



EASY, AFFORDABLE POOL CARE

Swimming Pool Sand Filter 22inch/560mm Instruction Manual



GENERAL SAFETY INFORMATION

WARNING: This equipment must be installed in accordance with all applicable local and state laws and regulations. Improper installation can create hazards which could result in property damage, or serious injury.

1. The user should make sure that the installation is carried out by qualified authorised persons and that these persons have first carefully read the following instructions.
2. Blow molded Sand Filters are designed to work with water at a temperature > than 0° C and < than 45°C. The filter should never be operated outside of these temperatures or damage may occur.
3. The operating safety of the filter is only guaranteed if the installation and the operating instructions are correctly followed.
4. To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
5. Incorrectly installed equipment may fail, causing severe injury or property damage.
6. Do not store pool chemicals near your equipment. Chemical spills and fumes can weaken Swimming Pool/Spa equipment. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage.
7. Any modification of the filter should be undertaken by a qualified pool technician.
8. In the event of defective operation contact a qualified pool technician.
9. The NOTICE label on the side of the tank indicates special instructions that are important but not related to hazards.

NOTICE TO INSTALLER: This manual contains important information about the installation, operation and safe use of this product. Once installation is complete, this manual must be given to the owner/operator of this equipment.

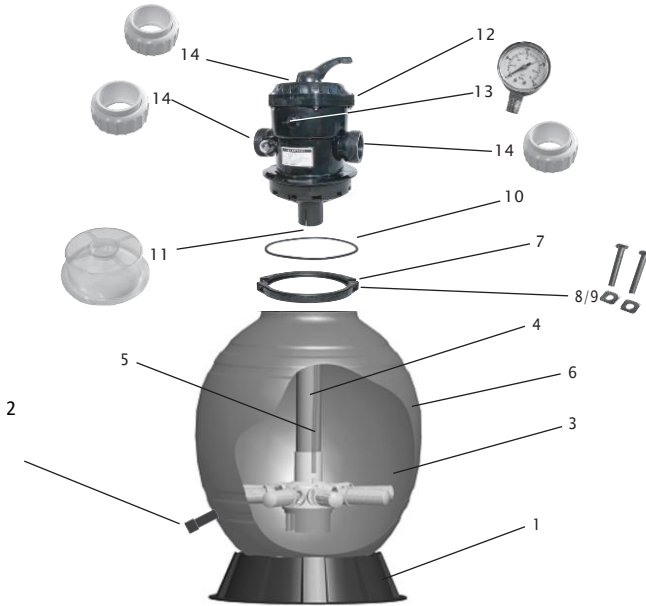
INTENDED USE

The 22 Inch Pool Sand Filter is suitable for small to medium sized pools both above ground and in-ground (Max Pool size 60,000 litres).

All pools must have the appropriate **FIXED SKIMMER BOX**. If needed it is suitable for ponds or water features. This 22 Inch Pool Sand Filter is suitable for domestic use only, and not intended for commercial use.

It is not suitable for any other use or modification of the filter.

DESCRIPTION AND CONTENTS OF BOX



22 Inch Filter Table Part Number	Part Name	Quantity in box
1	Tank Base	1
2	Tank Drain Down Valve - Attached to Tank Body	1
3	Laterals for Centre Stem & Hub Assembly	8
4	Centre Stem Pipe & Laterals Hub	1
5	Bleed Valve (Air Release) & Tube	1
6	Filter Tank Body	1
7	Multiport Valve Clamp Assembly	1
8	Bolts to secure Multiport Valve Clamp	2
9	Nuts for Bolts to secure Multiport Valve Clamp	2
10	Multiport Valve O-Ring	1
11	Plastic Locator for Stem & Hub Assembly	1
12	Multiport (6-Way) Valve	1
13	Kpa Pressure Gauge for Multiport Valve	1
14	Barrel Unions for Multiport Valve (to connect pool pipelines to Filter)	3

INSTALLATION OF THE FILTER

1. Position the filter on a level concrete slab, very firm ground or equivalent to ensure there is no movement of the filter during operation of the Multiport Valve.

