# Battery Backup Sump Pump System

## Model BWE

# Instruction Manual & Safety Warnings

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**IMPORTANT: Even if you have the Basement Watchdog backup sump pump system installed by someone else, you must read and follow the safety information contained in this manual. Failure to do so could result in property damage, serious injury, or death.**

Scan the QR code for more information about the BWE Backup Sump Pump System

# Important Safety Warnings & Instructions

**SAVE THESE INSTRUCTIONS.** This manual contains important SAFETY WARNINGS and OPERATING INSTRUCTIONS for the Basement Watchdog Emergency battery backup sump pump system. You will need to refer to it before attempting any installation or maintenance. **ALWAYS** keep these instructions with the unit so that they will be easily accessible.

Failure to read and follow these warnings and instructions could result in property damage, serious injury, or death. It is important to read this manual, even if you did not install the Basement Watchdog backup sump pump system, as this manual contains safety information regarding the use and maintenance of this product. **DO NOT DISCARD THIS MANUAL.**

## ELECTRICAL PRECAUTIONS

**⚠ WARNING**

**This installation must be in accordance with the National Electric Code and all applicable local codes and ordinances.**

**⚠ DANGER**

**Risk of electrical and fire hazard. May result in death, serious injury, shock or burns.**

**To help reduce these risks, observe the following precautions:**

- **DO NOT** walk on wet areas of the basement until all power has been turned off. If the main power supply is in a wet basement, call an electrician.
- **NEVER** handle the control unit with wet hands or while standing on a wet surface.
- **ALWAYS** unplug the control unit and disconnect the cables from the battery before attempting any maintenance or cleaning.
- **ALWAYS** unplug the main pump when installing or servicing the backup pump or float switch to avoid electric shock.
- **DO NOT** expose the control unit to water, rain or snow. **DO NOT** place the control unit on the floor.
- **DO NOT** pull the cord when disconnecting the control unit. Pull the plug.
- **DO NOT** pull on the float switch cord.
- **DO NOT** use an extension cord. The electrical outlet should be within the length of the controller's power cord and at least 4 feet above the floor.
- **DO NOT** use an attachment not recommended or sold by the manufacturer. It may result in a risk of fire or injury from an electrical shock.
- **DO NOT** operate this system if it has received a sharp blow, been dropped, or otherwise damaged in any way.
- **DO NOT** use pump in pits handling raw sewage, salt water, or hazardous liquids. This system is for ground water use only.
- **DO NOT** disassemble the control unit.
- **DO** protect the electrical cord from sharp objects, hot surfaces, oil and chemicals. Avoid kinking the cord.
- **MAKE SURE** the supply circuit has a dedicated fuse or circuit breaker rated to handle the power requirements of this system.

When service is required, contact Glentronics technical support at **800-991-0466, option #3,** or send an e-mail to **service@glentronics.com.** Return the control unit to the manufacturer for any repairs at the following address:

Glentronics, Inc., Attn: Repairs,
645 Heathrow Drive
Lincolnshire, IL 60069-4205

## BATTERY PREPARATION

**⚠ WARNING / POISON**

**Sulfuric acid can cause blindness or severe burns. Avoid contact with skin, eyes, or clothing. In the event of an accident, flush with water and call a physician immediately. KEEP OUT OF REACH OF CHILDREN.**

**To help reduce these risks, observe the following precautions:**

- Someone should be within range of your voice or close enough to come to your aid when you work near a lead-acid battery.
- Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing or eyes.
- Wear eye and clothing protection and avoid touching your eyes while working with battery acid or working near the battery.
- If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters eye, immediately flood eye with running cold water for at least 15 minutes and get prompt medical attention.

⚠ **WARNING:** Battery posts and terminals contain lead, lead compounds or chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling. See www.p65warnings.ca.gov for more information.

⚠ **WARNING:** Battery fluid can expose you to chemicals including strong inorganic acid mists containing sulfuric acid, which is known to the State of California to cause cancer. For more information go to www.P65warnings.ca.gov.

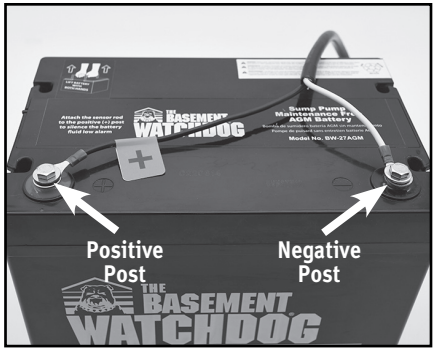
## BATTERY PRECAUTIONS

**⚠ DANGER**

**Explosive gases could cause serious injury or death. Cigarettes, flames or sparks could cause battery to explode in enclosed spaces. Charge in a well-ventilated area. Always shield eyes and face from battery.**

**To help reduce these risks, observe the following precautions:**

- **NEVER** smoke or allow a spark or flame in the vicinity of the battery.
- Use the Basement Watchdog control unit for charging a LEAD-ACID battery only. **DO NOT** use the control unit for charging dry-cell batteries that are most commonly used with home appliances.
- Be sure the area around the battery is well-ventilated.
- When cleaning the battery, first fan the top of the battery with a piece of cardboard (or another nonmetallic material) to blow away any hydrogen or oxygen gas that may have been emitted from the battery.




- **DO NOT** drop a metal tool onto the battery. It might spark or short-circuit the battery and cause an explosion.
- Remove personal metal items such as rings, bracelets, watches, etc., when working with a lead-acid battery. A short circuit through one of these items can melt it, causing a severe burn.
- **ALWAYS** remove the charger from the electrical outlet before connecting or disconnecting the battery cables.
- When connecting the battery cables, first connect the large ring on the end of the BLACK wire to the POSITIVE (+) post of the battery and then connect the small ring on the end of the WHITE wire to the NEGATIVE (-) post of the battery. (See photo above.) Never allow the rings to touch each other.
- **ALWAYS** keep the cover secured on the battery box by slipping the tabs through the fittings on both the front and back of the box.

**⚠ DANGER**

**DO NOT use this system to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. This system is rated for ground water use only.**

**DO NOT use this system in pits handling raw sewage or other hazardous liquids.**

# Introduction

The Basement Watchdog Emergency is a battery-operated backup sump pump system. It is designed as an emergency backup system to support your main AC sump pump, and will automatically begin pumping any time the float switch is activated by rising water. Should any malfunction or emergency occur that involves the sump pump, the battery, or the AC power, the Basement Watchdog system will sound an alarm. A light on the display panel of the control unit will indicate the cause of the alarm and the corrective action.

For added reliability, the float switch has not one but two floats. Should one float fail to operate, the second float automatically activates the pump.

**The Basement Watchdog Emergency Sump Pump System includes:**

- A control unit with a dual float switch and battery cables
- A pump with a 1½" PVC pipe adapter
- Two (2) plastic wire ties for mounting the float switch and the control unit
- A battery box
- A battery charger

***You will also need to supply:***

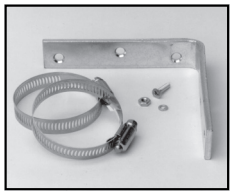
- A Basement Watchdog Maintenance Free (AGM) Standby Battery (BW-27AGM). **The internal construction of some batteries may not be compatible with this system. Glentronics cannot guarantee the compatibility of other brands of batteries. The use of a Basement Watchdog battery is HIGHLY recommended.** ***DO NOT*** use an automotive battery with this system.

Save time and money by using the Basement Watchdog Quick Connect Pipe (BW-QCP), a preassembled pipe which may eliminate the need to purchase and use the first 3 bulleted items below.

- 1½" rigid PVC pipe and fittings
- PVC cement and primer
- A union with hose clamps or a wye connector and two (2) check valves, depending on the installation method you use
- A surge protector (recommended)

***For narrow sump pits you will need some additional parts:***

- An "L" bracket at least six (6) inches long (preferably one that will not rust)
- Two (2) stainless-steel hose clamps



- One (1) stainless-steel screw (#8-32 x ¾"), a matching washer and nut

Using a Basement Watchdog Klunkless Check Valve™ (BW-CVK15) will provide quieter operation. (See back cover.)

## REPLACEMENT PART NUMBERS

Pump ..... 1011014
Float switch assembly ..... 1020009
Pipe adapter..... 1120002
Charger ..... 1015003
Battery box..... 1113003

**Call 800-991-0466, option #3 to order parts.**

## SYSTEM SPECIFICATIONS

Power supply requirements..... 115 volts AC
Pumping capacity ..... 2,000 GPH @ 0'
Pumping capacity ..... 1,000 GPH @ 10'
Pump dimensions w/elbow.... 6½" H x 8½" W
Pump housing & strainer .....noncorrosive, will not rust
Pump .....can run dry for short periods of time
Float switch ..... independent, can be set at any level

# Pump & Pipe Installation Instructions

There are two basic methods that can be used to install the pump: a direct discharge to the outside of the building or a connection to an existing discharge pipe. The same two options apply in very narrow sump pits where the backup pump must be mounted above the main pump.

Use a pit that conforms to all local codes, and check the code to see if a gate valve or ball valve is required.

Whenever possible, install your Basement Watchdog backup pump with a direct discharge to the outdoors. By using this method, an outlet will always exist for the water from the sump. During periods of very heavy rain, many storm sewers fill up. If your pump is trying to discharge water into a full sewer, the water has nowhere to go. By discharging directly outdoors, an outlet always exists for the water that is pumped out of the sump pit. For this method, you will need to drill a hole through a floor joist or the foundation from the basement to the outside of the house.

If the direct discharge method is not possible or convenient, the Basement Watchdog pump can be connected to the same line as your main AC sump pump by installing a wye connector and two (2) check valves.

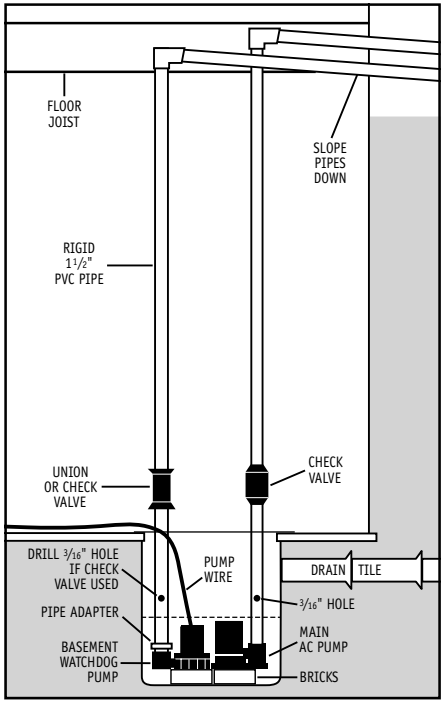
In most cases, the backup pump will fit next to the main AC pump in the sump pit. In very narrow pits, the backup pump can be mounted above the main AC pump. Check to ensure there is enough room so that the backup pump and the main pump do not touch each other before connecting the backup pump.

