PRE-TREATMENT CHEMICAL REMOVAL SYSTEM
INSTALLATION AND USER GUIDE

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1) INTRODUCTION

The Pre-Treatment Chemical Removal system removes the Chlorine and other volatile chemicals. This manual must be read prior to installation and service of Pre-Treatment Chemical Removal Filter.

2) INSTALLATION

2.1) Water Test Results

Parameter	Water Sample Results
Hardness	
Iron	
pH	
Chlorine	
Manganese	
Sulphur	Yes / No
Phosphates	
Total Dissolved Solids	

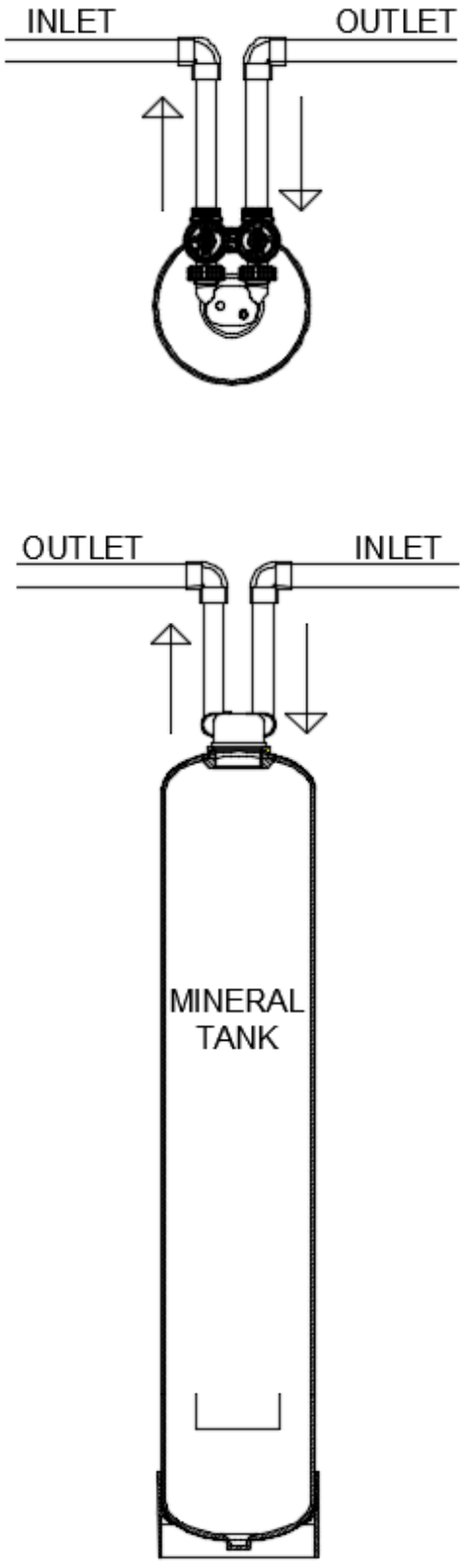
2.2) General Installation and Service Warnings

- The filter is designed so that it can be installed easily with minor plumbing changes at point of entry on previous plumbing.
- The piping must be clamped properly and the weight of the plumbing must not be on the filter.
- Do not use any kind of lubricant including silicone. A silicone based lubricant can be only used on black O-Rings but not necessary.
- Do not use pipe dope or other sealant on plastic nuts.
- The nuts can be fastened and unfastened by hand or the plastic service wrench. Do not use pipe wrench to tighten the caps and nuts.
- Do not block access to main shut off, water meter and other equipment.

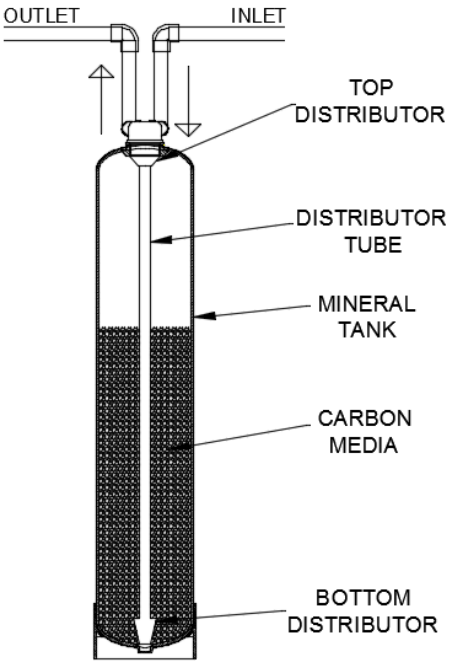
2.3) Site Requirements

- Water Pressure: - 30-100 psi
- Water Temperature: - 40-110°F (4.4-43°C)
- The tank should be installed on firm level surface

