

ClearWater™

HIGH RATE SAND FILTER



**DELUXE SYSTEM
OWNER'S MANUAL**

CLEARWATER DELUXE SAND FILTER SYSTEM OWNER'S MANUAL

 **WARNING: A GFCI is required. Follow national and local building and safety codes.**

Your ClearWater Deluxe Sand Filter System is shipped complete, with all needed components ready for assembly and installation.

System will require a 110 Volt / 20 Amp service. **DO NOT** use extension cords. Use will void warranty on pump motor. The pool equipment should be located between the pool skimmer and return line. The filtration system should not be installed less than 2 ft. and no more than 5ft. from the pool. The ClearWater Deluxe Sand Filter System needs to be on a completely flat level / surface (patio block, cement slab, etc.).

Assemble filter system only after above ground pool is installed. Fill pool with water. **IMPORTANT:** Do not raise water level above pool return line or skimmer throat until installation is complete.

NOTE: Open shipping carton in an upright position checking contents, as follows:

- | | |
|----------------------------|------------------------------|
| 1. One-piece mounting base | 5. One fittings bag |
| 2. One pump | 6. One collar wrench |
| 3. One filter | 7. Trap assemblies |
| 4. Two corrugated hoses | 8. Sand filter hose assembly |

INSTALLATION INSTRUCTIONS

 **WARNING! READ ALL INSTRUCTIONS AND WARNING LABELS BEFORE OPERATING FILTER!**

- Place filter with filter base on a level, secure surface. There is no need to disassemble filter or pump assemblies. Position sand filter body securely onto filter base. Align drain with drain clearance on base. Secure sand filter body to base using bolt (#20) and washer (#21) as shown. **DO NOT** over tighten.
- Open box and remove pump and trap.
- Secure pump to pump base using pin and anchor assemblies (#24) (Detail 1).
- IMPORTANT:** To prevent damage to internal filter lateral components, fill filter tank full with water prior to adding sand. With sand fill guide (#8) positioned in filter tank opening, add only recommended #20 grade silica sand (see Fill Chart). Remove sand fill guide. **IMPORTANT:** Clean and remove all debris from filter tank flange after adding sand.
- Assure that o-ring (#5) is positioned onto multi-port throat.
- Install multi-port valve with inlet and outlet ports facing pool. Top of internal stand pipe seats directly into multi-port valve. Push multi-port valve evenly onto tank flange. **NOTE:** Make sure tank flange is clear of any sand debris.
- Install filter tank split-nut assembly (#7, 7a & 7b) by threading split-nut clockwise until hand tight. Then use split-nut wrench (#6) to tighten further (Detail 3).
- To use split-nut wrench (#6), place on split-nut assembly, use both hands to turn wrench $\frac{1}{2}$ to $\frac{3}{4}$ of a turn to secure multi-port valve to filter body (Detail 2).
- Position and hand tighten smaller end of sand filter hose assembly (#15) to top inlet port of multi-port valve (#4) by positioning gasket (#11) and hand tighten onto already installed buttress (#10). Position and hand tighten other end of sand filter hose assembly by positioning gasket (#25) and hand tighten onto volute on pump (Detail 5). **DO NOT** over tighten.
- Thread gate valve (#33) and $1\frac{1}{2}$ " gasket (#11) onto suction side of pump trap and hand tighten (Detail 4a).
- Apply Teflon tape (4 wraps ideal) to Pressure Gauge (#3). Thread into multi-port valve.
- Remove 4 hose clamps (#14) and position over end of corrugated hoses (#13). Install corrugated hose (#13) onto return sweep assembly (#12), on multi-port valve and to pool return fitting. Tighten hose clamps. Install the other corrugated hose between gate valve (#33) and pool skimmer fitting. Tighten hose clamps. **NOTE:** Soften hose ends with warm water to ease installation onto fittings (if necessary).
- Install waste adapter fitting (#1) with o-ring (#2) (Detail 4).

SYSTEM START UP

- Fill pool until water is halfway up length of skimmer throat.
- Make sure pump trap is full of water. Slightly loosen trap lid to relieve pressure and allow water to fill trap. Re-tighten lid.
- Make sure multi-port valve handle is in **Filter** position.
- Plug pump into GFCI outlet and turn pump on. Turn two-speed pumps to high.
- Make note of start-up pressure on gauge.
- Check for leaks.