Before starting the installation, clean the pit of all debris. Place the pump on a pump stand or brick next to the main AC pump, and ensure that both pumps are level and not touching each other. The stand or brick is used to guard against debris buildup on the bottom of the pit; the pump's strainer must be kept clear.

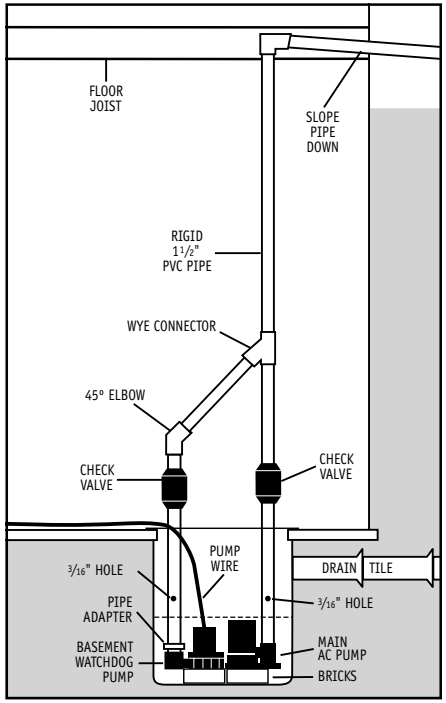
Select the installation method that will best suit your needs from the diagrams at the right. Full instructions for each installation method are provided on pages 4-7.

Save time, money and make your installation easier by using the Basement Watchdog Quick Connect Pipe (BW-QCP), a preassembled discharge pipe.

**NORMAL SUMP PIT INSTALLATIONS**

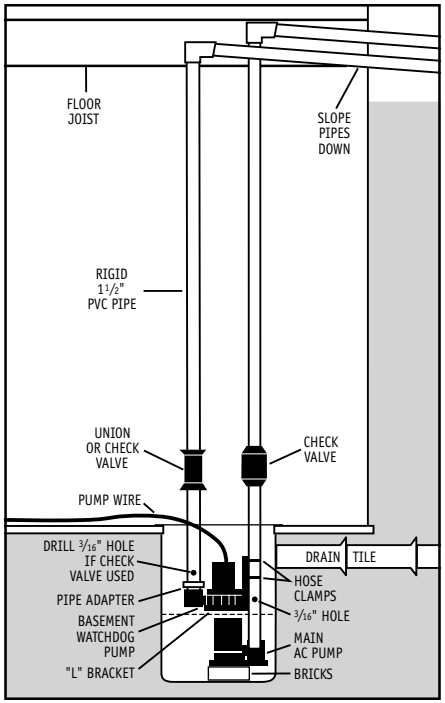



**Installation A: Direct Discharge to Outside (Page 4)**

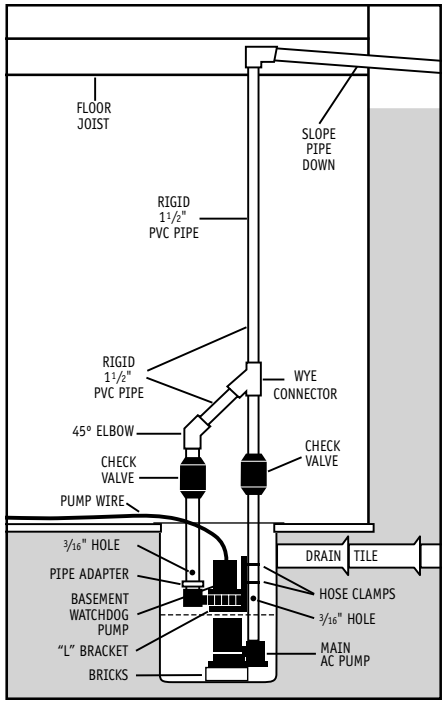



**Installation B: Connection to Existing Discharge Pipe (Page 5)**

**NARROW SUMP PIT INSTALLATIONS**




**Installation C: Direct Discharge to Outside (Page 6)**




**Installation D: Connection to Existing Discharge Pipe (Page 7)**

# Pump & Pipe Installation Instructions

## INSTALLATION A:

## DIRECT DISCHARGE TO THE OUTSIDE OF THE BUILDING (DIAGRAM A)

**⚠ DANGER**

**Unplug the main AC pump when installing the backup pump to avoid electric shock. Failure to do so could cause serious injury or death.**

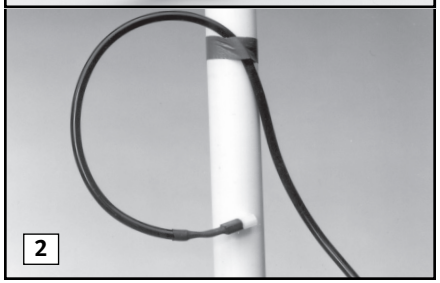
Save time and money by using the preassembled Basement Watchdog Quick Connect Pipe (BW-QCP). If not, follow the steps below:

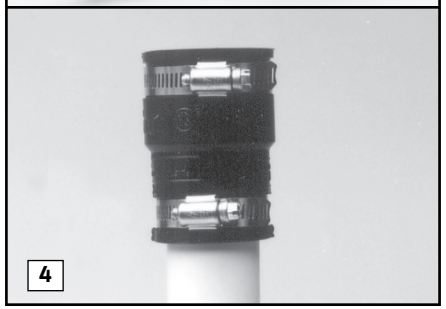
1. Cut a piece of 1½" rigid PVC pipe long enough to reach from the bottom of the sump pit to one (1) foot above the floor. Prime and cement it to the 1½" pipe adapter, then screw the adapter into the pump.
2. Secure the pump wire so that the plug on the end will not fall into the sump. Attach the wire to the pipe with a piece of tape.
3. Clean the pit of all debris. Place the pump with the PVC pipe attachment on a pump stand or brick next to the main AC pump, NOT directly on the pit floor. This stand or brick is used to guard against debris buildup on the bottom of the pit. *The pumps should not touch each other. Pump should be level.*
4. Attach a union or a check valve to the top of the 1½" pipe. This will allow the pump to be removed easily if needed.

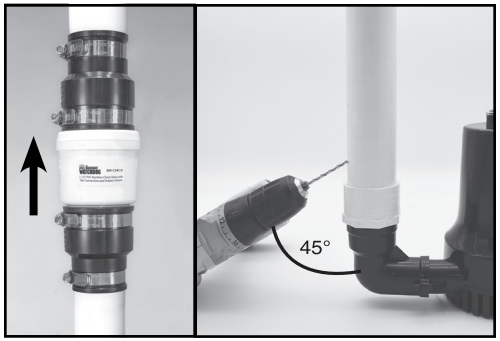
The path of the rest of the pipe and the details of each installation will vary. Using sound plumbing practices, route the discharge pipe to an exterior wall via the shortest path with the fewest turns. More turns will reduce the pumping capacity. The pipe section exiting the building should be on a downward slope so that the water in the pipe will exit outside instead of returning to the sump pit. Seal the hole in the wall where the pipe exits, and prime and cement or clamp all connections securely to prevent leaking. (Although a check valve is recommended, one is not required with this method of installation as long as you use less than 15 feet of pipe.)

**CAUTION**

**If you use more than a total of 15 feet of pipe (including vertical and horizontal runs) in the installation, install a check valve in place of the union. Make sure it is installed with the arrow pointing up (see photo at top right), or it will not prevent the backflow of water. When a check valve is used, a 3/16" hole must be drilled in the PVC pipe above the Basement Watchdog pump. Drill the hole at a 45° angle upwards (see photo at far right) toward the bottom of the sump to avoid splashing water outside the sump pit. Make sure the hole is above the water line and below the check valve. If a hole is not drilled above the pump, an air lock may prevent the pump from operating.**





