (36 - 73˚F)
Free ChlorineCl_2 (Max.)		0.0 ppm
Hardness as $CaCO_3$ (Max. in ppm)		507 ppm
pH Range		5 - 10 SU
Iron (ferrous)		0 for packed bed
Iron (ferric)		0 for packed bed
System Components		
Media Vessel (Qty.) Size	Qty. 2	152 x 330 mm (6.0 x 13.0 inch)
Media Vessel Construction		Engineered Plastic
Empty Bed Volume		None
Media Type		Non-Solvent Fine Mesh Cation resin
Media Volume (per tank)		4.5 liters (0.16 cubic foot)
Total Bed Depth		Packed
Free Board		None
Riser Tube	Qty. 2	1.0" Diameter ABS
Distributor Upper	Qty. 2	0.23 mm (0.009 inch) Slots, Engineered Plastic Basket
Distributor Lower	Qty. 2	0.19 mm (0.007 inch) Slots, Stainless Steel Flat Plate
Regeneration Control		Non-electric Use Meter
Connections		
Port Sizes on Level One	Qty. 2	33.6 mm (1.32 inch) I.D.
Inlet / Outlet Connections	Qty. 2	Part Number 10081B - Adapter, ¾ IN-OUT ¾ - 14 BSP thread and bracket
Drain Connection		0.62" O.D. Tube
Brine Line Connection		0.25" O.D. Tube
Brine Tank Overflow		0.62" O.D. Tube
Power		None
Dimensions and Weight		
Dimensions (width x depth x height)		498 x 219 x 468 mm (19.6 x 8.6 x 18.4 inch)
Shipping Weight		17.0 kg (37.5 lb)
Operating Weight		21.7 kg (47.8 lb)
Key Valve Components & Characteristics		
Meter Nozzle		Part Number 15158 - NOZZLE, METER 2020C-ACS
Meter Gearing		7-P23-P23-6
Meter Turbine		PP9-9258
Regeneration Gearing		2-2-2-2
Backwash Flow Control		Part Number 5157 - FLOW CONTROL, VENT W/SCREEN 0.70 GPM
Regeneration Turbine		Part Number 8781F - TURBINE REGEN 10 JET
Brine Refill Flow Control		Part Number 10546 - FLOW CONTROL, VENT W/SCRN 0.30 GPM SIL
Regeneration Specifications at 3.8 bar (55 psi)		
Total Regeneration Cycle Time		11 minutes
Salt Used per Regeneration		0.34 kg (0.75 lb)
Backwash Flow Rate		2.7 lpm (0.70 gpm)
Regeneration Flow		Countercurrent
Salt Capacity (Pellet)		3.9 kg (8.5 lb)
Salt Capacity (Block)	Qty. 2	2 x 4.0 kg = 8.0 kg (17.6 lb) total weight
Water used for regeneration		20.5 liters (5.4 gal)
Salt Settings		
0.34 kg (0.75 lb) **Capacity @ 55 psi**		145967 ppm (2255 grains)
Disc Selection		**PPM/Liter**	**Liters between regeneration**
1		57 (3 gpg)	2150 (568 gal)
2		120 (7 gpg)	1075 (284 gal)
3		173 (10 gpg)	717 (189 gal)
4		241 (14 gpg)	537 (142 gal)
5		309 (18 gpg)	430 (114 gal)
6		379 (22 gpg)	358 (95 gal)
7		448 (26 gpg)	307 (81 gal)
8		507 (30 gpg)	269 (71 gal)

Premier Compact HF UK:

Design Specifications			
Part Number		16144	
Model Name		Premier Compact HF UK	
Flow Configuration		Alternating	
Flow Rate @ 1 Δ bar		33.3 lpm (8.8 gpm)	
Pressure Range		1.8 - 6 bar (26 - 87 psi) Dynamic Pressure	
Temperature Range		2 - 23˚C (36 - 73˚F)	
Free ChlorineCl_2 (Max.)		0.0 ppm	
Hardness as $CaCO_3$ (Max. in ppm)		474 ppm	
pH Range		5 - 10 SU	
Iron (ferrous)		0 for packed bed	
Iron (ferric)		0 for packed bed	
System Components			
Media Vessel (Qty.) Size	Qty. 2	152 x 330 mm (6.0 x 13.0 inch)	
Media Vessel Construction		Engineered Plastic	
Empty Bed Volume		None	
Media Type		Non-Solvent Standard Mesh Cation resin	
Media Volume (per tank)		4.5 liters (0.16 cubic foot)	
Total Bed Depth		Packed	
Free Board		None	
Riser Tube	Qty. 2	1.0" Diameter ABS	
Distributor Upper	Qty. 2	0.23 mm (0.009 inch) Slots, Engineered Plastic Basket	
Distributor Lower	Qty. 2	0.19 mm (0.007 inch) Slots, Stainless Steel Flat Plate	
Regeneration Control		Non-electric Use Meter	
Connections			
Port Sizes on Level One	Qty. 2	33.6 mm (1.32 inch) I.D.	
Inlet / Outlet Connections	Qty. 2	Part Number 10081B - Adapter, ¾ IN-OUT ¾ - 14 BSP thread and bracket	
Drain Connection		0.62" O.D. Tube	
Brine Line Connection		0.25" O.D. Tube	
Brine Tank Overflow		0.62" O.D. Tube	
Power		None	
Dimensions and Weight			
Dimensions (width x depth x height)		498 x 219 x 468 mm (19.6 x 8.6 x 18.4 inch)	
Shipping Weight		17.0 kg (37.5 lb)	
Operating Weight		21.7 kg (47.8 lb)	
Key Valve Components & Characteristics			
Meter Nozzle		Part Number 13689 - NOZZLE, METER - HALF LOUVER - ACS	
Meter Gearing		2-2-7-6	
Meter Turbine		PP9-9258	
Regeneration Gearing		2-2-2-2	
Backwash Flow Control		Part Number 5157 - FLOW CONTROL, VENT W/SCREEN 0.70 GPM	
Regeneration Turbine		Part Number 8781F - TURBINE REGEN 10 JET	
Brine Refill Flow Control		Part Number 10546 - FLOW CONTROL, VENT W/SCRN 0.30 GPM SIL	
Regeneration Specifications at 3.8 bar (55 psi)			
Total Regeneration Cycle Time		11 minutes	
Salt Used per Regeneration		0.34 kg (0.75 lb)	
Backwash Flow Rate		2.7 lpm (0.70 gpm)	
Regeneration Flow		Countercurrent	
Salt Capacity (Pellet)		3.9 kg (8.5 lb)	
Salt Capacity (Block)	Qty. 2	2 x 4.0 kg = 8.0 kg (17.6 lb) total weight	
Water used for regeneration		20.5 liters (5.4 gal)	
Salt Settings			
0.34 kg (0.75 lb) **Capacity @ 55 psi**		147585 ppm (2280 grains)	
Disc Selection		**PPM/Liter**	**Liters between regeneration**
1		63 (3 gpg)	1961 (518 gal)
2		125 (7 gpg)	980 (259 gal)
3		186 (10 gpg)	654 (173 gal)
4		246 (14 gpg)	490 (130 gal)
5		305 (17 gpg)	392 (104 gal)
6		362 (21 gpg)	327 (86 gal)
7		419 (24 gpg)	280 (74 gal)
8		474 (27 gpg)	245 (65 gal)

Premier Compact HE INT:

Design Specifications			
Part Number		16145	
Model Name		Premier Compact HE INT	
Flow Configuration		Alternating	
Flow Rate @ 1 Δ bar		22.7 lpm (6.0 gpm)	
Pressure Range		1.8 - 6 bar (26 - 87 psi) Dynamic Pressure	
Temperature Range		2 - 23˚C (36 - 73˚F)	
Free ChlorineCl_2 (Max.)		0.0 ppm	
Hardness as $CaCO_3$ (Max. in ppm)		507 ppm	
pH Range		5 - 10 SU	
Iron (ferrous)		0 for packed bed	
Iron (ferric)		0 for packed bed	
System Components			
Media Vessel (Qty.) Size	Qty. 2	152 x 330 mm (6.0 x 13.0 inch)	
Media Vessel Construction		Engineered Plastic	
Empty Bed Volume		None	
Media Type		Non-Solvent Fine Mesh Cation Resin	
Media Volume (per tank)		4.5 liters (0.16 cubic foot)	
Total Bed Depth		Packed	
Free Board		None	
Riser Tube	Qty. 2	1.0" Diameter ABS	
Distributor Upper	Qty. 2	0.23 mm (0.009 inch) Slots, Engineered Plastic Basket	
Distributor Lower	Qty. 2	0.19 mm (0.007 inch) Slots, Stainless Steel Flat Plate	
Regeneration Control		Non-electric Use Meter	
Connections			
Port Sizes on Level One	Qty. 2	33.6 mm (1.32 inch) I.D.	
Inlet / Outlet Connections		N/A	
Drain Connection		0.62" O.D. Tube	
Brine Line Connection		0.25" O.D. Tube	
Brine Tank Overflow		0.62" O.D. Tube	
Power		None	
Dimensions and Weight			
Dimensions (width x depth x height)		498 x 219 x 468 mm (19.6 x 8.6 x 18.4 inch)	
Shipping Weight		17.0 kg (37.5 lb)	
Operating Weight		21.7 kg (47.8 lb)	
Key Valve Components & Characteristics			
Meter Nozzle		Part Number 13689 - NOZZLE, METER - HALF LOUVER - ACS	
Meter Gearing		2-2-7-6	
Meter Turbine		PP9-9258	
Regeneration Gearing		2-2-2-2	
Backwash Flow Control		Part Number 5157 - FLOW CONTROL, VENT W/SCREEN 0.70 GPM	
Regeneration Turbine		Part Number 8781F - TURBINE REGEN 10 JET	
Brine Refill Flow Control		Part Number 10546 - FLOW CONTROL, VENT W/SCRN 0.30 GPM SIL	
Regeneration Specifications at 3.8 bar (55 psi)			
Total Regeneration Cycle Time		11 minutes	
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Regeneration Flow		Countercurrent	
Salt Capacity (Pellet)		3.9 kg (8.5 lb)	
Salt Capacity (Block)	Qty. 2	2 x 4.0 kg = 8.0 kg (17.6 lb) total weight	
Water used for regeneration		20.5 liters (5.4 gal)	
Salt Settings			
0.34 kg (0.75 lb) **Capacity @ 55 psi**		147967 ppm (2255 grains)	
Disc Selection		**PPM/Liter**	**Liters between regeneration**
1		62 (3 gpg)	1961 (518 gal)
2		124 (7 gpg)	980 (259 gal)
3		184 (10 gpg)	654 (173 gal)
4		244 (14 gpg)	490 (130 gal)
5		309 (18 gpg)	392 (104 gal)
6		380 (22 gpg)	327 (86 gal)
7		448 (26 gpg)	280 (74 gal)
8		513 (30 gpg)	245 (65 gal)

Setting Your System

Select Your Model

Based on your hardness, the amount of water needed per day or the overall desired flow rate, select the appropriate Premier Compact system.

Premier Compact HE UK

Salt Settings		
0.34 kg (0.75 lb) **Capacity @ 55 psi**	145967 ppm (2255 grains)	
Disc Selection	**PPM/Liter**	**Liters between regeneration**
1	57 (3 gpg)	2150 (568 gal)
2	120 (7 gpg)	1075 (284 gal)
3	173 (10 gpg)	717 (189 gal)
4	241 (14 gpg)	537 (142 gal)
5	309 (18 gpg)	430 (114 gal)
6	379 (22 gpg)	358 (95 gal)
7	448 (26 gpg)	307 (81 gal)
8	507 (30 gpg)	269 (71 gal)

Premier Compact HE UK

Salt Settings		
0.34 kg (0.75 lb) **Capacity @ 55 psi**	147585 ppm (2280 grains)	
Disc Selection	**PPM/Liter**	**Liters between regeneration**
1	63 (3 gpg)	1961 (518 gal)
2	125 (7 gpg)	980 (259 gal)
3	186 (10 gpg)	654 (173 gal)
4	246 (14 gpg)	490 (130 gal)
5	305 (17 gpg)	392 (104 gal)
6	362 (21 gpg)	327 (86 gal)
7	419 (24 gpg)	280 (74 gal)
8	474 (27 gpg)	245 (65 gal)

Premier Compact HE INT

Salt Settings		
0.34 kg (0.75 lb) **Capacity @ 55 psi**	145967 ppm (2255 grains)	
Disc Selection	**PPM/Liter**	**Liters between regeneration**
1	62 (3 gpg)	1961 (518 gal)
2	124 (7 gpg)	980 (259 gal)
3	184 (10 gpg)	654 (173 gal)
4	244 (14 gpg)	490 (130 gal)
5	309 (18 gpg)	392 (104 gal)
6	380 (22 gpg)	327 (86 gal)
7	448 (26 gpg)	280 (74 gal)
8	513 (30 gpg)	245 (65 gal)