WINTERIZATION

- Backwash filter system completely. See Cleaning Instructions.
- Run a filter cleaning chemical through filter system as per cleaner instructions.
- Turn pump off. Disconnect hoses from skimmer and return fitting.
- Remove drain cap from bottom of filter tank (#18). **DO NOT** remove self-threading drain assembly (#17).
- Unscrew drain plugs located at bottom of pump trap and front of pump housing. Let water drain completely.
- Disconnect filter to pump connection. Loosen union connection on discharge of pump and remove from pump. **DO NOT** lose 2" union gasket (#24). Lift and remove pump and pump base from filter base. Store inside.

CLEANING INSTRUCTIONS

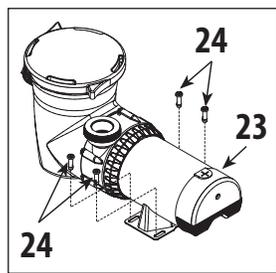
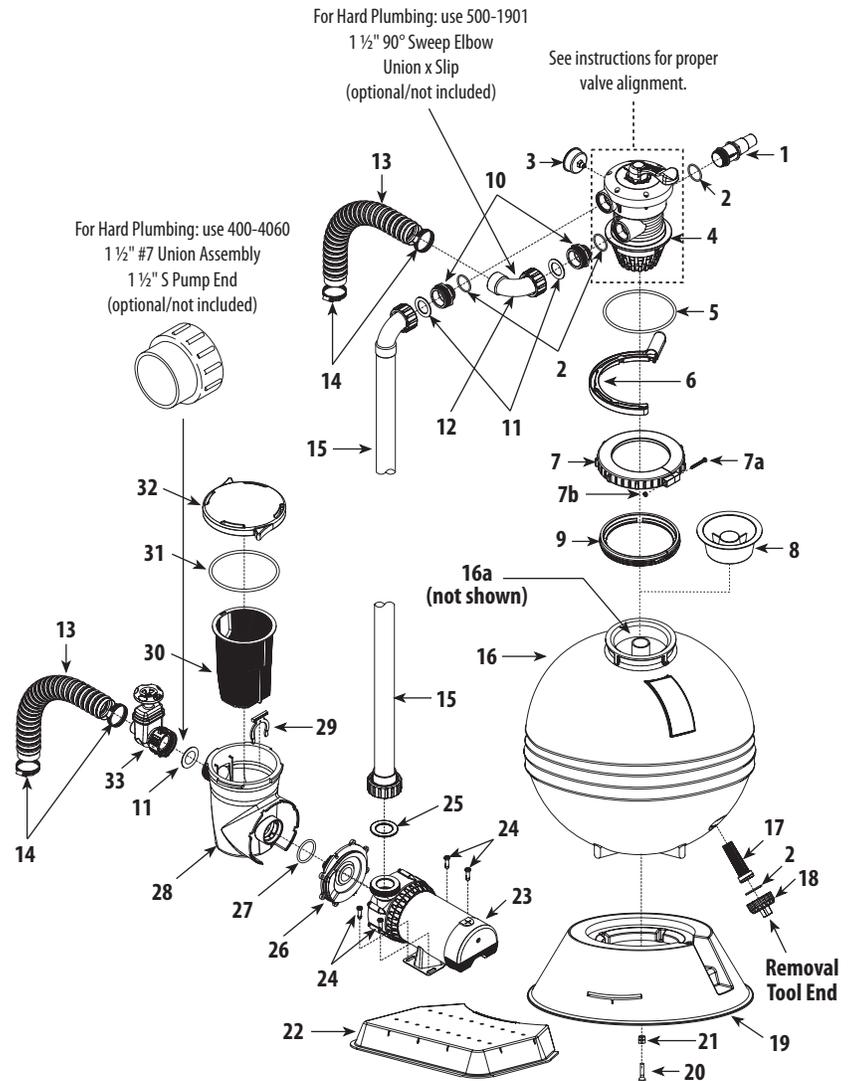
NOTE: When pressure gauge reading is 5 PSI or higher than original starting pressure, the filter needs to be cleaned. The ClearWater Deluxe Sand Filter System features our exclusive 7-Position Multi-Port Valve, which ensures safe and simple filter maintenance.

 Pressurized vessel. Never attempt to loosen or open split-nut assembly (#7, 7a & 7b) while system is running. It could cause severe injury or harm to user. **NEVER CHANGE VALVE POSITION WITH PUMP RUNNING!**

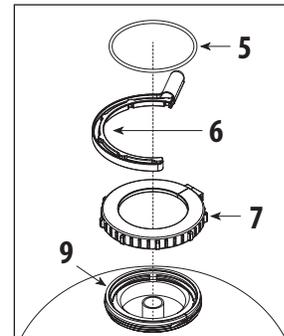
- Turn off pump.
- Attach backwash hose (optional) to waste port adapter.
- Rotate multi-port valve handle to **Backwash** position. Turn pump on and run for 90 second intervals or until discharge water is clear. Turn pump off.
- Rotate multi-port valve handle to **Rinse** position. Turn pump on for 30 seconds.
- Repeat steps 3 & 4 until all discharge water is clear while pump is turned on.
- Rotate multi-port valve handle to **Filter** position. Turn pump on. Valve is now in normal operating position.