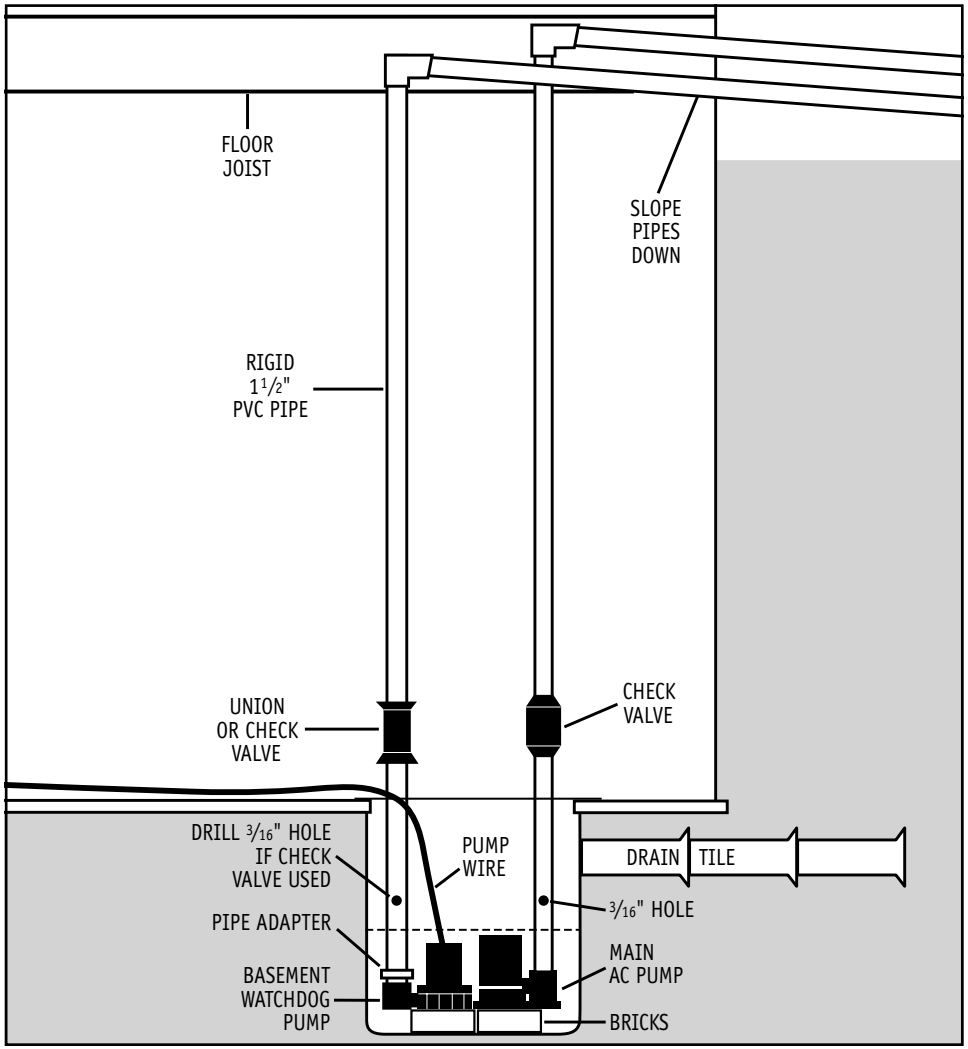




**Diagram A**

# Pump & Pipe Installation Instructions

## INSTALLATION B:

## CONNECTION TO AN EXISTING DISCHARGE PIPE (DIAGRAM B)

Depending on your installation requirements, PVC pipe lengths will vary. Cut the pipes and assemble them as shown in photo #7. *Do not cement them together until you are sure they are cut to the correct lengths*. It is important to keep the discharge pipes on both pumps parallel to each other so that the pumps remain flat on the floor of the sump. More detailed instructions follow.

**⚠ DANGER**

**Unplug the main AC pump when installing the backup pump to avoid electric shock. Failure to do so could cause serious injury or death.**

1. Cut a piece of 1½" rigid PVC pipe long enough to reach from the bottom of the sump pit to one (1) foot above the floor. Prime and cement it to the 1½" pipe adapter, then screw the adapter into the pump.
2. Install a check valve on the top of the PVC pipe attached to the Basement Watchdog pump. Make sure it is installed with the arrow pointing up or it will not prevent the backflow of water.

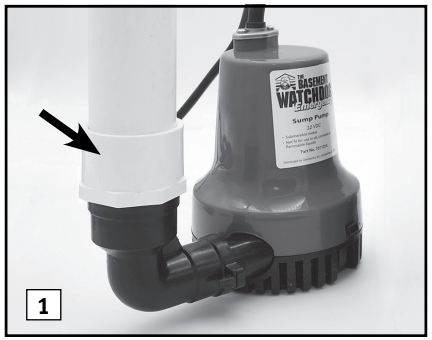
**CAUTION**

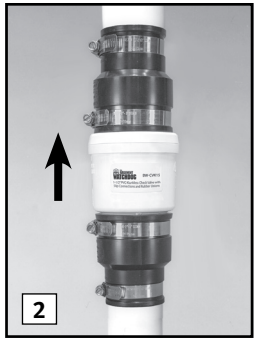
3. **When a check valve is used, a 3/16" hole must be drilled in the PVC pipe above the Basement Watchdog pump. Make sure it is above the water line and below the check valve. Drill the hole at a 45° angle upward to avoid splashing water outside the sump pit. If a 3/16" hole is not drilled in the pipe above the pump, an air lock may prevent the pump from operating.**
4. If there is no check valve on the discharge pipe of the main AC pump below the tie-in point, one must be installed at this time. Cut the discharge pipe approximately one (1) foot above the floor. Install a check valve on the top of the pipe and tighten the bottom hose clamp. Now prime and cement a small piece of 1½" PVC pipe to the bottom of a wye connector. Prime and cement the top of the wye assembly to the discharge pipe with the wye extension facing down toward the backup pump. Next, connect the bottom of the assembly to the check valve and then tighten the hose clamp.

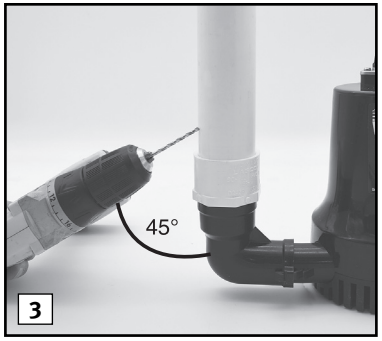
**CAUTION**

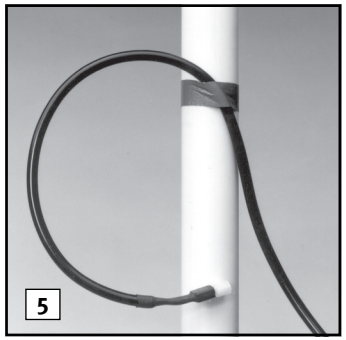
**Failure to install a check valve between the wye connector and the main AC pump will cause the main system to not operate properly. A 3/16" hole must also be drilled in the PVC pipe above the pump. (See photo 3 at top right.)**

5. Secure the pump wire so that the plug on the end will not fall into the sump. Attach the wire to the pipe with a piece of tape.
6. Clean the pit of all debris. Place the pump with the PVC pipe attachment on a pump stand or brick next to the main AC pump, NOT directly on the pit floor. This stand or brick is used to guard against debris buildup on the bottom of the pit. *The pumps should not touch each other. Pump should be level.*
7. Connect a piece of 1½" PVC pipe above the check valve of the Basement Watchdog pump, and attach a 45° elbow to that pipe. Extend another piece of pipe to reach from the 45° elbow to the wye connector on the other pipe.
8. Prime and cement all pipe connections securely to prevent leaking, and tighten all the hose clamps.





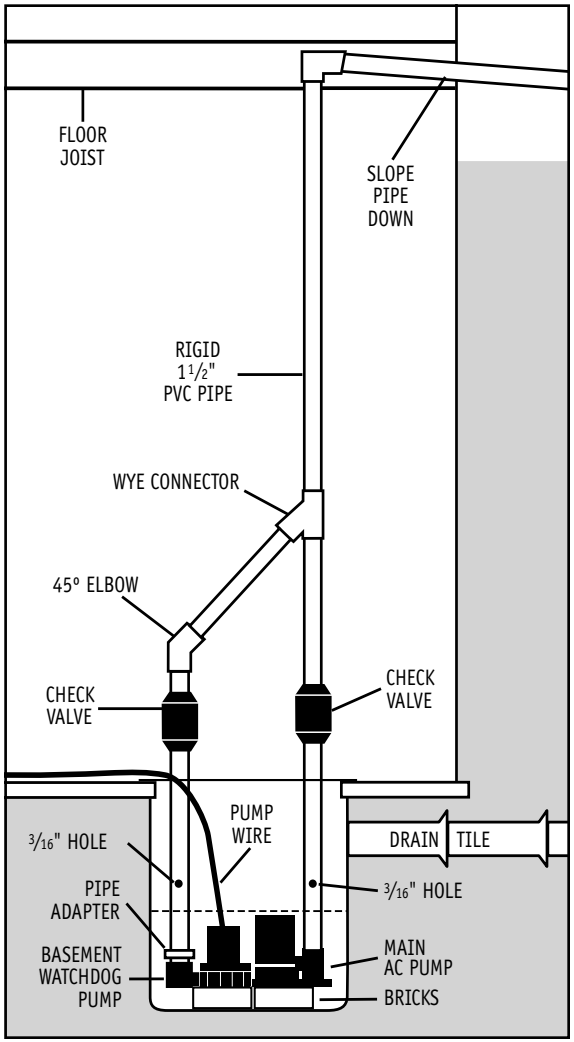



**Diagram B**

# Pump & Pipe Installation Instructions

## INSTALLATION C:

## DIRECT DISCHARGE TO THE OUTSIDE OF THE BUILDING FOR NARROW SUMP PITS (DIAGRAM C)

**⚠ DANGER**

**Unplug the main AC pump when installing the backup pump to avoid electric shock. Failure to do so could cause serious injury or death.**

1. Attach an "L" bracket to the discharge pipe of the main AC pump with two (2) stainless-steel hose clamps. Position the bracket so the bottom of the "L" is just above the top of the main pump, and out of the way of any float switch on the main pump.
2. (a) Remove the black bottom strainer of the pump by pressing in the two tabs on the strainer and pushing down. There are holes suitable for mounting on the bottom of the strainer. (b) Using the #8-32 x ¾" stainless-steel screw, washer and nut, attach the strainer to the "L" bracket. (c) Once the strainer is attached, simply press the rest of the pump onto the mounted strainer.
3. Secure the pump wire so that the plug on the end will not fall into the sump. Attach the wire to the pipe with a piece of tape.

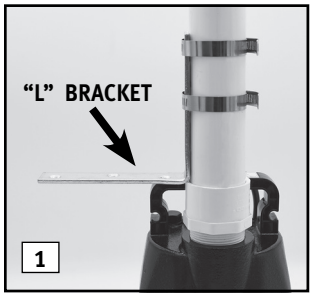
Save time and money by using the Basement Watchdog Quick Connect Pipe (BW-QCP), a preassembled discharge pipe (see page 2). If not, continue the following steps:

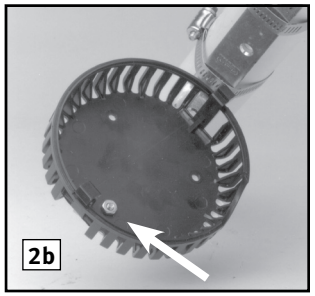
4. Cut a piece of 1½" rigid PVC pipe long enough to reach from the elbow of the backup pump to one (1) foot above the floor. Prime and cement it to the 1½" pipe adapter, and then screw the adapter into the pump.
5. Attach a union or check valve to the top of the 1½" PVC pipe. This will allow the pump to be removed easily, should the need arise.

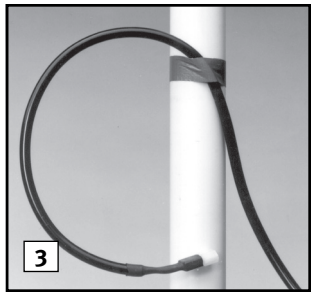
The path of the rest of the pipe and the details of each installation will vary. Using sound plumbing practices, route the discharge pipe to an exterior wall via the shortest path with the fewest turns. More turns will reduce the pumping capacity. The pipe section exiting the building should be on a downward slope so that the water in the pipe will exit outside instead of returning to the sump pit. Be sure to seal the hole in the wall where the pipe exits, and prime and cement or clamp all connections securely to prevent leaking. (Although a check valve is recommended, one is not required with this method of installation as long as you use less than 15 feet of pipe.)

