

Sand filter system instruction



SAFETY INFORMATION

1. The sand filters are designed to work with water at temperature >than 0°C and <than 45°C. The filter should never be operated outside of these temperatures or damage may occur.
2. The installation should be carried out in accordance to the safety instructions of swimming pools and the specific instructions for each facility
3. The user should make sure that the installation is carried out by qualified authorized persons and that these persons have first carefully read the following instructions. Incorrectly installed equipment may fail, causing severe injury or property damage
4. The operating safety of the filter is only guaranteed if the installation and operation instructions are correctly followed.
5. To reduce the risk of injury, do not permit children to use this product.
6. 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.
7. 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.
8. In the event of defective operation or fault, contact the supplier or its nearest authorized service agent

Sand Filtration working principle

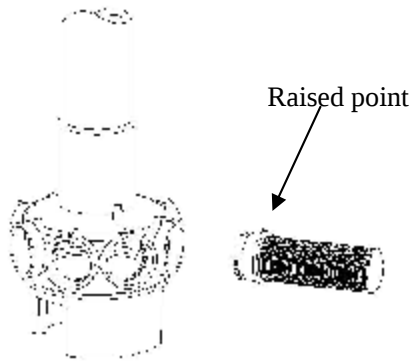
Incoming water from the piping system is automatically directed by the Multiport Valve to the top of the filter bed. As the water is pumped through the filter sand, dirt and debris are trapped by the filter bed, and filtered out. The filtered water is returned from the bottom of the filter tank, through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

Preparation before installation

1. Position the filter as close to the Swimming Pool/ Spa as possible.
2. The filter should be placed on a level concrete slab, very firm ground, or equivalent. Ensure that the ground will not subside, preventing any strain from the attached plumbing.
3. Position the filter under consideration of the piping connections, so that it is convenient for operating and servicing.
4. Ensure that the compliance label is facing the front to allow easy identification in the case of service difficulties.

How to install the filter tank

1. Put the filter tank on the base, turn right to tight up. Position the outlet drain plug is facing outside for easy operation.
2. Before filling the filter media into the filter vessel, do a visual check of the laterals. Replace the broken or loose laterals if necessary. (The laterals of side-mount valve sand filter are all installed). And then install the laterals, match the Raised Point of laterals to Folding Umbrella lateral holder, insert the laterals and turn 90°clockwise, after hearing the sound, the lateral is well installed. Please refer to the following picture.



3. Check the air release hose are fixed well on the body of lateral holder, and another end of the air release hose must be out of the sand. DO NOT embedding the air release hose in the sand.
4. To eliminate stress on the laterals, fill the filter vessel with enough water to provide a cushioning effect when the filter sand is poured in.
5. Using the clear clamshell cover to protect the filter top mount and make sure the central stem pipe had been fully covered.
6. Carefully pour the sand into the filter vessel and make sure to prevent sand from entering the stem pipe. And meantime do not damage the filter top mount or it will cause the leakage. And please pour the quantity of sand according to the filter tank label.
7. Cleaning the filter top mount put the O-ring on the top mount valve and then installs the valve on the filter vessel. Make sure that the stem pipe had fixed well with the top mount valve, and tight the flange clamp to fix the valve. NOTE: the flange clamp should be well fixed, or it will cause the people injures.
8. Using screws from the pump hardware pack to fix the pump on the base, please reference the pump installation to operate the pump.
9. Adjust the valve position, using the white pressure hose to connect the pump output and input of the top valve ("TO PUMP" are curve on the valve of input end).
10. The other two connection ends of the valve, one is connection to swimming pool (it curved "TO POOL" on it) and another one is connect with drain outlet hose.

INSTALLATION NOTES:

1. Make sure the filter is worked under the work pressure, and using a pressure control valve when the system using a booster pump.
2. If the pump position is higher than the water level, it requires installing the back water control valve.
3. If the pump position is lower than the water level, it requires installing an isolation valve. It could stop the water return back when people do the general inspection.
4. Reducing the connect adaptors and hose connecting bending as less as possible. Decreasing the water flow scrub, it could reach the maximum effective.
5. Ensure solvents are not excessively applied to fittings as this could run into O-ring and create sealing problems.
6. Do not over tighten fittings or adapters

HOW TO USE

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.

