

**NOTICE TO INSTALLER: Instructions must remain with installation.**

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Product information presented here reflects conditions at time of publication. Consult factory regarding discrepancies or inconsistencies.



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NOTICE: VENT HOLE FOR  
CHECK VALVE SEE #2 IN  
CAUTION SECTION BELOW

**AQUANOT® Spin™ 508/53, 508/98**  
PREASSEMBLED SUMP PUMP SYSTEM WITH BATTERY BACKUP

MODEL 508 - 12 V DC BATTERY BACKUP SYSTEM

WITH 115 V AC POWERED SUMP PUMP

MODEL M53® OR M98

**INSTALLATION INSTRUCTIONS**

Patent No. D740329


DATE INSTALLED:

MODEL NUMBER:



**WARNING**

SEE BELOW FOR  
LIST OF WARNINGS

1. Make certain that the receptacle is within reach of the pump's power supply cord. Do not use primary pump circuit. DO NOT USE AN EXTENSION CORD. Extension cords that are too long or too light do not deliver sufficient voltage to the pump motor, and they could present a safety hazard if the insulation were to become damaged or the connection end were to fall into a wet or damp area.
2. Make sure the pump electrical supply circuit is equipped with fuses or circuit breakers of proper capacity. A separate branch circuit is recommended, sized according to the National Electrical Code for the current shown on the pump nameplate.
3. Testing for ground: as a safety measure, each electrical outlet should be checked for ground using an Underwriters Laboratory listed circuit analyzer which will indicate if the power, neutral and ground wires are correctly connected to your outlet. If they are not, call a qualified, licensed electrician.
4. For Added Safety: Pumping and other equipment with a 3-prong grounded plug must be connected to a 3-prong grounded receptacle. For added safety the receptacle may be protected with a ground-fault circuit interrupter. When a pump needs to be connected in a watertight junction box, the plug can be removed and spliced to the supply cable with proper grounding. For added safety this circuit may be protected by a ground-fault circuit interrupter. The complete installation must comply with the National Electrical Code and all applicable local codes and ordinances.
5. FOR YOUR PROTECTION, ALWAYS DISCONNECT PUMP FROM ITS POWER SOURCE BEFORE HANDLING. Single phase pumps are supplied with a 3-prong grounded plug to help protect you against the possibility of electrical shock. DO NOT, UNDER ANY CIRCUMSTANCES, REMOVE THE GROUND PIN. The 3-prong plug must be inserted into a mating 3-prong grounded receptacle. If the installation does not have such a receptacle, it must be changed to the proper type, wired and grounded in accordance with the National Electrical Code and all applicable local codes and ordinances.
6. The tank is to be vented in accordance with local plumbing code. Pumps must be installed in accordance with the National Electrical Code and all applicable local codes and ordinances. Pumps are not to be installed in locations classified as hazardous in accordance with National Electrical Code, ANSI/NFPA 70.
7.  Risk of electrical shock. Do not remove power supply cord and strain relief or connect conduit directly to the pump.
8. Installation and servicing of electrical circuits and hardware should be performed by a qualified, licensed electrician.
9. Pump installation and servicing should be performed by a qualified person.
10. Risk of electrical shock. These pumps have not been investigated for use in swimming pools and marine areas.
11. Prop65 Warning for California residents: Cancer and Reproductive Harm-[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).
12. It is the owner's responsibility to check the battery and battery connection at least once a month. Batteries contain acid and caution must be taken when handling.

**CAUTION**

SEE BELOW FOR  
LIST OF CAUTIONS

1. Check to be sure your power source is capable of handling the voltage requirements of the motor, as indicated on the pump name plate.
2. Vent hole. It is necessary that all submersible sump, effluent, and sewage pumps capable of handling various sizes of solid waste be of the bottom intake design to reduce clogging and seal failures. Vent holes should be checked periodically for clogging. The 50 Series pumps have a vent located in the pump housing opposite the float, adjacent to a housing lug. Water stream will be visible from this hole during pump run periods.
3. Pump should be checked frequently for debris and/or build up which may interfere with the float "on" or "off" position. Repair and service should be performed by an Authorized Service and Warranty Center only.
4. Dewatering and effluent sump pumps are not designed for use in pits handling raw sewage.
5. Maximum operating temperature must not exceed 130 °F (54 °C).
6. Do not operate a pump in an application where the Total Dynamic Head is less than the minimum Total Dynamic Head listed on the Pump Performance Curves.
7. For indoor use only.
8. DC emergency pumps are designed for handling clear water. Do not use in septic tanks to pump effluent or sewage pits to pump sewage.
9. Repair and service of your DC backup system should be performed by an Authorized Service and Warranty Center.
10. The installation of DC automatic backup pumps requires the use of a variable level float switch for operation. It is the responsibility of the installing party, to ensure that the float switch will not hang up on the pump apparatus or pit peculiarities and is secured so the pump will turn "on" and "off". It is recommended that the pit be 18" (45.7 cm) in diameter or larger to accommodate both a primary and a DC backup pump.

