

*Lomart*

# Ultima 4000

Push Pull DE Filter

Models 1-1570-069

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**Owner's Guide**

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## HOW YOUR FILTER WORKS.

The pump draws pool water through the skimmer and traps large floating debris in the skimmer basket. The water then passes through the pump and into the filter. The filter's Diatomaceous Earth and grids strain out microscopic particulates and allow clean water to return to the pool through the return fitting.

When your filter becomes loaded with these fine particulates, the pressure inside builds up slightly, slowing down the flow. The pressure gauge indicates when the filter needs backwashing (cleaning). A simple valve change into the backwash position reverses the flow through the filter. This flushes out the collected particulates and contaminated D.E.. The frequency between backwashes depends on the local environments of airborne and carry-in debris by swimmers.



## CAUTIONS

1. Do not install pump and filter system where flooding may occur. This could damage the pump motor.
2. Do not install filter and pump on a deck, or similar surface, above pool water level. It could fall into the pool water, causing severe electrical shock.
3. Do not allow children or adults to climb, sit or stand on the filter or pump. They could easily fall and injure themselves. Install the filter and pump a minimum of 4 feet from the pool wall so they may not be used as steps by children.

## WARNINGS

1. Always be sure the ground under your feet and body is dry before you touch the filter and pump electrical equipment. Failure to follow this warning may cause injury due to severe electrical shock.

2. Always turn off main power switch to pump before servicing pump and filter equipment.

## LOCAL CODES

Contact your local building department for applicable codes or regulations governing the installation of swimming pool equipment.

## CONTRACTED ELECTRICIANS

Always have a licensed electrician install electrical components to make sure electrical integrity is maintained in accordance with the pump data label. Improper installation to power supply may damage the pump motor.

## TOOLS REQUIRED

1. Common Screwdriver
2. Carpenter's Level
3. Shovel
4. Tape Measure

## MATERIALS REQUIRED

1. Diatomaceous Earth (D.E.). See your dealer.
2. Nine - 8" x 12" x 2" Patio Blocks.
3. 1-1/2" Diameter Waste Discharge Hose.

## SITE PREPARATION

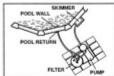


Fig. 1

Install the filter and pump a minimum of 4 feet from the pool wall so they may not be used as steps by children. Position the filter and pump foundation between skimmer and return fitting. Level a 24" x 36" area and place patio blocks as shown.

Level the patio blocks in all directions using a carpenter's level.

Place the filter tank on the patio blocks and position it so the valve handle is facing away from the pool. Place the pump to the right of the filter as shown in Fig. 1.

Install hose clamps on the ends of the three hoses provided. Connect as follows:

1. Connect the end of one 8' long hose to the skimmer and the other end to the pump strainer port.
2. Connect the short hose between the pump discharge (on top of pump) and the port of the filter valve labeled "to pump".
3. Connect one end of the remaining 8' long hose to the pool wall return fitting and the other end over the filter valve port labeled "to pool". Tighten all clamps firmly.

You may want to dig two 3 inch deep trenches to lay the hoses into. Trenches should start at least 12" from the pool wall. Cover the trenches with a firm board after laying hoses. NOTE: Do not completely bury the hoses.

## VALVE OPERATION

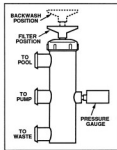


Fig. 2

**Filter:** Push handle in. For normal filtration and vacuuming.

**Backwash:** Pull handle out. To flush out debris from filter tank. Water is discharged through waste port. Use for two minutes or until water runs clear.

## INITIAL START UP

1. Loosen strainer pot lid to allow air to escape. Tighten lid when water begins to flow between strainer pot lid and strainer body. Do not overtighten.
2. Push handle in to "Filter" position.
3. Never operate filter without Diatomaceous Earth. D.E. may be purchased at your pool store. You will need a minimum of 1-1/4 pounds for initial start up of your filter.
4. Plug in your pump to the GFCI protected receptacle. Refer to Safety Information.
5. Start pump.
6. Remove the skimmer lid. Very slowly pour 1-1/4 pounds of D.E. into the skimmer opening. (A clean one pound coffee can holds 1/2 pound of D.E. Your filter will require 2-1/2 coffee cans full).
7. You may notice a slight puff of D.E. entering the pool for a few seconds after starting the pump. This is normal.
8. Check the pressure gauge and note the reading. Using a permanent marking pen, mark your gauge at that pressure. This will be your clean filter pressure reading. When the pressure reaches 5 to 7 lbs. higher than the marked point on the pressure gauge, it will be time to backwash your filter.
9. Check all fittings and hoses for any leaks and correct if necessary.