CLEARWATER DELUXE SAND FILTER SYSTEM PARTS LIST

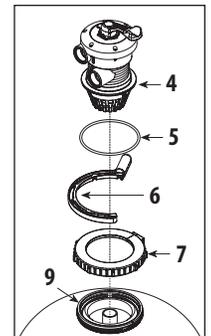
Item	Part No.	Description
1	425-1928	Waste Adapter Fitting
2	805-0224	O-Ring
3	830-3000	Pressure Gauge
4	WVS003	Multi-Port Valve Assembly
5	805-0435	O-Ring
6	505-1970	Wrench - Split Nut
7	718-1960	Split-Nut - Sand Filter
7a	819-0015	Screw - ¼" - 20 PPH x 1 ½"
7b	820-0013	Hex Nut - Serrated ¼" - 20
8	502-2011	Sand Fill Guide
9	505-1960	Threaded Sleeve for Split-Nut
10	417-4161	1 ½" Buttress x 1 ½" MPT
11	711-4000	1 ½" Gasket
12	550-1841	Return Sweep Assembly
13	872-9002	Corrugated Hose - Black
14	872-0010	Hose Clamp - Stainless Steel
15	550-1811	16" Sand Filter Hose Assembly
	550-1821	19" Sand Filter Hose Assembly
	550-1831	22" Sand Filter Hose Assembly
	550-1833	26" Sand Filter Hose Assembly
16	515-1601	16" Sand Filter Body
	515-1901	19" Sand Filter Body
	515-2001	22" Sand Filter Body
	515-2061	26" Sand Filter Body
16a	505-2040	16" Lateral and Manifold Assembly
	505-2050	19" Lateral and Manifold Assembly
	505-2060	22" Lateral and Manifold Assembly
	505-2080	26" Lateral and Manifold Assembly
17	602-5310	Self-Threading Drain Screen
18	602-5321	Drain Cap
19	672-7211	Filter Base
20	819-0039	Bolt ¾" - 22"
	819-0016	Bolt ¾" - 16" & 19"
21	820-0017	Washer ⅜" Flat
22	672-7201	Pump Base
23	PSP1100	1 HP - 1-Speed Supreme Pump
	PSP1150	1 ½ HP - 1-Speed Supreme Pump
	PSP1200	2 HP - 1-Speed Supreme Pump
	PSP2100	1 HP - 2-Speed Supreme Pump
	PSP2150	1 ½ HP - 2-Speed Supreme Pump
	PSP2200	2 HP - 2-Speed Supreme Pump
24	429-7300	Pin & Anchor Assembly
25	711-4010	2" Gasket
26	311-1520	Faceplate - Supreme Pump
27	805-0330	O-Ring
28	319-1510	Supreme Pump Trap Body
29	319-1540	C-Clip Supreme Pump
30	319-1530	Supreme Trap Basket
31	805-0439	O-Ring
32	511-1310	Trap Lid
33	WV001H	Gate Valve



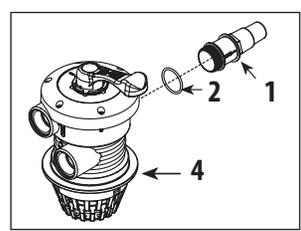
DETAIL 1



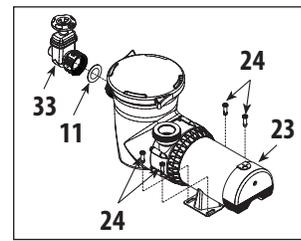
DETAIL 2



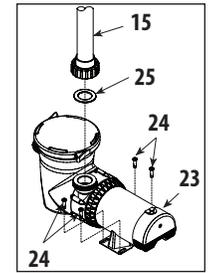
DETAIL 3



DETAIL 4



DETAIL 4a



DETAIL 5

TROUBLESHOOTING

MOTOR DOES NOT START: Make sure motor is plugged in.
Circuit breaker in OFF position.
Thermal Overload in tripped position.

WIRING INSTALLATION INCORRECT: Incorrect line voltage.
Defective wiring.

THERMAL OVERLOAD TRIPS: Low Voltage.
Wiring installation incorrect.
Dual voltage pumps mis-wired.
Inadequate ventilation.