NOTE: Pumps with the "UL" mark and pumps with the "US" mark are tested to UL Standard UL778. CSA Certified pumps are certified to CSA Standard C22.2 No. 108.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:  
- Reorient or relocate the module/ product.  
- Increase the separation between the equipment and module/ product.  
- Consult the dealer or an experienced radio/TV technician for help."

REFER TO WARRANTY ON PAGE 2.

## LIMITED WARRANTY

Manufacturer warrants, to the purchaser and subsequent owner during the warranty period, every new product to be free from defects in material and workmanship under normal use and service, when properly used and maintained, for a period of three years from date of purchase by the end user. Parts that fail within the warranty period, that inspections determine to be defective in material or workmanship, will be repaired, replaced or remanufactured at Manufacturer's option, provided however, that by so doing we will not be obligated to replace an entire assembly, the entire mechanism or the complete unit. No allowance will be made for shipping charges, damages, labor or other charges that may occur due to product failure, repair or replacement.

This warranty does not apply to and there shall be no warranty for any material or product that has been disassembled without prior approval of Manufacturer, subjected to misuse, misapplication, neglect, alteration, accident or act of nature; that has not been installed, operated or maintained in accordance with Manufacturer's installation instructions; that has been exposed to outside substances including but not limited to the following: sand, gravel, cement, mud, tar, hydrocarbons, hydrocarbon derivatives (oil, gasoline, solvents, etc.), or other abrasive or corrosive substances, wash towels or feminine sanitary products,

etc. in all pumping applications. The warranty set out in the paragraph above is in lieu of all other warranties expressed or implied; and we do not authorize any representative or other person to assume for us any other liability in connection with our products.

Contact Manufacturer at, 3649 Cane Run Road, Louisville, Kentucky 40211, Attention: Product Support Department to obtain any needed repair or replacement of part(s) or additional information pertaining to our warranty.

**MANUFACTURER EXPRESSLY DISCLAIMS LIABILITY FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES OR BREACH OF EXPRESSED OR IMPLIED WARRANTY; AND ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND OF MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THE EXPRESSED WARRANTY.**

Some states do not allow limitations on the duration of an implied warranty, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

In instances where property damages are incurred as a result of an alleged product failure, the property owner must retain possession of the product for investigation purpose.

## EASY DO'S & DON'TS FOR INSTALLING A SUMP PUMP

1. DO read thoroughly all installation material provided with the system.
2. DO inspect system for any visible damage caused by shipping. Contact dealer if system appears to be damaged.
3. DO clean all debris from the sump. Be sure that the pump will have a hard, flat surface beneath it. DO NOT install on sand, gravel or dirt.
4. DO be sure that the sump is large enough to allow proper clearance for the level control switch(es) to operate properly.
5. DO always disconnect pump from power source before handling. DO always connect to a separately protected and properly grounded circuit.  
DO NOT ever cut, splice, or damage power cord (only splice in a watertight junction box).  
DO NOT carry or lift pump by its power cord.  
DO NOT use an extension cord with a sump pump.
6. DO install a union in the discharge line.  
DO NOT use a discharge pipe smaller than the pump discharge.
7. DO NOT use a sump pump as a trench or excavation pump, or for pumping sewage, gasoline, or other hazardous liquids.
8. DO test system immediately after installation to be sure that the system is working properly.
9. DO cover sump with an adequate sump cover.
10. DO review all applicable local and national codes and verify that the installation conforms to each of them.
11. DO consult manufacturer for clarifications or questions.
12. DO inspect and test system for proper operations at least every three months.