2.4) Installation Drawing

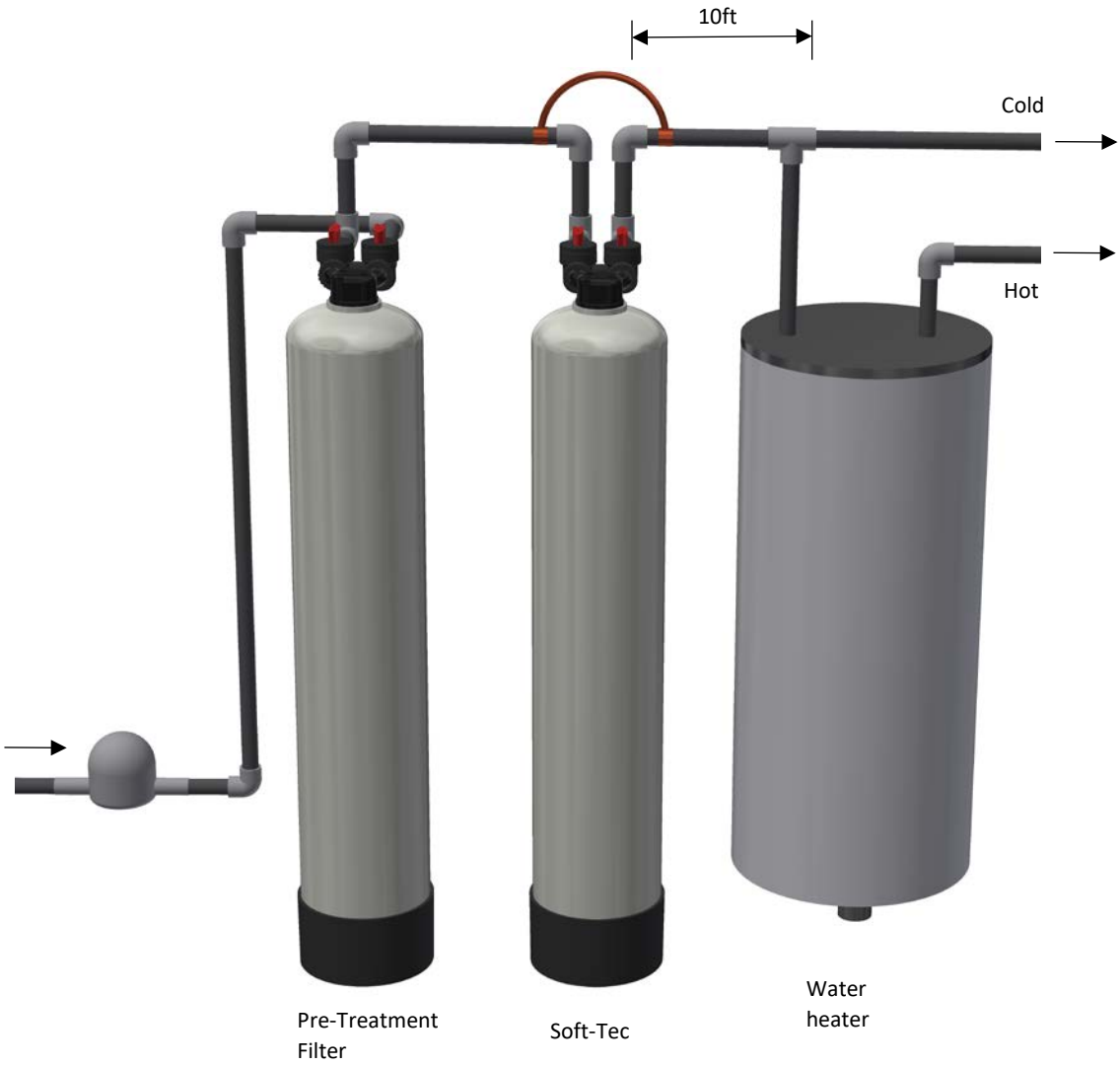


2.5) System Drawing



2.6) Plumbing Instructions

Filter Installation



Filter Installation With Soft-Tec System

2.7) Setup

1) Unpack the system and confirm the components with list. If missing anything report the missing part to dealer immediately.
2) Fasten the bypass valve nuts on the head of the tank.
3) Turn the bypass valve handles to the bypass position by facing both handles outwards.

