

HYDROTOOLS™


By **SWIMLINE®**


OWNER'S MANUAL Installation, Operation, & Parts

MODELS: 70151 • 76051 • 76071 • 76101

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.

SAVE THIS INSTRUCTION MANUAL

SAFETY INFORMATION

1. The filters are designed to work with water at temperature >than 0°C (32°F) and <than 45°C. (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 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

THE FILTRATION SYSTEM 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, dirt and debris are trapped by the filter, 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.

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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 – Suction Entrapment Hazard.

Suction in suction outlets and/or suction outlet covers which are, damaged, broken, cracked, missing, or unsecured can cause severe injury and/or death due to the following entrapment hazards:



Hair Entrapment- Hair can become entangled in suction outlet cover.

Limb Entrapment- A limb inserted into an opening of a suction outlet sump or suction outlet cover that is damaged, broken, cracked, missing, or not securely attached can result in a mechanical bind or swelling of the limb.

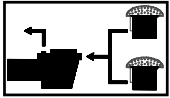
Body Suction Entrapment- A negative pressure applied to a large portion of the body or limbs can result in an entrapment.

Evisceration/ Disembowelment - A negative pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover which is, damaged, broken, cracked, missing, or unsecured can result in evisceration/ disembowelment.

Mechanical Entrapment- There is potential for jewelry, swimsuit, hair decorations, finger, toe or knuckle to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.



WARNING - To Reduce the risk of Entrapment Hazards:



- When outlets are small enough to be blocked by a person, a minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall), must be installed a minimum of three feet (3') [1 meter] apart, as measured from near point to near point.
- Dual suction fittings shall be placed in such locations and distances to avoid “dual blockage” by a user.
- Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
- The maximum system flow rate shall not exceed the flow rating of as listed on Table 2.
- Never use Pool or Spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- Replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- In addition two or more suction outlets per pump installed in accordance with latest NSPI, IAF Standards and CPSC guidelines, follow all National, State, and Local codes applicable.
- Installation of a vacuum release or vent system, which relieves entrapping suction, is recommended.



WARNING – Failure to remove pressure test plugs and/or plugs used in winterization of the pool/spa from the suction outlets can result in an increase potential for suction entrapment as described above.



WARNING – Failure to keep suction outlet components clear of debris, such as leaves, dirt, hair, paper and other material can result in an increase potential for suction entrapment as described above.



WARNING – Suction outlet components have a finite life, the cover/grate should be inspected frequently and replaced at least every ten years or if found to be damaged, broken, cracked, missing, or not securely attached.



CAUTION – Components such as the filtration system, pumps and heater must be positioned so as to prevent their being used as means of access to the pool by young children.



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



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



WARNING – Never change the filter control valve position while the pump is running.



WARNING – Hazardous Pressure. Pool and spa water circulation systems operate under hazardous pressure during start up, normal operation, and after pump shut off. Stand clear of circulation system equipment during pump start up. Failure to follow safety and operation instructions could result in violent separation of the pump housing and cover, and/or filter housing and clamp due to pressure in the system, which could cause property damage, severe personal injury, or death. Before servicing pool and spa water circulation system, all system and pump controls must be in off position and filter manual air relief valve must be in open position. Before starting system pump, all system valves must be set in a position to allow system water to return back to the pool. Do not change filter control valve position while system pump is running. Before starting system pump, fully open filter manual air relief valve. Do not close filter manual air relief valve until a steady stream of water (not air or air and water) is discharged.



WARNING – Separation Hazard. Failure to follow safety and operation instructions could result in violent separation of pump and/or filter components. Strainer cover must be properly secured to pump housing with strainer cover lock ring. Before servicing pool and spa circulation system, filters manual air relief valve must be in open position. Do not operate pool and spa circulation system if a system component is not assembled properly, damaged, or missing. Do not operate pool and spa circulation system unless filter manual air relief valve body is in locked position in filter upper body.



WARNING – Electrical Ground motor before connecting to electrical power supply. Failure to ground pump motor can cause serious or fatal electrical shock hazard.



WARNING – Do NOT ground to a gas supply line.



WARNING – To avoid dangerous or fatal electrical shock, turn OFF power to motor before working on electrical connections.



WARNING – Failure to bond pump to pool structure will increase risk for electrocution and could result in injury or death. To reduce the risk of electric shock, see installation instructions and consult a professional electrician on how to bond pump. Also, contact a licensed electrician for information on local electrical codes for bonding requirements.

