

# MINIBOSS

THERMOPLASTIC SUMP PUMP

THERMOPLASTIC  
SUBMERSIBLE  
SUMP PUMP

## INSTALLATION AND OPERATING INSTRUCTIONS

A RICHTECH INDUSTRIES PRODUCT

RICHTECH INDUSTRIES

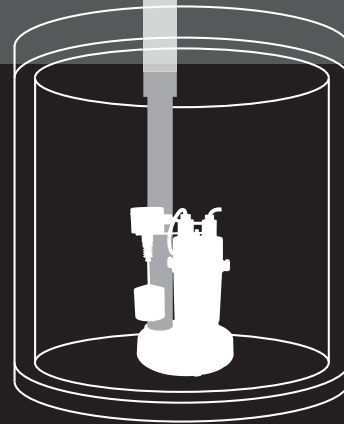


### PUMP PERFORMANCE

15'  
LIFT      2500  
GALLONS/HR

10'  
LIFT      3000  
GALLONS/HR

5'  
LIFT      3400  
GALLONS/HR



### SPECIFICATIONS

Power Supply Requirements	115 VAC, 60Hz
Motor Amp Rating	7.6 Amp Single Phase – Insulating Oil Filled
Liquid Temperature Range	32°F to 120°F
Circuit Requirements	15 Amp (Minimum)
Discharge	1½" NPT, 1¼" with Adapter
Minimum Basin Diameter	10" Diameter

## IMPORTANT!

READ ALL INSTRUCTIONS CONTAINED IN THIS MANUAL BEFORE USING THIS PRODUCT.

Save these instructions for future reference. Failure to read and follow the warnings and instructions within this instruction manual could result in property damage, serious injury or death.

# SAFETY FIRST!

This instruction manual contains very important information for you to know and understand. This information is provided for your safety and to help prevent equipment problems from occurring. Please observe all safety information labeled danger, warning, caution, and notice.



## WARNING

**WARNING INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH, SERIOUS INJURY OR MAJOR PROPERTY DAMAGE.**

### **RISK OF ELECTRIC SHOCK. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:**

**WARNING!** To reduce the risk of electrical shock, this pump must be properly grounded in accordance with the National Electric Code (NEC) and all applicable state and local codes and ordinances. The receptacle should be protected with a Ground Fault Circuit Interrupter (GFCI).

**WARNING!** To reduce the risk of electrical shock, always disconnect the pump from the power source **BEFORE** handling or servicing.

**WARNING!** Never remove the ground prong from the plug, or use an adapter that eliminates the ground prong.

**WARNING!** Never plug this pump into an electric outlet while standing on a wet surface.

**WARNING!** Cable should be protected at all times to avoid punctures, cuts and abrasions that may result in exposed wiring. Never handle connected power cords with wet hands.

**WARNING!** This Submersible Sump Pump has not been investigated for use in or around swimming pools, marine areas, recreational water installations, decorative fountains or any installation where human contact with the pumped fluid is common.

**WARNING!** Do not use an extension cord. Extension cords could present a safety hazard if not properly sized, become damaged or the connection falls into the sump pit.



### **RISK OF EXPLOSION. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:**

**WARNING!** Do not use to pump flammable or explosive liquids such as gasoline, fuel oil, kerosene, etc.

**WARNING!** Do not use in a flammable or explosive atmosphere.



### **NOT SUITED FOR POTABLE WATER APPLICATIONS.**

**WARNING!** Do not use this pump to transfer water that will be used for potable (drinking) water. This pump is only to be used in applications for which it is designed.



## CAUTION

**CAUTION INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR INJURY OR PROPERTY DAMAGE.**

### **TO REDUCE THE RISK OF HAZARDS THAT CAN CAUSE INJURY OR PROPERTY DAMAGE, OBSERVE THE FOLLOWING WARNINGS:**

**CAUTION!** Do not block or restrict discharge hose. Discharge hose may whip under pressure. It is strongly recommended to use rigid piping and fittings to secure the pump in the sump basin to reduce movement.