2.8) Installation Instructions

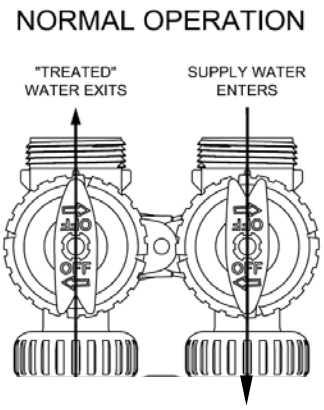
1) The water heater's inlet must be at least 10ft away from filter.
2) The unit must be located in a room temperature above 33° F.
3) If vacuum occurrence is expected then the vacuum breaker must be installed at the inlet of the filter.
4) The unit must not be exposed to direct sunlight. Ultraviolet rays can damage the system
5) The primer, solder or solder flux must not get on the O-rings while installation.
6) After soldering the lines must be cooled before installing the O-Rings, nuts and caps.
7) If the electrical system is grounded to the plumbing, then a copper strap must be connected between inlet and outlet as shown in figure.
8) The plumbing must be done by following the local plumbing codes.
9) If heavy dirt and debris has been tested or expected in future, then 20-micron sediment filter should be installed in pre-treatment.
10) If booster pump is required always install the pump upstream of the system.

3) SPECIFICATIONS

Model Number[1]	Mineral Tank	Media ft^3 (Liters)	Flow GPM (LPS)		Space Required	Shipping Weight
	Dia X Height		Continuous	Peak	LxWxH	LBS
EWS POUPCS075	8X44	0.75 (21.2)	5.0 (0.32)	8.0 (0.50)	14x9x48	35
EWS POUSBCS075	8x44	0.75 (21.2)	5.0 (0.32)	8.0 (0.50)	14x9x48	37

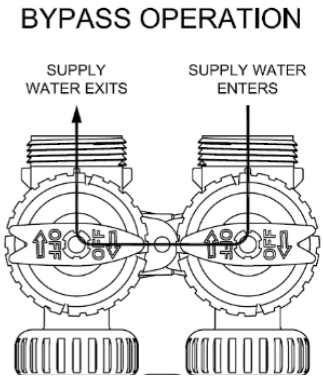
1: - EWS POUPCS075 is Premium Model and EWS POUSBCS075 is Superior Model

4) BYPASS VALVE



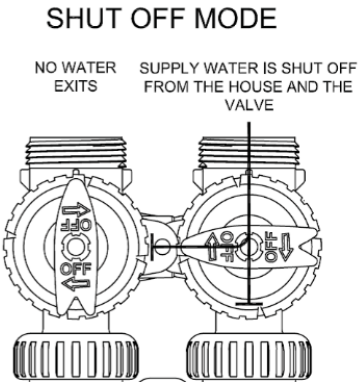
NORMAL OPERATION

The inlet and outlet handles of bypass valve should be pointing towards the direction of flow. Inlet is labelled on tank head as downflow inlet. Water flows downwards through the filter bed.



BYPASS OPERATION

The inlet and outlet handles point towards the center of bypass valve. The system is isolated from the water pressure in the plumbing system. Untreated water is supplied to the house in this position.



SHUT OFF MODE

The inlet handle point towards the center of bypass valve and the outlet handle points in the direction of flow, the water is stopped going to the plumbing system. If water is available on the outlet side of the Filter, it is an indication of water bypass around the system.