If it is a new swimming pool position the filter and pump (not supplied) as close to the swimming pool/spa as possible. Ensure the filter position allows convenient access to the piping connections and Multiport Valve for operation and servicing, and that the label on the tank is facing to the front.

2. Located in the carton is the center stem and lateral hub assembly. Remove the laterals from the packaging, place the center stem pipe assembly (part no. 4) inside the filter tank (6), and attach the laterals (3) to the hub located on the end of the assembly (Fig 1). Firmly push each lateral (3) into the hub opening and twist clockwise (Fig 2). Ensure each lateral is not cracked or damaged, cracked laterals result in sand in the filter returning to the pool. Add Bleed Valve and Tube (5) to the connection on the Centre Stem Pipe and Hub (4).



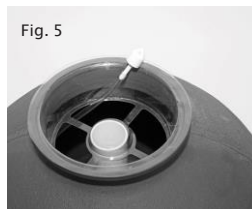
3. The tank drain valve (2) is located on the base of the filter. Please ensure this valve is hand-tight. This valve is used to drain water out of the filter when required.

4. Carefully place the lateral stem assembly (3,4) into the filter tank (Fig 3). Use a garden hose to put water into the filter tank, just covering the laterals only. This provides a cushioning effect when the filter



sand/media is poured in.

5. The filter is supplied with a perforated Plastic Locator (11), which centers the stem and prevents sand/media from entering the stem pipe (Fig 4). Ensure the center stem pipe (4) is placed in the center of the plastic locator, and that the Bleed Valve (5) is pulled through the plastic locator as shown (Fig 5). The opening of the center stem is also covered with the plastic locator to prevent sand/media from entering the center stem pipe.



ENSURE NO SAND IS Poured DOWN THE CENTRE STEM PIPE AS IT WILL DAMAGE THE VALVE ON START-UP.

6. Carefully pour the filter sand/media into the tank (Fig 6). Pour the sand slowly until the Laterals (3) are covered completely. Continue to pour the recommended remaining amount of sand into the filter tank ensuring that the Plastic Locator (11) is keeping the Centre Stem Pipe (4) in the center of the filter tank opening. TIP: While adding sand firmly hold down the Plastic Locator (11) so the center stem doesn't move and



to ensure no sand enters into the Centre Stem Pipe.

7. Once all the sand/media has been poured into the filter tank carefully remove the Plastic Locator (11) ensuring no excess sand is spilt into the Centre Stem Pipe (4).

8. Now use a garden hose to fill the filter tank full of water.

It is recommended to use 40mm or 50mm Class 9 pressure pipe and fittings depending on your pool requirements. To successfully install your new sand pool filter you will require the following additional products (all not included).

- UPVC Pressure Glue.
- Priming fluid (pipe and fitting) cleaner.
- Silicon-based lube.
- Teflon thread tape.
- UPVC pipe either 40mm or 50mm class 9 or class 12 (depending on the pipe size of your pool).
- UPVC class 18 fittings such as joiner couplings, elbows and tees as required.

Use Priming Fluid to clean the pipes and fittings and UPVC Pressure Glue when joining pipes and fittings. Place the filter in a position where it is easy to connect the plumbing to your pool pump. THE SUCTION LINE, WASTE LINE AND FILTER TO PUMP LINE IS TO HAVE AS FEW BENDS AS POSSIBLE. The fewer bends, the better the performance of the filter.

ASSEMBLY OF THE MULTIPOINT VALVE

The Multiport Valve comes with a Pressure Gauge (13), Air Bleed Valve (5), O-Ring (10), and Clamp Assembly (7, 8, 9). Before fastening the valve to the filter tank ensure there is no sand around the top lip of the filter tank.

1. Lubricate the Multiport O-Ring (10) with a silicon-based lube (not supplied) and place onto the filter.
2. Then place the Multiport Valve (12) onto the filter tank (Fig 7). Firmly press the Multiport Valve onto the tank to ensure the valve is fitted securely to the center stem pipe. There should be no gap between the valve and tank body (Fig 8).