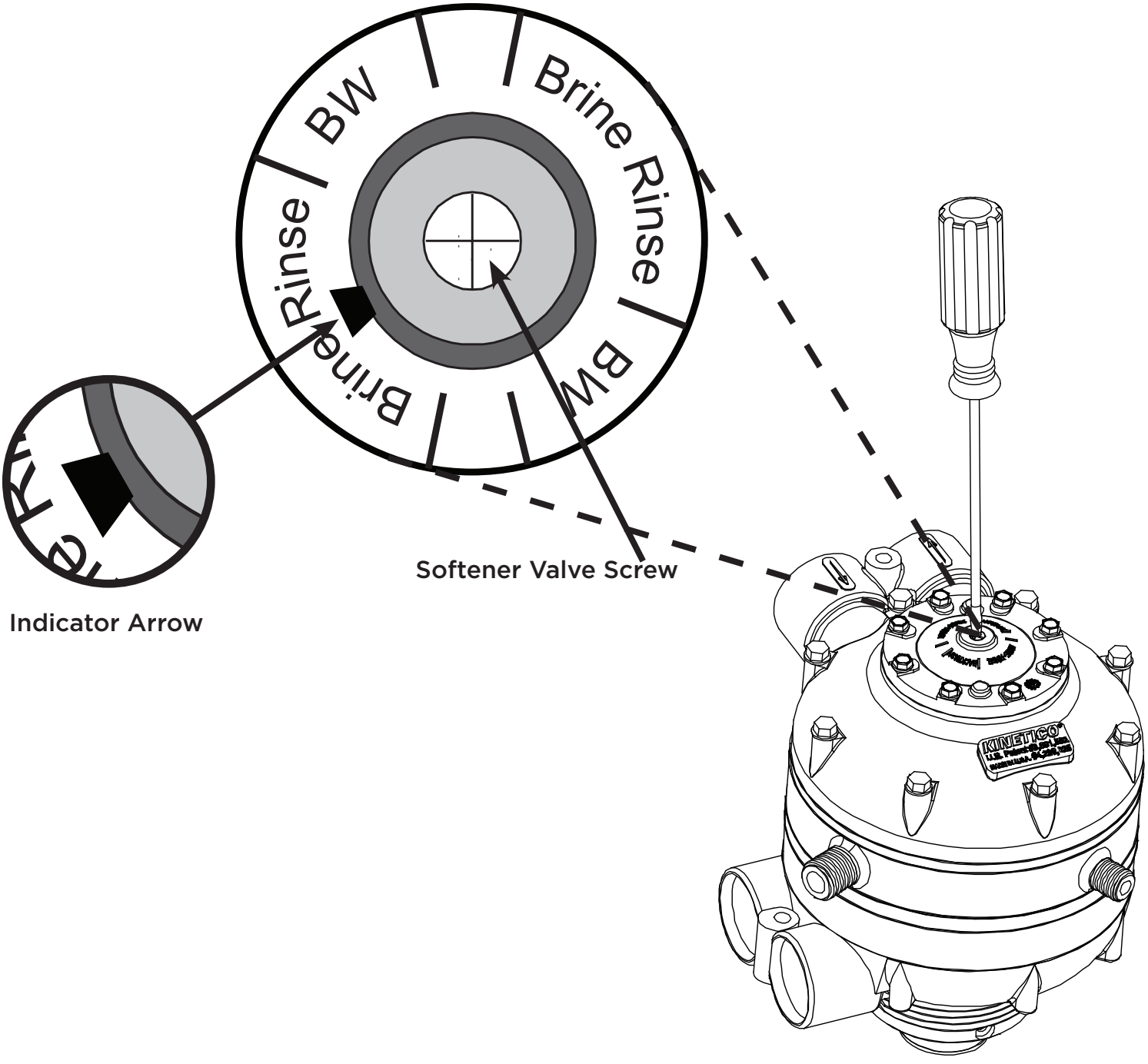
Brine Valve is preset to 0.34 kg (0.75 lb), no adjustment is necessary.

Manual Regeneration

If your salt storage tank does run out of salt, you can manually regenerate the unit after adding salt, or you can wait for it to go through regeneration automatically.

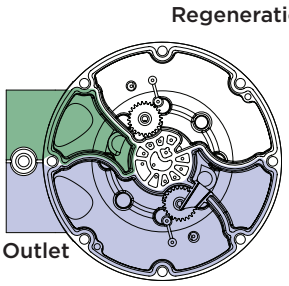
Using a #2 Phillips screwdriver, push down firmly on the softener valve screw and slowly turn clockwise until the actuator has advanced the indicator arrow to the “Brine Rinse” position. You should hear at least five “clicks” while turning the screw before the indicator arrow reaches the “Brine Rinse” position. At this point you should hear water begin to run through the system. If you do not hear water running through the system, the indicator arrow has not been advanced far enough. Repeat the procedure for manual regeneration after the water flow stops to be sure both resin tanks are regenerated.

Note: If your hot water tank has refilled with hard water, it may take several days for it to empty and for your water to feel soft again.



Detailed Operation / Function

Premier Compact water softeners use a twin tank design to assure that treated water is always available. When one tank regenerates, the other supplies treated water. The valve module uses hydraulic pressure to control all valve functions automatically.

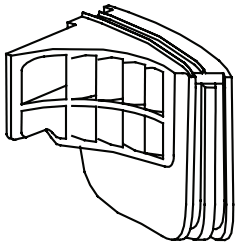
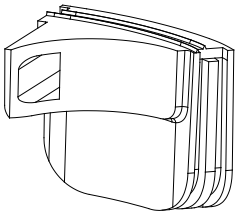


Level One Operation

Level One assembly consists of three chambers: inlet, outlet and regeneration chambers. Hard water enters the inlet chamber and travels to the media tank where it is treated. Treated water moves from the media tank to the outlet chamber. Contained in the outlet chamber is a water meter turbine, which turns only when water is used. Gears connect the water meter turbine to the water meter disc.

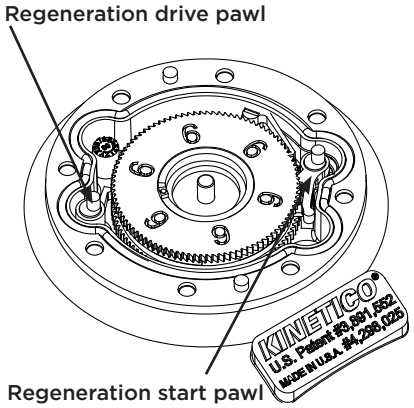
Flow Nozzle

Accuracy and range of the flow meter will depend on the nozzle used with the system. Most units incorporate the half-louver nozzle. This nozzle gives a highly accurate and wide range of flow metering capability.

	HE INT, HF UK	HE UK
		
	Half-Louver	**Quarter-Louver**
Part Number	13689	15158
Minimum Flow Range	1.14 lpm (0.30 gpm)	0.60 lpm (0.16 gpm)

Meter Gearing

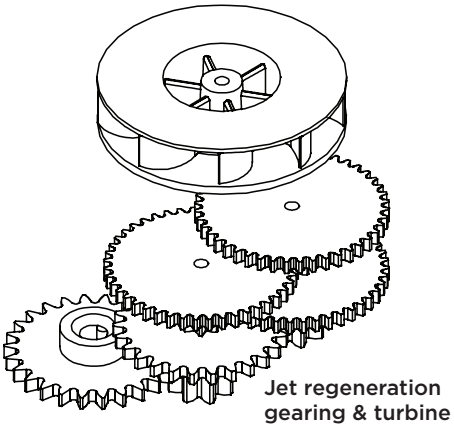
Premier Compact models HF UK and INT use the 2-2-7-6 gear stack with a half-louver nozzle and the HE UK uses the 7-P23-P23-6 gear stack with a quarter-louver nozzle.



Regeneration Pawls

It is important to realize that there are two regeneration pawls: the regeneration start pawl and the regeneration drive pawl. The regeneration start pawl advances the control disc enough to open the regeneration control valve. The water meter and control disc advance together until the control disc uncovers one of the holes in the ceramic disc located directly beneath the control disc. This hole directs pressurized water through a chamber that opens the regeneration control valve, which starts regeneration. Once the valve has opened, the regeneration drive pawl continues to advance the control disc through the regeneration cycle.

When open, the regeneration control valve allows water to pass through a nozzle where it is directed to the regeneration turbine in the regeneration chamber. As the regeneration turbine spins, it drives the regeneration drive pawl, which advances the control disc.

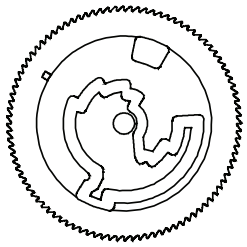


Jet Regeneration

During regeneration, water is used by the valve to control the operation sequence. All Premier Compact valves are equipped with jet regeneration, in which a 0.2 gpm (0.76 lpm) regeneration flow control is employed to restrict the amount of water used. In addition to this smaller flow control, the regeneration turbine in Level 1 and the regeneration nozzle in Level 2 are also modified to work with the lower flow rates.

Control Disc

All internal valve positions are controlled by the control disc. As the control disc turns, it covers and uncovers holes in the ceramic disc (located directly below the control disc), sending and relieving pressure signals to open and close all internal valves. The sequence of regeneration and service configuration is based on the type of control disc installed.



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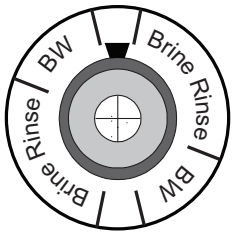
Part Number	4689
System	Premier Compact HE UK Premier Compact HF UK Premier Compact HE INT
Service Flow	Alternating
Regeneration Sequence:	
Brine • Slow Rinse	75%
Backwash	25%

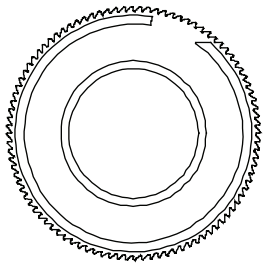


Actuator Indicator

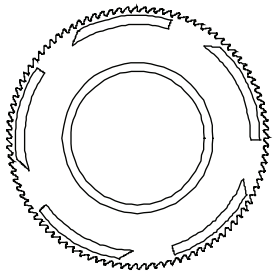
A visual indicator on top of the actuator (black arrow) shows the state of the system at any time. The control disc rotates clockwise. When the indicator arrow is at the 12 o'clock position, the right-hand tank (main tank on upflow units) is in service. When it is between the 12 o'clock and 6 o'clock positions, the right-hand tank is in regeneration. When the indicator arrow is at the 6 o'clock position, the left-hand tank is in service. When it is between the 6 o'clock and 12 o'clock positions, the left-hand tank is in regeneration.

Water Meter Disc

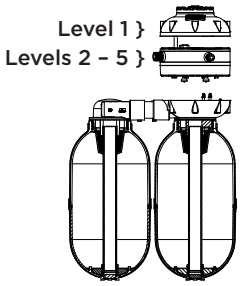
The frequency of regeneration can be adjusted without re-gearing the system. The use of the water meter disc provides for multiple regenerations per 360º cycle on the water meter. Each regeneration notch on a water meter disc will initiate a regeneration when the regeneration start pawl drops into one of these segments and engages with the teeth of the control disc. The number of regenerations within the 360º cycle is indicated by the number of the water meter disc.



