

OWNER'S MANUAL

INSTALLATION AND OPERATION INSTRUCTIONS

1/4 HP SUBMERSIBLE UTILITY PUMP



MODEL 107797

UTILITY PUMP

WARRANTY: PRODUCT DEFECTS COVERED 12 MONTHS FROM DATE OF PURCHASE. RECEIPT AND PRODUCT DATE CODE REQUIRED FOR WARRANTY CLAIM

THANK YOU FOR PURCHASING

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

GENERAL INFORMATION:

Before use, read the following instructions carefully. Closely following these instructions will eliminate potential operating problems, assuring years of trouble-free service.

⚠ WARNING

Risk of electric shock. The pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, install only on a circuit protected by ground-fault circuit-interrupter. Always disconnect the pump from the power source before handling or making adjustments. Always wear rubber boots when servicing in wet areas. Make sure the pump power source is a separately fused, grounded 3-wire type receptacle of 15-amp capacity. **DO NOT REMOVE GROUND PRONG OR PLUG. DO NOT USE AN EXTENSION CORD.** Check to make sure installation is in accordance with the National Electric Code and all applicable local codes. Installation and servicing are to be conducted by qualified personnel.

⚠ WARNING

DO NOT pump flammable liquids
DO NOT use around explosive materials
DO NOT handle unit with wet hands or while standing in water
DO NOT lift the pump by the power cord

⚠ CAUTION

DO NOT connect to any voltage other than that listed on the nameplate
DO NOT use in water over 104°F (40°C).
DO NOT modify the pump in any way
DO NOT expose pump or discharge to freezing temperatures
DO NOT use this product to pump salt water or brine. Use with salt water or brine will void the warranty. Pump water only.

SPECIFICATIONS:

MODEL	OUTPUT		OUTLET		PASS SOLID (mm)	MAX. FLOW (LPM)	MAX. HEAD (FT.)
	HP	W	MM	INCH			
107797	1/4	180	32	1-1/4"	5	180	20

APPLICATION:

- This submersible utility pump is designed for a portable application, for dewatering around homes.
- This pump is great for water transfer from basin, pool cover, flooded floor, flat roof.
- May also be used for average flow fountain

TO DRAIN SPA



TO DRAIN POOL AND POOL COVER



TO DRAIN FLOODED BASEMENT



FISHPOND OXYGENATION



OPERATION:

1. Set pump on hard surface in water before starting.
2. Use the included garden hose adapter for properly discharge line or disconnect the adapter to use a properly discharge.
3. Plug power cord into properly grounded AC power outlet. Will operate continuously whether partly or fully submerged. Submersible utility pumps are intended to pump water at temperatures up to 104°F (40°C).
4. To prevent unnecessary wear, unplug the pump from the power output when not in use.
5. The pump is supplied with the garden hose adapter. For use with plastic pipe, remove the adapter and install the desired properly fitting. **DO NOT OVERTIGHTEN THE HOSE OR PLASTIC ADAPTER FITTING.** Finger tight plus 1/2 turn is sufficient
6. Pump equipped with Optional Float switch. When the pump senses that it is no longer pumping water, the pump will shut off automatically.

⚠ CAUTION

Do not set pump directly on sand, dirt or mud. Sand or mud-choked pumps can Be back-flushed clean.

⚠ CAUTION

Do not handle or carry the pump by the power cord. Use the handle.

⚠ CAUTION

Extended usage of the pump in a partially submerged or non-submerged situation may cause the pump to overheat due to lack of heat dissipation from the water. If this occurs, the pump will shut itself off until the motor cools to its normal temperature. Repeated overheating may cause damage to the pump.

MAINTENANCE

To clean a pump clogged with debris:

- Unplug the pump from electrical power.
- Remove the screws and screen from the bottom of the pump.
- Remove the screws, volute, and seal gasket from the pump.
- Clean the debris from the impeller. Reassemble.
- If debris is preventing the float switch from operating properly, remove any debris from the float switch cage on the side of the pump. The bottom portion of this cage can be removed for further cleaning.

In those instances where damages are incurred as a result of an alleged pump failure, the Homeowner must retain possession of the pump for investigation purposes.

TROUBLESHOOTING CHECKLIST



CAUTION: SHUT OFF POWER TO THE PUMP.