3. Rotate the Multiport Valve (12) to your required position for plumbing; leave some leeway for better alignment of plumbing.

4. Using the Clamp Assembly (7) and with the bolts/nuts (8, 9) provided secure the Multiport Valve onto the tank body (Figs 9, 10, 11).



- Using Teflon thread tape (not supplied) please screw the Pressure Gauge (13) to the Multiport Valve (12). Do not use too much tape on the Pressure Gauge Thread, just 2-4 turns is all that is needed.
- Screw the three Barrel Unions (14) onto the threaded ports on the Multiport Valve, each plumbing port is marked PUMP, RETURN, and WASTE (Figs 12, 13, 14).

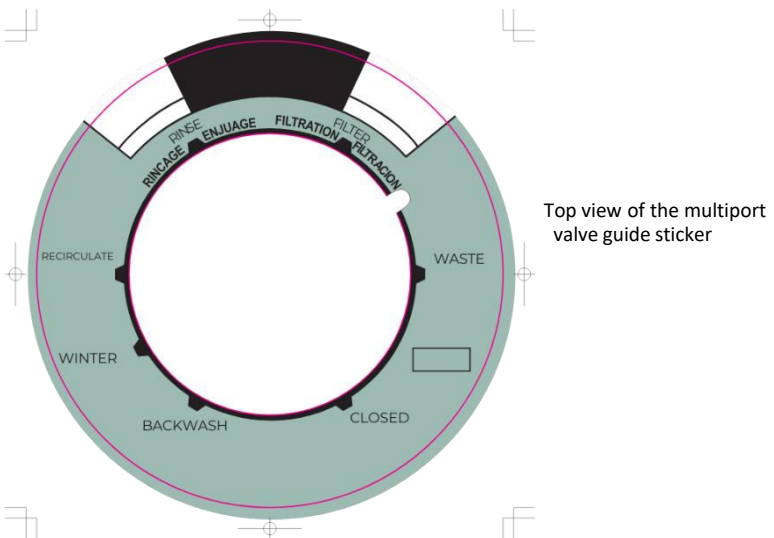


The waste port (Fig 12 insert) on the multiport valve is easy to recognise as it has a clear site glass next to its plumbing port. The pipeline from the pump goes into the top threaded port and the last one remaining is the return to pool plumbing port. The backwash and pool return line unions simply screw to the threads on the multiport valve.

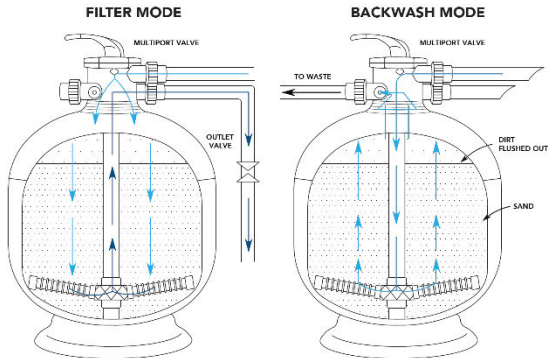
When putting the waste and return barrel unions (Fig 12) onto the Multiport Valve (12) ensure you locate the barrel union o-rings onto the barrel unions tails. The inlet port (pump-Fig 12) has an internal thread. Using the Teflon thread tape (not supplied) apply the tape to the threaded barrel union and screw into the multiport valve and hand tighten.

- The multiport valve is now successfully installed to the sand filter. Before connecting the plumbing ensure that the barrel unions are tight and the tank clamp assembly is tightened.
- Glue the plumbing pipelines for the pump, waste, and return line to the barrel unions using the appropriate UPVC fittings, class 9 or 12 UPVC plumbing pipe and the approved glue and priming fluid (all not supplied). Allow 24 hours for the glue (solvent) to set before starting the filter.
- Test the filter for leaks around the threads. If leaking occurs disconnect the plumbing and repeat points 2-6 until the leak has stopped.
- GENERAL NOTE:** Usually the installation of a pool filter and a pool pump (not supplied) is done at the same time. The pipelines – return, pump and waste are provided as a part of the pool setup. Try to place your pool filter and pumpside by side to allow for easy connection of the plumbing and ease of access. Ensure you are using the appropriate UPVC fittings, class 9 or 12 UPVC plumbing pipe and the approved glue and priming fluid (all not supplied).