Meter Disc 1

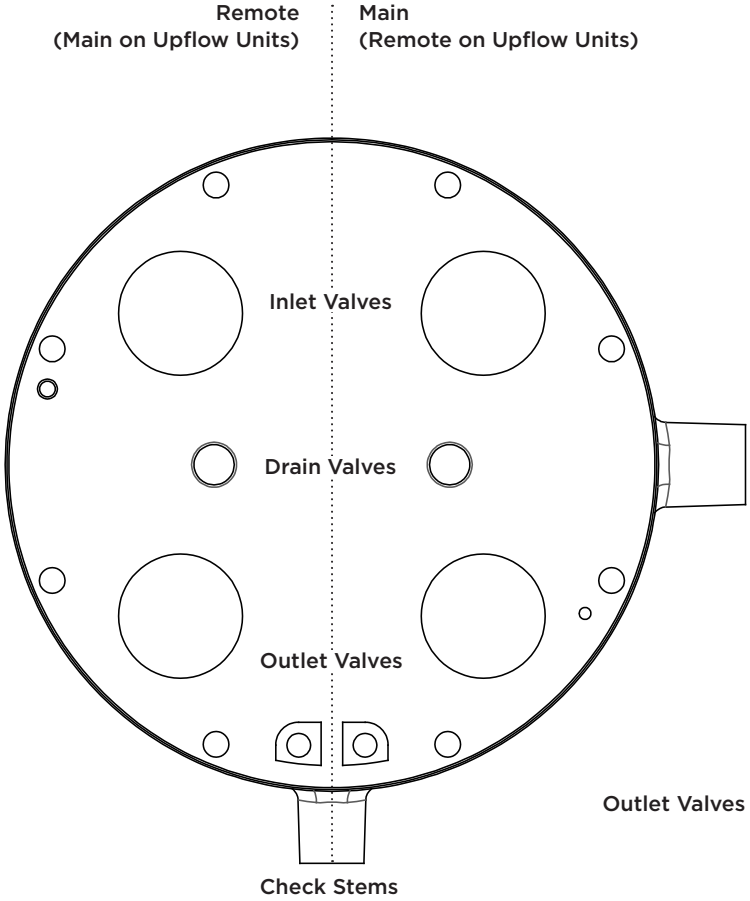


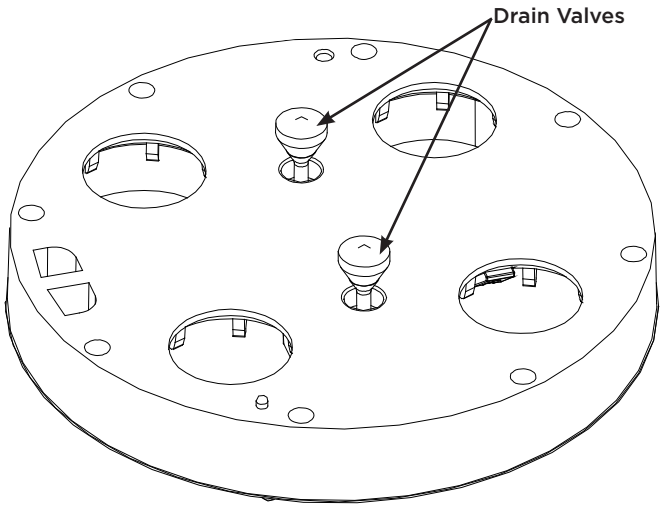
Meter Disc 5

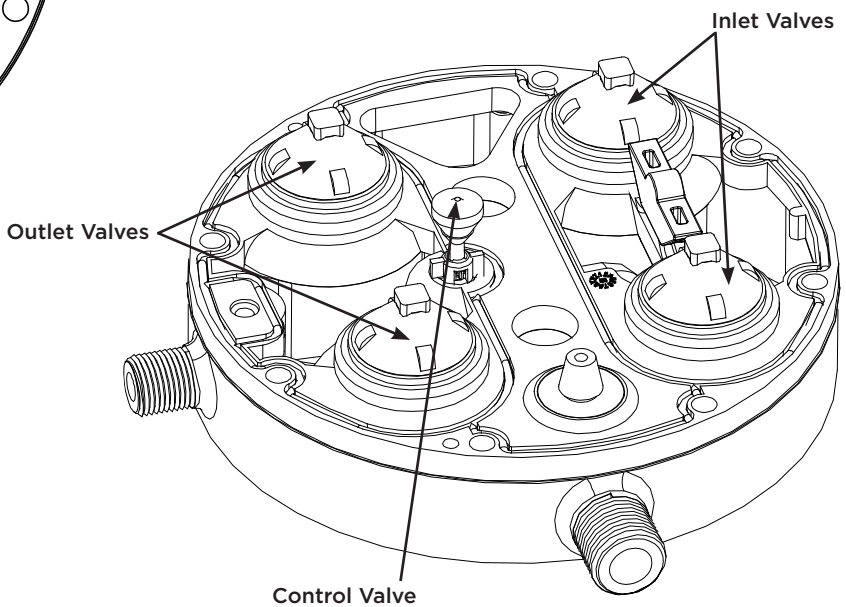


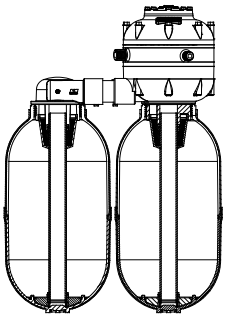
Lower Valving Section

The lower valving section consists of Level Two, Level Three, Level Four and Level Five assemblies. In the center, there is one regeneration control valve. This valve opens after four (4) teeth on the control disc have engaged. This valve then opens and powers the regeneration cycle. All of the other valves are pairs: one set for the remote tank and one set for the main tank. For each media tank, there is an inlet, outlet, drain and check stem valve. The inlet, outlet and drain valves are all servo valves controlled by the control disc. The check stems are simple one-way valves (check valves). Together, these valves control the flow of water into and out of each media tank during service and regeneration









Upflow Service

Level 6

The final level of the valve is used to direct the normal service path of the water which is upflow. Since all regenerations are countercurrent, the service direction also specifies the regeneration direction. For high efficiency, packed tank systems, upflow service is specified.

Media Tank

Tank sizes are 152 x 330 mm (6.0 x 13.0 inch). These sizes only represent the size of the tank; they do not include the base of the tank. The media tank conforms to NSF Standard 61 for components, with a structural performance exceeding 250,000 life cycles when pressurized/ depressurized to 150 psi. The media tank holds the resin which is used for the softening process.

Resin

The Premier Compact models HE UK and INT use non-solvent fine mesh cation resin and the HF UK model uses non-solvent standard mesh cation resin. Standard mesh resin has a minimum exchange capacity of 30,000 grains removed per cubic foot of media when regenerated with a dose of 15 lbs of salt per cubic foot of media. Fine mesh resin has a minimum exchange capacity of 40,000 grains removed per cubic foot of media when regenerated with a dose of 15 lbs of salt per cubic foot of media.

Upper / Lower Distributors

The distributors prevent channeling of the flow through the resin bed, by dispersing the water through the entire radius of the media tank. The distributor also helps maximize the efficiency of the system, by improving contact with the resin and minimizing dead spots in the media tank. The design of the distributors also keeps the resin inside the tank, as the slots on the distributor are sized smaller than the minimum size of the resin beads.

Riser Tube

A riser tube is used to connect the lower distributor to the control valve. A 1” pipe is used for this connection.

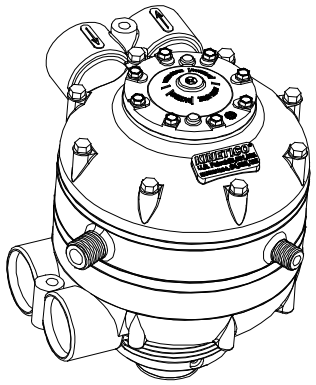
Cabinet

The cabinet holds the entire softener, plus it is used for salt storage and brine production. The cabinet is manufactured from corrosion resistant plastics, as the brine makes for a harsh environment.

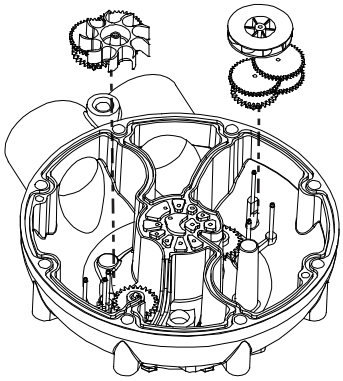
Brine Valve

A preset brine valve at 0.34 kg (0.75 lb) is used in each cabinet. This stops the flow of brine to the control valve when a low level is reached and prevents air from being drawn into the tank. When the bottom check activates, it also marks the beginning of the slow rinse process. The brine valve has a float cup that is used as the high volume level for the brine dose setting, as well as a safety to prevent an overflow situation. There is also an overflow elbow that must be connected to the drain.

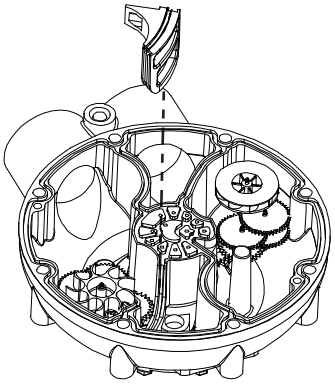
Valve Assembly



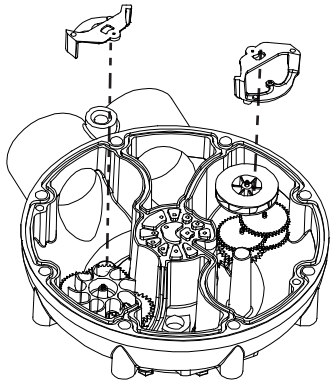
1. Move to Level 1, flip upside down ad load gears from gear stem to turbine



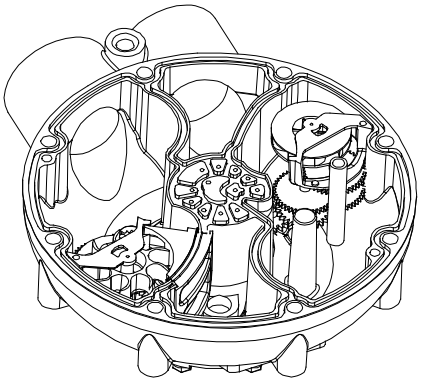
1a. Add Meter nozzle



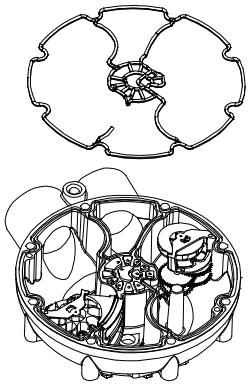
2. Lock gears in place with alignment clips



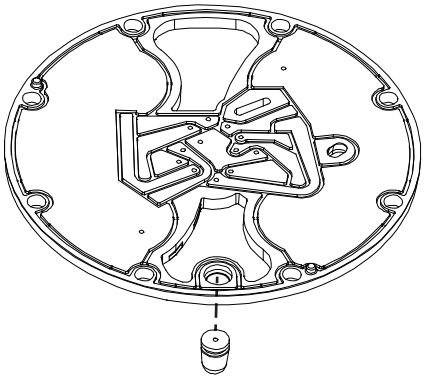
2a. Gears locked in place



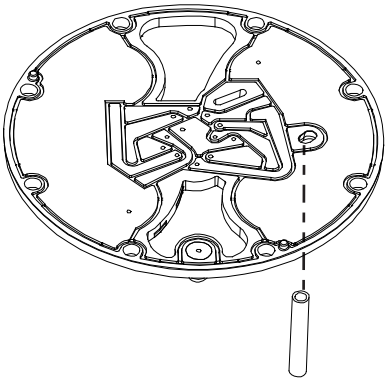
3. Add Level 1 Seal to Level 1



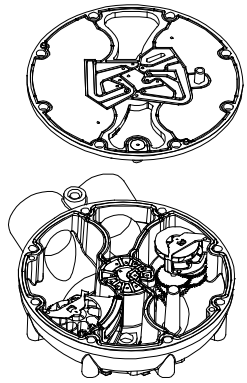
4. Insert brine flow control into Level 2



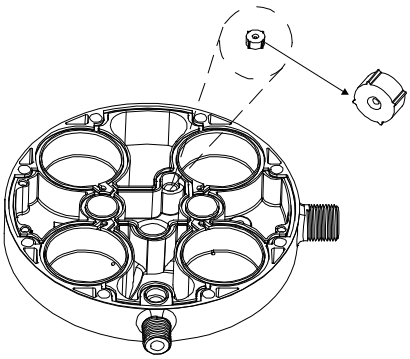
5. Insert vent tube into Level 2



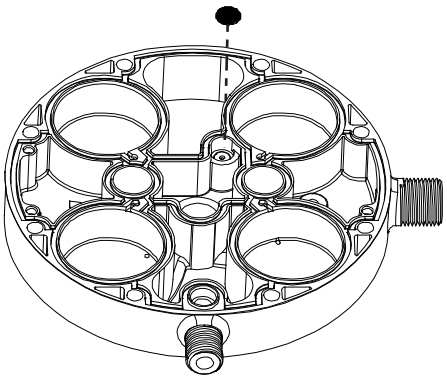
6. Place assembled Level 2 on Level 1



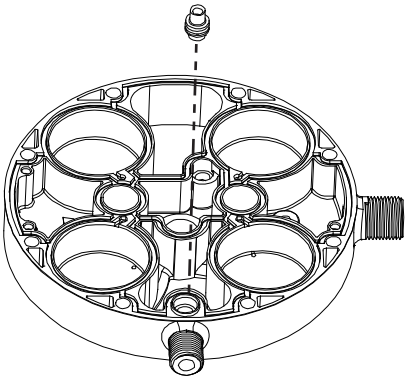
7. Insert regen flow control into Level 3 flat side up

