

Sand Filtration System

Owners Manual

Installation, Operation, and Parts




SHOW FILTRATION SYSTEM


SAVE THIS INSTRUCTION MANUAL


Note: Use only High Rate Sand No. 20 Silica Sand (.45mm - .55) specifically manufactured for sand filters

SAFETY INFORMATION. Please read carefully.


Basic safety precautions should always be followed, including the following: Failure to follow instructions can cause severe injury and/or death.


 This is the safety-alert symbol. When you see this symbol on your equipment or in this manual, look for one of the following signal words and be alert to the potential for personal injury.


 **WARNING** warns about hazards that **could** cause serious personal injury, death or major property damage and if ignored presents a potential hazard.


 **CAUTION** warns about hazards that **will** or **can** cause minor or moderate personal injury and/or property damage and if ignored presents a potential hazard. It can also make consumers aware of actions that are unpredictable and unsafe.


The **NOTICE** label indicates special instructions that are important but not related to hazards.


 **CAUTION** Sand filters are designed to work with water temperatures greater than 32 degrees F and less than 113 degrees F. The filter should never be operated outside of these temperatures or damage may occur.


 **WARNING** The installation should be carried out in accordance with all applicable safety instructions of swimming pools. Read all instructions carefully before proceeding on the installation. Incorrectly installed equipment may fail, causing severe injury or property damage.

 **CAUTION** All electrical wiring **MUST** be performed by a qualified professional, and must conform to local codes and regulations.


 **CAUTION** The operating safety of the filter is only guaranteed if the installation and operation instructions are correctly followed.

 **CAUTION** To reduce the risk of injury, do not permit children to access or use this product.

 **CAUTION** Chemical spills and fumes can weaken Swimming Pool/ Spa. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage. Do not store pool chemicals near your equipment.

 **WARNING** Never operate or test the circulation system at more than 40 PSI.

 **WARNING** Never change the filter control valve while the pump is running

 **CAUTION** Any modification of the filter requires the prior consent from the supplier's original

replacement parts and accessories authorized by the manufacturer ensure a high level of safety. The supplier assumes no liability for the damage and injuries caused by unauthorized replacement parts and accessories.

How It Works

Incoming water from the piping system is automatically directed by the Multiport Valve to the top of the filter bed. As the water is pumped through the filter sand, dirt and debris are trapped by the filter bed, and filtered out. The filtered water is returned from the bottom of the filter tank, through the Multiport Valve and back through the piping system

Preparation Before Installation

1. The filter system should be installed, not more than 6 feet above pool water level, on a concrete slab, very firm ground, or equivalent, as recommended by your pool dealer. Position the filter so that the piping connections, control valve and winter drain are convenient and accessible for operation, service, and winterizing.
2. Ensure that the compliance label is facing the front to allow easy identification in the case of service difficulties.
3. The following tools will be needed for the installation of your filtration system; screwdriver, wrenches, Pipe sealant will also be needed for plastic adapters.

How to install the filter tank

1. Assemble the pump to mounting base.
2. Install laterals and center pipe in filter tank
3. Place filter tank onto mounting base
4. Cover opening in internal pipe to prevent sand from entering. Be certain that pipe is securely in place
5. Fill filter tank approximately ½ way with water to cushion the filter sand as it is poured into the filter tank

NOTE: Prior to filling filter with sand, check to insure that laterals are in the down position

6. Carefully pour in the correct amount of sand. (make certain that the center pipe remains centered). The top of the sand should come within 6” of the top of the filter tank.

7. Assemble filter control valve to top of filter tank.

Loosely pre-assemble both halves of the clamp with one screw and nut, turning nut 2-3 turns. Do not tighten.

8. Insert filter control valve (with flange clamp and O-ring in place) onto the tank neck. Make certain that the center pipe slips into the hole in the bottom of the valve. Install clamp around tank and valve flange and assemble second screw and nut Tighten just enough so that the valve can be rotated on the tank for final positioning.