5) START UP INSTRUCTIONS

- Keep the bypass valve in bypass operation by moving both handles pointing towards the center of bypass valve.
- Open the main water supply valve, now the untreated water is being supplied to house. Open the faucet downstream of the filter. The initial water can be dirty because of installation debris. Now inspect the plumbing for leaks.
- Shut off the main water supply valve and turn the bypass valve handles to service position.
- Fully open the faucet downstream of the filter. Slowly open the main water supply valve to just ¼ way open. The water pressure is released into the tank. The air should come out of the faucet.
- Once all the air has been removed from the tank, again turn the bypass valve handles to bypass position to soak the media for 60 minutes. Now fully close the faucet and fully open the main water supply valve.
- After the soaking period of 60 minutes, turn the other bypass valve handles into the direction of service operation. To flush the media, open the single bath tub faucet or 3 sink faucets together to reach flow rate of 5 GPM for 5 minutes.
- Shut the bath faucet off and open one sink faucet ¼ way open to approximately reach 0.5 GPM for 60 minutes in order to slow rinse the system.
- Now, the system is ready to use normally.

6) SERVICE INSTRUCTIONS

6.1) Media Replacement

Step 1: - Shut the inlet water supply off by turning valve clockwise.

Step 2: - Open the faucet downstream of the filter to release the pressure and then shut off the faucet.

Step 3: - Turn the bypass valve handles towards the center to bypass operation.

Step 4: - Loosen the bypass valve – tank connections and keep the bypass valve installed on plumbing.

Step 5: - Hold the tank and rotate the in-out head counterclockwise to remove the tank head from the tank.

Step 6: - If supply water is needed in house, the main water supply valve can be turned on.

Step 7: - Pour the tank water into the drain and use some type of screen to prevent the media particles going to the drain.

Step 8: - Rinse the tank with water.

Step 9: - Place the distributor in the bottom center rim and plug the distributor tube opening with rag or tape.

Step 10: - Use a funnel or other device to pour the appropriate quantity of media into the tank.

Step 11: - Fasten the tank head after inserting the distributor tube into the in-out head.

Step 12: - Fasten the bypass valve connections.

Step 13: - Follow the start-up instructions given in this manual.

6.2) Sediment Filter Cartridge Replacement (if exists)

Step 1: - Shut off the main water supply.

Step 2: - Press the red button on the housing to release the pressure.

Step 3: - Loosen the blue housing by turning it counter clockwise with service wrench.

Step 4: - Remove the old cartridge and insert the new cartridge filter onto the stand pipe.

Step 5: - Inspect and lubricate the O-ring with silicone lubricant.

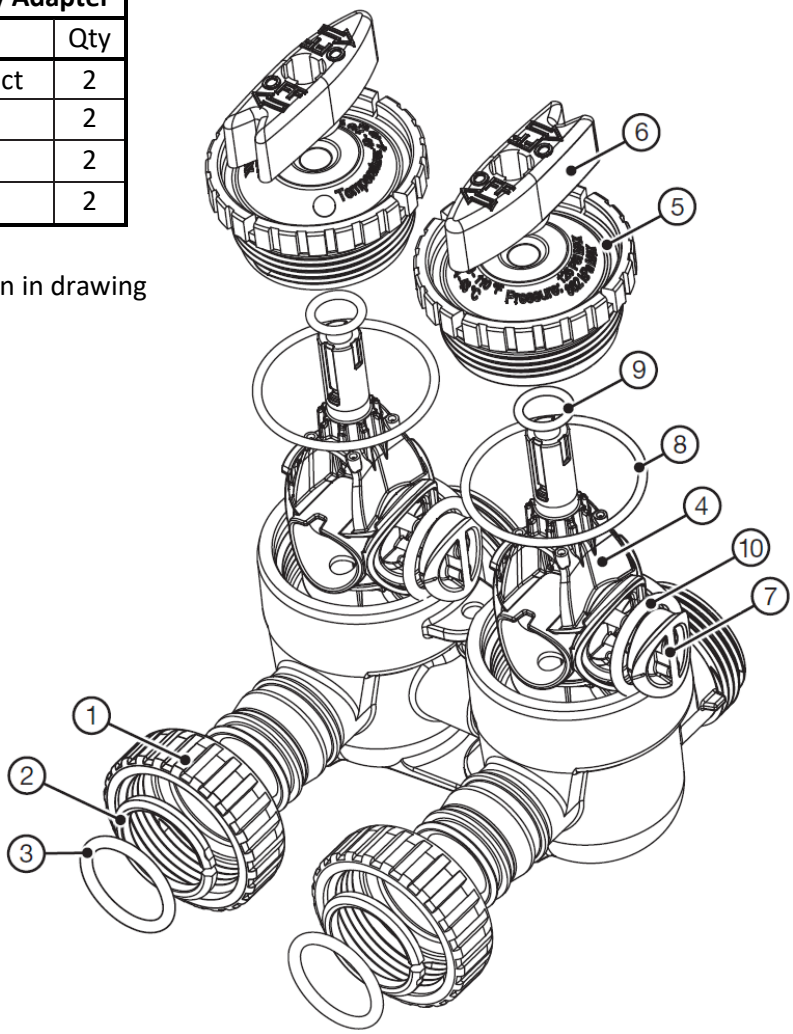
Step 6: - Fasten the housing to the head and slowly open the supply water and open the downstream faucet to remove the air.