MULTIPORT VALVE OPERATION



TOP MOUNT CONFIGURATION



1. **FILTER** - is the normal operation mode. This is what cleans the water. The flow of water is directed through the valve (top of the filter bed) and down into the sand/media bed. As water is forced through the sand/media it is removing the dirt and other contaminants from the pool water. The water then travels up the center stem through the lateral system as clean water goes back into the pool. This is how simple and effective it is.

- **BACKWASH** - is for cleaning the filter sand. The water travels in reverse, down the centre stem out through the lateral assembly, forced up through the sand/media and out the valve into the waste line. This cleans the filter of foreign debris such as dirt, hair and dust.
2. **RINSE** - flushes the filter system. The flow of water is directed down the filter media bed to the lateral assembly, up the center stem and out through the waste line. This process settles the filter media bed into place and flushes any remaining foreign matter out of the filter and multiport valve.
 3. **WASTE** - is used to lower the pool water level after periods of heavy rain or over-filling from the tap, or for vacuuming water with high dirt loads.
 4. **RECIRCULATE** - directs the flow of water to the swimming pool without going through the filter. Ideal when adding chemicals such as Clarifiers.
 5. **CLOSED** - shuts off all the flow to the filter or swimming pool. **NEVER RUN THE POOL PUMP IN THIS MODE.**

INITIAL STARTUP OF FILTER

Be sure the correct amount of filter sand media (specifications table page 8) is in the tank and that all connections are secure.

IMPORTANT TIP: NEVER CHANGE THE POSITION OF THE VALVES ON TOP OF THE MULTIPORT VALVE WHEN THE PUMP IS RUNNING.

1. You need to start your pump (not supplied) – firstly before starting the pump refer to the pump priming section of your pool pump manual (if it is a new pump).
2. Position the Multiport Valve into the recirculation position, depress the handle and select “recirculate”. To prevent damage to the control valve seal always depress the handle before turning. Once the pump is primed (if required) turn on the pump and check the pipelines and barrel unions for leaks. Run the pump for around two minutes to ensure the system is free of leaks.
3. Turn off the pump and change the multiport valve to the “Backwash” position. Switch on the pump allowing the filter tank to fill with water. CAUTION all suction and discharge valves must be open when starting the pump.
Failure to do so could cause personal injury and/or property damage. Turning on the pump allows the filter to be backwashed. Study the clear sight glass on the waste discharge port/pipeline of the

multiport valve

and run the filter in backwash mode until the sight glass runs clear. This could take up to five minutes, once the water is clear in the sight glass turn off the pump. This should have removed any impurities in the sand media.

4. Turn the multiport valve to “Rinse” position by depressing the handle and selecting rinse while the pump is off. Switch on the pump and view the sight glass until the water running through this is clear – approximately 15-30seconds. Once the rinse is completed turn off the pump.
5. Whilst the pump is off, set the multiport valve to the “Filter” position. Turn on the pump, your filter is now operating in the normal filter mode. On the initial set-up in filter mode you may see some dust (discoloured water) return to the pool for 10-30 seconds. Don't be concerned this is common when starting your filter for the first time. Now adjust your pool suction and return valves (not supplied) to achieve your desired flow. Check the plumbing and filter for leaks and tighten connections, bolts, and nuts as required. Sometimes during the initial clean-up of the pool it may be necessary to backwash a number of times due to the unusually heavy initial dirt load in the water.
6. Also check that no sand is returning to the pool. If sand is returning to the pool, turn off the filter and contact a qualified pool technician. Sand should not return to the pool if you have attached the laterals to the centre stem and hub correctly.
7. Record the pressure gauge reading (start-up pressure) during the initial operation – this is your clean filter pressure. After a period of time, the accumulated dirt and debris in the filter causes a resistance to flow, and the flow diminishes. The pressure will start to rise and the flow of water will start to decrease. When the pressure reading is 50 kpa higher than the initial “start-up” pressure it is time to backwash (clean) the filter (see Backwashing).