PUMP & FILTER MOUNTING INSTRUCTIONS:

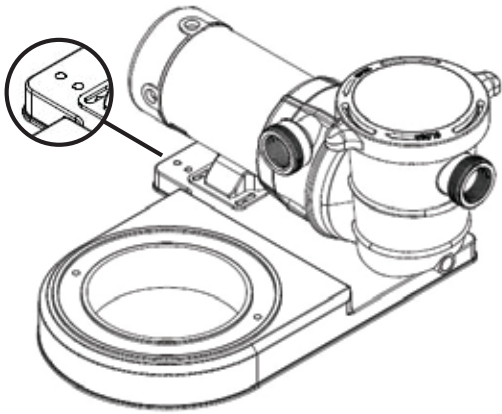


Fig. A

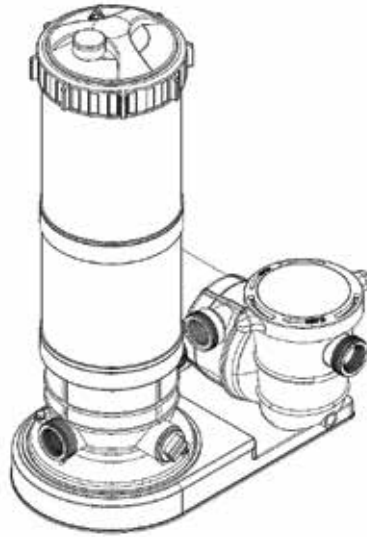


Fig. B

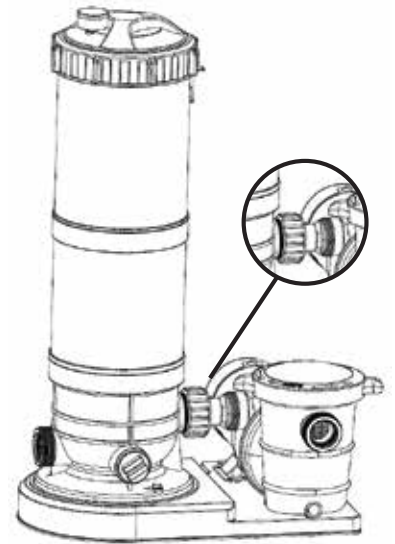


Fig. C

1. Place pump on filter/pump platform (base), positioning pump so two sets of holes are visible between pump, bracket, and end of base. See Fig. A
2. Using provided bolts and nuts LOOSELY attach pump to base.
3. Place filter on base, positioning it so that the filter inlet aligns with pump. (See Fig. B)
4. Attach filter connector union (part #70157) to filter and pump. Use care to not to cross-thread or crack the union. It will be helpful to have a 2nd person during this step. (Fig. C)
5. Install bolts and nuts LOOSELY, connecting filter to base.
6. Alternating between connector union, bolts on pump, and bolts on filter, slowly tighten down all three components. Hand tighten plus 1/2 turn. Tighten firmly, but do not over-tighten the connector, as over-tightening will displace the o-ring from the seats on adapter.

The pump and filter can now be plumbed to your pool. The pump inlet and filter outlet will accommodate a 1-1/2" male pipe thread PVC fitting. Threaded PVC fittings should be installed with plumbers tape to prevent leaks.

Before starting the filter system, be sure water is in the pump (at least 1/2 way up on faceplate). The pool water should be able to flow freely from the pool through the filter system and then return back to the pool. Without water flow, the pump can become severely damaged. This damage is not covered by the warranty.

Once the filter system is operational and running, bleed the air from the filter tank. This can be done by using a flathead screwdriver to loosen (counterclockwise) the air relief nut (on top of lid) slightly. You will hear a hissing sound as the air is being displaced by water that is filling the filter tank. Once water comes out of the air relief nut, tighten the screw to prevent any further leaking.

⚠ WARNING: DO NOT COMPLETELY REMOVE THE NUT.

After the air is out of the filter tank, take note of the pressure on the gauge. This is your clean/starting pressure reading. Over time, as the filter collects dirt and debris, the pressure within the filter tank will increase. When the pressure gauge indicates between 6-10 PSI above the clean/starting pressure reading, it is time to clean the filter element.

