GUARDIAN® RADON READY EMERGENCY BACK UP WATER POWERED SUMP PUMP

Before you start...

Read through this entire manual before installing the Guardian® water-powered sump pump.

1. The Guardian is a back-up water-powered sump pump only; a primary electric sump pump is also required.

2. Make sure that the sump basin is free of all debris; i.e. stone, mud or anything which may plug up the pump.

3. Check for adequate water pressure and supply pipe diameter. The minimum running supply water pressure is 29 psi, the minimum pipe diameter is 3/4". (Maximum supply pressure is 100 psi)

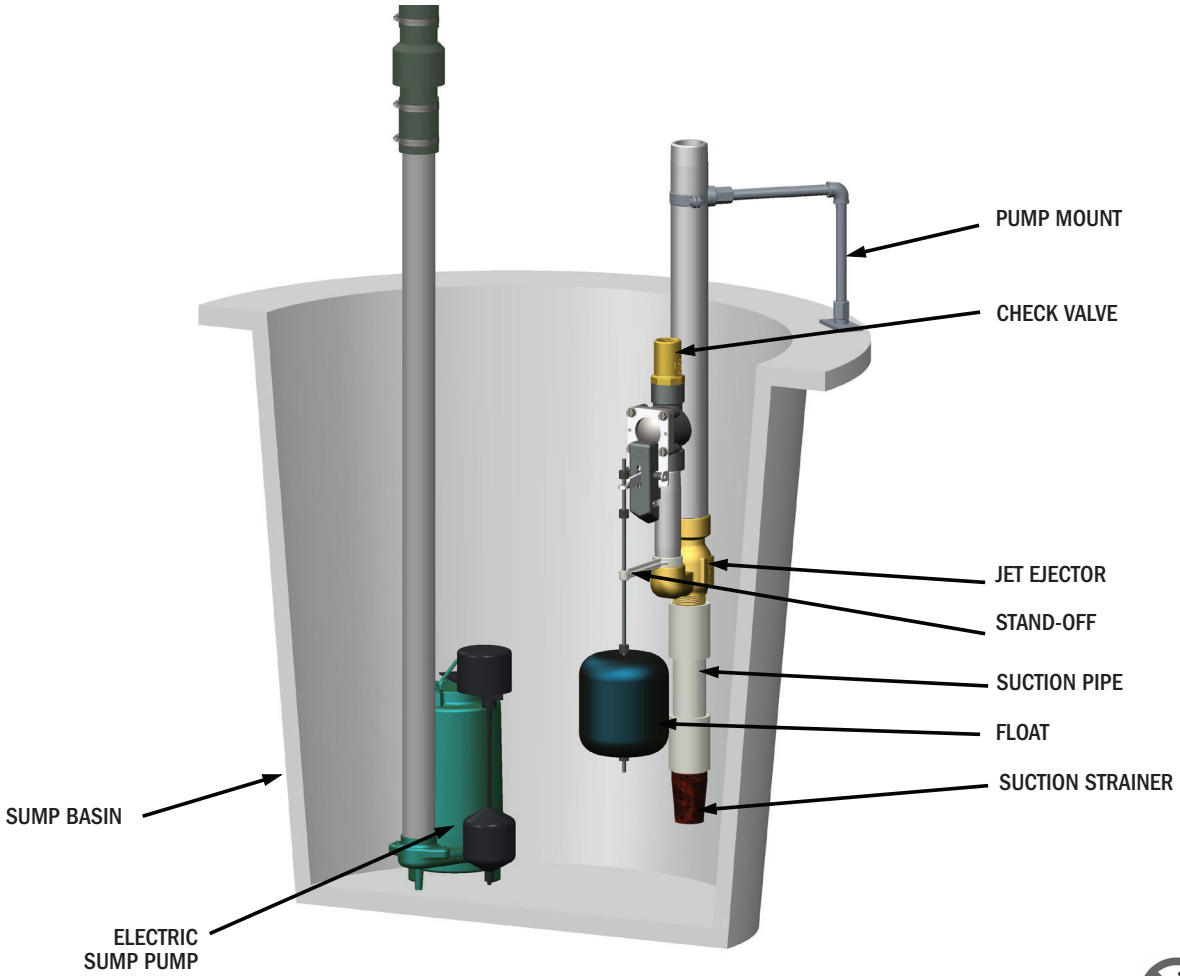
4. A 1¼" discharge check valve (not included) is also required. A discharge line separate from the primary sump pump discharge is required.

