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ecoclear®

ECO0600 | ECO700

MEDIA FILTER

Owner's Manual

The installation of this product should be carried out by a person knowledgeable in swimming pool plumbing requirements, following the installation instructions provided in this manual. Please pass these instructions on to the owner of this equipment.

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OVERVIEW

Ecoclear® Media Filters offer superior performance. Strategically designed and engineered, the Ecoclear® Media Filter perfectly matches the higher output of Ecoclear pumps providing a supreme choice for pool equipment. The high density polyethylene material maximises the strength of the filter. Due to the double layered lateral arms the filtration bed is higher than other standard sand filters, offering a better quality of water and less frequency of backwash at the same conditions. Its special design allows you to remove the water and the sand from inside the filter through the connection drain.

The filters incorporate a 6-way multiport valve which covers the necessary operations related with the filtration procedure; filtration, backwash, rinse, waste, recirculate and close.

WARNING - Read and follow all instructions in this owner's manual and on the equipment. Failure to follow instructions can cause severe injury and/or death.
WARNING - Never operate or test the circulation system at more than 4 bar.
WARNING - Never change the filter control valve position while the pump is running.
WARNING - HAZARDOUS PRESSURE. Due to the high operation pressure, some components from the pump or the filter could be violent separated. Do not operate the pool equipment if a system component is not assembled properly, damaged, or missing.

INSTALLATION

It is recommended to install the filter as close as possible to the swimming pool and preferably below the surface of the water in the swimming pool and in such a way that the base lies completely stable upon a totally horizontal surface. The place where the filter is installed should have enough ventilation and adequate drains so that, in case of an accident, the water can escape through the drain system, avoiding risk of damaging the installations. Install the filter in a place with enough space to carry out the operation and maintenance services. Sand should be loaded once the filter is installed into its exact location following the instructions in the "SAND LOAD".

ASSEMBLY

To assemble the filter, proceed as follows:

1. Some lateral arms could not be completely threaded. Check all the connections and thread them if necessary.
2. Install the O' ring supplied between the multi port valve and the filter.
3. Move the valve and place it so that the connections are facing the proper direction.
4. Tighten the clamp of the valve to the filter with the star shaped nut.
5. Assemble the three connections of the selector valve. Each of these three outlets are clearly identified on the valve as follows:
   i) "PUMP": it is the connection of the pump which comes from the filtration pump.
   ii) "WASTE": it is the connection of the pipe which is going to the drain.
   iii) "RETURN": it is the connection of the pipe going back to the pool.
6. Assemble the manometer and the sight glass. Install their respective sight glasses.

Assembly between Filter tank and valves:

1. Preparation stage: Apply lubricant or vaseline on the outer surface of the valve and the inner surface of the valve flange.
2. Assembly stage: Place the valve flange vertically into the neck of the filter tank, applying even hand pressure.
3. Fit the clamp around the valve flange and tank neck. Tighten the clamp nut enough to enable the valve to still rotate for final positioning.
4. Fit the pressure gauge to the Multiport valve.

IMPORTANT: HAND TIGHTEN ONLY.

Sand load:
In order to obtain maximum efficiency from your filter, it is recommended to use silica sand or glass with a glanulometry 0.5 - 0.8mm. Use the total amount of silica sand as indicated.

1. Remove the multiport lid and joint.
2. Insert the protector lid into the neck of the filter. This protects the central pipe from the silica sand.
3. Fill the filter with water to half capacity and slowly pour in the required amount of silica sand.
4. Remove the protector lid and reinstall the multiport valve connected with the central pipe of the filter.
5. Tighten the clamp to the filter with the star shaped nut.

OPERATION

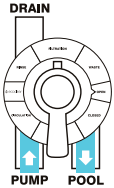
The multiport valve has a handle of 6 positions that selects any of the necessary operations to obtain maximum filter efficiency.

NB. Switch pump OFF when changing positions of the multiport valve.

1. **FILTRATION:** Rotate the Multiport valve handle until it reaches the FILTRATION position. Switch ON the pump. It is recommended to check the pressure gauge from the multi-port valve. The silica sand forms thousands of channels while the water is descending through the filter, and retains the suspended solids (SS). These SS retained increase and block the channels resulting in pressure build up. When the pressure gauge reaches 3.5 bar (50psi) the filter is saturated and it needs to proceed with the backwash.
2. **BACKWASH:** At this pressure the silica sand is unable to collect more impurities. Switch pump OFF and rotate the multiport handle to BACKWASH position. Switch the pump back ON for about 2 minutes. The quality of the water can be checked in the sight glass.
3. **RINSE:** Rinse is recommended immediately after backwash for 1 minute. Switch pump OFF and rotate the multiport handle to RINSE position. The water will be cloudy for a few seconds. Rinse prevents this water entering the pool.
4. **CIRCULATE:** In this position the multiport valve allows the water from the pump to go directly to the pool without passing through the inside of the filter.
5. **WASTE:** If the swimming pool needs to be drained, the multiport valve must be in this position. When draining, the main valve is fully open for the pump to have sufficient suction. On the other hand the skimmer valves and bottom cleaner valves must be closed in order to avoid air suction.
6. **CLOSED:** This position is for closing off the water supply from the filter to the pump and it is used when opening the pump strainer or for installation maintenance.

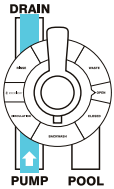
MULTIPORT VALVE OPERATION

From pump down through valve, through sand bed, up through stand pipe to valve and back through pool return.



FILTRATION
For standard operation and used for vacuuming.

From pump, through valve, down through stand pipe, up through sand bed, and through valve to waste.



