



QUICK START GUIDE

OWNER'S MANUAL

SAFETY, INSTALLATION, OPERATION & PARTS

AL50 SERIES

SAND FILTRATION TECHNOLOGY

PLEASE CALL 877-278-2797

DO NOT RETURN TO STORE



WARNING

This equipment must be installed and serviced by a qualified technician in accordance with all applicable codes and ordinances. Improper installation can create hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.

The NOTICE label 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.



TABLE OF CONTENTS

SAFETY INFORMATION.....	2	BACKWASHING.....	5
SAND FILTER BREAKDOWN	2	MAINTENANCE.....	5
INSTALLATION.....	3	SPECIFICATIONS.....	6
MULTIPOINT VALVE OPERATION.....	3	TROUBLESHOOTING.....	6
INITIAL STARTUP OF FILTER.....	4		

SAFETY INFORMATION

READ ALL WARNINGS BELOW. FAILURE TO DO SO COULD RESULT IN SERIOUS PERSONAL INJURY OR DEATH

***RISK OF SUCTION ENTRAPMENT HAZARD, WHICH, IF NOT AVOIDED CAN RESULT IN SERIOUS INJURY OR DEATH. DO NOT BLOCK SUCTION AT THE PUMP OR IN THE POOL AS THIS CAN CAUSE SEVERE INJURY OR DEATH**

1. Sand Filters are designed to work with water at a temperature > than 32° F and < than 113°F. 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 location.
3. The user should make sure that the installation is carried out by qualified authorized professional and adhere to local code & regulations. Avoid Electrical Shock – Do Not Use power extension cords.
4. Connect ONLY to a Ground-Fault Circuit Interrupter (GFCI) power outlet. Consult a qualified, professional electrician for safe and proper installation of the required electrical outlet.
5. The operating safety of the filter is only guaranteed if the installation and operation instructions are correctly followed. CAUTION – Check to ensure that air is out of the system before operation. Any trapped air can cause the tank cover to explode which could result in death, serious injury, or damage to the system.
6. To reduce the risk of injury, do not permit children to use this product. Install the product at least 10 feet away from the pool to prevent children from using the system to access the pool.
7. Incorrectly installed equipment may fail, causing severe injury, property damage or death.
8. Chemicals and fumes can weaken Swimming Pool/ Spa equipment. Corrosion can cause filters and other equipment to fail, resulting in severe injury, property damage or death. Do not store pool chemicals near your equipment. Any modification of the filter requires the prior consent from the supplier's original replacement parts and accessories authorized by the manufacturer to ensure a high level of safety. The supplier assumes no liability for the damage and injuries caused by unauthorized replacement parts and accessories.
9. In the event of defective operation or fault, contact 877-278-2797 immediately for assistance.
10. DO NOT OPERATE THE SYSTEM WHILE THE POOL IS IN USE.
11. Never Allow Children to Operate this Equipment

How the Sand Filter/Pump 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.

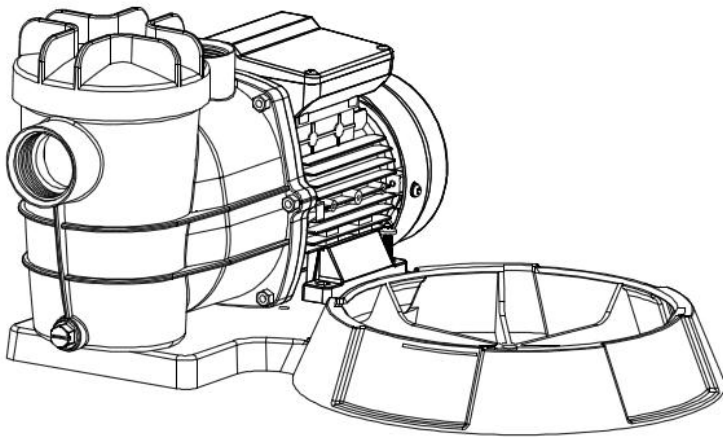
Preparation Before Installation

1. **The filter 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.**
2. **Position the filter under consideration of the piping connections, so that it is convenient for operating and servicing.**
3. **Ensure that the compliance label is facing the front to allow easy identification in the case of service difficulties.**