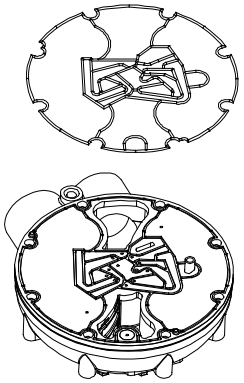
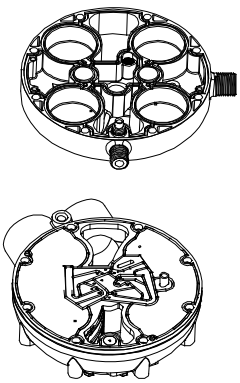
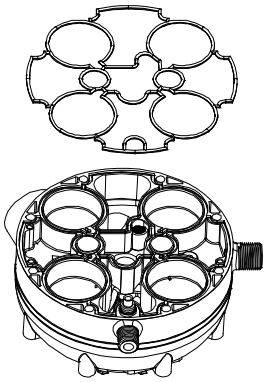
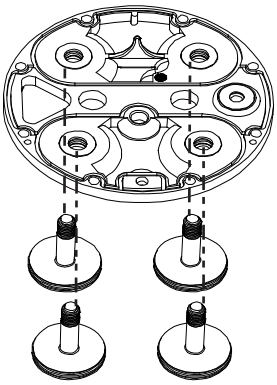
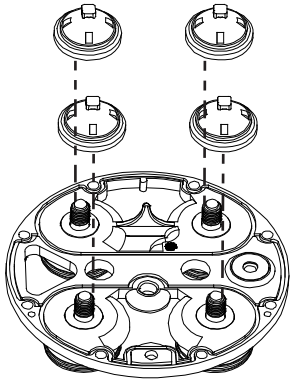
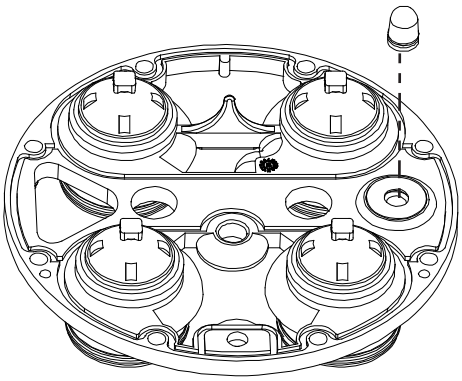
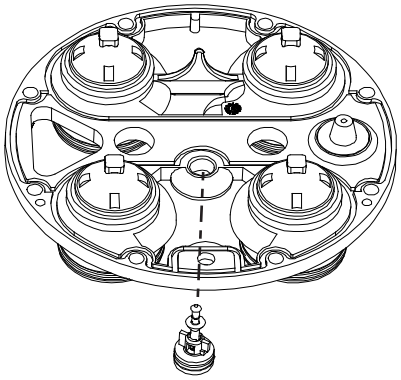
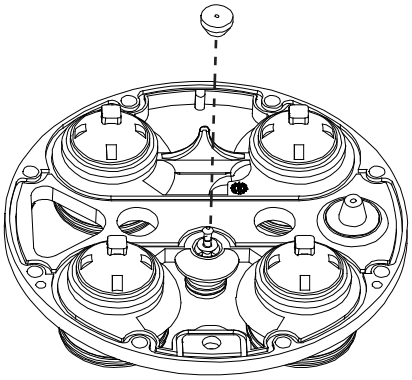
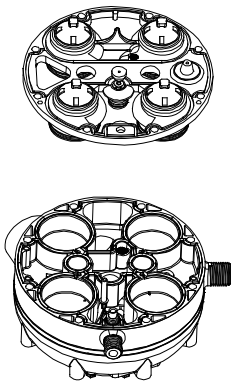
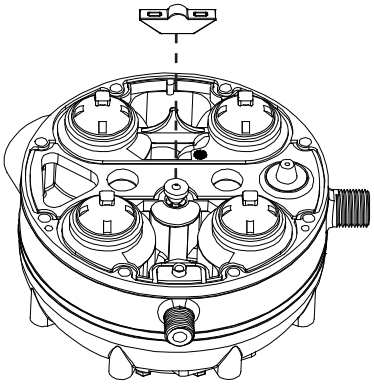
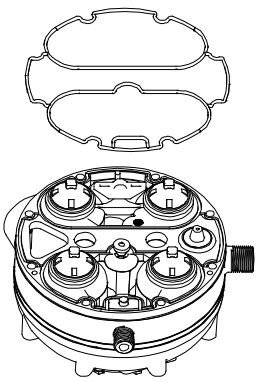
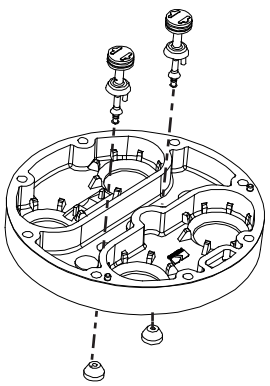


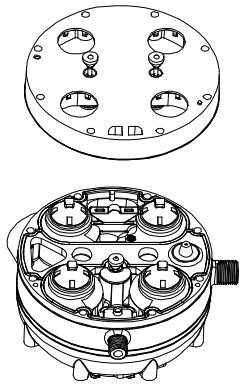
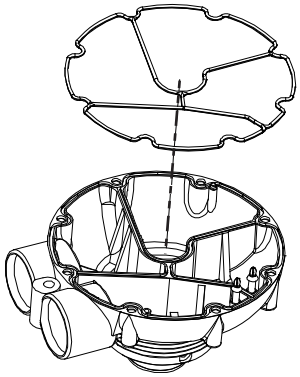
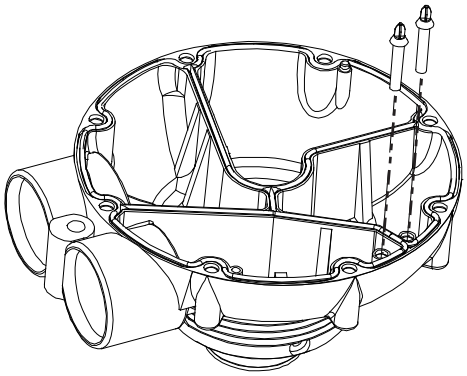
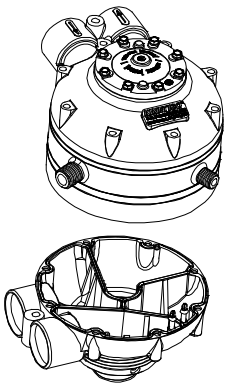
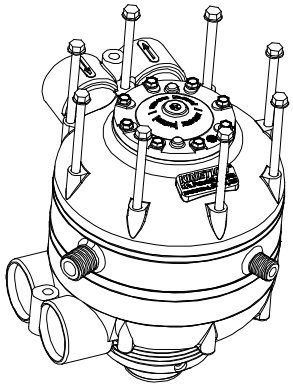
8. Insert filter screen over regen flow control



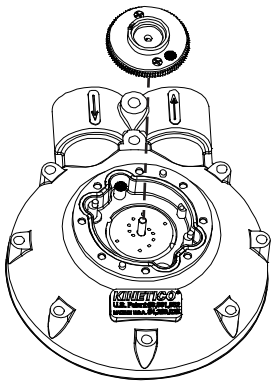
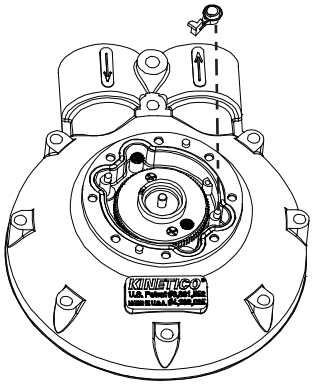
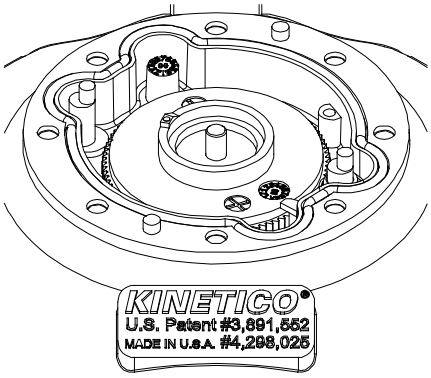
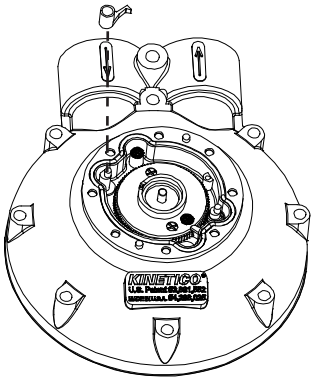
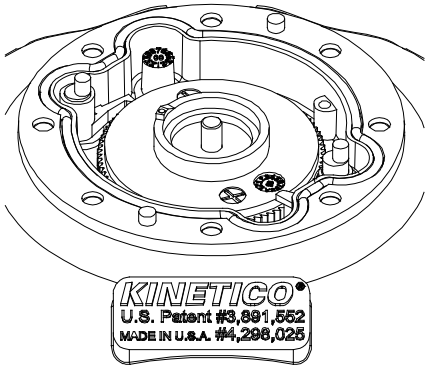
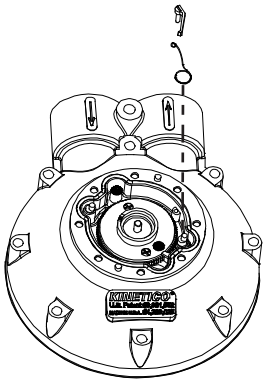
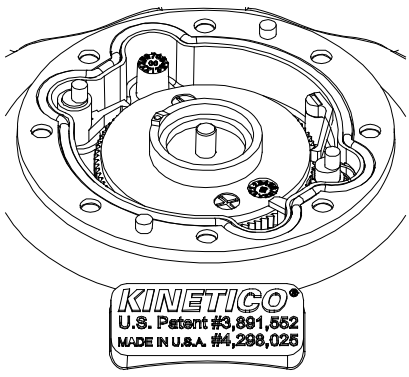
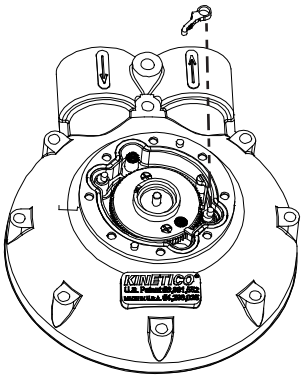
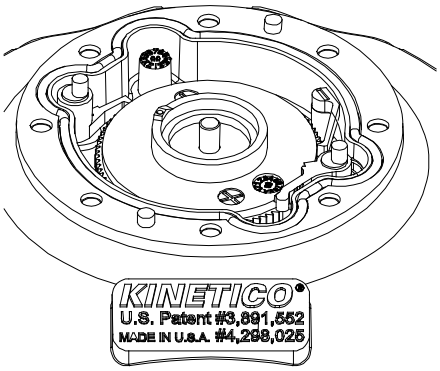
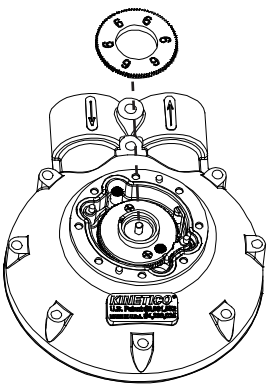
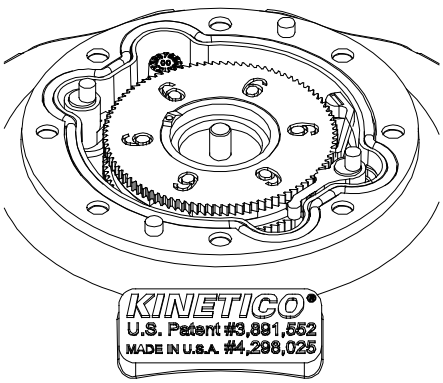
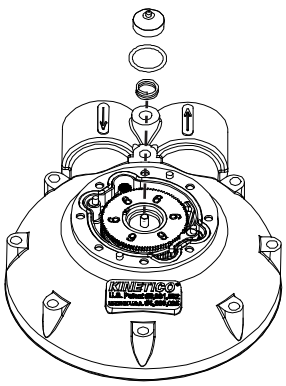
9. Insert venturi throat into Level 3

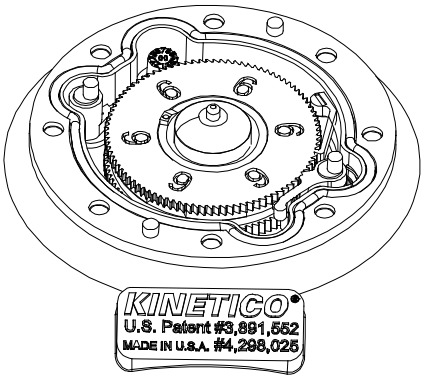
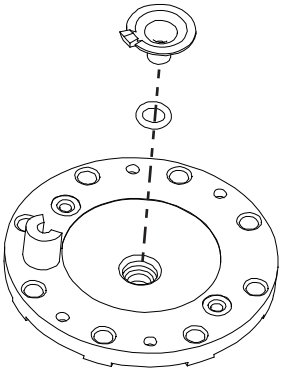
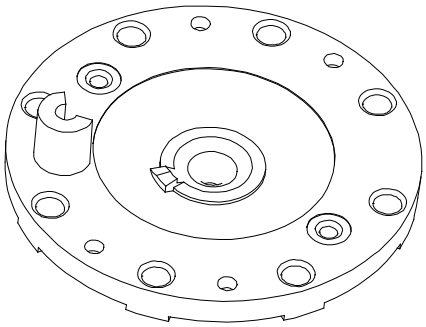
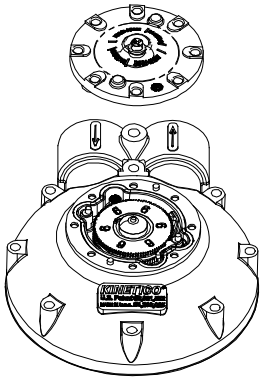
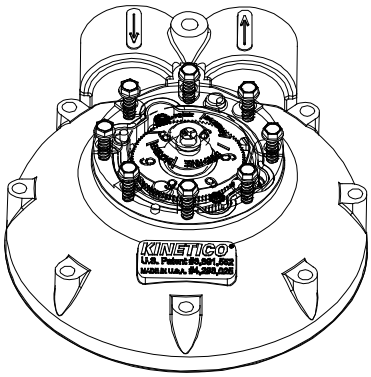