BACKWASHING

The function of backwashing is to separate the deposited particles from filter media grains and flush them from the filter bed. Backwashing is achieved by reversing the flow of water through the filter bed at a fairly high flow rate. This high flow rate expands the filter bed and the water collects the debris taking it to waste.

Conditions for Backwashing – the time for backwashing is determined by the following conditions:

1. The flow rate of the water through the filter bed decreases until it is insufficient to meet the demand.
2. The removal efficiency of the filter bed decreases to the point where the effluent quality deteriorates and is no longer acceptable.
3. When the pressure gauge reading is 50 kpa higher than the start-up pressure.
4. If the filter is connected to mains water, pressure rise is not an accurate indicator as mains pressure tends to fluctuate. It is best to rely on the actual flow rate.

NOTE: we recommend that you backwash a pool sand filter in a residential (home) installation at least once a month.

Importance of Backwashing – the importance of backwashing can't be overstated. Dense sand filter media can become “packed” without proper and frequent enough backwashing. Debris will remain trapped and create channeling within the filter bed. This will result in the filter bed exhausting early. Moreover, if debris is not flushed from the media bed, this filter bed becomes dirtier and dirtier as time goes on until the filter operation fails.

BACKWASHING INSTRUCTIONS:

Switch off the Pump.

1. Depress and turn the multiport valve handle to the BACKWASH position.
2. Switch on the Pump. Backwash water will flow out through the drain pipeline.
3. When the backwash water in the sight glass appears clear, switch off the pump.
4. Depress and turn the handle to the RINSE position. In the RINSE water flow is directed through the filter bed and out of the filter through the backwash outlet. This process settles the filter media bed into place and ensures any dirt or debris is rinsed out of the filter, preventing possible return to the pool.

5. Switch on the Pump. Rinse water will flow out through the drain pipeline.
6. When the rinse water in the sight glass appears clear, usually 15-30 seconds, switch off the pump.
7. Depress and turn the handle to the FILTER position and switch on the Pump for normal operation

POOL FILTER SPECIFICATIONS

Article	Pool Sand Filter
Size	22 inch or 560mm
Dimensions (L x W x H)	570 x 570 x 990mm
Weight	10.5kg
Filter Area	0.23m ²
Maximum Pool Size	60,000 Litres
Max Recommended Pump Size	1.5HP
Max Flow Rate	228L/Minute
Max Working Pressure	350 kpa
Filter Media Requirements	Filter Sand = 100kg or Zeolite = 75kg

TROUBLESHOOTING GUIDE

SYMPTOM		POSSIBLE CAUSE	
<p>Above normal or excessive force to operate the Multiport Valve</p>	<p>Scoring or jamming with foreign matter or debris. If this condition persists after rinsing, disassemble the valve to clear. Continued operation of the valve may result in a non-sealing condition (damage to spider gasket). This will lead to water loss to the backwash line or to inefficient filtration.</p>	<p>Filter Media in the backwash</p>	<ol style="list-style-type: none"> 1. Excessive quantity of media in the filter. 2. Excessive water flow. 3. Incorrect sized or grade of filter media.
<p>Dirty Water</p>	<ol style="list-style-type: none"> 1. Insufficient filtration time. 2. Heavy contaminants or dirt load. 3. Dirty filter, requires backwashing. 4. Air leaking on suction (influent line). 5. Pump impeller vanes blocked. 6. In sufficient water supply (water level low, blockage). 7. Pump not primed. 8. Incorrect water chemistry. 9. Excessive flow of water for filter size. Foreign matter or debris forced through filter bed and through the underdrain. 10. Other restrictions including (pool suction cleaners) resistance from other inline equipment such as strainers. Operating the filter on recirculate will determine if the restriction is in the filter. 11. Clogged or channeled filter media. Perform backwash or regeneration. 12. Refer to the maintenance section. 	<p>Filter Media Returning to Swimming Pool/ Spa</p>	<ol style="list-style-type: none"> 1. Filter is on recirculate. 2. Verify it is the filter media and not from another source. 3. Damage to the under-drain laterals. 4. Damage or incorrect fit of Multiport Valve. 5. Incorrect or mixed grades of media in the filter.
		<p>Short filtration cycles</p>	<p>Presence of algae or a scale builds up. Check water chemistry. Excessive water flow, check pump size, mains water flow. Filter blocked through calcium etc. clean filter media.</p>