5. Requirements for connection to the plumbing system per IAPMO PS119:

(a) a dedicated shut-off valve shall be installed on the water supply line within 1.8 m (6 ft) of the pump;

(b) the water supply piping shall be made of materials and methods approved by the local plumbing codes;

(c) garden hoses shall not be used for the supply line; (d) the water supply and discharge piping shall each have a union or other quick-disconnect fitting to make the pump accessible for servicing;(e) the discharge of water-powered sump pumps shall not be connected to the discharge piping of existing sump pumps; and (f) the discharge piping for water-powered sump pumps shall (i) have an air gap; and (ii) extend outside of the building, with the end of the pipe between 150 and 610 mm (6 and 24 in) above the ground or the flood level of the area receiving the discharge.

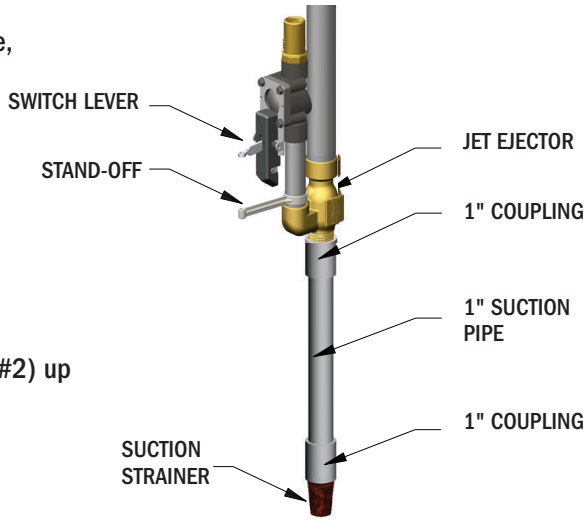


Non-Potable Use Only

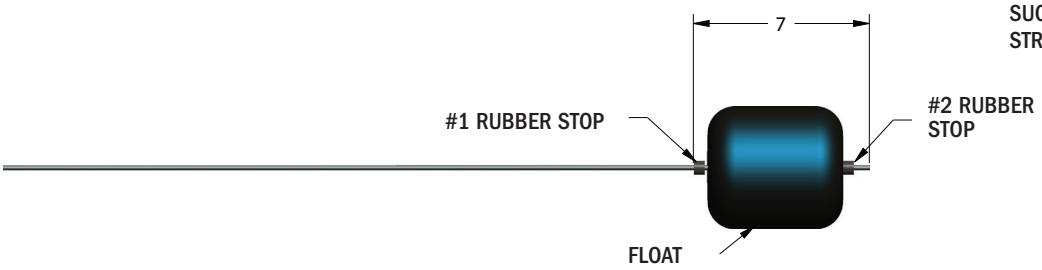
WARNING Sump water is non-potable. To reduce the risk of contamination of the potable water supply, this pump must be installed with a listed backflow prevention device suitable for the installation, in accordance with the local plumbing code, such as a reduced pressure zone backflow preventer (RPZ). Alternatively, consult the local plumbing and health codes or the authority having jurisdiction for guidance on cross-connection and backflow protection requirements.

Installation

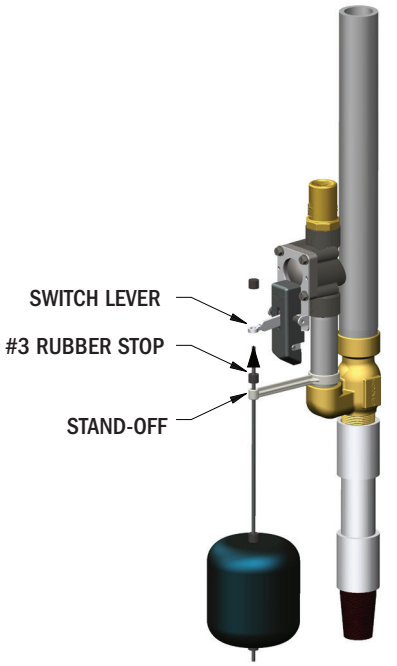
1. Attach the stand-off to the 1” pipe under the switch. Dry fit the 1” suction pipe, 1” couplings and suction strainer as shown. DO NOT GLUE at this time.