## RECOMMENDED INSTALLATION FOR ALL APPLICATIONS

1. Electrical wiring and protection must be in accordance with National Electrical Code and any other applicable state and local electrical requirements.
2. All installations require a basin cover to prevent debris from falling into the basin and to prevent accidental injury.
3. Securely tape or clamp power cord to discharge pipe, clear of the float mechanism(s).
4. Use full-size discharge pipe.
5. Basin must be in accordance with applicable codes and specifications.
6. Pump must be level and float mechanism(s) clear of sides of basin before starting pump. Float switch may be repositioned as needed.
7. Basin must be clean and free of debris after installation.
8. Gate valve or ball valve to be supplied by installer and installed according to any and all codes.
9. Gas tight seals required to contain gases and odors.
10. Vent gases and odors to the atmosphere through vent pipe.
11. Install Zoeller Pump Stand (Model 10-2421) under pump to provide a settling basin.

## SERVICE CHECKLIST



**▲ WARNING** ELECTRICAL PRECAUTIONS- Before servicing a pump, always shut off the main power breaker and then unplug the pump - making sure you are wearing insulated protective sole shoes and not standing in water. Under flooded conditions, contact your local electric company or a qualified licensed electrician for disconnecting electrical service prior to pump removal.

**▲ WARNING** Submersible pumps contain oils which becomes pressurized and hot under operating condition. Allow 2-1/2 hours after disconnecting before attempting service.

CONDITION	COMMON CAUSES
A. Pump will not start or run.	Check fuse, low voltage, overload open, open or incorrect wiring, open switch, impeller or seal bound mechanically. Motor or wiring shorted. Float assembly held down. Switch, damaged or out of adjustment.
B. Motor overheats and trips overload or blows fuse.	Incorrect voltage, negative head (discharge open lower than normal) impeller or seal bound mechanically, motor shorted.
C. Pump starts and stops too often.	Float switch tether length too short, check valve stuck open, or none installed in long distance line, overload open, bidding, sump pit too small.
D. Pump will not shut off.	Debris under float assembly, float bound by basin sides or other, switch damaged or out of adjustment.
E. Pump operates but delivers little or no water.	Check inlet, strainer housing, discharge pipe, and vent holes for obstructions. Discharge head exceeds pump capacity. Low or incorrect voltage. Incoming water containing air or causing air to enter pumping chamber. Incorrect motor rotation. (DC pump only)
F. Drop in head and/or capacity after a period of use.	Increased pipe friction, clogged line or check valve. Abrasive material and adverse chemicals could possibly deteriorate impeller and pump housing. Check line. Remove base and inspect.
G. If tank or fittings leak.	Carefully tighten pipe joints (use pipe dope) and screws. Check gasket location, tighten lid evenly. Do not over tighten fittings or screws.

If the above checklist does not uncover the problem, consult the factory - do not attempt to service or otherwise disassemble pump. Service must be performed by Zoeller Authorized Service Centers. Go to [www.zoellerpumps.com/service\\_stations](http://www.zoellerpumps.com/service_stations) to find the Authorized Service Centers in your area.

## DESCRIPTION

This system is a backup to your primary sump pump. It is designed to provide flood prevention during power outages or primary pump failure. This system is unique in that it has self-testing.

Pump	Construction	Non-corrodible plastic, premium seals
	Performance	35 GPM at 10' (113 LPM at 3 m) at 12.7 volts
	Continuous Running Time with 100 AH battery	5 hours
	Duty Cycle of 10%	2 days
	Connection	9' (2.7 m) wire with 2 position connector
Controller	Construction	ABS plastic
	Power Requirement	115 V 15 amp circuit
	Consumption	Up to 3 amps at 115 V
	Charger Output	7 amp multi-stage
	Connections	8' (2.4 m) AC power cord, 6' (1.8 m) DC charging cable, connections for pump, operation switch, high water switch
Battery Box	Construction	Non-corrodible plastic
	Safety	Snap tight lid, keeps battery safe and clean

## PERFORMANCE

The DC pump performance at 12.7 Vdc

Discharge Feet of Head	5 (1.5 m)	10 (3 m)	15 (4.6 m)	28 (8.5 m)
Flow GPM (LPM) 12.7 Volts	43 (163)	35 (132)	27 (102)	Shut-off Head

The DC controller is equipped with a charger for maintaining the battery in a ready state and recharging the battery after use when AC power is restored. Time for recharge depends upon the amount of power consumed by the pumping cycle during the AC power interruption. The pump may go back to the ready run position in a very short period of time. A completely drained battery may require up to 24 hours for full recharge. If battery does not charge properly, the LED battery will flash red.