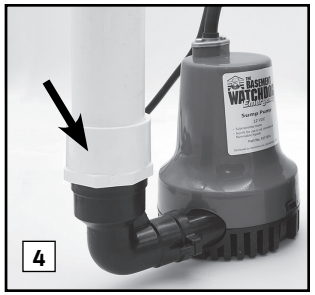
**CAUTION**

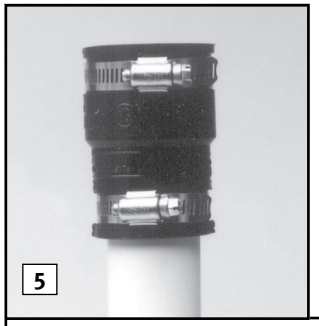
**If you use <u>more than a total of 15 feet</u> of pipe (including vertical and horizontal runs) in the installation, install a check valve in place of the union. Make sure it is installed with the arrow pointing up or it will not prevent the backflow of water. When a check valve is used, a 3/16" hole must be drilled in the PVC pipe above the Basement Watchdog pump. Drill the hole at a 45° angle upward to avoid splashing water outside the sump pit. Make sure the hole is above the water line, and below the check valve. If a hole is not drilled above the pump, an air lock may prevent the pump from operating.**

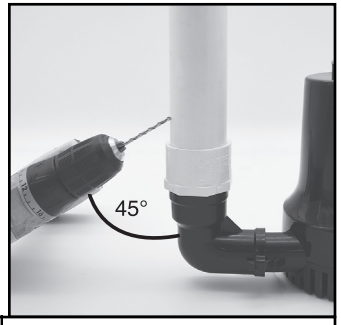








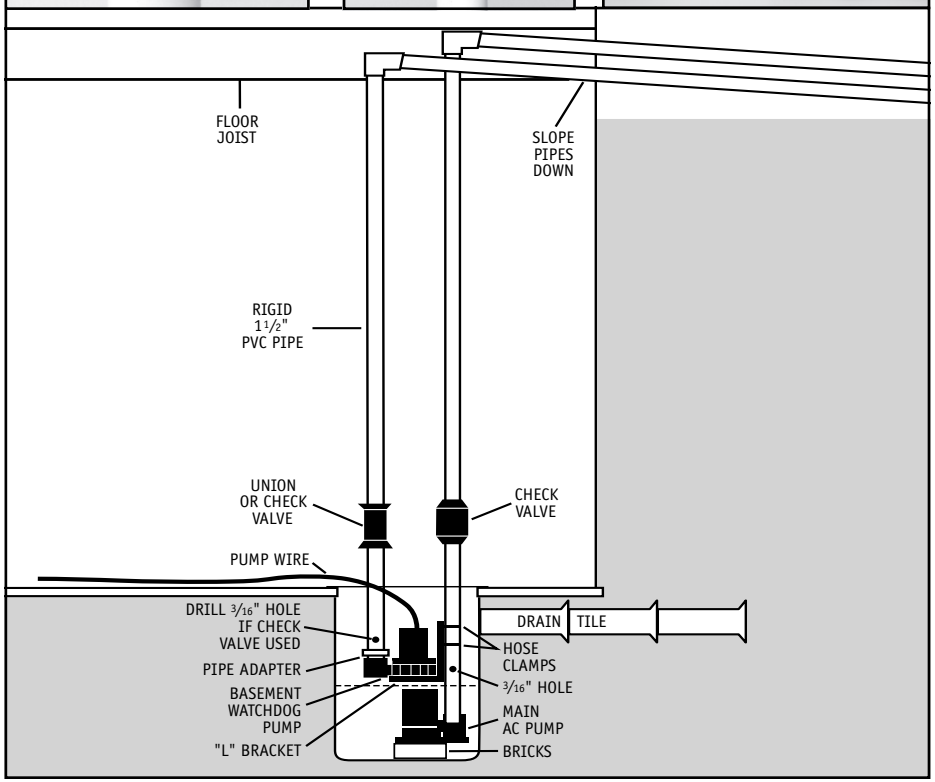




**Diagram C**

# Pump & Pipe Installation Instructions

## INSTALLATION D:

## CONNECTION TO EXISTING DISCHARGE PIPE FOR NARROW SUMP PITS (DIAGRAM D)

Depending on your installation requirements, PVC pipe lengths will vary. Cut the pipes and assemble them as shown in photo 8 below. Do not cement them together until you are sure they are cut to the correct lengths. It is important to keep the discharge pipes on both pumps parallel to each other, so that the pumps remain flat on the floor of the sump. More detailed instructions follow.

**⚠ DANGER**

**Unplug the main AC pump when installing the backup pump to avoid electric shock. Failure to do so could cause serious injury or death.**

1. Attach an "L" bracket to the discharge pipe of the main AC pump with two (2) stainless-steel hose clamps. Position the bracket so the bottom of the "L" is just above the top of the main pump, and out of the way of any float switch on the main pump.
2. (a) Remove the black bottom strainer of the pump by pressing in the two tabs on the strainer and pushing down. On the bottom of the strainer are holes suitable for mounting. (b) Using the # 8-32 x ¾" stainless-steel screw, washer and nut, attach the strainer to the "L" bracket. (c) Once the strainer is attached, simply press the rest of the pump onto the mounted strainer.
3. Secure the pump wire so that the plug on the end will not fall into the sump. Attach the wire to the pipe with a piece of tape.

Save time and money by using the Basement Watchdog Quick Connect Pipe (BW-QCP), a preassembled discharge pipe. (See page 2.) If not, continue the following steps:

4. Cut a piece of 1½" rigid PVC pipe long enough to reach from the elbow of the backup pump to one (1) foot above the floor. Prime and cement it to the 1½" pipe adapter, then screw the adapter into the pump.
5. Install a check valve on the top of the PVC pipe attached to the Basement Watchdog pump. Make sure it is installed with the arrow pointing up or it will not prevent the backflow of water.

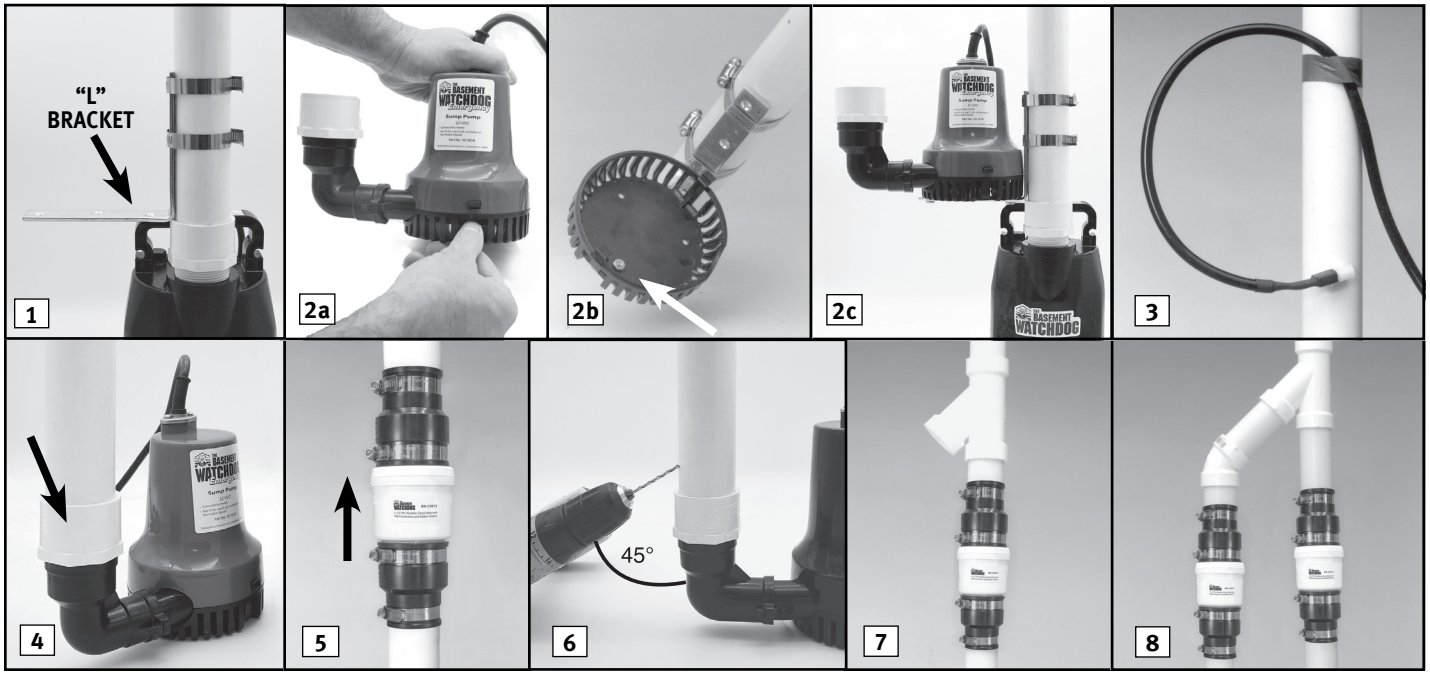
**CAUTION**

6. **When a check valve is used, a 3⁄16" hole must be drilled in the PVC pipe above the Basement Watchdog pump. Make sure it is above the water line and below the check valve. Drill the hole at a 45° angle upward to avoid splashing water outside the sump pit. If a 3⁄16" hole is not drilled above the pump, an air lock may prevent the pump from operating.**
7. If there is no check valve on the main AC pump discharge pipe, one must be installed at this time. Cut the discharge pipe approximately one (1) foot above the floor. Install a check valve on the pipe and tighten the bottom hose clamp. Now prime and cement a small piece of 1½" PVC pipe to the bottom of a wye connector. Prime and cement the top of the wye assembly to the discharge pipe with the wye extension facing down toward the backup pump. Now connect the bottom of the assembly to the check valve and tighten the hose clamp.