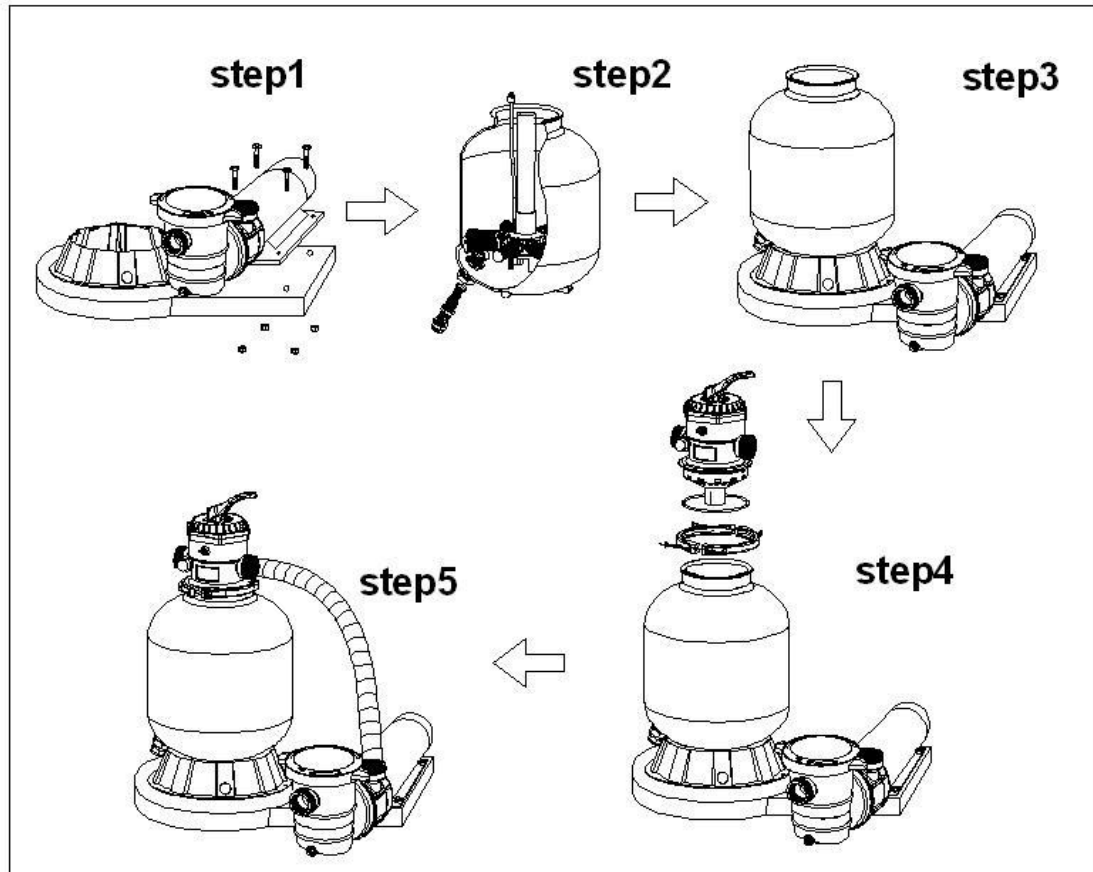
9. Wrap Teflon tape on the pressure gauge threads and insert into the tapped hole on the valve body. Do not over tighten.

10. Connect pump to control valve opening marked PUMP. After connections are made, tighten valve flange clamp with screwdriver.

11. Make return to pool pipe connection to control valve opening marked RETURN and complete

other necessary plumbing connections, suction lines to pump, waste, etc.

12. Make electrical connections to pump



Initial Start-Up of Filtration System

1. Inspect all the connections have been made correct and are secure.
2. Depress top mount valve handle and rotate to BACKWASH position.
3. Prime and start pump according to pump instructions allowing the filter tank to fill with water.

NOTE: ALL SUCTION AND DISCHARGE VALVES MUST BE OPENING WHEN STARTING THE SYSTEM. FAILURE TO DO SO COULD CAUSE SEVERE PERSONAL INJURY.

Once the water flow is steady out the waste line, run the pump for at least 2 minutes. The initial back-washing of the filter is recommended to remove any impurities of fine sand particles in the sand media.