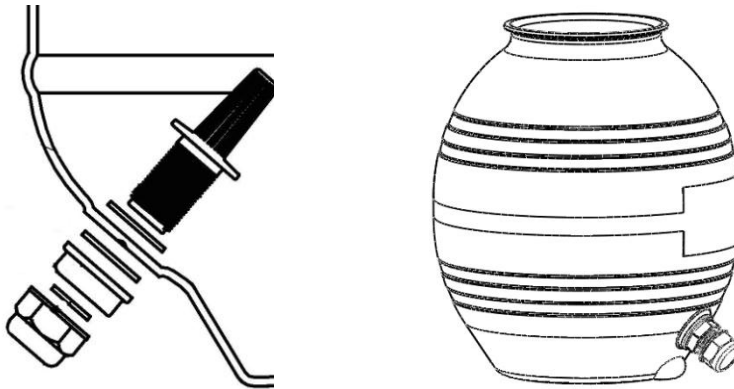
How to Install the System

INSTALLATION

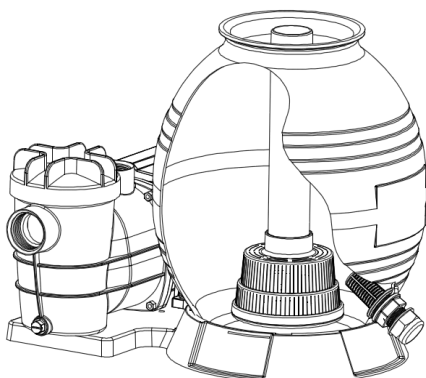
1. Mount the pump to sand filter support by using bolts and nuts.



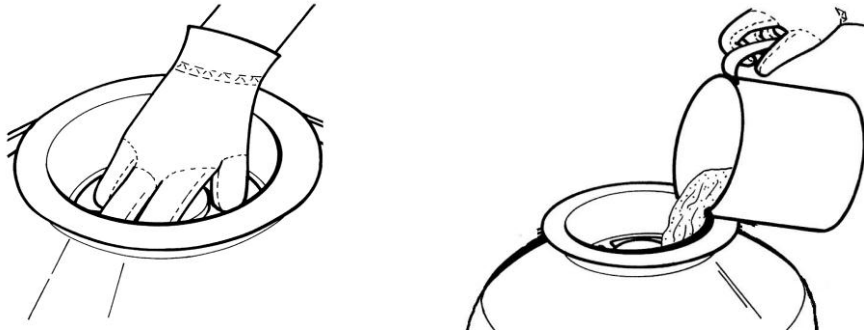
2. Install the drain plug assembly to sand tank as below pictures.



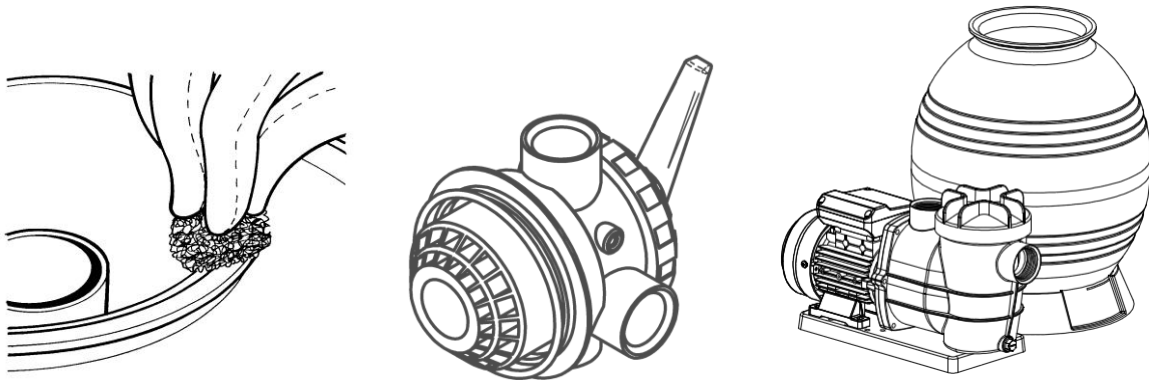
3. Press and turn the sand tank to mount it to sand filter support with correction direction (drain plug is at outside as below picture).