Initially the water should be filtered 24 hours a day, for the first one to two days, along with chemical treatment. Consult your local pool store for helpful advice in keeping your pool clean and sanitary.

## GENERAL OPERATION

Because all pools are subjected to varying environmental conditions (wind, rain, airborne debris, heat, pool use, etc.), it is impossible to provide an accurate filtering time for normal usage. Use a trial and error method to determine how long your filter must operate each day. Generally 6 - 8 hours of filtering each day is sufficient to maintain pool clarity.

During initial start up, and when conditions warrant additional filtering time, your filter may require frequent backwash intervals. As the water clears, the backwashing intervals will be extended, allowing longer time periods between cleaning.

## BACKWASH

1. When the flow through your filter is noticeably reduced, or when the pressure gauge reads 5 - 7 pounds above the marked position, it is time to backwash.
2. Stop pump. Slip one end of waste hose (not provided) over the waste port adaptor and place other end in a convenient drainage area.
3. Pull valve handle to "Backwash" position. Start pump and backwash for at least 2 minutes or until water runs clear from waste hose. Do not backwash longer than necessary.
4. Stop pump. Push valve handle in to "Filter" position and start pump. Recoat grids with 1-1/4 pounds of D.E.

## VACUUMING YOUR POOL

1. Stop pump.
2. Remove large debris from pool.
3. Clean strainer basket. See Cleaning Strainer Basket in your pump owner's guide.
4. Connect waste hose.
5. Follow your vacuum manufacturer's owner's guide for vacuum hose and head assembly.
6. Follow your skimmer manufacturer's owner's guide for vacuum hose attachment to skimmer and skimmer preparations.

7. Start pump and vacuum your pool. Refer to filter's pressure gauge frequently during vacuuming. Rapid increases in pressure may occur. If so, backwash your filter.
8. When finished, return skimmer and filter to normal operation.

## WINTERIZING

1. Backwash the filter.
2. Siphon the pool water down with your vacuum hose until water level is below the pool wall openings.
3. Remove bottom drain plug and drain all water out of tank. Replace drain plug.

4. Disconnect all hoses. Remove tank flange bolts, washers and nuts. Lift off cover, remove and hose off grids.
5. Dry out the inside of the tank and store filter parts, hoses and pump in a warm dry area.

## SERVICING

Servicing should be handled by a qualified dealer.

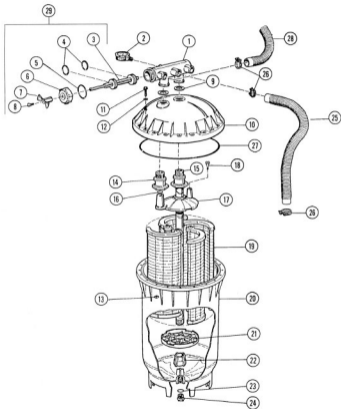
If disassembly is attempted, mark each parts assembled position as it relates to its mating part. This assures proper alignment when reassembled. Malfunction will occur if not properly assembled. See your dealer for original equipment manufactured (OEM) parts and servicing.