10. Place Level 2 seal on Level 2 assembly	11. Place Level 3 assembly on Level 2 assembly	12. Place Level 3 seal on Level 3 assembly
		
13. Insert main valve pistons into Level 4	**14. Attach seats to pistons**	**15. Insert drain flow control into Level 4**
		
16. Insert spring loaded control valve into Level 4	**17. Connect control valve seal to control valve**	**18. Place Level 4 assembly on Level 3 assembly**
		
19. Add interlock to Level 4	**20. Add Level 4 seal to Level 4 assembly**	**21. Insert drain valves into Level 5**
		

22. Place Level 5 on Level 4 assembly	23. Add Level 6 seal to Level 6 (base)	24. Add check stems to Level 6 assembly
		
25. Add Level 1-5 assembly to Level 6	**26. Bolt main screws to a torque of 55 inch lbs. In a cross pattern**	
		

Cap Assembly

1. Add control disc	2. Add regeneration start pawl with spring	2a. Regeneration start pawl in place
		
3. Add regeneration drive pawl with spring	**3a. Regeneration drive pawl with spring in place**	**4. Add no back pawl with spring**
		
4a. No back pawl in place	**5. Add meter drive pawl**	**5a. Meter drive pawl in place**
		
6. Add meter disc	**6a. Meter disc in place**	**7. Add balance piston, spring and O-ring**
		

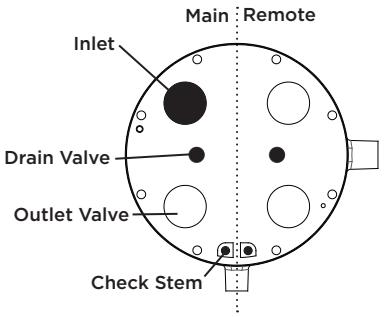
7a. Balance piston, spring and O-ring in	8. Insert actuator and O-ring into cap	8a. Actuator and O-ring in place
		
9. Attach cap to Level 1	**10. Tighten cap screws in a star pattern to 18-20 inch lbs. torque**	
		

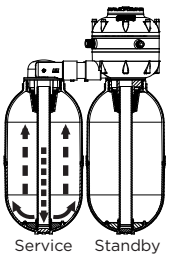
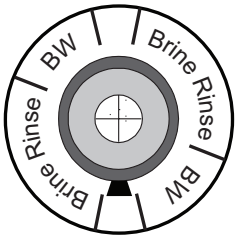
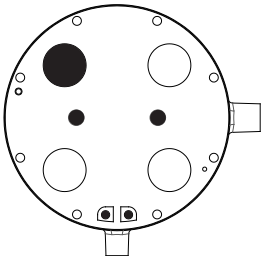
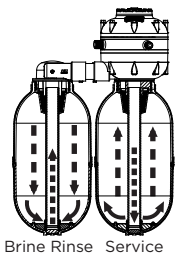
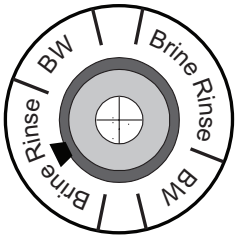
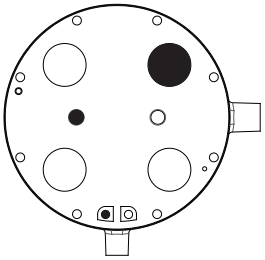
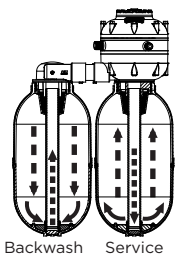
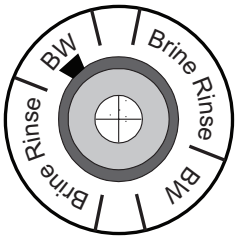
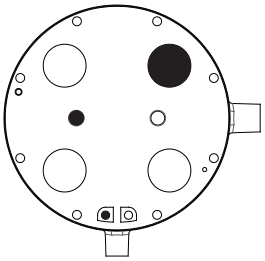
Regeneration Sequence

Alternating, Upflow Regeneration Sequence

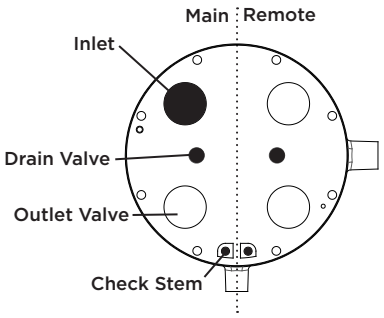
Models: Premier Compact HE UK, HF UK and HE INT

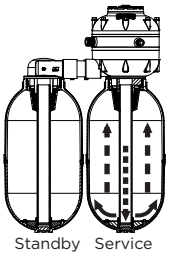
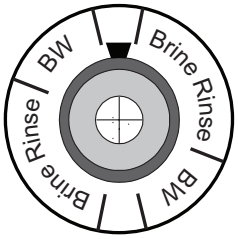
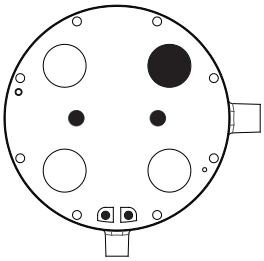
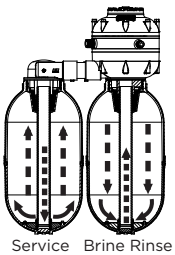
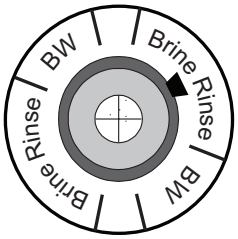
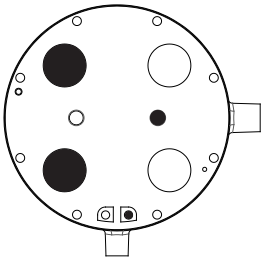
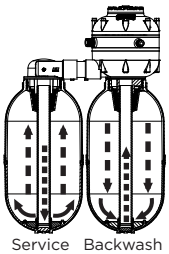
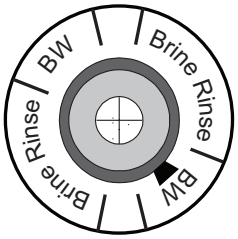
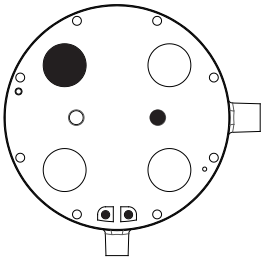
Key: ◯ Open
● Closed



Valve Position	Main Inlet	Main Outlet	Main Drain	Main Check	Remote Inlet	Remote Outlet	Remote Drain	Remote Check
1. Remote Tank in Service - Main Tank in Standby	●	◯	●	●	◯	◯	●	●
 Service Standby Both remote tank inlet and outlet valves are open. Water passes through Inlet valve, through the resin, through the distributor and out to service through the remote tank outlet valve. Main tank inlet valve is closed, preventing any water from entering and keeping the main tank in standby.								
2. Remote Tank Regenerating (Brine - Rinse) - Main Tank in Service	◯	◯	●	●	●	●	◯	◯
 Brine Rinse Service Main tank inlet and outlet valves are open. Both the remote tank inlet and outlet valves are closed. The remote tank drain valve is open. Soft water from the main tank outlet passes through the venturi, which causes brine to be drawn in past the check stem, into the distributor, through the resin and out through the drain valve. The unit will continue to draw until the brine valve closes and prevents brine from entering the remote tank, thus starting the rinse cycle. The system will continue to rinse until the backwash cycle starts.								
3. Remote Tank Regenerating (Backwash) - Main Tank in Service	◯	◯	●	●	●	◯	◯	●
 Backwash Service Main tank inlet valves are open. The remote tank inlet valve is closed. Both the remote tank outlet valve and main tank drain valve are open. Both check stems are closed. Soft water from the main tank passes through the remote tank outlet valve, over and through the remote tank outlet valve and then through the distributor. This high flow of water provides thorough cleaning of the hardness ions, iron and excess brine not rinsed during the rinse cycle.								

Key: ◯ Open
● Closed



Valve Position	Main Inlet	Main Outlet	Main Drain	Main Check	Remote Inlet	Remote Outlet	Remote Drain	Remote Check
4. Remote Tank on Standby - Main Tank in Service	○	○	●	●	●	○	●	●
 Standby Service Main tank inlet and outlet valves are open. Remote tank inlet valve is closed, preventing any water from entering and keeping remote tank in standby.	 							
5. Remote Tank in Service - Main Tank Regeneration (Brine - Rinse)	●	●	○	○	○	○	●	●
 Service Brine Rinse Both the main tank inlet and outlet valves are closed. The main tank drain valve is open. Soft water from the remote tank outlet passes through the venturi, which causes brine to be drawn in past the check stem, through the distributor, through the resin, and out through the drain valve. The unit will continue to draw until the brine valve closes and prevents brine from entering the main tank, thus starting the slow rinse cycle. The system will continue to slow rinse until the backwash cycle starts.	 							
6. Remote Tank in Service - Main Tank Regenerating (Backwash)	●	○	○	●	○	○	●	●
 Service Backwash The main tank inlet valve is closed. Both the main tank outlet valve and main tank drain valve are open. Both check stems are closed. Soft water from the remote tank passes through the remote tank outlet valve, over and through the main tank outlet valve, and through the distributor. This high flow of water provides thorough cleaning of the hardness ions, iron, and excess brine not rinsed during the rinse cycle.	 							

System Components

Accessories

Service Tools

Description	Part No.
Gauge, Pressure Assembly, Brass Fitting	5049
Eccentric Pin Tool	7130
Stem Gear Tool	7128
Softener Service Kit	8171C

Tubing

Description	Part No.
Tubing, ½" x 100', Drain	2128
Tubing, ⅝" x 100', Overflow/Drain	2129
Tubing, ⅜" x 100', Brine, Black	1890

Troubleshooting

Ten steps to determine the problem...

1. Gather information.

Ask questions; find out what is the problem. What is the customer's complaint? This may identify simple corrections external to the equipment.

- Has there been any recent work done by plumbers?
- Has the water been shut off for any reason?
- Have fire hydrants been flushed recently in the area?
- Have they used more water than normal recently?
- Has the brine drum recently run out of salt?
- How much salt have they been using?

2. Test the water.

Raw before softener, hot water and at brine fitting with water running to service.

- Raw water is tested for hardness and iron levels.
- Hot water is tested to see if hard water has recently been passed to service. It is not unusual to have a slight increase of hardness from the hot water tank, generally less than 2 grains.
- Water taken directly from the brine fitting will identify if the softener is working correctly at this point. Once completed, advance the control disc forward to service on the other tank and test again.

3. Observe the installation.

Check status of by-pass valve (open/closed), brine drum (full, empty, bridged), prefilter (plugged), correct meter disc setting, inlet/outlet lines correct, kinks or restrictions in drain line or drain line elevated over 8 ft or more than 30 ft horizontally.

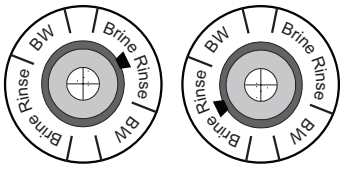
4. Run soft water to service.

Verify metering

- Watch the meter disc. Is it turning?
- Watch the no back pawl as the meter disc turns clockwise. Does the no back pawl drop into the next tooth?
- Measure the metering rate. Measure the rate by running water at a controlled rate (1 gallon a minute) and time how long it takes the no back pawl to drop into the next tooth.

5. Place unit in brine position.

Verify vacuum at brine elbow, check on both sides of control disc.



- Remove the brine line from the brine elbow and verify if there is suction.
- Is the suction smooth without interruption?
- Is there any water coming from the brine elbow?

6. Remove the brine valve.

Verify brine valve is preset to 0.34 kg (0.75 lb).

- Inspect for nonconformities and dirt.
- Clean as necessary.

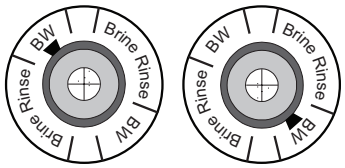
7. Look for low flow in the distribution system.

Leaky toilets, faucets, etc. This may allow water to pass by unmetered, causing hard water.

Low flow means less than 1.14 lpm (0.3 gpm) in models with half louver nozzles, less than 0.60 lpm (0.16 gpm) in models with quarter louver nozzles. A leaky faucet or running toilet will typically be below this threshold, running at a rate that will not provide enough water flow to turn the valve turbine and measure water usage, potentially resulting in improper regeneration cycles.

8. Measure water pressure.

Check at brine elbow while one faucet is wide open and valve is in backwash position.



Place the valve in the brine draw position, allowing the draw port to depressurize. Remove the brine elbow and thread on a ¼" threaded coupling with a pressure gauge on the other end. Place the valve in the backwash position, open one faucet, and note the pressure reading – on most systems it must be at least 15 psi dynamic (25 psi static).