4. Turn pump off and set valve to RINSE position. Start pump and operate until water in sight glass is clear----about 1/2 to 1 minute. Turn pump off, set valve to FILTER position and restart pump. Your filter is now operating in the normal filter mode, filtering particles from the pool water.
5. Adjust pool suction and return valves to achieve desired flow. Check system and filter for leaks and tighten connections if required.

NOTES:

1. Note the initial pressure gauge reading when the filter is clean. (It will vary from pool to pool depending upon the pump and general piping system). As the filter removes dirt and impurities from the pool water, the accumulation in the filter will cause the pressure to rise and flow to diminish. When the pressure gauge reading is 8-10 PSI(0.55-0.69 BAR) higher than the initial “clean” pressure you noted, it is the time to backwash (clean) the filter.

2. **IMPORTANT:** To prevent unnecessary strain on piping system and valve, always shut off pump before switching filter control valve position.
3. To prevent damage to the pump and filter and for proper operation of the system, clean pump strainer and skimmer baskets regularly.

FILTER CONTROL VALVE FUNCTIONS:

FILTER - Set valve to FILTER for normal filtering. Also used for regular vacuuming.

BACKWASH – For cleaning filter. When filter pressure gauge rises 8-10 PSI (0.55-0.69 BAR) above the initial start-up pressure.

Stop the pump, set valve to BACKWASH. Start pump and backwash until water in sight glass is clear. Approximately 2 minutes or less depending on dirt accumulation. Proceed to RINSE.

RINSE – After backwashing, with pump off, set valve to RINSE. Start the pump and operate for about 1/2 to 1 minute. This ensures that all dirty water from backwashing is rinsed out of the filter to waste, preventing possible return to the pool. Stop pump, set valve to FILTER and start pump for normal filtering.

WASTE – To bypass filter for draining or lowering water level and for vacuuming heavy debris directly to waste.

RECIRCULATE: Water is recirculated through the pool system, bypassing the filter.

CLOSED – Shuts off flow from pump to filter.

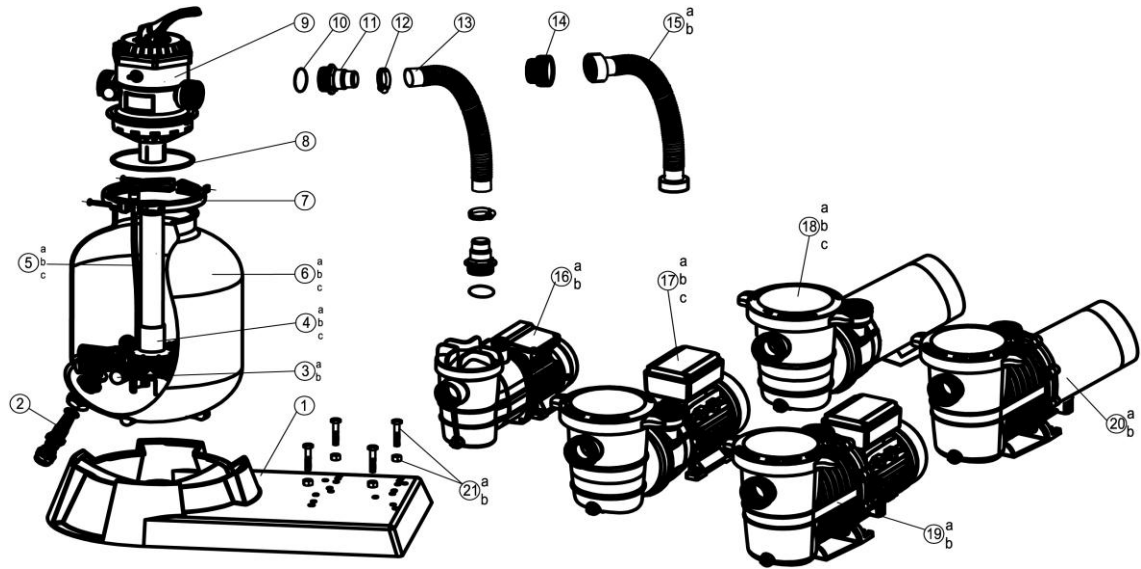
Vacuuming – Vacuuming can be performed directly into the filter. When vacuuming heavy debris, set valve to WASTE position to bypass the filter and vacuum directly out to waste.