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

MAKE SURE THE FILTER VESSEL ARE FULL FILL THE WATER BEFORE START UP THE PUMP. OR IT WILL CAUSE THE PUMP DAMAGED.

4. Once 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.
5. 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.

NOTES:

1. Note the initial pressure gauge reading when the filter is clean. (It will vary from 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 valving, 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-

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

Backwash-

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

RINSE – After backwashing, with pump off, set valve to RINSE. Start 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-

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

Re circulate-

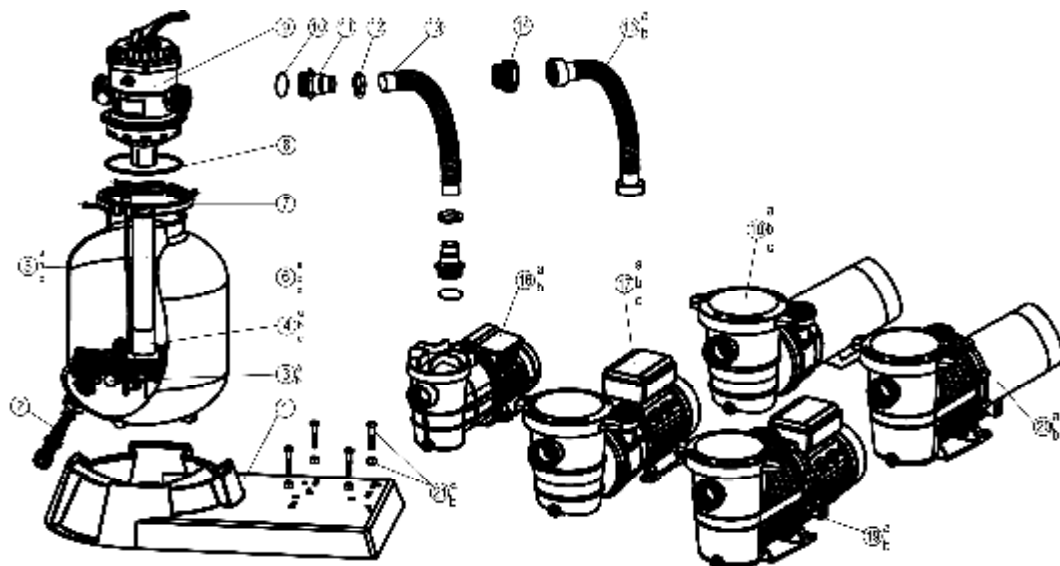
RECIRCULATE: Water is recirculated through the pool system, bypassing the filter.

Closed-

CLOSED – Shuts off flow from pump to filter.

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
72027	35	7.9	50	3.5	1.25	0.12	0.45-0.56mm (0.018-0.022in)	100	45
72028	40	9	50	3.5	2.0	0.19		175	75
72029	49	11	50	3.5	2.8	0.26		300	135
72228	40	9	50	3.5	1.25	0.12		100	45
72229	49	11	50	3.5	2.0	0.19		175	75
72230	50	11.4	50	3.5	2.8	0.26		300	135
72041	30	6.8	50	3.5	1.25	0.12		100	45
72042	40	9	50	3.5	2.0	0.19		175	75
72043	49	11	50	3.5	2.8	0.26		300	135
72241	30	6.8	50	3.5	1.25	0.12		100	45
72242	40	9	50	3.5	2.0	0.19		175	75
72243	49	11	50	3.5	2.8	0.26		300	135
72055	30	6.8	50	3.5	1.8	0.16		110	50
72058	44	10	50	3.5	1.8	0.16		110	50
72059	44	10	50	3.5	2.5	0.23		220	100
72060	53	12	50	3.5	3.6	0.34		350	160
72255	30	6.8	50	3.5	1.8	0.16		110	50
72258	44	10	50	3.5	1.8	0.16		110	50
72259	44	10	50	3.5	2.5	0.23		220	100
72260	53	12	50	3.5	3.6	0.34		350	160
72062	44	10	50	3.5	1.8	0.16		110	50
72063	44	10	50	3.5	2.5	0.23		220	100
72064	53	12	50	3.5	3.6	0.34		350	160
72262	44	10	50	3.5	1.8	0.16		110	50
72263	44	10	50	3.5	2.5	0.23		220	100
72264	53	12	50	3.5	3.6	0.34		350	160
72231	40	9	50	3.5	1.25	0.12		100	45
72232	49	11	50	3.5	2.0	0.19		175	75
72233	50	11.4	50	3.5	2.8	0.26		300	135
72245	40	9	50	3.5	1.25	0.12		100	45
72246	49	11	50	3.5	2.0	0.19		175	75
72251	44	10	50	3.5	1.8	0.16		110	50
72252	44	10	50	3.5	2.5	0.23		220	100
72253	53	12	50	3.5	3.6	0.34		350	160
72265	44	10	50	3.5	1.8	0.16		110	50
72266	44	10	50	3.5	2.5	0.23		220	100
72268	45	10	50	3.5	2.69	0.25		285	130