**CAUTION**

**Failure to install a check valve between the wye connector and the main AC pump will cause the main system to not operate properly. A 3⁄16"hole must also be drilled in the PVC pipe above the pump (see photo 6).**

8. Connect a piece of 1½" PVC pipe above the check valve of the Basement Watchdog pump, and attach a 45° elbow to that pipe. Extend another piece of pipe to reach from the 45° elbow to the wye connector on the other pipe.
9. Prime and cement all pipe connections securely to prevent leaking, and tighten every hose clamp.



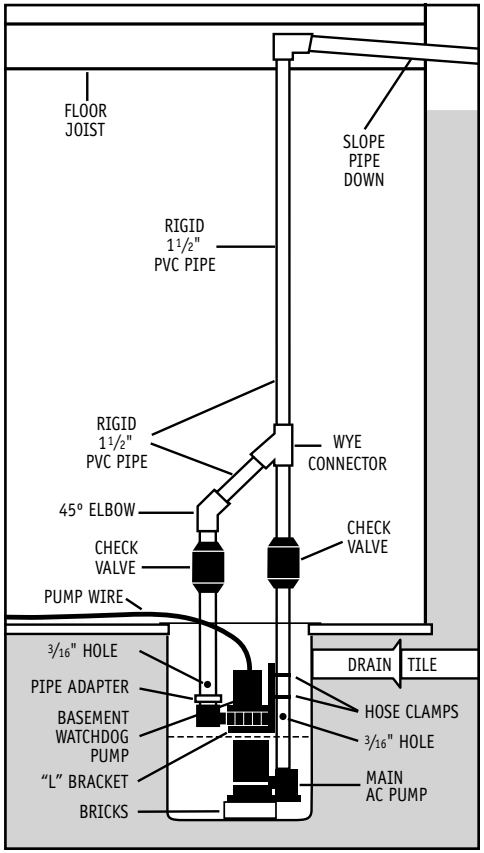




**Diagram D**

# Battery Instructions

The Basement Watchdog Maintenance Free (BW-27AGM) Standby Battery has been designed to run this system for 80 hours, based on a 10% duty cycle. However, most of the time the pump will turn on and off, and the battery will run the pump intermittently for days. In addition, the unique materials in the battery enable it to last longer in standby service.

**CAUTION**

- **The use of automotive batteries is NOT recommended. Automotive batteries are not designed for this application. They will only run the pump for a short time and will have a shorter life than a standby battery.**
- **The internal construction of some batteries may not be compatible with this system. The use of a Basement Watchdog battery is HIGHLY recommended.**

# Control Unit Connections

**⚠ DANGER**

**Risk of electrical shock or battery explosion, which can cause serious injury or death. Unplug the main AC pump to avoid electrical shock. Wear eye protection. Work in a well-ventilated area. Do not smoke or allow a spark or flame in the vicinity of the battery. Avoid dropping metal tools on the battery. If battery acid contacts eyes, flush with water for 15 minutes and get prompt medical attention. Review the safety instructions on page 1.**

When you position the control unit on the discharge pipe, be sure the charger cord will reach the AC power outlet (a surge protector is recommended), and the pump cable and float switch will reach the bottom of the sump. Position the unit in a well-ventilated area. (Diagram F) **Do NOT place anything on top of the battery.**

1. **Mounting the control unit:** (a) Thread one plastic wire tie through the two mounting brackets on the back of the control unit. (b) Secure the controller to the discharge pipe of the Basement Watchdog pump by wrapping the tie around the pipe and pulling it tight.
2. **Positioning the dual float switch:** (a) The float switch wire includes a connector that can be separated from the controller when the wire needs to be threaded through small openings such as a sump pit cover. Be sure the float switch wire connection is secure before final installation. (b) The float switch will activate the pump when the water raises either float, and it will remain running as long as the water is above the float. When the water drops below the float switch, an internal timer in the control unit will keep the pump running about 25 seconds to empty the sump pit. The switch should be mounted about six (6) inches above the water level line in the sump pit. Attach the float switch very securely to the discharge pipe with the plastic wire tie. *Be sure the switch is positioned vertically with the mounting bracket at the top. Do not tilt the switch. Do not position the float switch on the side of the discharge pipe facing the drain tile or any incoming rush of water!*
3. **Connecting the pump:** Remove the security tag from the pump and plug the pump wires into the pump connector on the back of the control unit. Keep the backup pump wire, the AC pump wire, and the float wire separate from each other. Do not let them cross on the final installation.
4. **Connecting the battery:** Attach the battery cables to the battery—the BLACK wire to the POSITIVE (+) post and the WHITE wire to the NEGATIVE (-) post. Replace the battery bolts and tighten them.
5. **Connecting the charger:** Immediately plug the charger into the CHARGER port on the back of the control unit, then into an AC outlet on the wall. (You should provide additional protection for the control unit by using a surge protector).
6. If the pump alarm is sounding, press the RESET button to silence the alarm.
7. Secure the cover on the battery box by slipping the tabs through the fittings on the front and back of the box.
8. Check the pump operation by filling the sump with water and observing the pump through several full cycles.
9. **BE SURE TO PLUG IN THE MAIN AC PUMP WHEN YOU COMPLETE THE INSTALLATION.**

# Understanding the Warnings & Alarms

The Basement Watchdog control unit features a series of warning lights that pinpoint potential problems. In addition, an alarm sounds to alert you to issues. In some cases the lights and alarm will go off automatically when the problem has been resolved. In others, the RESET button must be pushed to silence the alarm. Refer to the table (page 9) for a quick review of the features and their corresponding alarm status.

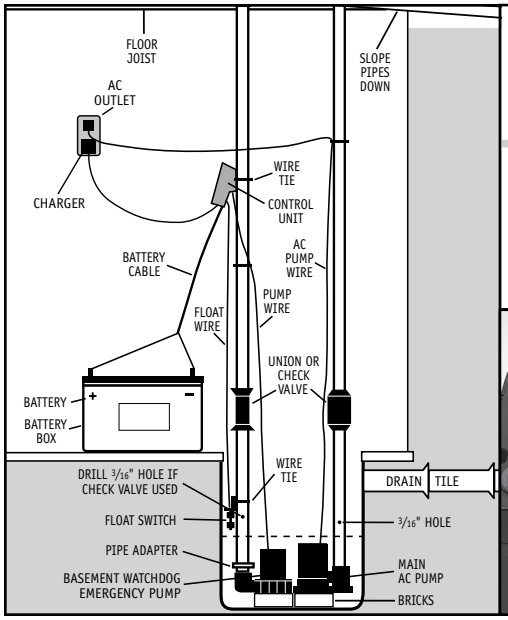
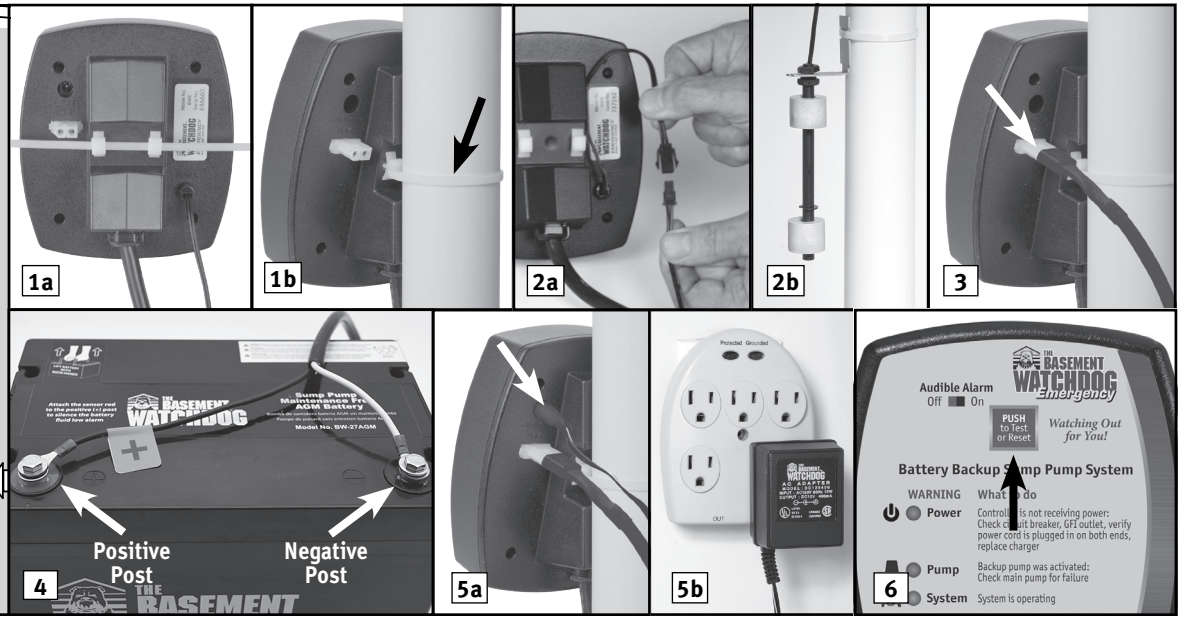


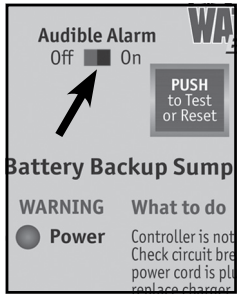

Diagram F



| Warning | Alarm can be silenced before problem is corrected | Alarm shuts off automatically when the problem is corrected |
|---|---|---|
| Power Alarm | Yes | Yes |
| Pump Alarm | Yes | No, push the RESET button |
| System Light | No alarm | No alarm |
| Battery Alarm | No | Yes |

## SILENCING THE ALARM DURING AN EMERGENCY

The Basement Watchdog Emergency system is equipped with a switch that will silence the audible alarm during an extended emergency. The "Power" ① and "Pump" ② alarms can be silenced during a power outage or during heavy rains when the pump is activated repeatedly.