7) BYPASS VALVE COMPONENTS

CLK V3006		WS1 Bypass Valve Assembly	
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 Nut 1” Quick Connect	2
2	CLK V3150	WS1 Split Ring	2
3	CLK V3105	O-Ring 215	2
4	CLK V3145	WS1 Bypass 1” Rotor	2
5	CLK V3146	WS1 Bypass Cap	2
6	CLK V3147	WS1 Bypass Handle	2
7	CLK V3148	WS1 Bypass Rotor Seal	2
8	CLK V3152	O-ring 135	2
9	CLK V3155	O-ring 112	2
10	CLK V3156	O-ring 214	2

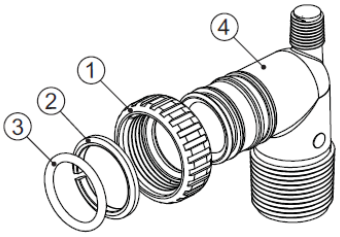
CLK V319101	WS1 Bypass Vertical Asy Adapter	
Order No.	Description	Qty
CLK V3151	WS1 Nut 1” Quick Connect	2
CLK V3150	WS1 Split Ring	2
CLK V3105	O-Ring 215	2
CLK V3191	WS1 Bypass Vertical	2

*Bypass Valve Vertical Adapter not shown in drawing

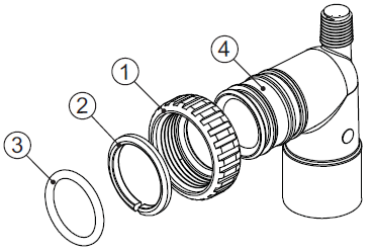


8) INSTALLATION FITTING ASSEMBLIES

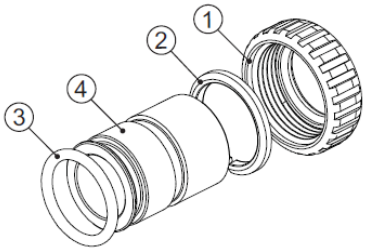
CLK V3007 WS1 Fitting 1" PVC Male NPT Elbow Assembly			
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 NUT 1" QUICK CONNECT	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V3149	WS1 FITTING 1 PVC MALE NPT	2



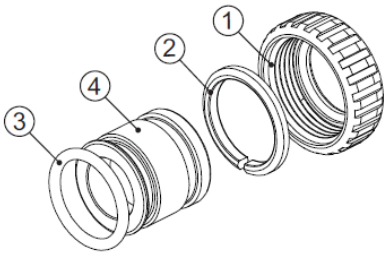
CLK V300701 WS1 Fitting ¾" & 1" PVC Solvent 90º Assembly			
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 NUT 1" QUICK CONNECT	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V3189	WS1 FITTING ¾ & 1 PVC SOLVENT 90	2



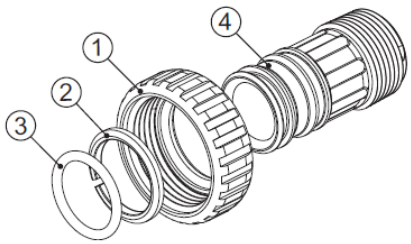
CLK V300702LF WS1 Fitting 1" Brass Sweat Assembly LF			
Drawing No.	Order No.	Description	Qty
1	CLK V3151	WS1 NUT 1" QUICK CONNECT	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V3188LF	WS1 FITTING 1 BRASS SWEATASSEMBLY LF	2
Do not install in California.			