## BATTERY SELECTION

The DC emergency pump system requires a good quality, 12 volt battery to obtain maximum pumping time during a power outage. A deep-cycle, 12 volt, 105 amp-hour marine battery or larger is recommended and will provide approximately 5 hours of continuous pumping time in a sump pump installation with 8' (2.4 m) of head pressure. In most installations, the pump runs intermittently and the battery life is extended accordingly. Batteries with top terminals are recommended for ease of installation. "Wet" cell batteries contain acid, and proper precaution must be taken when handling. Battery box will accommodate a maximum battery size of 13-1/2" (34.3 cm) Length x 7" (17.8 cm) Width x 9-1/2" (49.5 cm) Height. AGM batteries also recommended. Do not use gel batteries or automotive batteries.

## INSTALLATION

1. Ensure O-ring is properly located on pump discharge. Slide DC pump into fitting and tighten the hose clamp.
2. The preferred method of installation for backup pumps is shown in Figure 1. The installation kit includes one threaded check valve to be used in the discharge. An additional check valve is incorporated in the discharge of the backup pump.
3. Select location for the battery and the controller. The controller charger must be within 8' (1.87 m) of a 115 V wall outlet and within 6' (1.8 m) of pump and basin. It is recommended that the controller is plugged into a separate circuit, different than the primary pump.
4. Make certain the float switch clamp is tight on the pipe to avoid slippage. Ensure that the "off" level of the float is 1" (25 mm) min. above the discharge tee of the DC backup pump (see Figure 1). Position pumps in the sump and move float up and down, making sure of free movement without interference from any obstructions inside the sump or lid. Very shallow sumps may require some adjustment to avoid overflowing or backing up of water into the sump inlet. The float switch can be moved on the discharge pipe or the rubber stops can be adjusted as necessary.
5. Install the Spin™ controller (see Figure 3) by using the anchors provided. For best cooling, install wall mount configuration. The controller should be located at least 3' (1 m) above the sump.
6. Connect the leads from the controller to the battery terminals. Positive (+) lead (white wire) to positive terminal and black neg. (-) lead (black wire) to negative battery terminal.

### ⚠ CAUTION

Correct battery hook-up is essential for operation of the system. Use wing nuts supplied with battery and eyelet connectors on battery wire leads. The positive terminal is the larger stud, 3/8" (10 mm) diameter. The smaller stud, 5/16" (8 mm) diameter is the negative terminal. Apply grease to the terminals to help prevent corrosion.

7. Connect the plugs for the pump, and operational switch into the appropriate receptacles on the controller.
8. Plug the controller into the 115 V wall outlet. The primary sump pump and the controller should be on separate circuits.
9. Reconnect power to the primary sump pump.

### High water reed sensor

If using the optional high water sensor, install it with the "on" level set at least 1" above the "on" level of the operational float using the supplied bracket and clamp. Move the switch up and down, ensuring free movement without interference from any obstructions inside the sump or lid.

The controller will alarm and run the pump if the high water sensor's float is "up". If the high water sensor should no longer be monitored, perform a factory reset by holding both buttons (silence and test) on the controller for 5 + seconds.

## INITIAL START-UP AND OPERATION

1. Test the installation for leaks by running water into the sump, allowing for normal operation of the primary pump.
2. Check the controller. The System Ready light will be green when the unit is plugged into the 115 V wall outlet. The battery will indicate its condition when the controller has DC power. When the unit is first plugged in, all lights will flash and alarm will sound to verify all lights and the alarm work.
3. Disconnect the primary pump from its power source before touching any component in the sump pit.
4. Lift the operational float switch. After a couple seconds the DC backup pump will run, and the alarm will sound after about 1 second. Lower the operational float switch after the alarm sounds. Take care that the intake of the DC pump is set above the inlet of the primary pump. Press silence for 3 seconds to clear out the alarm and reset the unit.

⚠ CAUTION Continuous dry running may cause overheating and damage the pump seals. Upon release of the float switch, the pump will shut off. Be sure there are no obstructions around the float.

5. Complete the final testing of your installation by ensuring the primary pump is still disconnected from power. Then, unplug the fit controller from the 115 V wall outlet. Run water into the sump

until the DC backup pump is activated by the operational float switch. Check all connections for leaks.