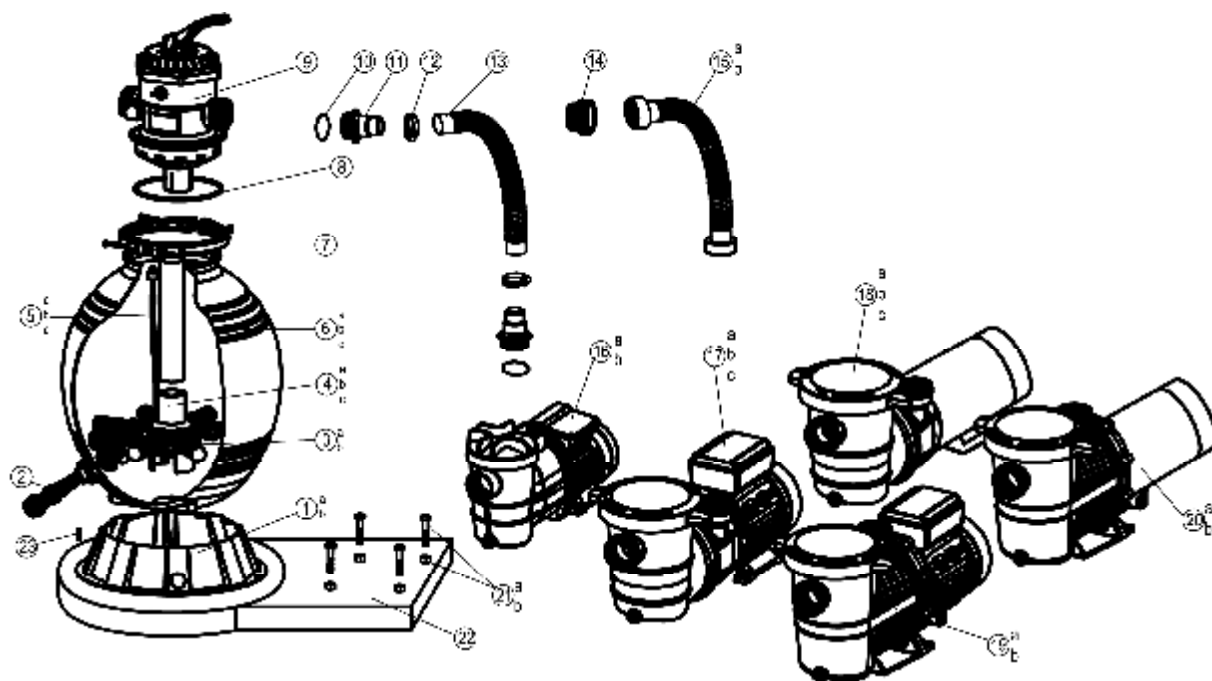
Parts

Listing:

72027/72028/72029/72228/72229/72230/72041/72241/72042/72043/72242/72243

Ref. No.	Part No.	Description	QTY
1	647201801080	Sand filter support for 73040/73050/73060	1
2	647304073	Drain plug	1
3a	647304017	Lateral for 73040/73050	8
3b	647306016	Lateral for 73060	8
4a	647304079	center pipe for 73040	1
4b	647305071	center pipe for 73050	1
4c	647306072	center pipe for 73060	1
5a	647304172	Air release assembly for 73040	1
5b	647305173	Air release assembly for 73050	1
5c	647306173	Air release assembly for 73060	1
6a	647304008	Filter tank for 73040	1
6b	647305008	Filter tank for 73050	1
6c	647306008	Filter tank for 73060	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 72041/72241	1
14	647201802001	Adaptor for 72027/72028/72029/72228/72229/72230/72042/72043/72242/72243	1
15a	647202772	PVC hose for 72027/72228	1
	647202871	PVC hose for 72028/72229	1
	647202971	PVC hose for 72029/72230	1
15b	647204271	PVC hose for 72042/72242	1
	647204371	PVC hose for 72043/72243	1
16a	72515	0.35HP Pump (230V-50HZ) for 72041	1