To clean filter element, turn off the pump and shut the necessary valves to prevent water loss. Push the filter ring lock down and turn the filter lid ring counterclockwise. Remove the filter element(s), use a fan spray from your garden hose for the best cleaning results. Drain the dirty water from the tank by removing the drain nut located at the bottom of the tank. Replace the nut after the tank has been drained. Place clean filter element(s) back in the tank and reattached filter lid, tightening the lid ring until the lock latches the notch on the lid ring.

Clean the pump strainer as needed. Do not allow the pump basket to become overfilled with leaves and debris, as this will restrict the flow of water and damage the pump.

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. Ensure that the compliance label is facing the front to allow easy identification in the case of service difficulties to readily allow identification and for ease of service.
3. The power cord of the motor should be plugged directly to a grounded outlet. (GFCI) The use of extension cords will cause motor to run hotter and shorten its life.

INSTALLATION NOTES:

1. Make sure the filter is working under the proper pressure, and using a pressure control valve when the system requires a booster pump.
2. If the pump position is higher than the water level, it requires installation of a back water control valve.
3. If the pump position is lower than the water level, it requires installation of an isolation valve. It could stop the water return back when people do the general inspection.
4. When connecting hoses to the fittings and the pool, reduce bending the hoses to a minimum so as to not decrease the flow of water, and provide maximum efficiency.
5. Ensure solvents are not excessively applied to fittings as this may destroy the O-rings, and potentially create seal/leak issues.
6. Do not over tighten fittings or adapters

HOW TO USE

1. Inspect and make sure that all connections have been made are correct and secure. Loosen the top of the filter bleed plug to exhaust the system of air inside filter vessel.
2. Prime and start pump according to pump instructions.
NOTE: ALL SUCTION AND DISCHARGE VALVES MUST BE OPEN WHEN STARTING THE SYSTEM. FAILURE TO DO SO MAY CAUSE SEVERE PERSONAL INJURY. MAKE SURE THE WATER LEVEL IN FILTER VESSEL IS FULL. IF NOT, FILL WITH WATER BEFORE STARTING UP THE PUMP, OR IT WILL DAMAGE THE PUMP.
3. Once water flow is steady out the filter bleed plug, run the pump for 1-2 minutes. Then turn off the pump and tighten the bleed plug.
4. Again, prime and start the pump according to pump instructions. Your filter is now operating in the normal filter mode.

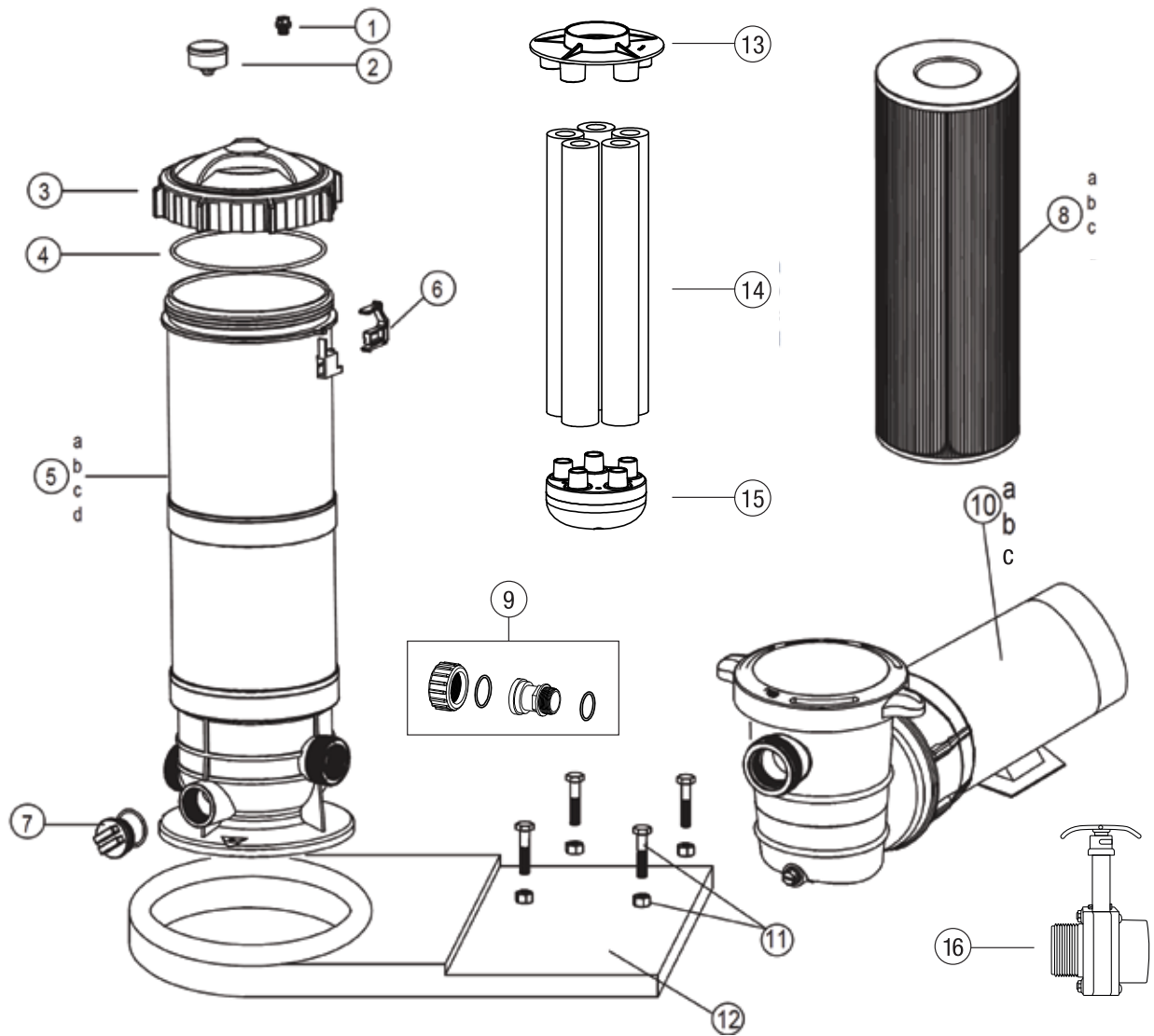
NOTES:

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 water, the accumulation in the filter will cause the pressure to rise and the water 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 change the filter cartridge(s).
2. **IMPORTANT:** To prevent unnecessary strain on the piping system and valves, always shut off the pump before switching the 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.

THIS UNIT HAS A ONE-YEAR LIMITED WARRANTY FROM MANUFACTURER DEFECTS.

TO EXTEND THE LIFE OF YOUR FILTER PUMP:

- Actual filter run time depends on pool size/ gallons & HP of pump. See online calculators.
- The average run time is approx. 8 hours a day to circulate & clean pool water.
- Adjust run time to 10–12 hours as needed for larger pools, multiple bathers & algae growth, etc.
- **Never** run your pump 24 hours consecutively. This will void warranty.
- We recommend running in **Non-Consecutive Hour cycles**; no more than **6–8 hours** at a time.
- Run off peak hours, using an after-market timer to maximize utility savings.



FILTRATION SYSTEM MODELS: 70151/76051/76071/76101

REF #	ILP #	DESCRIPTION	QTY
1	70113	AIR RELIEF / BLEED PLUG	1
2	8963	PRESSURE GAUGE	1
3	70101	LID ASSEMBLY & O-RING	1
4	70101	LID ASSEMBLY & O-RING	1
5a	70100B	BODY 70151	1
N/A	70100	70151 FILTER- NO PUMP (REF# 1,2,3,4, 5a, 6, 7, 13, 14, 15)	1
5b	76050	TANK & ELEMENT FOR 76051	1
5c	76070	TANK & ELEMENT FOR 76071	1
5d	76100	TANK & ELEMENT FOR 76101	1
6	70102	LONG RING LATCH	1
7	70104	DRAIN PLUG W/O-RING 1 1/2"	1
8a	77050	CARTRIDGE ELEMENT FOR 76051	1
8b	77070	CARTRIDGE ELEMENT FOR 76071	1
8c	77100	CARTRIDGE ELEMENT FOR 76101	1
9	70157	ADAPTER ASSEMBLY	1
10a	716061S	.55 THP PUMP FOR 76051	1
10b	719061S	.9 THP PUMP FOR 76071 / 70151	1
10c	722061S	1.2 THP PUMP FOR 76101	1
11	70109	SCREW & NUT ASSEMBLY (M8*35 + M8)	4
12	70122	LARGE BASE	1
13 & 15	70103	FILTER ELEMENT CRADLE SET FOR 70151	1
14	71005	20" CARTRIDGE ELEMENT FOR 70151	5
16	89660	SLICE VALVE	2
N/A	6206	1.5" x 6FT FILTER HOSE	2
N/A	71605	ADAPTOR	4
N/A	8957	HOSE CLAMP	4