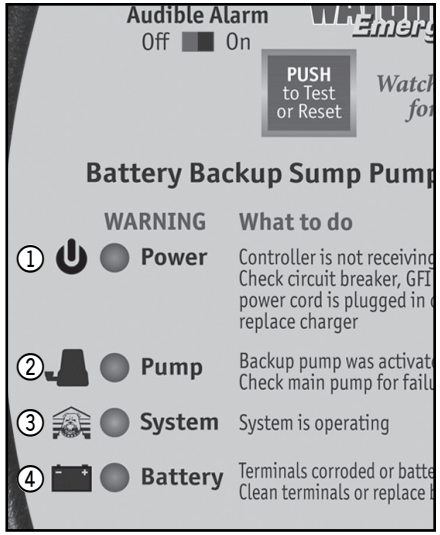



To silence both the "Power" and "Pump" alarms, slide the "Audible Alarm" switch to OFF. The "Power" and/or the "Pump" light will remain on, but the audible alarm will not sound. **When the emergency has ended, slide the switch to the ON position to resume the full monitoring capability, or you will not be warned the next time an emergency occurs.**

The "Battery" ④ alarm cannot be silenced. It requires immediate attention.

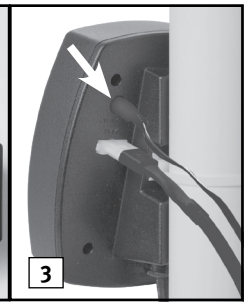
### ① Power

There are several causes for power failure. The most common is a power outage by your electric company. During this emergency, the Basement Watchdog system will automatically switch to battery power and protect your basement from flooding.




You can silence the "Power" alarm by sliding the "Audible Alarm" switch to OFF. The alarm will be silenced, but the light will stay on. The system will continue to operate while the power alarm is silenced. **Be sure to slide the switch to the ON position when the power is restored to resume full monitoring capability.**

1. If the power is on in the rest of the house, check the home circuit breaker or fuse box for failure, and correct the problem.
2. Check the charger. Make sure it is securely plugged into the wall outlet. Ensure the power outlet is working and the GFCI has not tripped.
3. Check the charger plug that fits into the rear panel of the control unit. Make sure it is securely plugged into the control unit.




The control unit must receive 115 volts AC +/- 5% from the AC outlet. Voltage lower than 110 volts will activate the "Power" alarm. Lower voltages can be caused by utility company brownouts or a heavy power draw from other appliances on the same circuit. Reduce the number of appliances on the circuit.

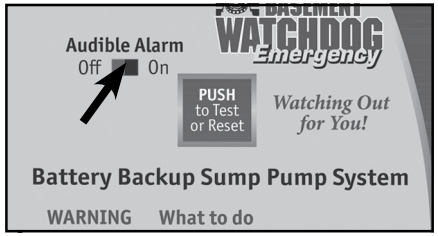
If all the connections are secure and the wall outlet is operating but the "Power" warning light is still on, replace the charger unit with a new Basement Watchdog charger (part number 1015003). Contact Glentronics at 800-991-0466, option #3.

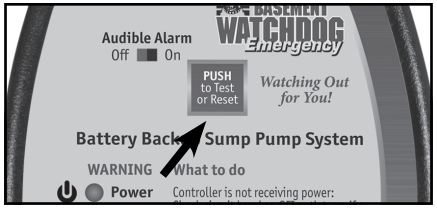
### ② Pump

When the water rises in the sump pit and activates the float switch, the pump will begin pumping, and the "Pump" light and alarm will turn on. The alarm stays on to alert you to the fact that the standby system was used to empty water from the sump. Try to determine what caused the system to activate.

- Check the main AC pump for failure. It may not be working, the float switch may be stuck, or it may be too small to handle the inflow of water.
- Make sure the check valve is working and installed correctly.
- Ensure the discharge pipe is not clogged or frozen.
- If the power was out, the backup pump was automatically activated. You need to push the RESET button on the front of the control panel to reset the alarm.

During a power outage or times when the pump is activated repeatedly, you can temporarily silence the alarm by sliding the "Audible Alarm" switch to OFF. **WHEN THE PRIMARY PUMP HAS RESUMED NORMAL OPERATION, AND THE BACKUP PUMP IS NO LONGER ACTIVATING REPEATEDLY, SLIDE THE**




**SWITCH TO THE ON POSITION TO RESUME THE FULL MONITORING CAPABILITY.** The alarm and pump light will still be on. Push the RESET button on the front of the control panel to silence the alarm.

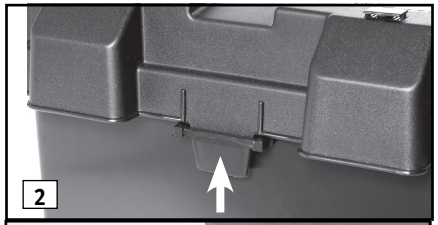
## REPLACING THE PUMP

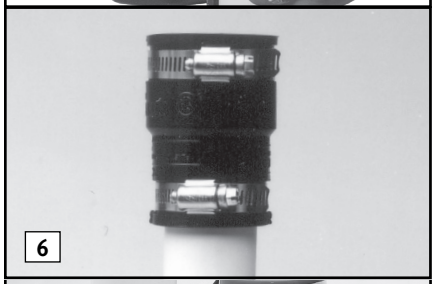
**⚠ DANGER**

**Unplug the main AC pump when installing or servicing the backup pump to avoid electric shock. Failure to do so could cause serious injury or death. Review the safety instructions on page 1.**

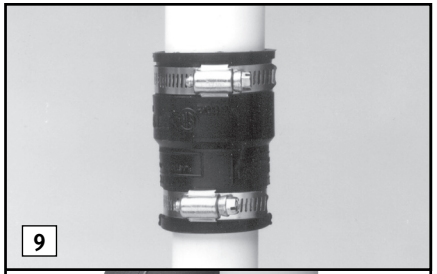
***REFER TO PHOTOS BELOW AND ON NEXT PAGE***

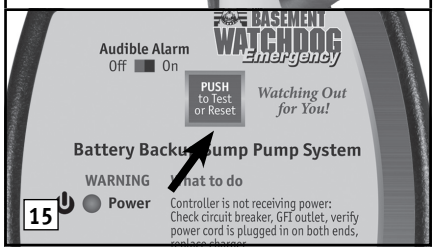
1. Unplug the charger from the wall outlet.
2. Remove the cover of the battery box by pushing in the tabs on the front and back, then lifting up.
3. Fan the area around the top of the battery with a piece of cardboard (or another nonmetallic material) to remove any hydrogen or oxygen gas that may have been emitted from the battery.
4. Remove the battery cables from the battery.





5. Unplug the pump from the back of the control unit.
6. Release the union or check valve and remove the pump and the rigid PVC pipe section from the sump pit.
7. Unscrew the pipe and adapter from the old pump, and screw them into the new pump.
8. Clean the pit of all debris. Place the pump on a pump stand or brick next to the main AC pump, and ensure that both pumps are level and not touching each other. The stand or brick is used to guard against debris buildup on the bottom of the pit; the pump's strainer must be kept clear. Pump should be level.
9. Lower the pump into the sump and reconnect the union or check valve.
10. Plug the pump wires into the back of the control unit.
11. Connect the battery cables to the battery—the BLACK wire to the POSITIVE (+) post and then the WHITE wire to the NEGATIVE (-) post. Tighten the battery bolts.






12. Replace the cover of the battery box.
13. Check the pump operation by filling the sump with water and observing the pump through several full cycles.
14. Plug the charger and the main AC pump back into the wall outlet. (You should provide additional protection for the controller by using a surge protector).
15. If any alarms are sounding, press the RESET button on the front of the control unit for one (1) second to silence them.

### ③ System

This green light should always be flashing. It indicates that the system is operating. It will flash when the system has power, either coming from the battery or the AC outlet.

### ④ Battery

This light and alarm will come on when the control unit detects there is less than ½ hour of continuous pumping power left in the battery, or that the battery is defective. The alarm cannot be silenced as action needs to be taken to protect your basement. If your battery is more than five ( 5 ) years old, replace it. If not, several situations could cause the pump to run the battery for an extended time and discharge the battery. Check the following list before you replace the battery:

- If the top light on the controller is also on, it means that the unit is not receiving AC power. Either the AC power is out, the circuit breaker has blown, or the outlet is bad. When the problem is corrected, the battery should recharge.
- If the second light on the controller is also on, check your main pump for failure. The backup pump may have been activated repeatedly if your main AC pump is broken, or you are experiencing heavy rains and your main pump cannot keep up with the inflow of water. You may need to upgrade or replace your main pump. When the problem is corrected, the battery should recharge.
- If no other lights are on, this means the terminals may be corroded, and the battery cannot charge properly. Unplug the charger from the wall outlet. Then check the battery cables and the battery terminals for corrosion. Clean and tighten as needed. **This process is described to the right and on page 11.**
- If the battery terminals have been cleaned and the light is still on, the problem could be with the controller or battery. The best way to determine if the battery is the problem is to have it charged and load tested at any local auto supply, auto repair or battery store. If the battery is bad and less than one (1) year old, call Glentronics (receipt required). If the battery is good, also contact Glentronics' service department for further instructions. The phone number is 800-991-0466, option #3.

If the battery alarm goes on while the pump is running and the power is out, you will have a minimum of one-half (½) hour of continuous pumping time to replace the battery. (In most cases, the pump does not run continuously, and therefore, you actually have a longer time to replace it.) You will not be able to silence the alarm. Left unattended, the basement will flood. In a severe emergency, if a replacement battery is not available, recharge this battery by connecting it to your car battery and turning the car on.

Once the AC power is restored, the battery will recharge automatically, unless it is old or damaged. The alarm will turn off when the AC power is restored and the pumping energy reaches one-half (½) hour or more.

In the event that your Basement Watchdog sump pump system has pumped for an extended period of time, the battery may be very depleted. In this condition, when the AC power is returned to the unit, a battery alarm will continue to sound. The battery may need 24 to 48 hours to recharge.

For a faster recharge, an automotive or marine battery charger can be used to recharge the battery. Follow the manufacturer's instructions and safety information included with the charger.