**CAUTION!** Do not install the pump if it has been damaged in any way.

**CAUTION!** Do Not carry or lift the pump by the power cord.



# INSTALLATION

1. Set the pump on a solid, level surface in the bottom of the sump pit. If necessary, use bricks / blocks to provide a solid base. Avoid placing the pump on loose gravel, earth or sand. Make sure that the switch is positioned where the float can move up and down freely.
2. Install discharge plumbing according to state and local codes. It is highly recommended that rigid PVC is used for the discharge line. Installing a union in the discharge line will make it easier to remove the sump pump for maintenance. The discharge line must be sloped downward away from the foundation to ensure that the water properly drains away and that the discharge line will not freeze during cold spells.
3. Install a check valve in the discharge line. The check valve may be positioned just above the sump basin for ease of service and/or replacement.
4. Secure all power cords and switch cords to the discharge pipe using cable ties to prevent switch entanglement.
5. Plug the pump into a ground fault circuit interrupter (GFCI) protected outlet.
6. Fill the sump basin with water until the float rises and starts the pump cycle. The pump will stop when the water level falls to the switch's off position. Repeat this several times to ensure proper operation and that the switch operates freely.
7. Install the sump basin gasket / cover.

## NOTICE

**This pump is not designed to handle salt water, brine, laundry discharge, water softener discharge or any other application which may contain caustic chemicals. Damage to the pump may occur and will void the pump's warranty.**



### WARNING:

CANCER AND REPRODUCTIVE HARM – [WWW.P65WARNINGS.CA.GOV](http://WWW.P65WARNINGS.CA.GOV)

## TROUBLESHOOTING



**CAUTION!** Always disconnect the pump from the electrical power source BEFORE handling or servicing.

PROBLEM	POTENTIAL CAUSE	POSSIBLE SOLUTION
Pump Will Not Run	<ol style="list-style-type: none"> <li>1. Blown fuse, tripped breaker or tripped GFCI</li> <li>2. Low Line Voltage</li> <li>3. Switch obstructed</li> <li>4. Insufficient water level</li> <li>5. Motor Failure</li> <li>6. Switch Failure</li> </ol>	<ol style="list-style-type: none"> <li>1. Check all electrical connections. Check for blown fuses, tripped GFCI or tripped circuit breaker.</li> <li>2. Contact a licensed electrician.</li> <li>3. Remove obstruction and check for free movement.</li> <li>4. Water needs to rise to a level that activates the switch</li> <li>5. Replace switch</li> </ol>
Pump Cycles too frequently	<ol style="list-style-type: none"> <li>1. Switch Failure</li> <li>2. Check valve not present or not operating properly</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace switch</li> <li>2. Install or replace the check valve</li> </ol>
Pump Shuts off and turns on independent of switch (trips thermal overload protector). <b>CAUTION!</b> Pump may start unexpectedly. Disconnect power supply.	<ol style="list-style-type: none"> <li>1. Low line voltage</li> <li>2. Impeller jammed, worn or damaged</li> <li>3. Inlet blocked or discharge blocked</li> <li>4. Excessively high water temperature entering the sump pit</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact a licensed electrician.</li> <li>2. Replace Impeller.</li> <li>3. Clean pump inlet. Check and remove any obstructions from the pump discharge line.</li> <li>4. Pump should not be used for water above 120° F</li> </ol>
Pump runs continuously	<ol style="list-style-type: none"> <li>1. Switch failure</li> <li>2. Switch obstructed</li> <li>3. Inlet blocked or discharge blocked</li> <li>4. Excessive inflow or pump not properly sized</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace switch</li> <li>2. Remove obstruction and check for free movement.</li> <li>3. Clean pump inlet. Check and remove any obstructions from the pump discharge line.</li> <li>4. Recheck all sizing calculations to determine proper size</li> </ol>
Pump operates noisily or vibrates excessively	<ol style="list-style-type: none"> <li>1. Impeller obstructed or damaged</li> <li>2. Piping attachments too rigid or too loose to building structure</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and / or replace impeller</li> <li>2. Install a rubber coupling to isolate pump vibration for discharge line.</li> </ol>
Pump runs but delivers insufficient capacity	<ol style="list-style-type: none"> <li>1. Low line voltage</li> <li>2. Impeller obstructed, worn or damaged</li> <li>3. Inlet blocked or discharge blocked</li> <li>4. Pump undersized for application</li> <li>5. Check valve stuck closed or installed backwards</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact a licensed electrician</li> <li>2. Clean and / or replace impeller</li> <li>3. Clean pump inlet. Check and remove any obstructions from the pump discharge line.</li> <li>4. Recheck all sizing calculations to determine proper size</li> <li>5. Remove and examine check valve for proper installation and free operation</li> </ol>