### ULTIMA 4000 FILTER FILTER COMPONENT PARTS LIST MODEL NUMBER 1-1570-069

ITEM	P/N	QTY	DESCRIPTION
1	1121-1388	1	Valve Body Assembly
2	395-1014	1	Pressure Gauge
3	340-1280	1	Valve Spool
4	308-1006	2	Piston O-Ring
5	308-1061	1	Valve Cap Gasket
6	1107-1278	1	Valve Cap Assembly
7	340-1643	1	Valve Handle
8	324-1018	1	1/4-20 x 1" Carriage Bolt
9	308-1109	2	Valve Port Gasket
10	340-1797	1	Tank Cover
11	330-1050	20	#10-24 x 1-1/4" Hex Hd. Screw
12	327-1026	20	#10 Washer
13	321-1064	20	#10-24 Square Nut
14	340-1285	1	Valve Adaptor
15	1107-1341	1	Adaptor and Pipe Assembly
16	308-1174	1	Collector O-Ring
17	1107-1342	1	Upper Collector Assembly
18	343-1100	1	Air Relief Valve
19	1119-1046	4	D.E. Filter Grid
20	340-1798	1	Tank Bottom
21	340-1747	1	Grid Support
22	340-1748	1	Support Nut
23	308-1074	1	Drain O-Ring
24	340-1328	1	Drain Plug
25	346-1020	1	Hose, 1-1/2" x 22'
26	387-1053	6	1-1/2" Hose Clamp
27	308-1115	1	O-Ring, 14.88 I.D. x .161 Wall
28	346-1037	2	Hose, 1-1/2" x 6'
**29	1121-1398	1	Valve Piston & Handle Assy.
30	—	1	Warranty Card
31	365-1660	1	Owner's Guide

\*\* Consists of items 3-8.

ULTIMA 4000  
FILTER COMPONENTS  
EXPLODED VIEW



## TROUBLE SHOOTING CHECKLIST

PROBLEMS	POSSIBLE CAUSE	REMEDIES
1. High gauge pressure Low return flow.	<ol style="list-style-type: none"> <li>1. Filter needs backwashing</li> <li>2. Excessive contaminants or algae on grids.</li> <li>3. Calcium crustation grid cloth.</li> </ol>	<ol style="list-style-type: none"> <li>1. Backwash filter.</li> <li>2. Backwash filter or contact dealer.</li> <li>3. Disassemble and wash grids with 1 part muriatic acid to 4 parts of water.</li> </ol>
2. Low gauge pressure, low flow (Bubbles from return fitting or pump has rattling noise in it).	<ol style="list-style-type: none"> <li>1. Pool water level too low.</li> <li>2. Restriction on suction side of pump.</li> <li>3. Skimmer or strainer basket filled with debris.</li> <li>4. Loose strainer pot lid.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill pool so water is between water lines on skimmer.</li> <li>2. Clear obstruction in skimmer, hoses or pump.</li> <li>3. Clean skimmer and/or strainer baskets.</li> <li>4. Tighten strainer pot lid.</li> </ol>
3. High flow, low or normal gauge pressure but pool water will not clear up.	<ol style="list-style-type: none"> <li>1. Pool water is chemically out of balance.</li> <li>2. Opening in grid cloth</li> <li>3. Filter grids not properly seated.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check with test kit or contact dealer.</li> <li>2. Replace defective grid.</li> <li>3. Tighten grid assembly.</li> </ol>
4. Short filter cycles.	<ol style="list-style-type: none"> <li>1. Excessive amounts of suspended contaminants or algae.</li> <li>2. Calcium crustation on grid cloth.</li> </ol>	<ol style="list-style-type: none"> <li>1. Filter will require frequent backwashing until water is clear.</li> <li>2. Disassemble and wash grids with 1 part of muriatic acid to 4 parts of water.</li> </ol>
5. Cloudy puff out of return	<ol style="list-style-type: none"> <li>1. Open seam or hole in grid.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace grid.</li> </ol>
6. Water leaking to waste.	<ol style="list-style-type: none"> <li>1. Valve not pushed fully in filter position.</li> <li>2. Debris caught under valve O-Ring.</li> <li>3. Defective O-Ring in valve body.</li> </ol>	<ol style="list-style-type: none"> <li>1. Pull handle out then push fully in.</li> <li>2. Remove valve cap and piston assembly. Clean and lubricate O-Ring.</li> <li>3. Replace O-Ring.</li> </ol>

Note: Contact your Lomart dealer for any problems that you cannot solve.

Change of Design: Lomart Industries expressly reserves the right to change or modify the design and construction of any product in due course of our manufacturing procedures, without incurring any obligation or liability to furnish or install such changes or modifications on products previously or subsequently sold.

  
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