**⚠ WARNING**

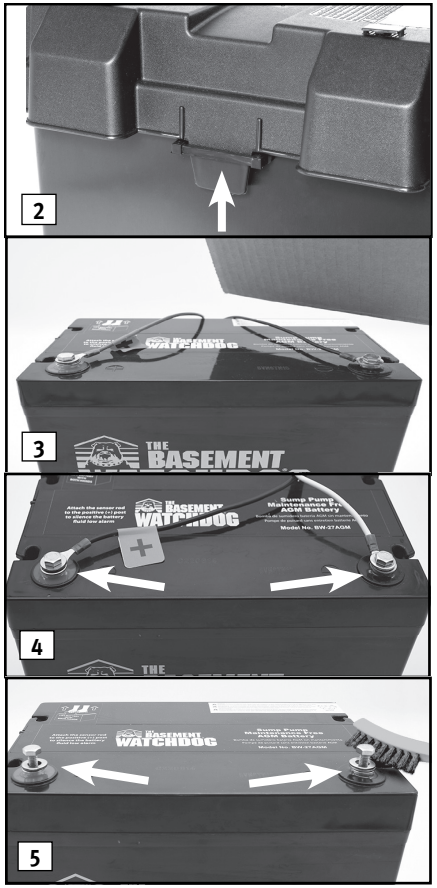
**When another charger is used, first disconnect the Basement Watchdog charger from the control unit, and then disconnect the control unit from the battery. Using another charger without disconnecting the control unit will destroy the control unit and void the warranty.**

## HOW TO CLEAN THE BATTERY TERMINALS AND CABLES

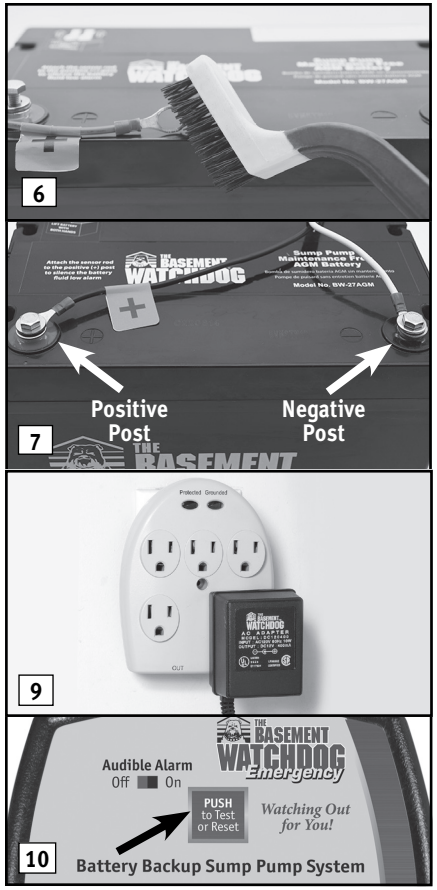
**⚠ DANGER**

**Risk of electrical shock or battery explosion, which can cause serious injury or death. Wear eye protection. Work in a well-ventilated area. Do not smoke or allow a spark or flame in the vicinity of the battery. Avoid dropping metal tools on the battery. If battery acid contacts eyes, flush with water for 15 minutes and get prompt medical attention. Review the safety instructions on page 1.**

***REFER TO THE PHOTOS ON PAGE 11***




1. Unplug the charger from the wall outlet.
2. Remove the cover of the battery box by pushing in the tabs on the front and back, then lifting up.
3. Fan the area around the top of the battery with a piece of cardboard (or another nonmetallic material) to remove any hydrogen or oxygen gas that may have been emitted from the battery.
4. Remove the battery cables.
5. Clean the battery bolts with a battery terminal cleaner or a wire brush.
6. Clean any corrosion off of the ring connectors on the ends of the battery wires. Use a stiff brush or sandpaper. **DO NOT** apply corrosion-resisting sprays or pads to the terminal rings or posts after you have cleaned them, since this could prevent the battery from charging properly.
7. Replace the battery cables, BLACK to the POSITIVE (+) post and then WHITE to the NEGATIVE (-) post. Tighten the battery bolts.
8. Secure the cover on the battery box by slipping the tabs through the fittings on the front and back of the box.
9. Plug the charger back into the wall outlet. (You should provide additional protection for the control unit by using a surge protector.)
10. If any of the alarms are sounding, press the RESET button on the front of the control panel for one (1) second.



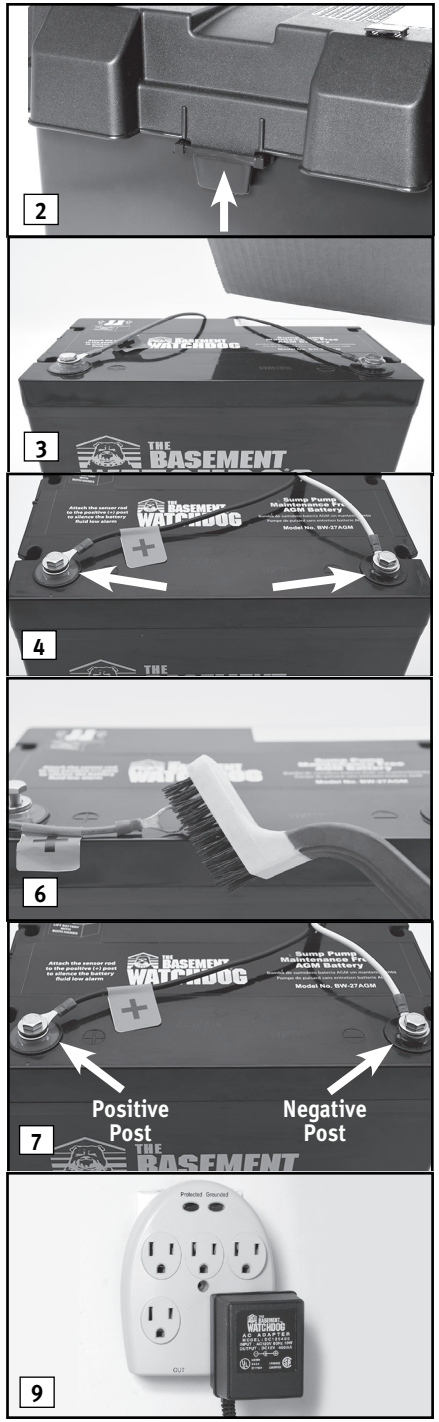

## REPLACING THE BATTERY

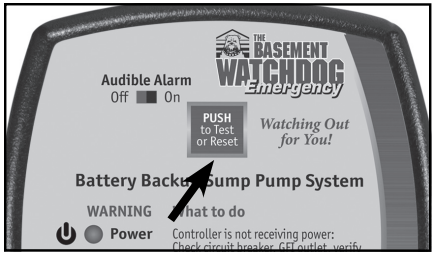
**⚠ DANGER**

**Risk of electrical shock or battery explosion, which can cause serious injury or death. Wear eye protection. Work in a well-ventilated area. Do not smoke or allow a spark or flame in the vicinity of the battery. Avoid dropping metal tools on the battery. If battery acid contacts eyes, flush with water for 15 minutes and get prompt medical attention. Review the safety instructions on page 1.**

***REFER TO THE PHOTOS AT RIGHT***

1. Unplug the charger from the wall outlet.
2. Remove the cover of the battery box by pushing in the tabs on the front and back, then lifting up.
3. Fan the area around the top of the battery with a piece of cardboard (or another nonmetallic material) to remove any hydrogen or oxygen gas that may have been emitted from the battery.
4. Remove the battery cables.
5. Remove the old battery from the battery box and place the new battery in the box.
6. Clean any corrosion off of the ring connectors on the ends of the battery wires. Use a stiff brush or sandpaper. **DO NOT** apply corrosion-resisting sprays or pads to the terminal rings or posts after you have cleaned them, since this could prevent the battery from charging properly.
7. Replace the battery cables, BLACK to the POSITIVE (+) post and WHITE to the NEGATIVE (-) post. Tighten the battery bolts.
8. Secure the cover on the battery box by slipping the tabs through the fittings on the front and back of the box.
9. Plug the charger back into the wall outlet. (You should provide additional protection for the control unit by using a surge protector.)
10. If any of the alarms are sounding, press the RESET button on the front of the control panel for one (1) second.






## TEST/RESET BUTTON

The TEST button may be used to check the pump and system. Push the TEST button. This will activate the pump for as long as you hold the button. It will stop as soon as you let go of the button.

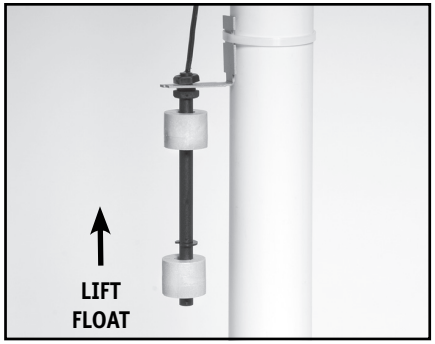
While the pump is active, water will come out of the $^{3}/_{16}$" hole that was drilled into the PVC discharge pipe. This is normal. This hole is needed to prevent an air lock within the system. **DO NOT** obstruct the hole or an air lock may prevent the system form activating.

## TESTING THE FLOAT SWITCH

***It is important to manually test the float switch periodically or after any maintenance.***

**⚠ DANGER**

**Unplug the main AC pump when installing or servicing the backup pump to avoid electric shock. Failure to do so could cause serious injury or death. Review the safety instructions on page 1.**




Lift the float up and let go. This will activate the pump. The control unit will run the pump for approximately 25 seconds so it can empty all the water in the sump pit. While the pump is active, water will come out of the $^{3}/_{16}$" hole that was drilled into the PVC discharge pipe. This is normal. The hole is needed to prevent an air lock within the system. **DO NOT** obstruct the hole or an air lock may prevent the system from removing water. If there is no water in the pit, the pump can run dry for this amount of time. The alarm will sound and the "Pump" light will go on. Push the RESET button on the front of the control panel to reset the alarm. **BE SURE TO PLUG IN THE MAIN AC PUMP WHEN YOU HAVE COMPLETED THE TEST.**

## MAINTENANCE CHECKLIST

Maintenance should be performed 1-2 times per year.

1. Lift the float switch as described at left.
2. Remove all debris from the bottom of the pit and pump strainer.
3. Remove all debris from the water.
4. Remove all debris from the float switch.
5. Fill the pit with water. Make sure the pump turns on at the intended level.
6. While the pump is running, make sure the pump is evacuating water at a good pace and water is coming out of the $^{3}/_{16}$" air bleed hole.
7. Check and clean battery terminals.