9. Measure backwash flow rate.

Using a container with a known volume (1 gal. bottle) check the drain flow with the unit in backwash and a faucet running, timing how long it takes to fill the container.

0.5 liters / 15 seconds = 2 lpm (0.52 gpm)

0.5 liters/ 30 seconds = 1 lpm (0.26 gpm)

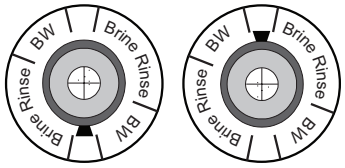
0.5 liters/ 45 seconds = .63 lpm (0.17 gpm)

(Compare these results to specified backwash flow for models listed below)

Backwash Flow Rate Chart	
Model	**Backwash Rate**
HE UK	2.7 lpm (0.70 gpm)
HF UK	2.7 lpm (0.70 gpm)
HE INT	2.7 lpm (0.70 gpm)

10. Place unit at the end of backwash and allow it to shut off on its own.

Check this on both sides, this may take several minutes.



A slight drip to the drain is allowable, although if the drip will fill the test tube from your hardness test kit (10 mL) in less than 45 seconds it may cause a hard water situation.

If the water is soft, follow the trouble shooting steps for running to drain. If the water at the drain is hard and the unit is producing soft water check the drain valve seats in level 5 for foreign material.

Hard Water

Problem	Possible Cause	Solution
1. Water meter disc not turning	A. Bad meter drive pawl. B. Meter drive spring not seated properly. C. No back pawl missing or broken. D. Damaged tooth on meter disc. E. Damaged gear in gear stack.	A. Replace meter drive pawl. B. Reinstall meter drive spring. C. Install new no back pawl. D. Replace meter disc. E. Re-gear Level 1.
2. Unit will not regenerate automatically	A. Meter disc not turning. B. Control disc will not advance out of service position. C. Damaged teeth on control disc. D. Control valve will not open. E. Drain line/backwash flow control restricted	A. See # 1 above. B. Replace regeneration start pawl. C. Replace control disc. D. Check for debris – clean if present. E. Remove restriction/change backwash flow control if necessary.
3. No vacuum in brine position.	A. Check stems missing or not seated correctly. B. Check stems missing or will not move freely. C. Plugged venturi. D. Plugged backwash flow control/ drain line. E. Damaged outlet main valve seat seal.	A. Replace or reseat check stems. B. Replace or clean check stems. C. Clean flow control, venturi throat and nozzle. Note: do not use paper clip. D. Clean/replace flow control/free obstruction from drain line. E. Replace main valve seat seal.
4. Over/under dosing of salt.	A. Brine drum/valve not level. B. Bridged salt in drum. C. Brine valve is faulty. D. Brine valve is dirty. E. Venturi nozzle is plugged. F. Plugged brine screen/fitting. G. Brine flow control is plugged.	A. Level the brine drum/valve. B. Break up the solidified salt. C. Replace the brine valve. D. Clean the brine valve. E. Clean venturi throat and nozzle. F. Clean brine screen/fitting. G. Clean/replace brine flow control.
5. The by-pass is open or leaking.	A. Accidentally left in “Open” or “Service” position. B. Damaged seal/spool in by-pass valve or bad ball valve in a three way by-pass configuration.	A. Close the by-pass valve. B. Repair/replace bad valve(s). To check for internal leak in by-pass valve, open a soft water tap and run water. With the unit in the service position disconnect the brine line from the brine elbow. If this water is soft and the water at the tap is hard, replace/repair the by-pass valve.

Frequent Regeneration

Problem	Possible Cause	Solution
1. High water usage.	A. Customer uses more water than expected. B. Leak in plumbing or fixture (greater than minimum flow rate required for metering).	A. Inform customer of expected frequency based on actual usage B. Repair the leak
2. Unit regenerates more frequently than necessary.	A. Incorrect meter disc setting. B. Meter disc not moving and regeneration start pawl in gap. C. Control valve stuck in "Open" position (causes continuous regeneration) due to debris under seal or stray pressure signal. D. Incorrect meter gearing.	A. Adjust meter disc. B. Refer to "Hard Water Troubleshooting" section step 1. C. Remove debris (if present) or replace level 1 (stray pressure signal due to poor seal under ceramic disc). D. Rework the meter gearing.
3. Lack of understanding regarding Premier Compact units.	Customer is used to electrical units with timers.	Explain to customer that Premier Compact units regenerate based on volume as opposed to time

Unit Stuck in Cycle

Problem	Possible Cause	Solution
1. Unit stuck in regeneration / backwash cycle.	A. Control flow path is plugged at the regeneration nozzle or regeneration flow control. B. Regeneration drive pawl and/or spring are weak or broken. C. Damaged tooth on control disc. D. Eccentric pin is worn/damaged. E. Resin damaged, low pressure may cause plugged bed. F. Regeneration gears not moving.	A. Clean the regeneration flow path. B. Replace regeneration drive pawl. C. Replace control disc. D. Replace eccentric pin (snap fit). E. May need to rebed. F. Free obstruction or impediment to gearing.
2. Unit stuck in service cycle.	A. Regeneration start pawl broken or missing. B. Unit will not regenerate automatically.	A. Replace or install regeneration start pawl. B. Refer to "Hard Water Troubleshooting" section step 2.

Run to Drain

Problem	Possible Cause	Solution
1. Balance Piston O-ring not seated properly.	A. O-ring off-center. B. O-ring pinched or damaged.	A. Depress actuator several times to try to seat the O-ring. B. Replace O-ring.
2. Bad control disc.	Map side of control disc scored	Replace control disc
3. Drain or control valves not seated properly.	A. Debris trapped under the seals. B. Low water pressure (this may prevent proper seating of seals).	A. Remove debris. B. Increase water pressure.
4. Low water pressure (see also "Sticking in Cycle").	A. Pressure at the brine fitting lower than 15 psi will affect the hydraulic movements within the softener or filter valves and may not allow drain or control valves to close.	A. Increase feed water pressure. Check pressure before softener and after softener. If there is a severe pressure loss above 15 psi across the system they may have some blockage in the resin tanks.
5. The main valve piston quad rings or level four internal quads are not sealing.	A. Main valve quad rings may be rolled, twisted, or damaged. B. Water may be leaking from the main valve seat side of the level 4 to a non pressurized area on the piston side of the level 4. C. Seals may be damaged by chlorine or chloramines.	A. Replace main valve piston quad rings. B. Replace small retainer quad rings in level 4 or replace level 4 (the piston shafts seal against these quad rings, and they cannot be seen without removing the pistons). C. Replace with blue seals for use with chloramines.
6. Plugged signal hole or broken non-serviceable glue seal under ceramic disc.	Age and wear, or contamination from poorly filtered feed water.	Clean signal holes with paper clip or compressed air; replace Level 1, if necessary.

Salty Water

Problem	Possible Cause	Solution
1. Overdosing of salt.	A. Brine valve not seating properly. B. Leak in brine valve.	A. Replace brine valve. B. Repair leak/replace brine valve.
2. Restricted drain flow.	A. Drain line kinked or clogged. B. Backwash flow control restricted. C. Long drain tubing run. D. Drain tubing rises higher than 8 ft.	A. Clear obstructions; ensure drain flows smoothly and clearly. B. Clean/replace backwash flow control. C. Shorten length of tubing or increase size of drain tubing. D. Reduce rise to less than 8 ft.
3. Low water pressure.	A. Plugged prefilter. B. Pressure setting too low. C. Fouled/damaged resin bed.	A. Change prefilter. B. Increase feed pressure. C. Replace resin.
4. Upper distributors partially blinded (downflow units).	A. Foreign material or fines lodged into the slots	A. Clean or replace upper distributors.

High Salt Use

Problem	Possible Cause	Solution
1. Unit regenerates too frequently.	See "Frequent Regeneration" section.	See "Frequent Regeneration" section.
2. Overdosing of salt.	See "Salty Water" section.	See "Salty Water" section.

Equipment Noise

Problem	Possible Cause	Solution
1. Unit makes squealing noise during regeneration.	Control disc not flat or sealing properly against the ceramic disc.	Replace control disc, balance piston spring and balance piston O-ring.
2. Unit makes gurgling, hissing, or bubbling sound (A small amount of Noise during startup and refill is normal).	A. Trapped air in piping following installation. B. Air being drawn into piping. C. Brine line and/or valve not air checking.	A. Release all trapped air from piping. B. Identify source and fix air leak. C. Identify and replace faulty parts.
3. Groaning while water being used.	High feed pressure.	Reduce feed pressure.

Iron/Manganese Bleed-through

Problem	Possible Cause	Solution
1. Water meter disc and/or salt dosage not set up properly.	Initially set-up incorrectly.	Test inlet hardness, iron, and manganese, and set meter disc and salt dosage accordingly.
2. Insoluble iron / manganese passing through softener.	A. Insoluble iron/manganese not removed by softener resin. B. Insoluble iron/manganese is smaller than the micron rating of the prefilter.	A. Install prefilter. B. Install smaller micron prefilter element.
3. Iron / manganese build-up in resin.	High iron/manganese-bearing water.	Use salt that contains resin cleaning additives.
4. Customer's plumbing may be adding ferric iron into the water.	Aging galvanized pipe and/or pressure tank.	Replace piping/tank or install a prefilter. Check in localized areas for sections of galvanized pipe and/or dissimilar metals.

Taste, Color and Odor

Problem	Possible Cause	Solution
1. Chlorine / Chloramine taste and / or odor in water.	Chlorinated/chloraminated municipal supply.	Install a dechlorinator/CRS.
2. Salty taste in water.	See “Salty Water” section.	See “Salty Water” section.
3. Rotten egg taste / odor in water.	A. Hydrogen Sulfide present in water. B. (Hot water only) Anode rod in water heater may cause reaction causing odor	A. Install Sulfur Guard system after softener. B. Alternate rod material can be used (see water heater manufacturer).

Pressure Loss

Problem	Possible Cause	Solution
1. Low pressure entering the unit.	A. Pre-filter clogged. B. Feed pressure setting too low.	A. Replace pre-filter cartridge. B. Increase feed water pressure.
2. Upper and / or lower distributors plugged.	A. Foreign material accumulating on distributors. B. Degraded resin accumulating on distributors. C. Bacteria accumulating on distributors.	A. Clean distributors. Add pre-filter if not present. B. Clean distributors. Determine cause of resin degradation. Correct and re-bed. C. Clean distributors. Address bacteria at the source.
3. Resin is chlorine / chloramine damaged.	Chlorinated/ chloraminated municipal water.	Re-bed resin tanks. Install dechlorinator/ CRS to prevent future damage.
4. Equipment is undersized.	Customer demand has increased or initial equipment sized incorrectly.	Revise equipment selection.