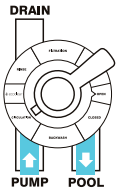
BACKWASH
For cleaning the sand bed of all debris.

Flow from pump, through valve, down through sand bed, up through stand pipe, through valve to waste. (Position also used for initial start-up and leveling sand bed after Back-wash)



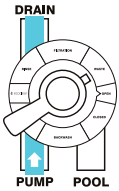
RINSE
Used after Backwash to settle and level the sand bed.

From pump through valve to pool. This position bypasses the filter and is used for circulation of pool water only.



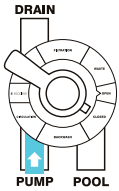
RE-CIRCULATE
Re-circulates water to and from the pool, (bypassing the filter bed) sometimes used for spa jets to increase water flow.

From pump, through valve to waste. Also position for lowering water level or assist in draining pool.



WASTE
To lower excess water from pool.

From pump to valve without further circulation. Prevents any flow to filter and pool.



CLOSED
Closes of all ports on the valve. Note: DO NOT switch on the pump when the valve handle is in the CLOSED position.

START-UP PROCEDURE

Once the filter has been loaded, the sand must be washed for 4 minutes.
Proceed with the backwash. Once this has been done the filter is ready to operate. NB Switch the pump OFF when changing positions of the multiport valve handle.

MAINTENANCE

Always replace the joints and pieces that may not be in good condition. Backwash and rinse when required according to the pressure gauge indications.

It is recommended to replace the sand inside the filter approximately every 3 years.

SPECIFICATION

	ECO600	ECO700
DIAMETER	610 mm	610 mm
HEIGHT	1090 mm	1180 mm
CONNECTIONS	50 mm	50 mm
FLOW (m^3/h)	14.6	19.5
SILICA SAND CAPACITY	165 kg	200 kg
SIZE OF SILICA SAND	0.5 - 0.8 mm	0.5 - 0.8 mm
MAXIMUM WORKING PRESSURE	4 bar (58 psi)	4 bar (58 psi)

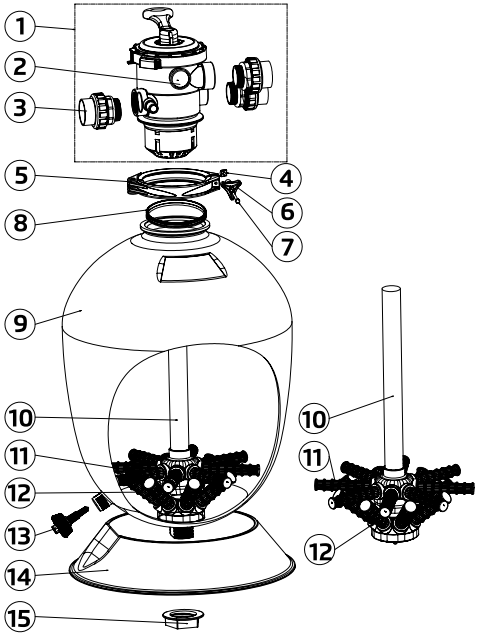
WARRANTY

The Ecoclear Media Filters are covered by a manufacturers' warranty from date of purchase against defects in materials and workmanship which is 10 years for the filter tank and 1 year for all other parts.

Component	Warranty Period	Labour Cover	Warranty Type	Description
Media Filter	Tank: 10 Years All other parts: 1 year	1 Year	Infield	10 year full replacement warranty on the tank. 1 year warranty on all other parts.

REPLACEMENT PARTS

ITEM	PART NO.	DESCRIPTION	QTY.
1	20-420-1034	6 Way 1.5" Valve (Black) with union set x 2,	1
1	20-420-1035	6 Way 2" Valve (Black) with union set x 3,	1
2	20-420-1036	Stainless Steel Oil Pressure Gauge (100psi)	1
2	20-420-1022	Connector for Pressure Gauge/Stopper	1
3	20-420-1037	1.5" Union Set (Black)	3
3	20-420-1037	1.5" Union Set (Black)	3
3	20-420-1038	2" union set (Black) with O-ring	3
3	20-420-1038	2" union set (Black) with O-ring	3
4	20-420-1039	M6 Nut	1
5	20-420-1040	Clamp Kit (black/red)	1
6	20-420-1041	Star-Shaped Nut	1
7	20-420-1042	M6×125mm Screws	1
8	20-420-1043	O-Ring	1
9	20-420-1044	Filter Tank for ECO600 with base	1
9	20-420-1045	Filter Tank for ECO700 with base	1
10	20-420-1046	Lateral Assembly with Centre Pipe for ECO600	1
10	20-420-1047	Lateral Assembly with Centre Pipe for EC700	1
11	20-420-1050	Laterals (115mm) for ECO600/ECO700	8
12	20-420-1052	Laterals (126mm) for ECO600/ECO700	8
13	20-420-1053	Water Drain Set for ECO Series	1
14	20-420-1054	Filter Base ECO600/ECO700	1
15	20-420-1055	Nut for Filter Base	1



NOTE: ECO600/ECO700 should have 8pcs of lateral (115mm) and 8pcs of lateral (126mm)

IMPORTANT
Please attach your sales invoice/docket here as proof of purchase should warranty service be required. Please do not return warranty form to Maytronics Australia – Retain for your records.

PURCHASED FROM:
PURCHASE DATE:
SERIAL NO:
MODEL NO:

For more information visit maytronics.com.au

NOTES

NOTES

NOTES

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ECO600 | ECO700

SPECIFICATIONS

Model	A (mm)	B (mm)	C (mm)
ECO600	**1090**	**610**	**457**
ECO700	**1142**	**610**	**457**