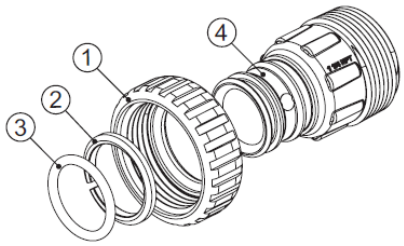
CLK V300703LF WS1 Fitting ¾" Brass Sweat Assembly LF			
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 NUT 1" QUICK CONNECT	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V318801LF	WS1 FITTING ¾ BRASS SWEAT LF	2
Do not install in California.			



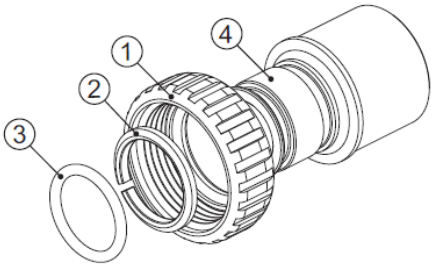
CLK V300704 WS1 Fitting 1" Plastic Male NPT Assembly			
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 NUT 1" QUICK CONNECT	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V3164	WS1 FITTING 1" PLASTIC MALE NPT	2



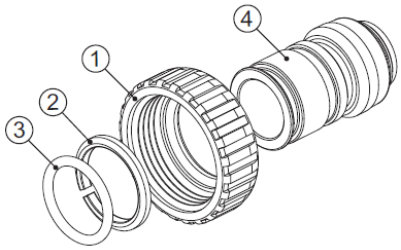
CLK V300705 WS1 Fitting 1-1/4” Plastic Male NPT Assembly			
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 NUT 1” QUICK CONNECT	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V3317	WS1 FITTING 1-¼" PLASTIC MALE NPT	2



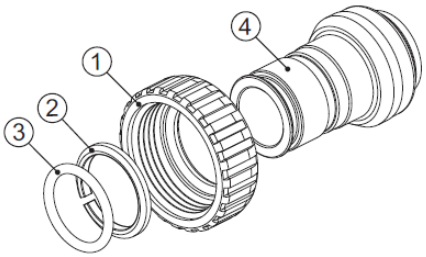
CLK V300709LF WS1 Fitting 1-1/4” & 1-1/2” Brass Sweat Assembly LF			
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 NUT 1” QUICK CONNECT	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V3375LF	WS1 FITTING 1-1/4" & 1-1/2" BRASS	2



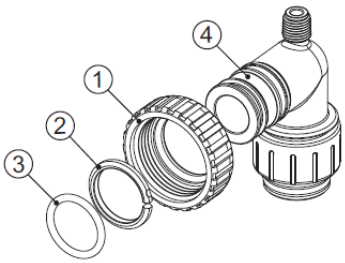
CLK V300712LF WS1 Fitting 3/4” Brass SharkBite Assembly LF			
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 NUT 1” QUICK CONNECT	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V3628LF	WS1 FTG 3/4 BRASS SHARKBITE LF	2



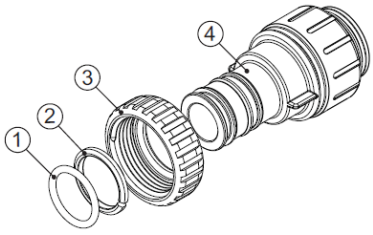
CLK V300713LF WS1 Fitting 1” Brass SharkBite Assembly LF			
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 NUT 1” QUICK CONNECT	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V3629LF	WS1 FTG 1” BRASS SHARKBITE LF	2



CLK V300715 WS1 FTG ¾ JG QC 90 Assembly			
Drawing No.	Order No.	Description	Quantity
1	CLK V3151	WS1 NUT 1 QC	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3105	O-RING 215	2
4	CLK V3790	WS1 ELBOW 3/4 QC W/STEM	2



CLK V300717 WS1 FTG 1” JG QC Assembly			
Drawing No.	Order No.	Description	Quantity
1	CLK V3105	O-RING 215	2
2	CLK V3150	WS1 SPLIT RING	2
3	CLK V3151	WS1 NUT 1 QC	2
4	CLK V4045	WS1 FTG 1 INCH QC	2