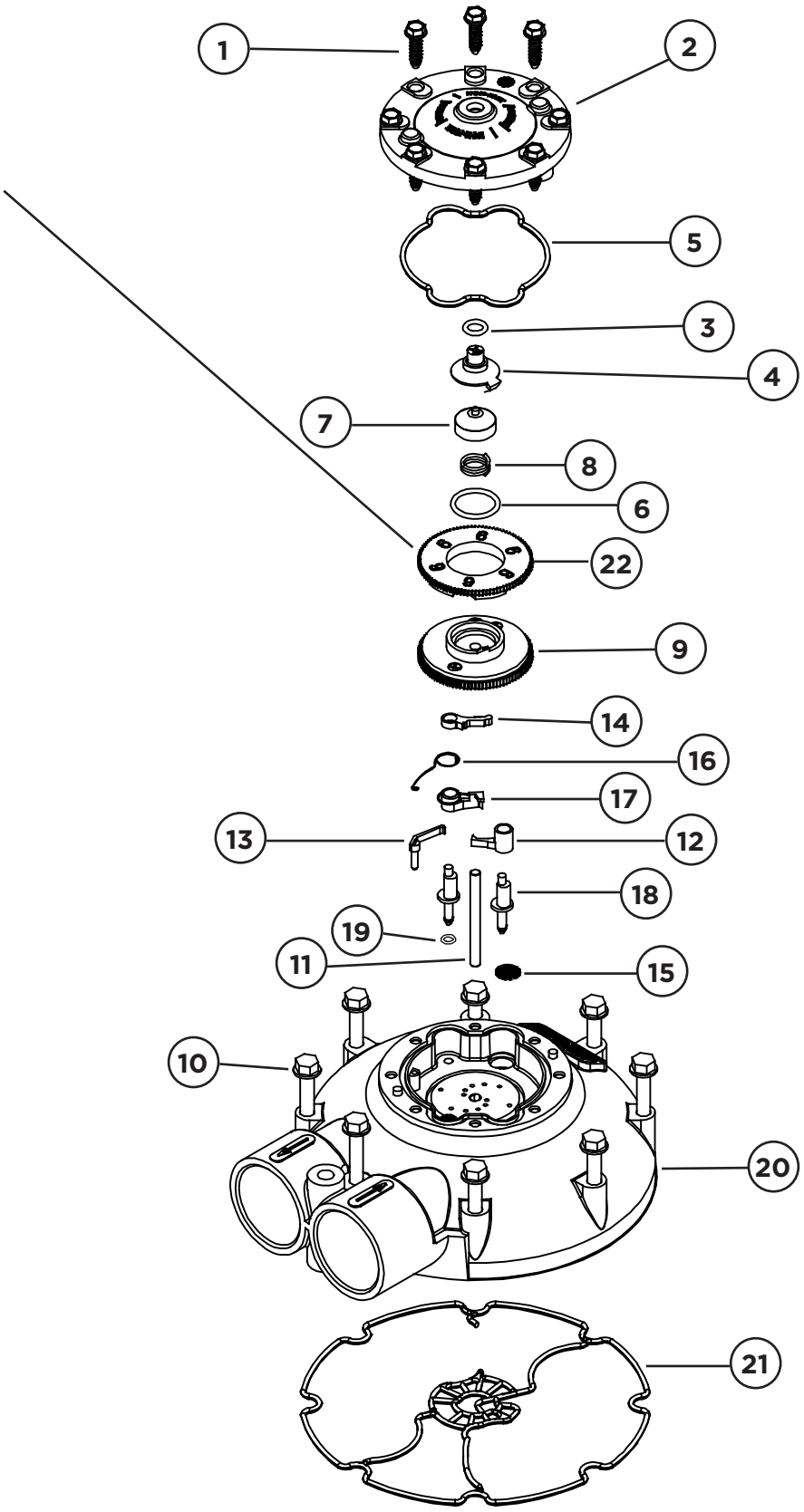
Leaks

Problem	Possible Cause	Solution
1. Leaks between the levels.	A. Main valve screws are not tightened. B. One of the level seals is pinched, broken, or missing. C. Crack in seal area near screw hole. D. One of the screw holes is stripped. E. Actuator O-ring missing/leaking, causing water to drip down and appear to be leaking between the levels.	A. Depressurize unit and tighten the main valve screws. B. Replace faulty or missing seal. C. Replace faulty level. D. Replace main base (Level 6). E. Replace actuator O-ring.
2. Leaks at cap area.	A. One of the screws is stripped. B. Actuator O-ring damaged/missing. C. Cracked cap.	A. Replace Level 1. B. Replace and lubricate O-ring. C. Replace cap.
3. Feed water pressure too high.	A. Pressure regulator not installed. B. Pressure regulator is broken.	A. Install pressure regulator. B. Replace pressure regulator.
4. Leaks at main base / remote base / nipple.	A. Base/nipple is not tightened properly. B. Base/nipple O-ring pinched/missing.	A. Tighten base. B. Replace/install O-ring.
5. Tank is leaking.	Tank failure.	Replace tank.
6. Leaks at tubing connections.	Tubing connections over/under-tightened.	Tighten tubing connections correctly (make a fresh 1" cut off of the tubing).

Level One Assembly

High Efficiency 1" Units

Meter Disc	Part Number
6	1509



Part numbers appear on parts page 32

Level One Assembly

Notes:

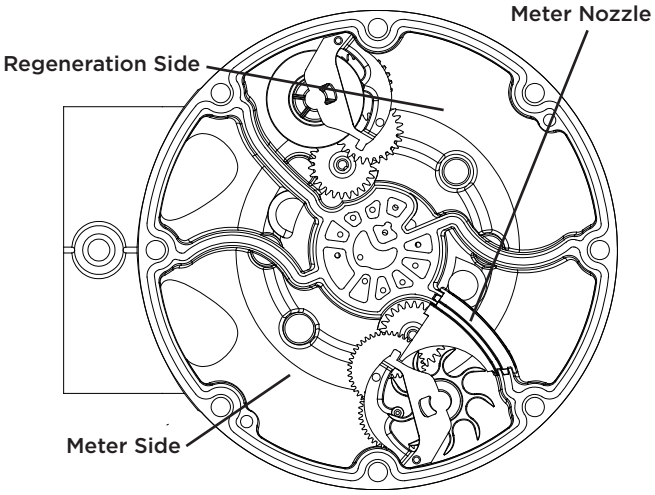
1. Metering discs are the same for all models and should be chosen from the appropriate disc selection chart. Part numbers are on previous pages.
2. Locate the correct part from the exploded drawing on previous page and use it to find the correct row in table below. The standard model number determines the correct column.

Dwg. No.	Description	Qty Required	Model Number		
			HE UK	HF UK	HE INT
1	Cap Screw	8	1010	1010	1010
2	Cap	1	9044B	9044B	9044B
3	O-ring Actuator	1	1460	1460	1460
4	Actuator	1	13688	13688	13688
5	Seal, Cap	1	8628	8628	8628
6	O-ring, Balance Piston	1	1070	1070	8198A
7	Balance Piston	1	14927	14927	14927
8	Spring, Balance Piston	1	5448	5448	5448
9	Control Disc	1	4689 (white)	4689 (white)	4689 (white)
10	Screw, Main Valve	8	1830	1830	1830
11	Support Pin	1	1023	1023	1023
12	Pawl, Regeneration Drive	1	5511	5511	5511
13	Pawl, No Back	1	7097	7097	7097
14	Pawl, Mater Drive	1	7014	7014	7014
15	Filter, Level One (279 M)	1	10781	10781	10781
16	Spring, Meter Drive	1	7010A	7010A	7010A
17	Pawl, Regeneration Start	1	1783	1783	1783
18	Eccentric Pin	2	1520	1520	1520
19	Regeneration O-ring	1	2657	2657	2657
20	Level One Shell	1	16140	16140	16140
21	Level One Seal	1	8471	8471	8471
22	Number 6 Meter Disc	1	1509	1509	1509
*	Meter Nozzle	1	15158	13689	13689

* See Gearing Stack (next page) for Meter Nozzle location.

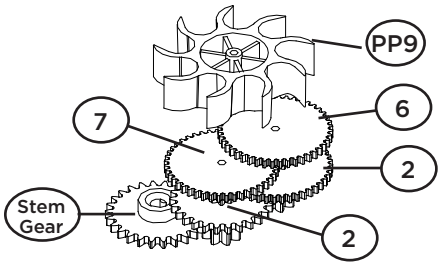
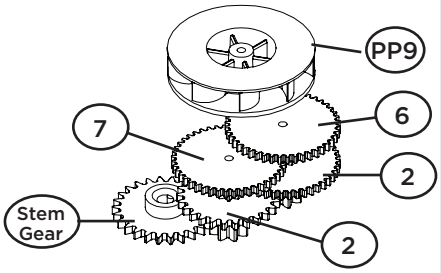
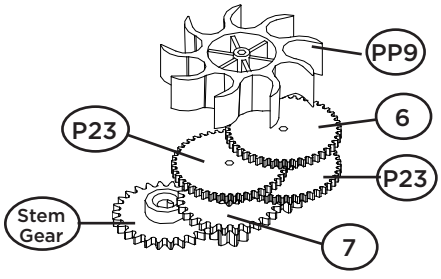
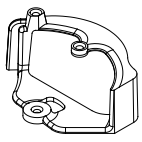
Gearing Stack

Kinetico 1" Level 1



Notes:

1. Use the model number to locate the correct set of drawings.
2. Use the side (Meter or Regeneration) to locate the correct stack.
3. Use the table to correlate drawing number to part number.

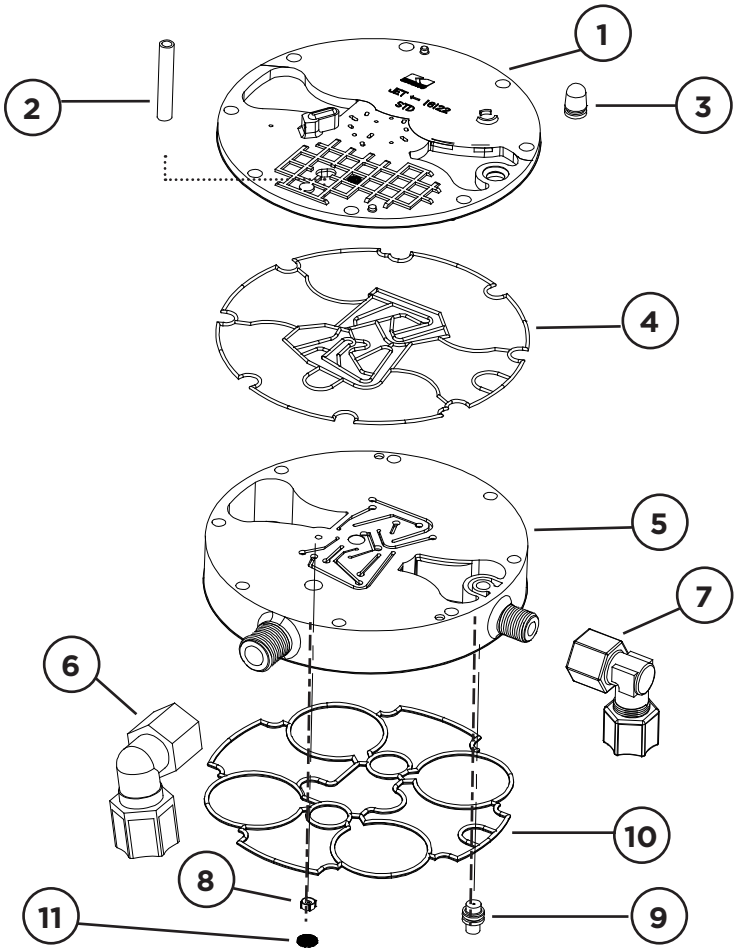
Premier Compact HE and HF (uses 1" Level 1)	
Meter Side	Regeneration Side
 **Model HF UK and HE INT**	 **Model HE UK, HF UK and HE INT**
 **Model HE UK**	
Gear Alignment Clip 	

Description	Part NO.
Gear #2	1523
Gear #6	1527
Gear #7	1528
Gear #P23	7853A
Turbine #PP9	9258
Turbine #10 jet	8781F
Stem Gear	1521
Nozzle, Meter, 1/2 Louver **(Model HF UK and HE INT)**	13689
Nozzle, Meter, 1/2 Louver **(Model HF UK and HE INT)**	15158
Gear Alignment Clip	11902B

Level Two and Three Assemblies

Notes:

1. Locate the correct part from the exploded drawing on the right, and use it to find the correct row in the table below. The standard model number determines the correct column.

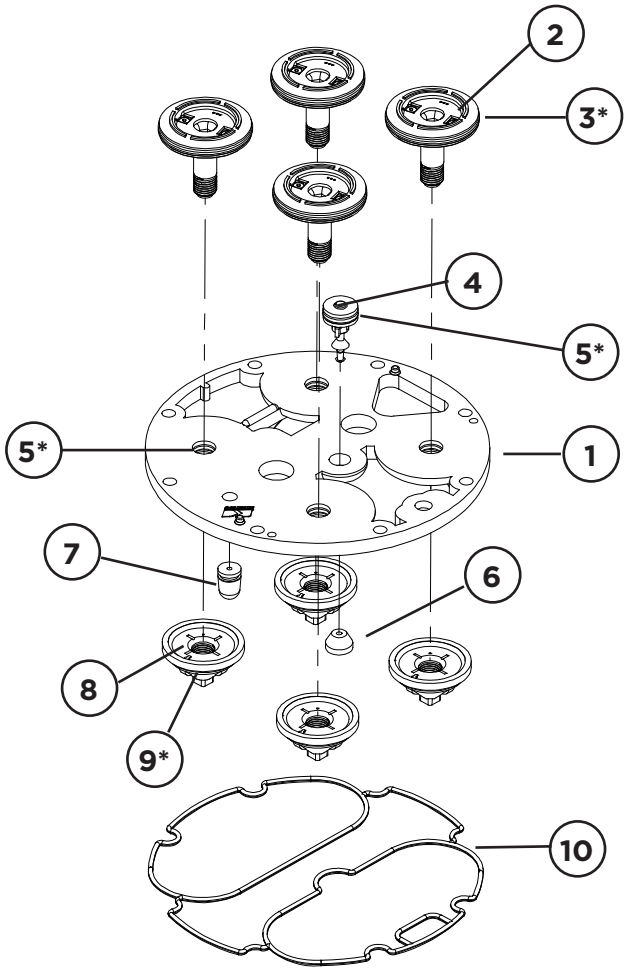


Dwg. No.	Description	Qty Required	Model Number		
			HE UK	HF UK	HE INT
1	Level Two	1	16122	16122	16122
2	Vent Tube	1	1480	1480	1480
3	Brine Flow Control	1	10546	10546	10546
4	Level Two Seal	1	8630	8630	8630
5	Level Three	1	8914C	8914C	8914C
6	Drain Elbow	1	10076A	10076A	10076A
7	Brine Elbow	1	10084A	10084A	10084A
8	Regeneration Flow Control	1	9183B	9183B	9183B
9	Venturi Throat	1	3343 (tan)	3343 (tan)	3343 (tan)
10	Level Three Seal	1	8631	8631	8631
11	Filter Disc	1	11017A	11017A	11017A

Level Four Assembly

Notes:

1. Locate the correct part from the exploded drawing on the right, and use it to find the correct row in the table below. The standard model number determines the correct column.
2. Parts marked with * are for replacement.