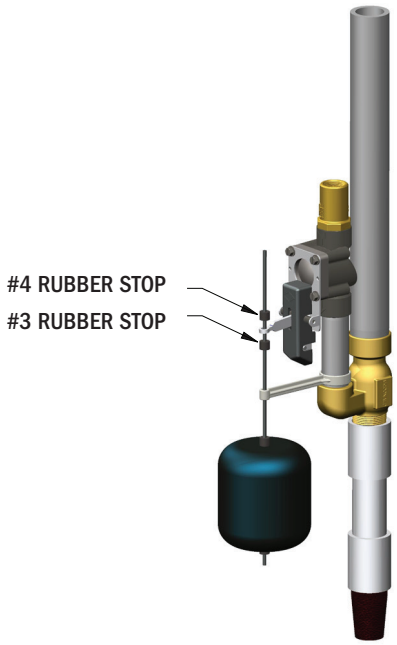


2. Slide the first rubber stop (#1) on to the float rod approximately 7" from the end of the rod. Next, slide the on the float, then slide on another rubber stop (#2) up to the bottom of the float. The float rod will need to be cut (see step 5).

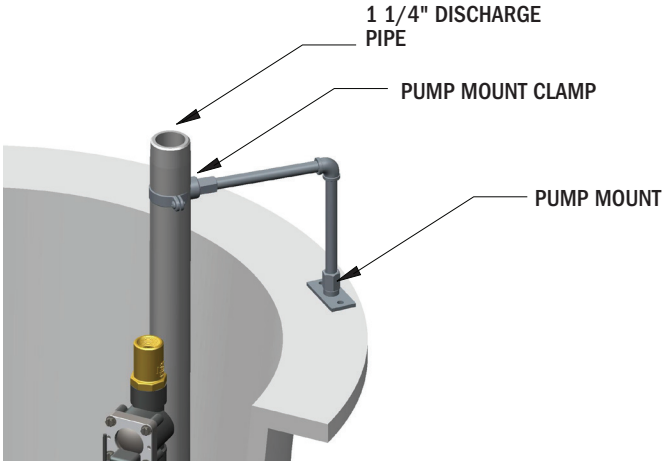


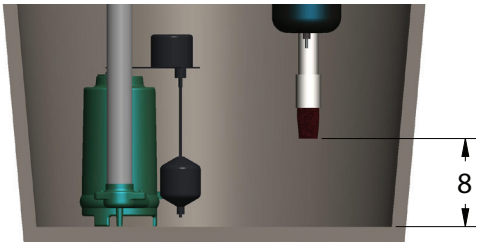
3. Insert the float rod into the stand-off hole. Slide on rubber stop (#3) 8" from the top of the rod. Slide the float rod through the hole in the lever. Then slide on rubber stop (#4) 1" above rubber stop (#3).





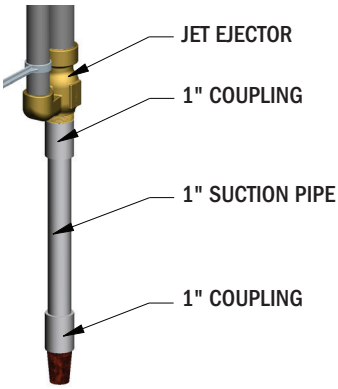
4. Loosely attach the pump mount clamp to the 1¼” discharge pipe of the pump.