4. Insert the tube with the diffuser body inside the tank as above picture, then place the funnel on the tank's mouth and pour 45lbs of the No. 20 Silica Sand with particle size of 0.45 mm-0.55mm sand into the tank



5. Take away the funnel, and then clean really carefully the tank's neck and fix the valve with O-ring through flange clamp set. (the direction of "PUMP" port on valve needs to face pump out port)



6. Connect the sand tank to pump with hose, hose clamps and hose adaptors.



Installation Notes

1. Ensure solvents are not excessively applied to fittings as this could run into O-ring and create sealing problems.
2. 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 FULLY FILLED THE WATER BEFORE STARTING 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 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.

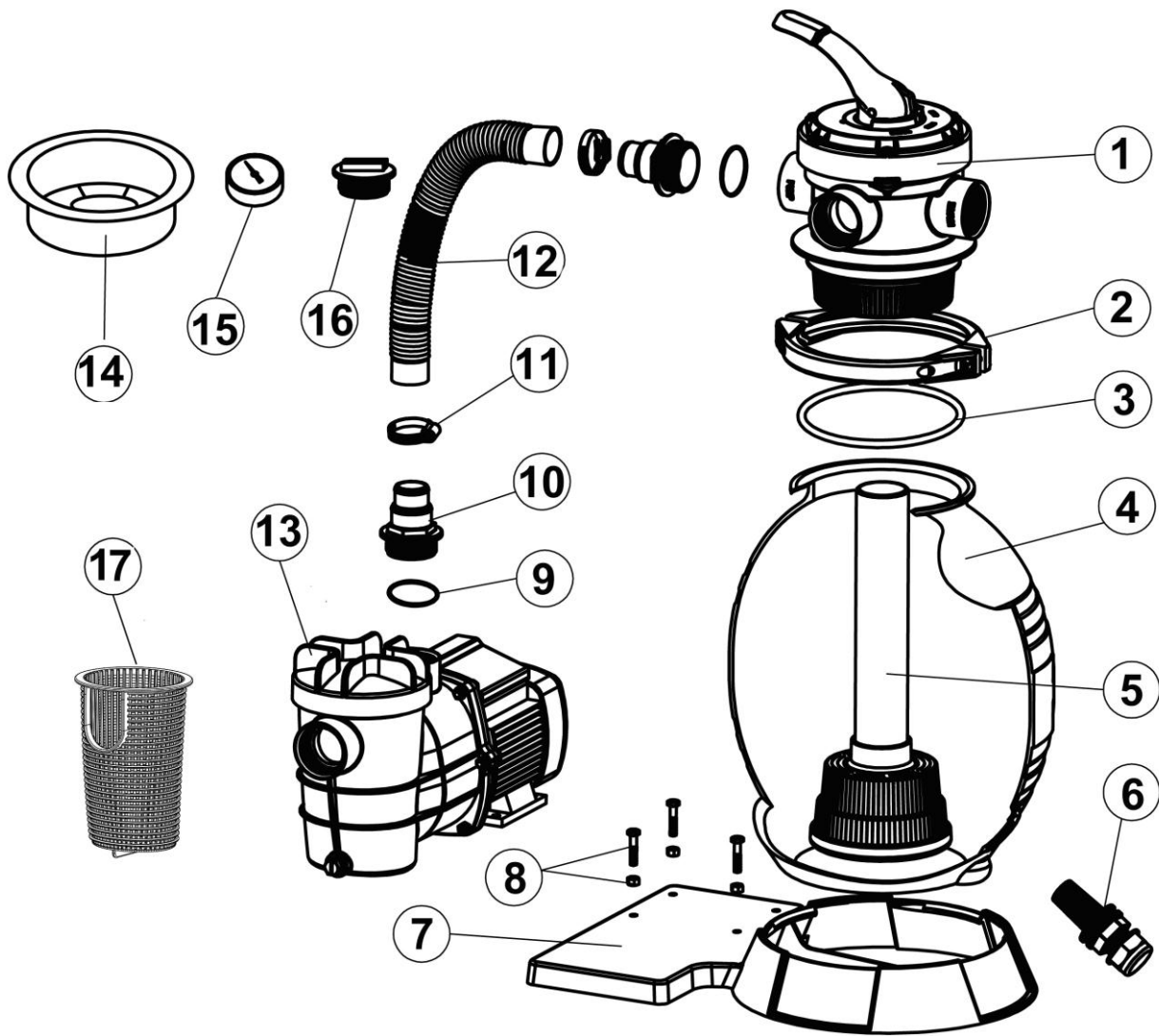
FILTER CONTROL VALVE FUNCTIONS:

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

BACKWASH – For cleaning filter. When filter pressure gauge rises 8-10 PSI 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 – 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 – To bypass filter for draining or lowering water level and for vacuuming heavy debris directly to waste.



Parts Listing

Ref. No.	Part No.	Description	QTY
1	98100-001	4-Way Valve	1
2	98101-001	Flange clamp	1
3	98102-001	O-ring	1
4	98103-001	Filter Tank	1
5	98104-001	Filter Assembly	1
6	98105-001	Drain plug	1
7	98106-001	sand filter support	1
8	98107-001	Screw and Nut	4
9	98108-001	O-ring	5
10	98109-001	Hose Adaptor	5
11	98110-001	Hose Clamp	2
12	98111-001	1 1/4" x 14" hose	1
13	98112-001	30GPM Pump	1
14	98113-001	Neck Fitting	1
15	98114-001	Pressure gauge	1
16	98115-001	Plug W/o-ring 1 1/2"	1
17	98116-001	Basket	1



Limited Warranty

For one (1) year from the date of purchase, manufacturer will repair or replace, at its option, for the original owner any parts of its filters ("Product") which are found upon examination to be defective in materials or workmanship. This Limited Warranty covers parts only for a period of one (1) year. Please call 1-877-278-2797 for instructions. Be prepared to provide a receipt, the model number and serial number when exercising this limited warranty. Purchaser must pay all transportation charges on Products or parts submitted for repair or replacement. All non-warranty service charges are the responsibility of the original owner. Failure to pay for non-warranty service charges will void this Limited Warranty.

This Limited Warranty does not cover Products that have been damaged as a result of accident, freezing, abuse, misuse, neglect, improper installation, improper maintenance or failure to operate in accordance with written instructions. All maintenance and service must be performed by service agents approved. Any unauthorized alteration or repairs will void this Limited Warranty.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM THE DATE OF PURCHASE. THIS IS THE EXCLUSIVE REMEDY AND ANY LIABILITY FOR ANY AND ALL INDIRECT OR CONSEQUENTIAL DAMAGES OR EXPENSES WHATSOEVER IS EXCLUDED.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusions or limitations of incidental or consequential damages, so the above limitations might not apply to you. This limited warranty gives you specific legal rights, and you may also have other legal rights which vary from state to state.

In no event, whether as a result of breach of contract warranty, tort (including negligence) or otherwise, shall its suppliers be liable for any special, consequential, incidental or penal damages including, but not limited to loss of profit or revenues, loss of use of the products or any associated equipment, damage to associated equipment, cost of capital, cost of substitute products, facilities, services or replacement power, downtime costs, or claims of buyer's customers for such damages. This Limited Warranty does not include freight charges for equipment or component parts, to and from the factory, services such as maintenance or inspection, repair or damage due to negligence such as freezing conditions, incorrect installation, nor acts of God. The liability shall not exceed the repair or replacement of defective parts under this Limited Warranty. This Limited Warranty also does not include unnecessary service calls due to erroneous operational reports, external valve positions, or electrical service. If a non-warranty service call is made, and the homeowner is unwilling to pay for the service call, this Limited Warranty will be voided. This Limited Warranty is voided if the product is repaired or altered by any persons or agencies other than those authorized. This Limited warranty applies only within the continental USA. For warranty outside the continental USA.

You **MUST** retain your purchase receipt along with this form. In the event you need to exercise a warranty claim, you **MUST** present a copy of the purchase receipt at the time of service. Please call 1-877-278-2797 for service or return authorization and instructions.

DO NOT MAIL THIS FORM. Use this form only to maintain your records.

MODEL NO. _____ SERIAL NO. _____ INSTALLATION DATE _____