6. Push the silence button when the pump is running. This will silence the alarm. The pump will continue to run until the operational float is deactivated.
7. Reconnect the controller and the primary pump to the AC wall outlets. The primary pump may come on, lower the water level in the sump back to its normal operating level, and shut off. Both primary and backup systems are now ready for use. Hold silence button for several seconds to reset the unit.
8. Hold the silence button for several seconds to reset the unit. LED will be yellow during normal charging operation. See page 6 for a description of controller functions.

NOTE: When running the pumps, it is normal for a stream of water to spray out of the 1/8" (3 mm) air relief hole.

Note: In order to provide an alarm when the switch is disconnected, the controller supervises the operational switch connection. It does not supervise the optional tight water sensor connection until a high water sensor is plugged into the controller.

## TROUBLESHOOTING INFORMATION

1. DC Pump won't run.
  - (a) Check for proper connections.
  - (b) Check all wire terminal points. Clean if required.
  - (c) Check for low battery. Service battery if required.
  - (d) Check 30 amp fuse on controller (see fig. 5). If fuse is blown, replace with 30 amp automotive blade fuse.
2. Pump runs but pumps very little or no water without AC power.
  - (a) Check for low battery. Battery will recharge if green power "on" light indicates power has been restored and the float switch is in the off position.
  - (b) If immediate usage is required, remove and replace dead battery with a full recharged battery.
  - (c) Due to varying conditions, the pump may continue to run on a low battery without sufficient power to remove water. Pump will not stop running until battery is below minimum voltage.
  - (d) **CAUTION** Weak batteries can be recharged but may not store sufficient energy for full service. A weak recharged battery can only be detected by reduced pumping time or by professional load testing equipment. If your emergency pump system is used frequently the battery should be checked by a qualified battery dealer.
3. Pump runs but pumps very little or no water.
  - (a) Verify pump is connected completely.
  - (b) Check to make sure pump weep hole is clear and unit is not airlocked.
  - (c) Make sure discharge piping is not blocked.
4. Pump cycles too frequently.
  - (a) Check positions of rubber stops on operational float rod.
  - (b) Adjust upper rubber float stop as required. Recommended for standard installation.
5. Float switch in "on" position for more than 3 seconds. Pump won't run.
  - (a) Remove pump. Check for obstruction in pump preventing impeller from rotating.
6. Pump runs, but pumps water intermittently.
  - (a) Pump is air locking. Check flow of water incoming to sump. If water is entering the sump at a high velocity creating a turbulent condition, a mixture of air and water may cause a complete or partial air lock and reduce or stop the flow of water in the discharge pipe.
  - (b) Baffle the incoming stream of water to reduce turbulence. Diverting water stream against wall of basin usually corrects an air lock problem.
7. Water level stays high. DC Pump continues to run.
  - (a) Battery is low.
  - (b) If power has been restored and water in sump remains high check primary pump. Service if required.
  - (c) After several hours the battery will be restored to full charge.
8. Alarm sounds during battery recharge cycle.
  - (a) To silence alarm if alarm will not reset, unplug the charger from 115 V wall outlet, then disconnect the black lead from charger on negative (-) battery post. Check battery. Replace if necessary. Reconnect and refer to Installation (step 6).

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## MAINTENANCE

1. Inspect and test the system for proper operations at least every 3 months.
  - (a) Red power on indicator light should be on indicating AC power is on.
  - (b) Unplug primary pump and the control charger from power supply.
  - (c) Fill sump with water to the "on" level for the DC pump. Allow pump to run.
  - (d) The alarm will sound approximately 3 seconds after the pump starts to run.
  - (e) Push alarm reset switch. The alarm will go off.
  - (f) Pump will shut off after water level is lowered and the float drops to the off position.
2. Plug the control charger and the primary pump into the wall outlet.
  - (a) The primary pump will come on and lower the water to the normal operating level and shut off.
  - (b) The yellow charging light should be on. The charger is replacing the energy consumed during the test. The green light will come on after the charger has replaced the energy consumed during the test.
3. Add distilled water to battery when necessary per battery manufacturer's instructions. **CAUTION** Battery acid is dangerous. Take proper safety precautions. Do not splash the acid.