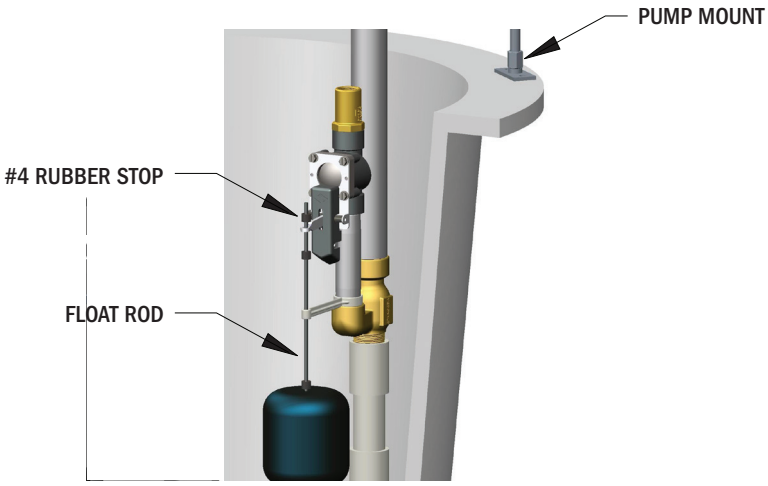


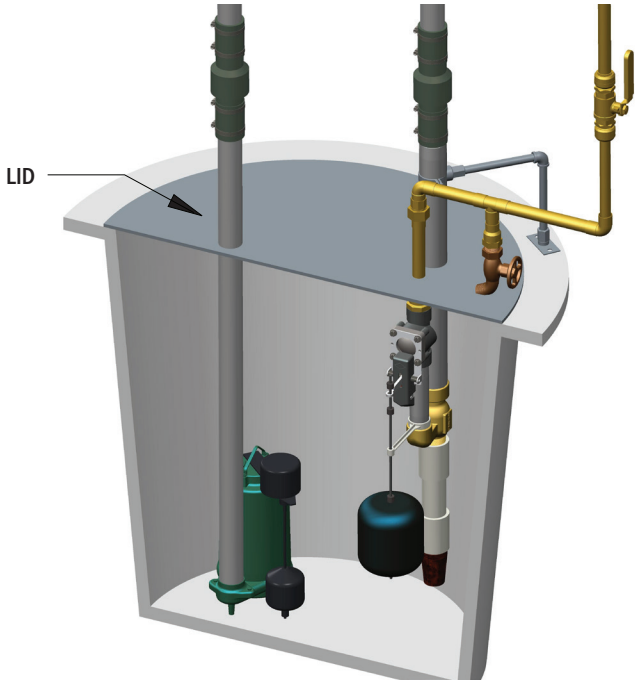
Position the Guardian assembly over the sump basin where the suction strainer is roughly 8” from the bottom of the basin. In some shallow basins the 1” suction pipe may need to be cut.

Once the position of the Guardian pump is determined and the length of the suction pipe is known, join together the 1” suction pipe, 1” couplings with PVC cleaner then glue. Apply Teflon tape to the suction strainer and jet ejector. Thread the suction pipe to the jet ejector hand tight. DO NOT OVERTIGTHEN.



5. Adjust the pump mount so it is flush with the floor. Mark the location of the mounting holes on the floor. Drill the holes in the floor and install concrete anchors to attach the pump mount base. Screw the pump mount base to the floor and tighten the pump mount clamp.





The float rod must easily move up and down and be in the vertical position. Make sure the float does not interfere with the electric sump pump, power cord, or side of the basin.

Cut the float rod 1" above the #4 Rubber Stop. Make sure the float rod will not touch the lid when the switch is in the up position.

NOTE: The float must be installed above the activation point of the electric sump pump.