WINTERIZING

1. Completely drain tank by unscrewing drain cap at the base of the filter tank. Leave cap off during winter.
2. Depress control valve handle and rotate to set pointer on valve top between any two positions. This will allow water to drain from the valve. Leave valve in this “inactive” position.
3. Drain and winterize pump according to pump instructions.

SPECIFICATIONS

Model No.:	Flow rate		MAX. PRESURE		FILTER AREA		MEDIA REQUIRED		
							TYPE	TYPE	
	GPM	M ³ /H	PSI	BAR	ft ²	m ²	FILTERSAND*	LBS	KG
BC2027	35	7.9	50	3.5	1.25	0.12	0.45-0.56mm (0.018-0.022in)	100	45
BC2028	40	9	50	3.5	2.0	0.19		175	75
BC2029	49	11	50	3.5	2.8	0.26		300	135
BC2228	40	9	50	3.5	1.25	0.12		100	45
BC2229	49	11	50	3.5	2.0	0.19		175	75
BC2230	50	11.4	50	3.5	2.8	0.26		300	135
BC2041	30	6.8	50	3.5	1.25	0.12		100	45
BC2042	40	9	50	3.5	2.0	0.19		175	75
BC2043	49	11	50	3.5	2.8	0.26		300	135
BC2241	30	6.8	50	3.5	1.25	0.12		100	45
BC2242	40	9	50	3.5	2.0	0.19		175	75
BC2243	49	11	50	3.5	2.8	0.26		300	135
BC2055	30	6.8	50	3.5	1.8	0.16		110	50
BC2058	44	10	50	3.5	1.8	0.16		110	50
BC2059	44	10	50	3.5	2.5	0.23		220	100
BC2060	53	12	50	3.5	3.6	0.34		350	160
BC2255	30	6.8	50	3.5	1.8	0.16		110	50
BC2258	44	10	50	3.5	1.8	0.16		110	50
BC2259	44	10	50	3.5	2.5	0.23		220	100
BC2260	53	12	50	3.5	3.6	0.34		350	160
BC2062	44	10	50	3.5	1.8	0.16		110	50
BC2063	44	10	50	3.5	2.5	0.23		220	100
BC2064	53	12	50	3.5	3.6	0.34		350	160
BC2262	44	10	50	3.5	1.8	0.16		110	50
BC2263	44	10	50	3.5	2.5	0.23		220	100
BC2264	53	12	50	3.5	3.6	0.34		350	160
BC2231	40	9	50	3.5	1.25	0.12		100	45
BC2232	49	11	50	3.5	2.0	0.19		175	75
BC2233	50	11.4	50	3.5	2.8	0.26		300	135
BC2245	40	9	50	3.5	1.25	0.12		100	45
BC2246	49	11	50	3.5	2.0	0.19		175	75
BC2251	44	10	50	3.5	1.8	0.16		110	50
BC2252	44	10	50	3.5	2.5	0.23	220	100	
BC2253	53	12	50	3.5	3.6	0.34	350	160	
BC2265	44	10	50	3.5	1.8	0.16	110	50	
BC2266	44	10	50	3.5	2.5	0.23	220	100	