FAILURE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Pump will not turn	<ol style="list-style-type: none"> 1. Poor electrical connection, blown fuse, tripped breaker, or other interruption of power; improper power supply 2. Leakage circuit breaker or motor thermal relay trip 3. Defective motor 4. Float movement restricted (For float switch version) 5. Insufficient liquid level (For float switch Version) 	<ol style="list-style-type: none"> 1. Check all electrical connections for security. Have electrician measure current in motor leads. If current is within $\pm 20\%$ of locked rotor Amps, impeller is probably locked. If current is 0, overload may be tripped. Remove power, allow pump to cool, then recheck current 2. Check the circuit breaker and fuse in the good condition and well connected. Please cool down the motor to 5 minutes when the thermal relay trip. 3. Check winding insulation (Megger Test) and winding resistance. If check is outside of range, dry and recheck, If still defective, replace per service instructions 4. Reposition pump or clean basin as required to provide adequate clearance for float 5. Make sure liquid level is at least equal to suggested turn-on point
Pump hums but doesn't run	<ol style="list-style-type: none"> 1. Incorrect voltage 2. Impeller jammed or loose on shaft, worn, or damaged, impeller cavity or inlet plugged 	<ol style="list-style-type: none"> 1. Check all electrical connections for security. Have electrician measure current in motor leads. If current is within $\pm 20\%$ of locked rotor Amperes , impeller is probably locked. If current is 0, overload may be tripped. Remove power, allow pump to cool , then recheck current 2. Check impeller for freedom of operation, security, and condition. Clean impeller cavity and inlet of any obstruction
Pump delivers insufficient capacity	<ol style="list-style-type: none"> 1. Incorrect voltage 2. Excessive inflow or pump not properly sized for application 3. Discharge restricted 4. Check valve stuck closed or installed backwards 5. Shut-off valve closed 6. Impeller jammed or loose on shaft worn or damaged, impeller cavity or inlet plugged 7. Pump may be air locked 	<ol style="list-style-type: none"> 1. Check all electrical connections for security. Have electrician measure current in motor leads. If current is within $\pm 20\%$ of locked rotor Amps, impeller is probably locked, if current is 0, overload may be tripped. Remove power, allow pump to cool, then recheck current 2. Recheck all sizing calculations to determine proper pump size 3. Check discharge line for restrictions, including ice. If line passes through or into cold areas 4. Remove and examine check valve for proper installation and freedom of operation 5. Open valve 6. Check impeller for freedom of operation, security, and condition. Clean impeller cavity and inlet of any obstruction 7. Loosen union slightly to allow trapped air to escape

<p>Pump shuts off and turns on independent of switch (trips thermal overload protector)</p> <p>Check pump specifications to Determine.</p> <p>NOTE: Pump may start unexpectedly. Disconnect power supply</p>	1. Incorrect voltage	1. Check all electrical connections for security. Have electrician measure current in motor leads. If current is within $\pm 20\%$ of locked rotor. Amps, impeller is probably locked. If current is 0, overload may be tripped. Remove power, allow pump to cool, then recheck current
	2. Excessive inflow or pump not properly sized for application	2. Recheck all sizing calculations to determine proper pump size
	3. Impeller jammed, loose on shaft worn or damaged; impeller cavity or inlet plugged	3. Check impeller for freedom of operation, security, and condition. Clean impeller cavity and inlet of any obstruction
	4. Excessive water temperature (internal protection only)	4. Check pump temperature limits & fluid temperature
<p>Pump operates noisily or vibrates excessively</p>	1. Worn bearings. motor shaft bent	1. Defective bearing or motor shaft
	2. Debris in impeller cavity or broken impeller	2. Check impeller for freedom of operation, security, and condition. Clean impeller cavity and inlet of any obstruction.
	3. Piping attachments to building structure too rigid or too loose	3. Replace portion of discharge pipe with flexible connector

ELECTRICAL PRECAUTIONS

Before servicing a pump, always shut off the power supply and then make sure you are not standing in water and that there is no risk of electrical shock.

If the pump is direct-wired to the electrical circuit, contact your qualified licensed electrician to disconnect if required.

DO NOT ATTEMPT ELECTRICAL REPAIRS OF ANY SORT UNLESS YOU ARE A LICENSED ELECTRICIAN

LIMITED WARRANTY:

For one year from the date of purchase, IRONTON will repair or replace, at its option, for the original purchaser any part or parts of its Sump Pumps or Water Pumps ("Product") found upon examination by IRONTON to be defective in materials or workmanship. Please call IRONTON for instructions or see your dealer. Be prepared to provide the model number when exercising this warranty. All transportation charges on Products or parts submitted for repair or replacement must be paid by purchaser.

This Limited Warranty does not cover Products which have been damaged as a result of accident, abuse, misuse, neglect, improper installation, improper maintenance, or failure to operate in accordance with IRONTON's written instructions.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE 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 IRONTON or 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.

You **MUST** retain your purchase receipt along with this form. In the event you need to exercise a warranty claim, you **MUST** send a **copy** of the purchase receipt along with the material or correspondence. Please call IRONTON for return authorization and instructions.