NO WATER FLOW: Obstruction of suction or return line.
Clogged impeller.
Suction system air leaks.
Slice Valve Closed.
Clogged Hose Fitting.
Clogged Basket.
Dirty Sand.

EXCESSIVE PUMP NOISE: Worn Bearings.
Suction Line Clogged.
Pump incorrectly mounted.
Hose Fitting partially closed.
Slice Valve partially closed.
Clogged Trap Basket.

INADEQUATE FILTERING: Sand level too low.
Inadequately cleaned system.
Excessive dirt load.
Chemical imbalance.
Inadequate system pressure.

SAND FILL CHART:

Model FS016 - 50 lbs
Model FS019 - 100 lbs

Model FS022 - 150 lbs
Model FS026 - 200 lbs

CHLORINATOR & BROMINATOR USE WARNINGS

READ AND FOLLOW ALL INSTRUCTIONS! SAVE THESE INSTRUCTIONS!

WARNING! To reduce the risk of injury and product damage:



Feeders are designed to use only Chlorine (Trichloro-s-triazinetrione) or Bromine (Bromochloro -5, 5 Dimethylhydantoin) tablets, slow dissolving type. **UNDER NO CIRCUMSTANCES** MIX Trichlor OR Bromine with Calcium Hypochlorite, with other forms of concentrated chlorine, or with other chemicals **FIRE AND/OR EXPLOSION MAY RESULT.** **NEVER** use oils or grease to lubricate O-ring. Oil in contact with Trichlor OR Bromine may result in **FIRE.** Caution should be used when removing feeder cap. Do not inhale fumes.

If shock treatments or Algaecides containing chemicals other than sanitizer tablets in feeder must be used, then turn off feeder OR remove tablets until the shock or algae treatment is complete and all granules have dissolved. Failure to do so may result

in granules mixing in feeder causing **FIRE AND/OR EXPLOSION.** The shock or algae treatment dissolved in water is safe with tablets.

ALWAYS WEAR PROTECTION for eyes, skin and clothing when working with chemicals. Do not smoke and avoid sparks and open flames. Turn off pump and control valve before opening chlorinator. Use of bulk chemicals may result in damage to pool. Chemicals will dissolve very quickly and may cause bleaching to liner due to over-chlorinating, possibly causing unsafe pool conditions.

Settings in excess of the recommended control setting levels for the chlorinator can result in excess chlorine being discharged in your pool. This can result in bleaching or discoloration of areas around the pool inlet or in some cases bleaching of the entire pool liner or paint (**CHECK CHEMICAL RESIDUALS REGULARLY.**)

LIMITED WARRANTY

Waterway Plastics manufactures its products and equipment in accordance with very high standards of workmanship. We use the best materials available and maintain the highest quality procedures practical in the industry. In accordance, Waterway warrants its products as follows:

All plastics parts such as jets, valves, skimmers, manifolds, suction, lights, and other plastic components manufactured by Waterway will be replaced or repaired if the defects are determined by Waterway to be the responsibility of Waterway Plastics for a period of three years from the date of installation. The warranty does not cover filter cartridges, D.E. grids, o-rings, pressure gauges, pump seals, light bulbs or any parts not manufactured by Waterway. Warranty applies to OEMs and Distributors of Waterway Products.

The Supreme and Hi-Flo Pumps will receive limited warranty from any defect in material or workmanship of one year from the date of manufacture. This includes the motor but not the motor seal.

All thermoplastic molded filter bodies and rotational molded sand filter bodies have a warranty of ten years, warranted on a pro-rata life basis. If a defect becomes apparent during the first year, the body will be exchanged for a new body if the defects are determined by Waterway to be the responsibility of Waterway Plastics. If a defect becomes apparent after the first year from the date of manufacture which, in the opinion of Waterway, will require replacement, the body

will be exchanged for a new tank on an adjusted service pro-rata life basis.

Charges to the owner, on the pro-rata life basis, will be determined by the actual number of months installed beginning with the date of installation.

Products that fail or become defective during the warranty period, except as a result of improper installation, bad water chemistry, accidents or negligence on behalf of the owner, freezing, earthquakes, fire floods, or other acts of nature, shall be repaired or replaced at Waterway's option without charge to the owner. This process will be completed within 90 days of receipt of the defective product barring delays caused by the acquisition of component parts not manufactured at our facility.

To obtain warranty replacements or repair, defective products should be returned (transportation paid) to the place of purchase, or to Waterway. It should include a description of the defect and the circumstances surrounding the incident or problem.

Waterway shall not be responsible for cartage, removal and/or reinstallation labor, or any other such costs incurred in obtaining warranty replacements. Warranty applies to OEMs and Distributors of Waterway Products.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.



Waterway™

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