9) TROUBLESHOOTING PROCEDURES

Problem	Possible Cause	Solution
1. Unfiltered water is being delivered	a. Bypass valve is open or faulty	a. Fully close bypass valve or replace
	b. Water quality fluctuation	b. Test water and adjust pre-treatment if exists
	c. Damaged seal	c. Replace seal
	d. Fouled media bed	d. Replace media bed
2. Water leaking at the top of the tank around the head	a. Loose tank head	a. Loosen and take out the inlet and outlet plumbing connections and then turn the head by holding the tank. (Just snug the head over the tank do not overtighten)
3. Water pressure decreased	a. Plugged sediment filter (if exists)	a. Replace the cartridge filter
	b. Pre-Treatment filters plugged	b. Regenerate or replace the faulty pre-treatment filters
	c. Fouled media bed	c. Replace the media
4. Leaking bypass valve	a. Faulty O-ring	a. Replace or lubricate the O-rings
	b. Loose bypass valve plastic nuts	b. Fasten the connection nuts with hands. (Never use pipe wrench to fasten or unfasten)

10) WARRANTY

Lifetime Tank Warranty

Superior Pre-Treatment Chemical Removal Filter 5 Year Warranty

Premium Pre-Treatment Chemical Removal Filter 7 Year Warranty

Thank you for your purchase of our PRE-TREATMENT CHEMICAL REMOVAL SYSTEM. For proof of purchase, please retain your Invoice / Sales Order Copy.

Warranty ~ Offered

Excalibur Water Systems warranties its products to be free from defect in materials and workmanship to the original owner from the date on the proof of purchase as described below.

Warranty ~ Working Procedures

If during the suitable warranty period, a part is defective, then Excalibur Water Systems will repair or replace that part at no charge to the original owner, with the exception of charges for nominal shipping, service and/or installation.

Warranty ~ Coverage Outlined

Excalibur Water Systems guarantees, to the original owner, a period of 5 or 7 years, the IN–OUT HEAD to be free of defects in materials and workmanship and to perform its proper functions. Other parts to be free of defects in materials and workmanship and to perform their normal functions to the original owner, the MINERAL TANK will not rust, corrode, leak, burst or in any other form fail to perform their proper functions for a LIFETIME period of 20 YEARS.

Warranty ~ Service

In the event you require service, your local Excalibur Water Systems Dealer will provide all necessary service and installation for your Pre-Treatment Chemical Removal Filter. To obtain warranty service within 30 days of discovery of the defect, notification must be given to your local Excalibur Water Systems Dealer.

General Provisions

The above warranties are effective provided the PRE-TREATMENT CHEMICAL REMOVAL FILTER is operated at water pressures not exceeding 125psi and at water temperatures not exceeding 120°F; also provided that the PRE-TREATMENT CHEMICAL REMOVAL FILTER is not subject to abuse, misuse, alteration, neglect, freezing, accident or negligence; and provided further that the Pre-Treatment Chemical Removal Filter is not damaged as the result of any unusual force of nature such as, but not limited to flood, hurricane, tornado or earthquake. Excalibur Water Systems is excused if failure to perform its warranty obligations is the result of strikes, government regulation, materials shortages or other circumstances beyond its control.
THERE ARE NO WARRANTIES ON THE PRE-TREATMENT CHEMICAL REMOVAL FILTER BEYOND THOSE SPECIFICALLY DESCRIBED ABOVE. ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, ARE DISCLAIMED TO THE EXTENT THEY MIGHT EXTEND BEYOND THE ABOVE PERIODS. THE SOLE OBLIGATION OF EXCALIBUR WATER SYSTEMS UNDER THESE WARRANTIES IS TO REPLACE OR REPAIR THE COMPONENT OR PART PROVES TO BE DFEFECTIVE WITHIN THE SPECIFIED TIME PERIOD AND EXCALIBUR WATER SYSTEMS IS NOT LIABLE FOR CONSEQUENTIAL OR INDIDENTAL DAMAGES. NO DEALER, AGENT, REPRESENTATIVE OR OTHER PERSON IS AUTHORIZED TO EXTEND OR EXPAND THE WARRANTIES EXPRESSED ABOVE.

Certain provinces or states do not allow limitations on how long an implied warranty lasts or exclusions or limitations of incidental or consequential damage, therefore limitations and exclusions in this warranty may not apply to you. This warranty extends you specific legal rights as you may have other rights which vary from province to province or state to state.

Excalibur Water Systems is a manufacturer of water treatment products.

Barrie, ON
Canada