## PARTS & SERVICE INFORMATION

**Replacement Part Numbers**

Pump ..... 1011014

Float switch assembly ..... 1020009

Pipe adapter..... 1120002

Charger ..... 1015003

Battery box..... 1113003

You can receive technical support or order parts by calling Glentronics, Inc. at **800-991-0466, option #3**, or by visiting the Basement Watchdog website at **www.basementwatchdog.com**. Send your unit to the following address if repairs are needed:

Glentronics, Inc.
Attn: Service
645 Heathrow Drive
Lincolnshire, IL 60069-4205

# Troubleshooting Guide

**⚠ DANGER**

**Read safety warnings & instructions before attempting any repairs or maintenance.**

If the listed solutions do not resolve the problem, follow the instructions within this manual to disconnect the system from the outlet and battery terminals, then reconnect the system and push the reset button. If the problem continues, contact customer service at 800-991-0466 option 3.

| Potential Cause | BATTERY PROBLEM | Solution |
|---|---|---|
| Terminals are corroded | Clean terminals & cables | |
| Cables are loose | Tighten bolts | |
| Battery is discharged below 25% | Replace battery if power is out. There is only ½ hour of continuous pumping power left. Battery will recharge when power is restored. | |
| Battery is old or damaged | Replace battery | |
| **Potential Cause** | **POWER FAILURE** | **Solution** |
| Power outage | None. The backup pump will run off the battery. Slide the Audible Alarm switch to the off position.When power has returned, slide switch to on. | |
| An outlet, fuse or circuit breaker has failed | Try another outlet, replace the fuse, or reset the circuit breaker. | |
| The power cord is unplugged | Make sure the power cord is plugged in securely on both ends. | |
| The charger is receiving less than 110 volts from the outlet | None, if the utility company has instigated brownouts. Otherwise, reduce the number of other appliances on the circuit. | |
| **Potential Cause** | **PUMP FAILURE** | **Solution** |
| Backup pump is unplugged | Make sure the pump is securely plugged into the back of the control unit | |
| Backup pump is clogged | Remove strainer from pump and clean out any debris | |
| Backup pump is broken | Replace the pump | |
| **Potential Cause** | **PUMP WAS ACTIVATED** | **Solution** |
| The main AC pump failed because of a power outage | None. The backup pump was activated when needed. | |
| The float switch on the main pump is stuck or defective | Free the float switch on the main pump or replace it | |
| The main AC pump is broken | Replace the main AC pump | |
| The main AC pump could not keep up with the inflow of water | None. The backup pump was activated as needed. If this is a recurring problem, install a higher-capacity main pump. | |
| The check valve(s) is/are stuck or installed improperly | Replace the check valve(s) or correct the installation | |
| Discharge pipe is clogged or frozen | Clean out the blockage, thaw or replace the discharge pipe | |
| There is a slight chance of false activation if the float switch cord is wrapped around the AC power cord | Move the float switch cord away from the AC power cord | |
| **Potential Cause** | **WATER WILL NOT LEAVE THE PIT** | **Solution** |
| No check valve | If connecting backup to the primary discharge pipe, make sure there is a check valve on both the main and backup pipes below the tie-in point | |
| Check valve is broken or installed improperly | Make sure check valve(s) is/are functioning and installed properly | |
| Discharge pipe is clogged or frozen | Clean out the blockage, thaw or replace the discharge pipe | |
| The float switch is not connected to the controller | Check connection of the float switch to the controller | |
| There is an air lock in the system | Make sure the 3/16" weep hole is drilled in the discharge pipe below the check valve, but above the water line. Make sure it is clear of debris. | |
| **Potential Cause** | **SYSTEM DOES NOT OPERATE AFTER INSTALLATION** | **Solution** |
| The battery cables are connected backwards | Reverse the battery connections | |

## LIMITED WARRANTY

By opening this package and using this GLENTRONICS, INC. product, you are agreeing to be bound by the terms of the GLENTRONICS, INC. limited warranty ("warranty") as set out below. Do not use your product until you have read the terms of the warranty. If you do not agree to the terms of the warranty, do not use the product and return it within the return period stated on your purchase receipt from the retail store or authorized distributor where you purchased it for a refund.

To the extent permitted by law, this warranty and the remedies set forth are exclusive and in lieu of all other warranties, remedies and conditions, whether oral, written, statutory, express or implied. GLENTRONICS, INC. disclaims all statutory and implied warranties, including without limitation, warranties of merchantability and fitness for a particular purpose and warranties against hidden or latent defects, to the extent permitted by law. GLENTRONICS, INC. will not be liable for any incidental, special or consequential damages for breach of any express or implied warranties on this product. In so far as such warranties cannot be disclaimed, GLENTRONICS, INC. limits the duration and remedies of such warranties to the duration of this express warranty and, AT GLENTRONICS, INC.'s option, the repair or replacement services described below. Some states (countries and provinces) do not allow limitations on how long an implied warranty (or condition) may last, so the limitation described above may not apply to you.

Any and all causes of action arising from, filed as a result of or in reference to, this warranty or the products described under this warranty shall be governed by and construed under the laws of the State of Illinois. Any cause of action arising from, filed as a result of or in reference to, this warranty or the products described under this warranty shall be filed only in the Circuit Court of the 18th Judicial District, Lake County, Waukegan, Illinois, or in the Northern District of Illinois if filed in Federal Court. The maximum liability for any product described in this warranty shall be the cost of product replacement only.

If any term is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

**What is Covered by this Warranty?**
GLENTRONICS, INC. warrants to the end purchaser that its pumps, switch and control unit products are free from defective materials and workmanship for the periods indicated below:

All parts and labor (excluding installation) for a period of:

- 2 years from the date of purchase, when used intermittently as a backup sump pump
  - Purchasing a Basement Watchdog maintenance free battery (BW-27AGM) at the same time as your backup pump to receive an additional year to the existing 2-year BWE pump warranty.
  - Register your BWE pump online, to receive one extra year added to your product's warranty.
  - By purchasing a Watchdog battery at the same time as your pump AND registering your pump online, you will receive a total of 4 years warranty on your BWE pump.
  - Keep your purchase receipt for registration, the added warranty, and warranty repairs of your BWE and BW-27AGM products.

The defective product must be returned directly to the factory, postage prepaid with the original bill of sale or receipt to the address listed below. GLENTRONICS, INC., at its option, will either repair or replace the product and return it postage prepaid.

**What is NOT Covered by this Warranty?**
This warranty does not cover the cost or value of damaged property, including expressly any property that has been affected by water overflow, seepage or flooding. If GLENTRONICS, INC. determines that a product is deemed defective under this warranty agreement, it will repair or replace the PRODUCT ONLY. GLENTRONICS, INC. will not cover the cost to reinstall the product, nor will GLENTRONICS, INC. pay the cost of having a plumber or contractor repair or replace the product.

GLENTRONICS, INC. will not repair or replace a product that was installed incorrectly. A product shall be considered "installed incorrectly" when it deviates in any way from the instructions described in this manual.

This warranty does not cover product problems resulting from handling liquids hotter than 104 degrees Fahrenheit, handling inflammable liquids, solvents, strong chemicals or severe abrasive solutions; user abuse; misuse, neglect, improper maintenance, commercial or industrial use; improper connection or installation, damages caused by lightning strikes; excessive surges in AC line voltage; water damage to the controller; other acts of nature, or failure to operate in accordance with the enclosed written instructions.

**How to Obtain Warranty Service**
Within thirty (30) days of the product's defective performance, the unit must be shipped, freight prepaid, or delivered to GLENTRONICS, INC. to provide the services described hereunder in either its original carton and inserts, or a similar package affording an equal degree of protection. Products not received by GLENTRONICS, INC. at the address indicated below within thirty (30) days of the product's defective performance will not be considered for warranty service. Products received after two (2) years from the date of purchase, fall outside of the timeframe for warranty service and will not be eligible for warranty service. The product must be returned to GLENTRONICS, INC. for inspection in order to be considered for warranty service. If the product is not returned to GLENTRONICS, INC. or the product is inspected by any person, plumber, contractor or business other than GLENTRONICS, INC., this warranty shall no longer be valid. Prior to defective operation, the unit must not have been previously altered, repaired or serviced by anyone other than GLENTRONICS, INC., or its agent; the serial number on the unit must not have been altered or removed; the unit must not have been subject to accident, misuse, abuse or operated contrary to the instructions contained in the accompanying manual. The dealer's dated bill of sale, or installer's invoice must be retained as evidence of the date of purchase and to establish warranty eligibility.

**Where are Products Sent for Warranty Service?**
Glentronics, Inc., 645 Heathrow Drive, Lincolnshire, IL 60069

**How Can I Obtain More Information?**
By calling 800-991-0466

# Additional Products to Protect Your Home

## BASEMENT WASH-DOG

**Sump System Cleaner**
**WDT20**

**FEATURES AND BENEFITS:**

- Removes iron ochre–the red slime buildup–and other contaminants from your sump system and pit
- Keeps your sump pump and pit healthy
- Great solution for required periodic sump system maintenance and cleaning
- Easy to use
- Made from a naturally occurring compound and 100% biodegradable

## WATER ALARMS

**BW-WA360**

**BWD-HWA**

**FEATURES AND BENEFITS:**

- Detects leaks before costly water damage is caused and mold grows
- Can be placed directly on floors or mounted for installation in a variety of locations
- Senses as little as $^{1}/_{32}$" of water
- Piercing 110 dB alarm can be heard throughout the house
- Small price, big protection
- Patented design allows it to detect water on any side (BW-WA360)
- Compact size (23/8" x 1" x 3¼") fits almost anywhere (BW-WA360)

## MAINTENANCE FREE BATTERY

**BW-27AGM**

**FEATURES AND BENEFITS:**

- No need to add battery fluid or distilled water
- Runs our backup sump pump systems intermittently for days
- Lasts longer in standby operation
- Performs better and runs longer than automative or deep-cycle batteries
- Designed to be discharged and recharged for use with battery backup sump pump systems

## CHECK VALVE

**BW-CVK15**

**FEATURES AND BENEFITS:**

- Muffles sound normally made when a sump pump shuts off
- Designed for a quick, easy install
- More rigid, wobble-free installation
- PVC to PVC slip connection takes pressure off the couplings for longer life

## PRIMARY PUMPS

**FEATURES AND BENEFITS:**

- Sturdy, reliable pumps inside and out
- Hiqh-quality materials and innovative design
- Professional-grade dual float, vertical or tether switches included
- Permanent split capacitor motor increases energy efficiency
- Upper and lower ball bearings for quiet operation, extending the life of the motor

Scan the QR code for more information about the Basement Watchdog Primary Sump Pumps

THE BASEMENT WATCHDOG®

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