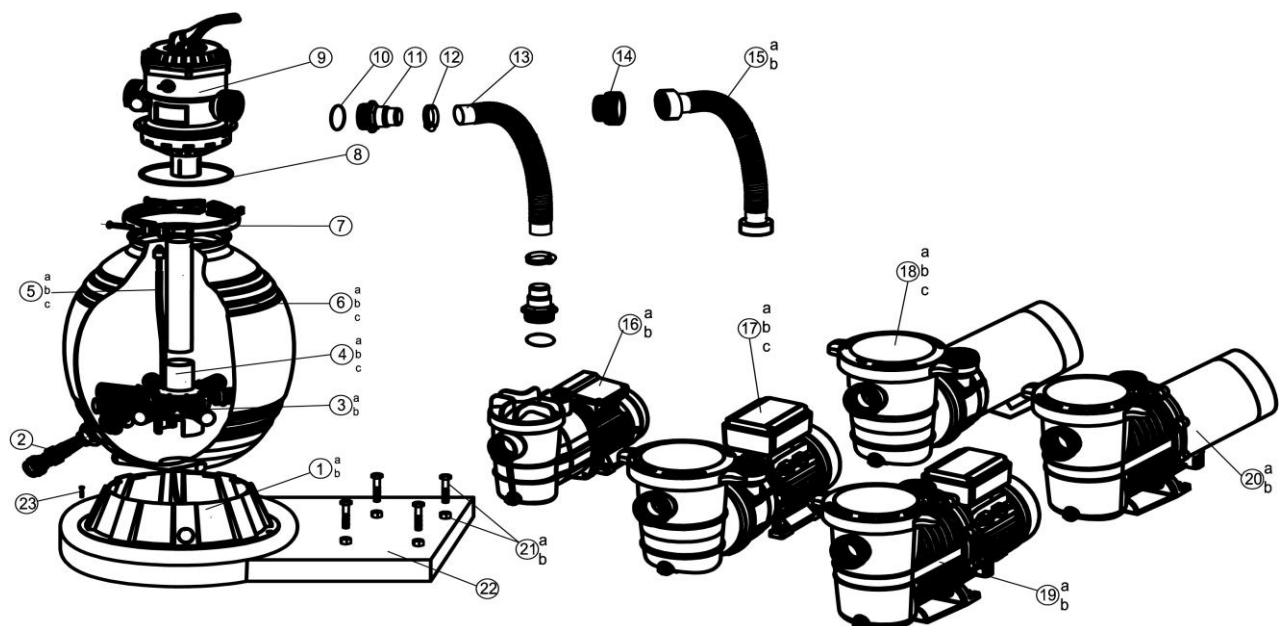


Parts Listing:

BC2027/BC2028/BC2029/BC2228/BC2229/BC2230/BC2041/BC2241/BC2042/BC2043/
BC2242/BC2243

Ref. No.	Part No.	Description	QTY
1	647201801080	Sand filter support for BC3040/BC3050/BC3060	1
2	647304073	Drain plug	1
3a	647304017	Lateral for BC3040/BC3050	8
3b	647306016	Lateral for BC3060	8
4a	647304079	center pipe for BC3040	1
4b	647305071	center pipe for BC3050	1
4c	647306072	center pipe for BC3060	1
5a	647304172	Air release assembly for BC3040	1
5b	647305173	Air release assembly for BC3050	1
5c	647306173	Air release assembly for BC3060	1
6a	647304008	Filter tank for BC3040	1
6b	647305008	Filter tank for BC3050	1
6c	647306008	Filter tank for BC3060	1
7	647304072	Flange clamp	1
8	65431012080	O-ring	1
9	647304071	6-way valve	1
10	65431021080	O-ring	3
11	647303014	Hose adaptor	3
12	65021005000	Hose clamp	2
13	65749002011	1 1/2"(38mm)hose for BC2041/BC2241	1
14	647201802001	Adaptor for BC2027/BC2028/BC2029/BC2228/BC2229/BC2230/BC2042/BC2043/BC2242/BC2243	1
15a	647202772	PVC hose for BC2027/BC2228	1
	647202871	PVC hose for BC2028/BC2229	1
	647202971	PVC hose for BC2029/BC2230	1