# TYPICAL INSTALLATION

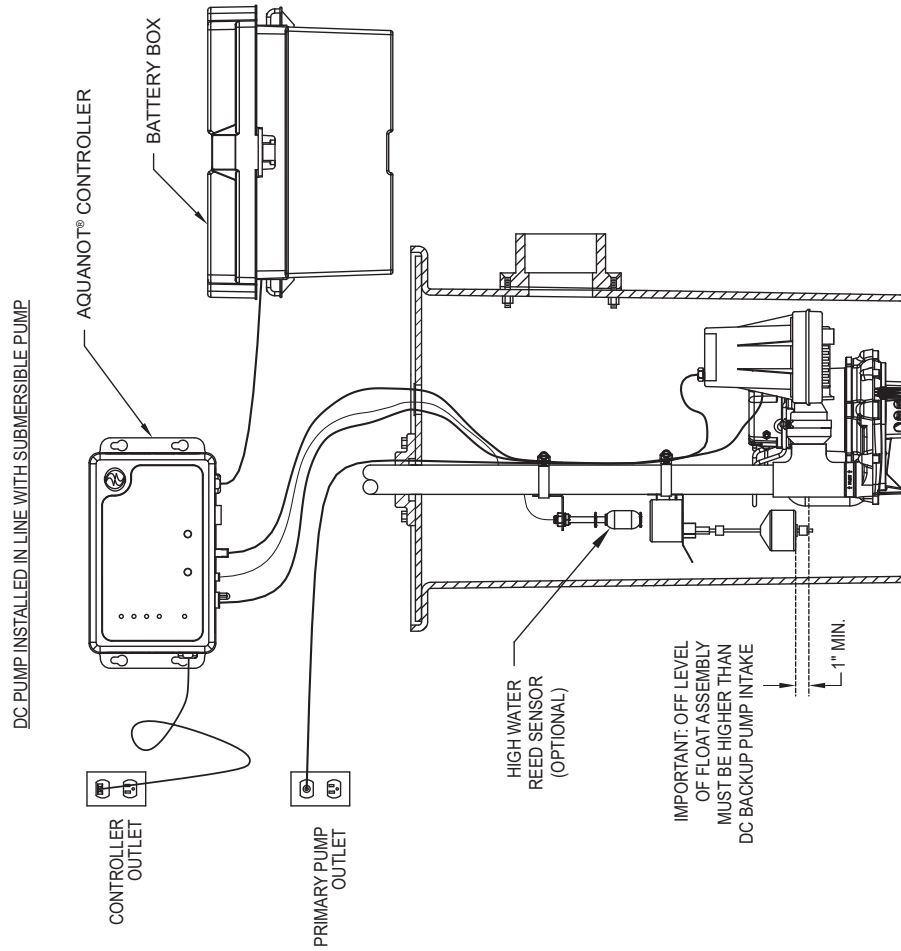


FIGURE 1

# EXPLODED VIEW OF PUMP SYSTEM

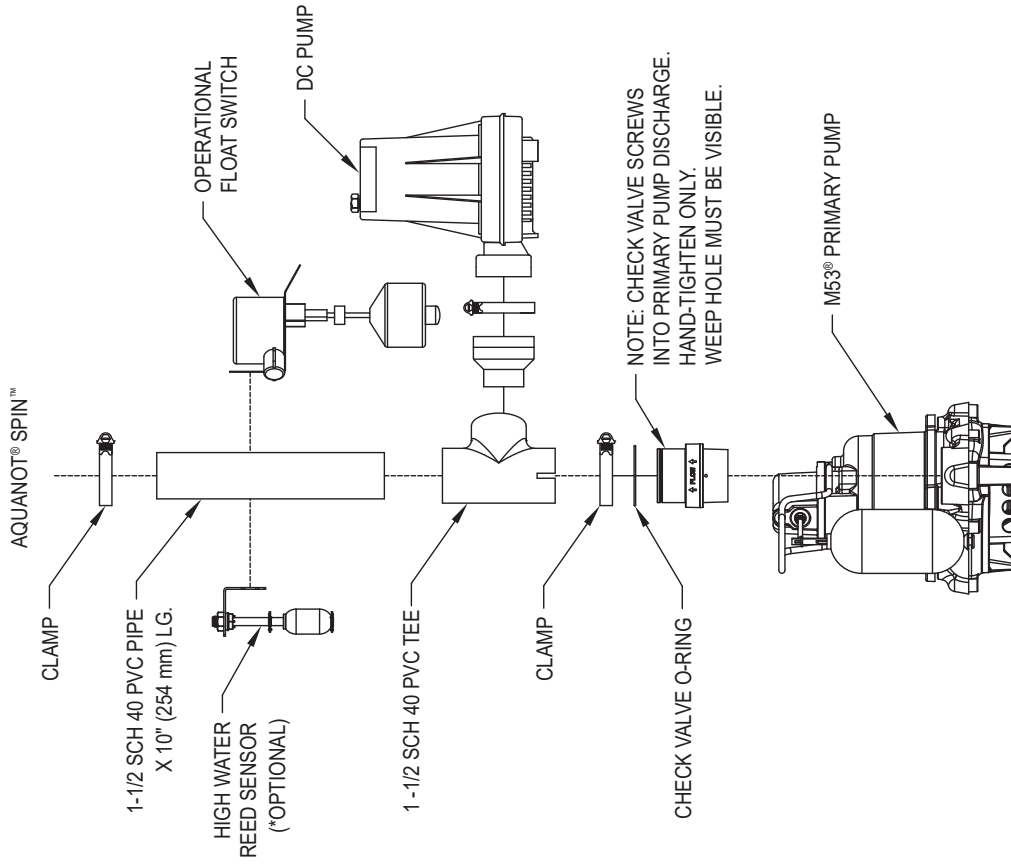


FIGURE 2

## EXPLODED VIEW - DC PUMP

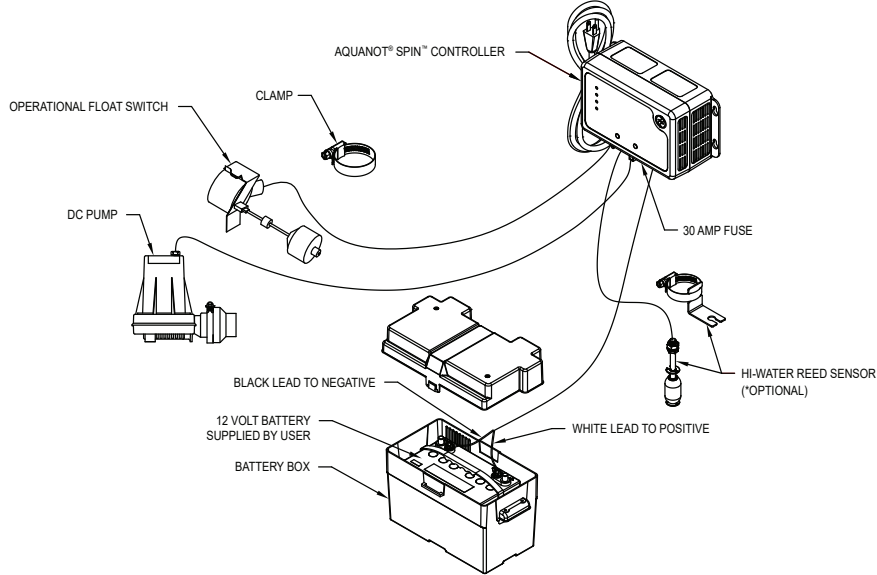


FIGURE 3

SK3185

All installations must comply with all applicable electrical and plumbing codes, including, but not limited to, National Electrical Code, local, regional, and/or state plumbing codes, etc. Not intended for use in hazardous locations.

## CHECKLIST

			MODEL	ProPak 508-D
ITEM	DESCRIPTION	QTY		02/19 thru Current
1	Pump, 12 V DC with connector	1		155652
2	Battery box asm ( box and cover)	1		10-0764
3	Aquanot® Spin™ controller	1		155978
4	Operational float switch	1		155654
5	High water reed sensor * optional	1		10-4830
6	Clamp, #28 worm-SS	2		004287
7	Inline check valve	1		153772
8	Pump, M53®/115 V	1		53-0001
	Pump, M98/115 V	1		98-0001
9	Pipe, Pvc 1.5" X 10"/ Sch 40	1		019509
10	Fuse, 30 amp automotive	1		016918