MAINTENANCE

The 22 Inch Pool Sand Filter is designed and tested to operate for many years. However, it is important to keep them running in good working order. The filter sand/media will require changing once it has reached the limits of its designated life. Refer to the packaging of the particular filter media you have chosen, but it is reasonable to expect a minimum of five (5) years life on all media types.

To ensure the maximum life of your chosen filter media type please follow the guidelines below.

1. Backwash the Filter regularly according to the instructions set under "Backwashing".
2. Refer to the specifications of the filter media used and follow regeneration procedures as required.
3. Good water chemistry is important especially if you want to achieve long filtration life and cost savings. It is very smart to not let your pool run down during the winter months as the cost of restarting your pool for the summer period is much higher than if you maintained the pool during the winter period. Maintain a correct chemical balance. Importantly please note that green pools shorten the life of any filter media greatly.
4. Keep the skimmer box and pool pump baskets free of leaves and debris, clean them regularly to prolong the life of your pool filter and pool pump and ensure proper operation of the system.

5. Replace the pressure gauge if faulty readings are observed.
6. Filter water regularly, every day or as determined by your pool size.

DISPOSAL

Please help us to protect the environment. Please dispose of all packing materials and any pool filters that are being replaced properly. Your local Authority Waste Department will be happy to provide you with the necessary information.

WARRANTY TERMS AND CONDITIONS

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or a refund for a major failure and for compensation for any other reasonably foreseeable loss or damage.

Please read these warranty terms and conditions carefully. A failure to comply with these terms and conditions may affect any claim on warranty you may have on a product.

WARRANTY GENERAL CONDITIONS

All products provided by HY-CLOR AUSTRALIA PTY LTD are warranted for defined periods of time (refer to product table).

All mechanical swimming pool products supplied to consumers by HY-CLOR are to be installed or used in the manner they are manufactured for only.

Warranty may be voided if the product or products claimed by the consumer under warranty have been used for purposes other than their designed or manufactured purpose.

Where applicable, products supplied by HY-CLOR come with operation and installation manuals. All care must be taken to install and operate the products according to these instructions. Failure to install or operate these products in accordance with these instructions may void warranty.

The chemical balance of the swimming pool water plays a significant part in the operational life of all swimming pool products, HY-CLOR recommends regular water testing using an approved swimming pool test kit.

This warranty is valid for the original purchase and is not transferable. Keep your purchase docket, tax invoice or receipt as the proof of purchase, and as proof of the date on which the purchase was made.

Modifications to any electrical product provided by HY-CLOR products are covered by a twelve-month warranty unless prior written approval has been granted by HY-CLOR and has been carried out by one of its authorized agents. All electrical installations must be carried out by a competent licensed professional.

All pool filtration equipment including filters, pumps and salt chlorinators, must be kept in a dry well ventilated area away from direct sunlight and in an area that is free from flooding or rain. This warranty does not cover normal wear and tear to the products or parts.

To make a claim please contact:
HY-CLOR AUSTRALIA PTY LTD
178 POWER STREET
GLENDEENING NSW 2761

FREE CALL NUMBER 5 DAYS A WEEK 1800 625 123.

FILTERS

Thermoplastic Sand Filters 19,22 and 24 inch

- 5 Years Full Replacement – Tank only
- 1 Year on Multiport Valve and all other components

Cartridge Filters 50sqf, 75sqf and 100 sqf

- 5 Years Full Replacement – Tank only
- 1 Year on all other components

Please note O-Rings and pressure gauges are considered consumables and not covered under the Replacement warranty.