15b	647204271	PVC hose for BC2042/BC2242	1
	647204371	PVC hose for BC2043/BC2243	1
16a	BC2515	0.35HP Pump (230V-50HZ) for BC2041	1
16b	BC2715	0.35HP Pump (115V-60HZ) for BC2241	1
17a	BC2527	0.5HP Pump (230V-50HZ) for BC2027	1
17b	BC2528	0.75HP Pump (230V-50HZ) for BC2028	1
17c	BC2529	1.0HP Pump (230V-50HZ) for BC2029	1
18a	BC2728	0.75HP SPL Pump (115V-60HZ) for BC2228	1
18b	BC2729	1.0HP SPL Pump (115V-60HZ) for BC2229	1
18c	BC2730	1.5HP SPL Pump (115V-60HZ) for BC2230	1
19a	BC2542	0.75HP Pump (230V-50HZ) for BC2042	1
19b	BC2543	1.0HP Pump (230V-50HZ) for BC2043	1
20a	BC2742	0.75HP Pump (115V-60HZ) for BC2242	1
20b	BC2743	1.0HP Pump (115V-60HZ) for BC2243	1
21a	647201273	Screw M6X25 and Nut M6 for BC2041/BC2241	4
21b	65862026000	Screw M8X35 and Nut M8 for BC2027/BC2028/BC2029/BC2228/BC2229/BC2230	4
		Screw M8X35 and Nut M8 for BC2042/BC2043/BC2242/BC2243	2



Parts Listing:

BC2055/BC2255/ BC2058/ BC2059/BC2060/BC2258/BC2259/BC2260/BC2062/BC2063/
BC2064/BC2262/BC2263/BC2264

Ref. No.	Part No.	Description	QTY
1a	647304009	Sand filter support for BC3045	
1b	647305009	Sand filter support for BC3055/BC3065	1
2	647304073	Drain plug	1
3a	647304017	Lateral for BC3045/BC3055	8

3b	647306016	Lateral for BC3065	8
4a	647304571	Center pipe for BC3045	1
4b	647305571	Center pipe for BC3055	1
4c	647306571	Center pipe for BC3065	1
5a	647304172	Air release assembly for BC3045	1
5b	647305173	Air release assembly for BC3055	1
5c	647306173	Air release assembly for BC3065	1
6a	647304501	Filter tank for BC3045	1
6b	647305501	Filter tank for BC3055	1
6c	647306501	Filter tank for BC3065	1
7	647304072	Flange clamp	1
8	65431012080	O-ring	1
9	647304071	6-Way valve	1
10	65431021080	O-ring	3
11	647303014	Hose adaptor	3
12	65021005000	Hose clamp	2
13	65749002011	1 1/2"(38mm)hose for BC2055/BC2255	1
14	647201802001	Adaptor for BC2058/BC2059/BC2060/BC2258/BC2259/BC2260/ BC2062/BC2063/BC2064/BC2262/BC2263/BC2264	1
15a	647205871	PVC hose for BC2027/BC2228	1
	647205971	PVC hose for BC2028/BC2229	1
	647202971	PVC hose for BC2029/BC2230	1
15b	647206371	PVC hose for BC2042/BC2242	1
	647204371	PVC hose for BC2043/BC2243	1
16a	BC2515	0.35HP Pump (230V-50HZ) for BC2041	1
16b	BC2715	0.35HP Pump (115V-60HZ) for BC2241	1
17a	BC2527	0.5HP Pump (230V-50HZ) for BC2027	1
17b	BC2528	0.75HP Pump (230V-50HZ) for BC2028	1
17c	BC2529	1.0HP Pump (230V-50HZ) for BC2029	1
18a	BC2728	0.75HP SPL Pump (115V-60HZ) for BC2228	1
18b	BC2729	1.0HP SPL Pump (115V-60HZ) for BC2229	1
18c	BC2730	1.5HP SPL Pump (115V-60HZ) for BC2230	1
19a	BC2542	0.75HP Pump (230V-50HZ) for BC2042	1
19b	BC2543	1.0HP Pump (230V-50HZ) for BC2043	1
20a	BC2742	0.75HP Pump (115V-60HZ) for BC2242	1
20b	BC2743	1.0HP Pump (115V-60HZ) for BC2243	1
21a	647201273	Screw M6X25 and Nut M6 for BC2041/BC2241	4
21b	65862026000	Screw M8X35 and Nut M8 for BC2027/BC2028/BC2029/BC2228/BC2229/BC2230	4
		Screw M8X35 and Nut M8 for BC2042/BC2043/BC2242/BC2243	2
22	647204801080	Sand filter support for BC3045/BC3055/BC3065	1
23	6512012000	Screw ST4.8X20	4