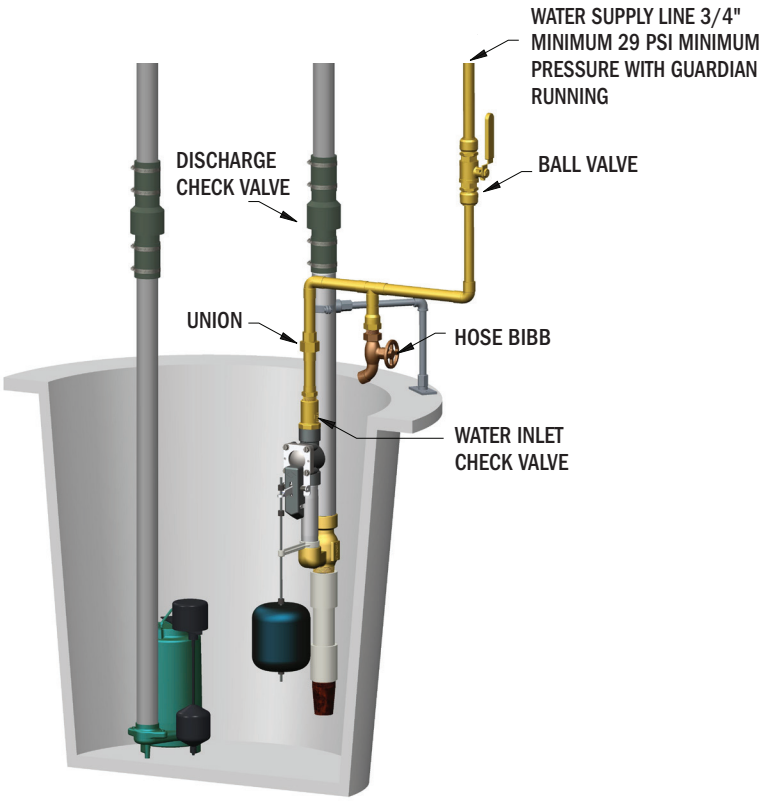
6. Connect the water supply line to the 3/4" brass inlet of the check valve. Use Teflon tape or a TFE thread sealant. A full port valve approved for water service along with a union should be installed to isolate the pump from the water system. A hose bibb should also be installed to test the pump. This is also a convenient place to install a pressure gauge.

7. Install a check valve (not supplied) on the 1 1/4” discharge pipe. It is required that the discharge is separate from the electric pump discharge. Connect the pump discharge pipe outside the building. There must be an air gap; and extend outside of the building, with the end of the pipe between 6 and 24 inches above the ground, (or the flood level of the area receiving the discharge).

8. A sump lid must be installed over the sump pit. Additionally a blower may be required on the sump lid to evacuate Radon gas from the pit. Consult a Radon removal expert.

   NOTE: This product does not remove Radon. It is designed to be installed under a sump lid and installed by a professional familar with Radon removal.

Attach the supplied "Warning" label 3210-375 to discharge pipe so it is visible at eye level.



INITIAL START - UP AND OPERATION

1. Test the installation for leaks by running water in the sump basin, allowing for normal operation of the primary electric pump.

2. Turn on the water supply to the Guardian Pump. A small amount of water will discharge from the operating valve. This is normal. The Guardian Pump may also activate momentarily. This is also normal. At this point the installer may check the installation for any leaks on the supply side of the Guardian® Pump.

3. Once the system has been verified to be free of leaks, disconnect power from the primary electrical sump pump and allow water to rise in the sump basin until it activates the Guardian Pump.

NOTE: Water will dribble out of the operating valve when the pump is running. This is normal.

4. After the Guardian® Pump has been tested, reconnect the existing primary electrical sump pump to its power source.

5. **A final check of the existing primary electrical sump pump float and the Guardian float is mandatory to assure that no obstructions will affect the proper motion of the float. If the float does not operate freely, make the proper adjustments and repeat the initial start-up procedure.**

NOTES:

1. It is normal for water to dribble out of the operating valve during operation of the Guardian.

2. Run Time - The Guardian® Pump will run for approximately 5 seconds after the float drops to the off position before actually shutting off.

CONTRACTOR/INSTALLER MAINTENANCE NOTES: To assure proper function of your Guardian pump, take the following precautions every 4-6 months:

1. Check the suction strainer and discharge piping for obstructions. Verify that the system is free of leaks.
2. Check the float rod for sediment build-up and remove any deposits.
3. Disconnect power from the primary electrical sump pump and allow water to rise in the sump until it activates the Guardian Pump.
4. After the Guardian Pump has been tested, reconnect the existing primary electrical sump pump to its power source.

WARNING: It is unlawful in **CALIFORNIA & VERMONT (effective 1/1/2010); MARYLAND (effective 1/1/2012); LOUISIANA (effective 1/1/2013) and the UNITED STATES OF AMERICA (effective 1/4/2014)** to use any product in the installation or repair of any public water system or any plumbing in a facility or system that provides water for human consumption if the wetted surface area of the product has a weighted average lead content greater than 0.25%. This prohibition does not extend to service saddles used in California, Louisiana or under USA Public Law 111-380.