16b	72715	0.35HP Pump (115V-60HZ) for 72241	1
17a	72527	0.5HP Pump (230V-50HZ) for 72027	1
17b	72528	0.75HP Pump (230V-50HZ) for 72028	1
17c	72529	1.0HP Pump (230V-50HZ) for 72029	1
18a	72728	0.75HP SPL Pump (115V-60HZ) for 72228	1
18b	72729	1.0HP SPL Pump (115V-60HZ) for 72229	1
18c	72730	1.5HP SPL Pump (115V-60HZ) for 72230	1
19a	72542	0.75HP Pump (230V-50HZ) for 72042	1
19b	72543	1.0HP Pump (230V-50HZ) for 72043	1
20a	72742	0.75HP Pump (115V-60HZ) for 72242	1
20b	72743	1.0HP Pump (115V-60HZ) for 72243	1
21a	647201273	Screw M6X25 and Nut M6 for 72041/72241	4
21b	65862026000	Screw M8X35 and Nut M8 for 72028/72029/72228/72229/72230	4
		Screw M8X35 and Nut M8 for 72042/72043/72242/72243	2



Parts Listing: 72055/72255/72058/72059/72060/72258/72259/
72260/72062/72063/72064/72262/72263/72264

Ref. No.	Part No.	Description	QTY
1a	647304009	Sand filter support for 73045	
1b	647305009	Sand filter support for 73055/73065	1
2	647304073	Drain plug	1
3a	647304017	Lateral for 73045/73055	8
3b	647306016	Lateral for 73065	8
4a	647304571	Center pipe for 73045	1

4b	647305571	Center pipe for 73055	1
4c	647306571	Center pipe for 73065	1
5a	647304172	Air release assembly for 73045	1
5b	647305173	Air release assembly for 73055	1
5c	647306173	Air release assembly for 73065	1
6a	647304501	Filter tank for 73045	1
6b	647305501	Filter tank for 73055	1
6c	647306501	Filter tank for 73065	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 72055/72255	1
14	647201802001	Adaptor for 72058/72059/72060/72258/72259/72260/ 72062/72063/72064/72262/72263/72264	1
15a	647205871	PVC hose for 72027/72228	1
	647205971	PVC hose for 72028/72229	1
	647202971	PVC hose for 72029/72230	1
15b	647206371	PVC hose for 72042/72242	1
	647204371	PVC hose for 72043/72243	1
16a	72515	0.35HP Pump (230V-50HZ) for 72041	1
16b	72715	0.35HP Pump (115V-60HZ) for 72241	1
17a	72527	0.5HP Pump (230V-50HZ) for 72027	1
17b	72528	0.75HP Pump (230V-50HZ) for 72028	1
17c	72529	1.0HP Pump (230V-50HZ) for 72029	1
18a	72728	0.75HP SPL Pump (115V-60HZ) for 72228	1
18b	72729	1.0HP SPL Pump (115V-60HZ) for 72229	1
18c	72730	1.5HP SPL Pump (115V-60HZ) for 72230	1
19a	72542	0.75HP Pump (230V-50HZ) for 72042	1
19b	72543	1.0HP Pump (230V-50HZ) for 72043	1
20a	72742	0.75HP Pump (115V-60HZ) for 72242	1
20b	72743	1.0HP Pump (115V-60HZ) for 72243	1
21a	647201273	Screw M6X25 and Nut M6 for 72041/72241	4
21b	65862026000	Screw M8X35 and Nut M8 for 72027/72028/72029/72228/72229/72230	4
		Screw M8X35 and Nut M8 for 72042/72043/72242/72243	2
22	647204801080	Sand filter support for 73045/73055/73065	1
23	6512012000	Screw ST4.8X20	4