### FLOAT SWITCH

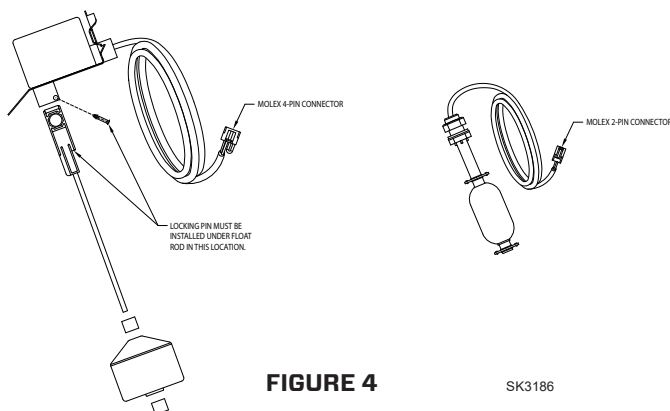


FIGURE 4

SK3186

### CONTROL CHARGER

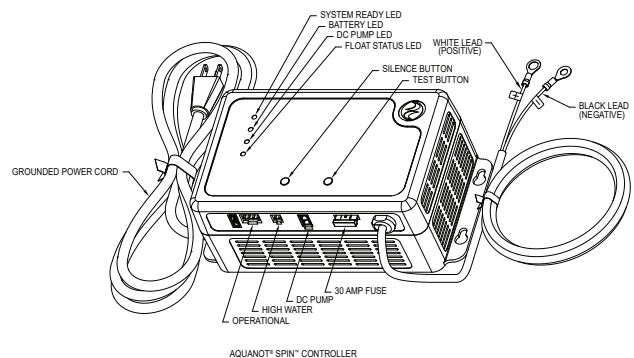


FIGURE 5

SK3187

## SPIN™ CONTROLLER FUNCTIONS

There are two buttons on the front of the controller.

### Silence/Reset

- Can be pressed to silence current alarms for 24 hours.
- Can be held for longer than 3 seconds to reset alarm. Reset will clear flashing light on unit.

### Test

- Will run the pump to determine if amp draw of pump is in range.
- Controller is factory programmed to self-test the pump for several seconds every 24 hours.
- Pressing the test button will start the 24-hour timer for self-testing.

Note: Holding both the silence/reset and test button at the same time for 5 seconds will cause a factory reset on the controller.

The LEDs will display information about the controller.

AQUANOT® SPIN™			
	Solid	Flashing	Off
System Ready	No Faults (Green)	AC off with no faults (Green)	--
Battery	Charged (Green)	Low Battery (Red)	No AC Power
	Charging (Yellow)		
	Bad Battery (Red)		
DC pump	Pump Ran (Yellow)	Pump Running (Yellow)	--
		Pump Fault (Red)	
Float Status	*High Water (Red) sensor activated	Float Fault (Red)	--

\* If optional high water reed sensor is being used.

## THE AQUANOT® BATTERY

There are millions of batteries manufactured each year, so it is impossible to guarantee consistent quality. A defective battery will never become fully charged and may damage the charging circuits of the Control. It is for this reason that Zoeller Pump Company offers its own line of batteries. We offer both a water/acid deep-cycle battery and a maintenance-free AGM battery which can run the pump continuously for over 5 hours. These times are based on continuous pumping at 8' (2.4 m) of static head. Actual times will vary depending on static head, volume of water entering the pit, and the condition of the battery.

Follow these recommendations:

- Use a B.C.I. size 27 deep-cycle battery, 175 minute reserve capacity, or larger
- Do NOT use a "maintenance-free" battery unless it is an AGM battery
- Replace your battery every 3 years
- Do not let corrosion build up on the battery terminals
- To check specific gravity, follow the instructions on a hydrometer (wet cell batteries only)
- Use of the included plastic battery box is recommended to keep the battery safe and clean.

PROTECT YOUR WARRANTY:

- Water level in batteries must be checked once a month (wet cell batteries only)

## CARBON MONOXIDE DETECTORS

Whether you have an Aquanot® Backup Pump System or a competitive brand, all use batteries that give off gaseous by-products when charging. Some of these by-products can produce a rotten egg odor. Also, some of these by-products can cause a CO detector to falsely activate. In order to help prevent false activation, Zoeller Pump Company recommends moving the battery as far away from the CO detector as possible or, if necessary, vent the battery to the exterior. Zoeller Pump Company provides the previous statements only as guidelines to help prevent false activation of the CO detector. In no way are they meant to supersede the instructions that accompany the detector, nor do they supersede advice from the CO detector manufacturer.

If the audible alarm associated with your CO detector is activated, we recommend the following actions:

- 1) Take immediate action for personal safety as recommended in the CO detector literature.
- 2) Contact the appropriate agency to determine if the CO is being produced by your furnace, water heater, or any other device which uses natural gas.
- 3) If you are certain that no CO is being produced, a charging battery may be producing gaseous by-products which are causing the CO detector to activate. Contact the manufacturer and ask for recommendations to prevent the alarm activation.