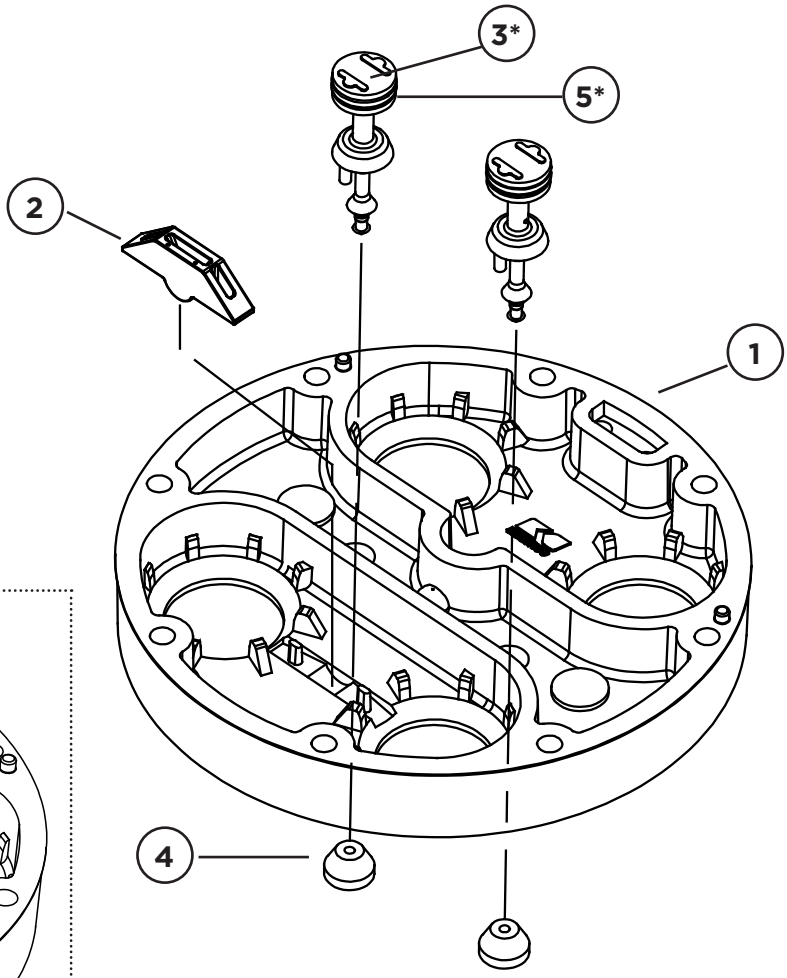


Dwg. No.	Description	Qty Required	Model Number		
			HE UK	HF UK	HE INT
1	Level Four w/Retainers	1	15128	15128	15128
2	Main Valve Piston	4	15131	15131	15131
3	Quad Ring 125, Piston	4	8186A	8186A	8186A
4	Control Valve - Spring Loaded	1	13720A	13720A	13720A
5	Quad Ring, Drain/Control Valve	1	8187A	8187A	8187A
6	Control Valve Seal	1	8193A	8193A	8193A
7	Flow Control, Backwash/Screen	1	5157	5157	5157
8	Main Valve Seat	4	13696	13696	13696
9	Main Valve Seat Seal	4	7865	7865	7865
10	Level Four Seal	1	8632	8632	8632

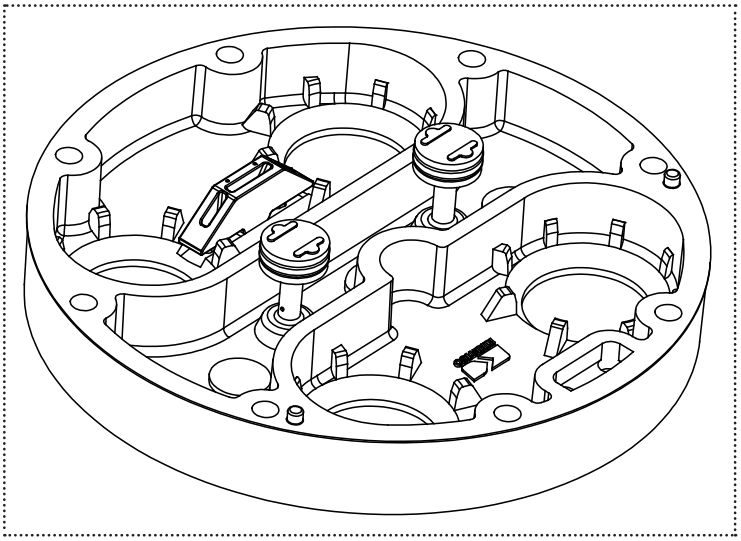
Level Five Assembly

Notes:

1. Locate the correct part from the exploded drawing on the right, and use it to find the correct row in the table below. The standard model number determines the correct column.
2. Parts marked with * are for replacement.



Complete Assembly

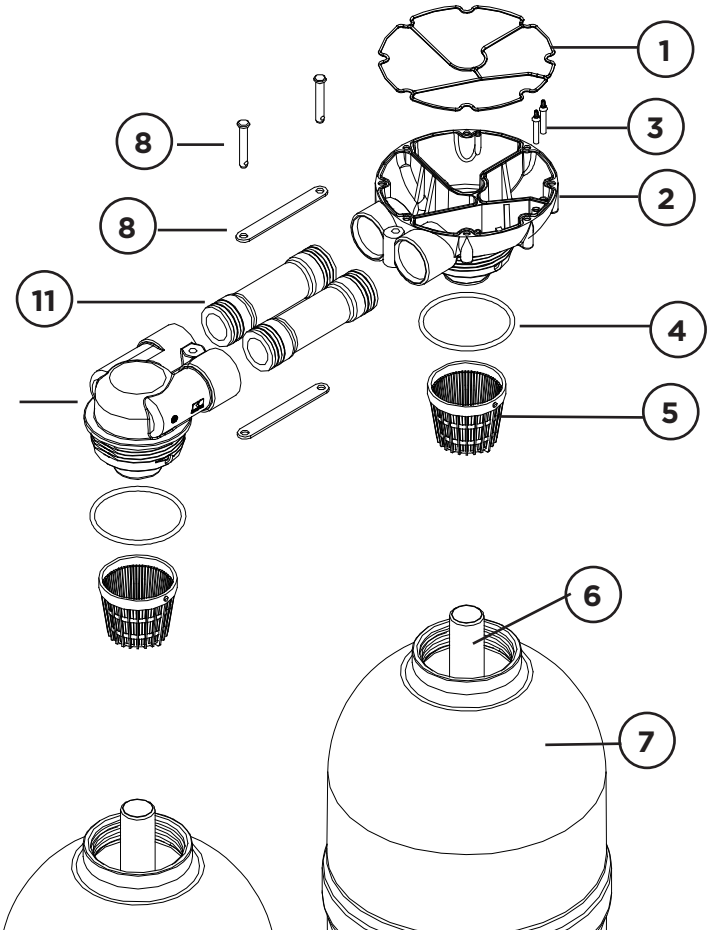


Dwg. No.	Description	Qty Required	Model Number		
			HE UK	HF UK	HE INT
1	Level 5 Std - Check Stems	1	13700A	13700A	13700A
2	Interlock	1	13697	13697	13697
3	Drain Valve w/Quad	2	15129A	15129A	15129A
4	Drain/Control Valve Seal	2	8193A	8193A	8193A
5	Quad, Drain/Control Valve	2	8187A	8187A	8187A

Bases, Tanks and Tubes

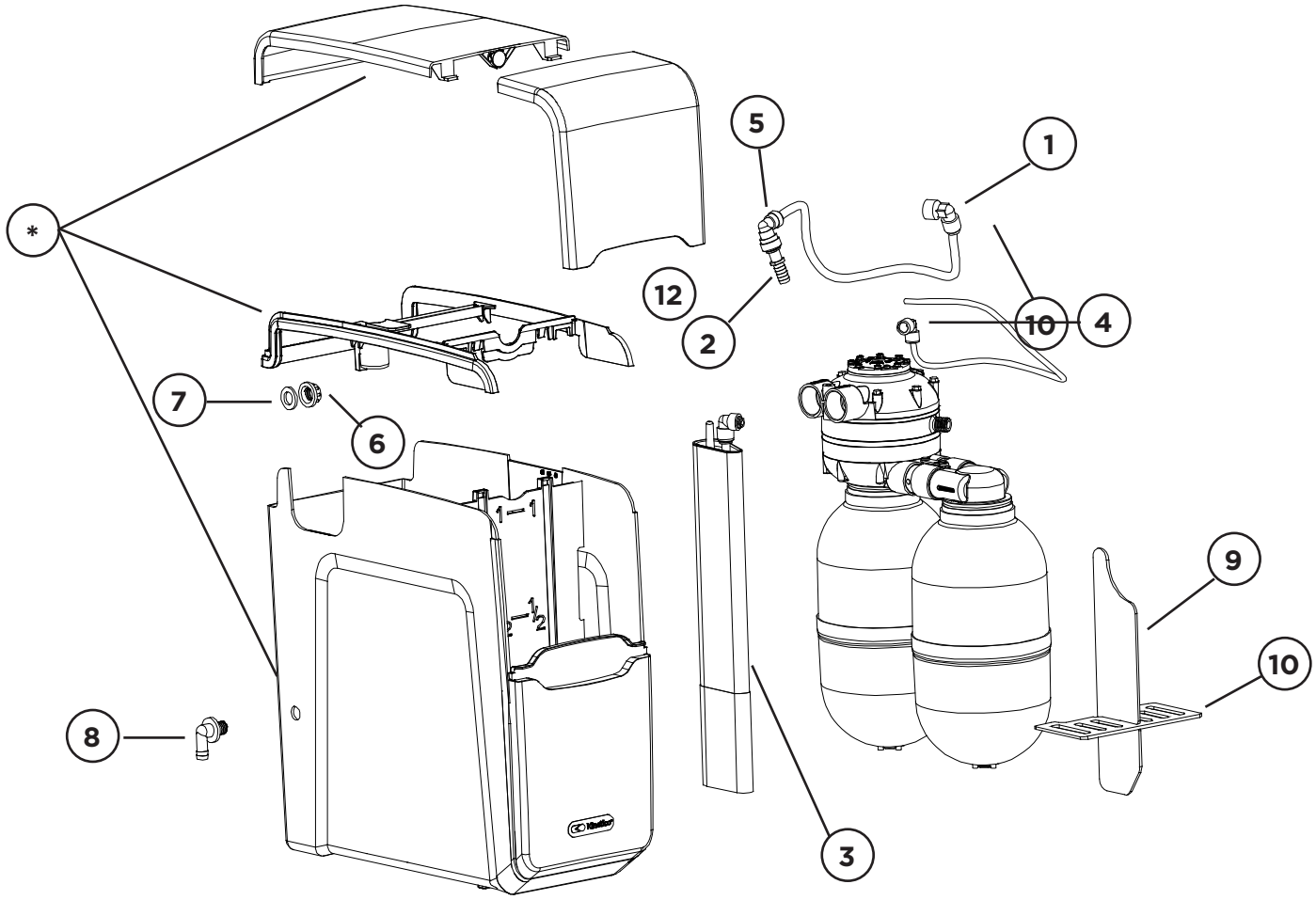
Notes:

1. Locate the correct part from the exploded drawing on the right, and use it to find the correct row in the table below. The standard model number determines the correct column.



Dwg. No.	Description	Qty Required	Model Number		
			HE UK	HF UK	HE INT
1	Seal, Main Base, Reverse Flow	1	8633	8633	8633
2	Main Base, Reverse Flow	1	13701	13701	13701
3	Check Stem	2	8627	8627	8627
4	O-ring, Base	1	15492	15492	15492
5	Distributor, Upper, Snap Fit	2	13703	13703	13703
6	Distributor Tube	2	Snap fit	Snap fit	Snap fit
7	Media Tank	2	10265B	10265B	10265B
8	Connector Pin	2	4742	4742	4742
9	Connector Link	2	10211	10211	10211
10	Connector Pipe	2	14654	14654	14654
11	O-ring, Connector	4	1328	1328	1328
12	Remote Base	1	13705	13705	13705
--	Resin	cf#	13370	15899	13370

Premier Compact HE / HF



Dwg. No.	Description	Qty Required	Part Number
1	Elbow, 1/4" FNPT x 1/4" Tube	1	10084A
2	Connector, 1/2 STM x 1/2 BARB	1	10079
3	Brine Valve Assembly	1	16135
4	Elbow, 3/8" FNPT x 3/8" Tube	1	10076A
5	Elbow, 1/2" Tube x 3/8" Tube	1	10102A
6	Nut, Overflow	1	16129A
7	Washer, Overflow	1	10092
8	Elbow, Overflow	1	16128A
9	Salt Divider	1	16131
10	Salt Shelf	1	16130
*	Brine Drum Sub-Assembly	--	16132

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