

# Installation Instructions for Basepump Models: RB750, HB1000, CB1500

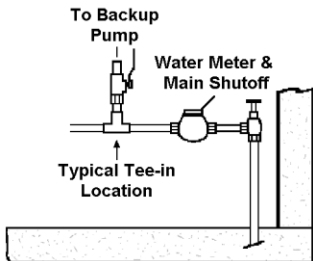
Read all instructions before installation.

**Complete this page before attempting installation!**

**\*\*Keep instructions near unit for future reference. \*\***



## Water Supply Checklist



### Pre-Installation 4 Point Checklist

**BEFORE** installing, use this checklist to verify each item below. Record each item in the space provided. Improper installation will result in reduced pumping capacity or pump **may not operate** at all.

#### 1. Household Water Pressure:

- Minimum Pressure: 40 lbs. PSI    Maximum Pressure: 90 lbs. PSI
- Compensate for normal pressure loss from test point to pump location.
- Tee in before Pressure Regulator Valve (PRV) when possible unless incoming municipal water pressure exceeds 90 Lbs. PSI.

1
Minimum Pressure 40 Lbs. PSI Actual: ___ PSI

#### 2. Household Water Flow:

- This test is performed at an outdoor spigot without the hose connected. You must be able to fill 5 gallons into a bucket in 40 seconds or less (RB750) 30 seconds or less (HB1000) 20 seconds or less (CB1500) , using a standard hose spigot. Multiply fill time x .75 if you have a frost-proof spigot.

2
Minimum Water Flow Rate: 5 Gal. in ___ Sec.

#### 3. Type of Piping:

- Use 3/4" Copper, CPVC, or PEX. **Do not** connect to or use galvanized iron pipe.
- If necessary, 1/2" may be used for RB750 only, using a 3/4" x 1/2" reducer.
- If using PEX, avoid insert fittings as they restrict flow. Use 3/4" minimum size.

3
Required Pipe Size: 3/4" Actual: _____

#### 4. Pipeline Restrictions:

- Pump should be tee-in before these devices that restrict water flow: stop & waste valves, globe-type valves, and some Pressure Regulator Valves (PRV).
- Basepump **MUST** tee in before water softeners, conditioners, and/or water filters.
- Water meter must be minimum 5/8" or 3/4" standard.

4
Any Piping Restrictions? Y    N

#### Average Pumping Rates:

RB750 pumps 750 GPH or approximately 1/3 the capacity of an electric sump pump at 2,000 GPH.

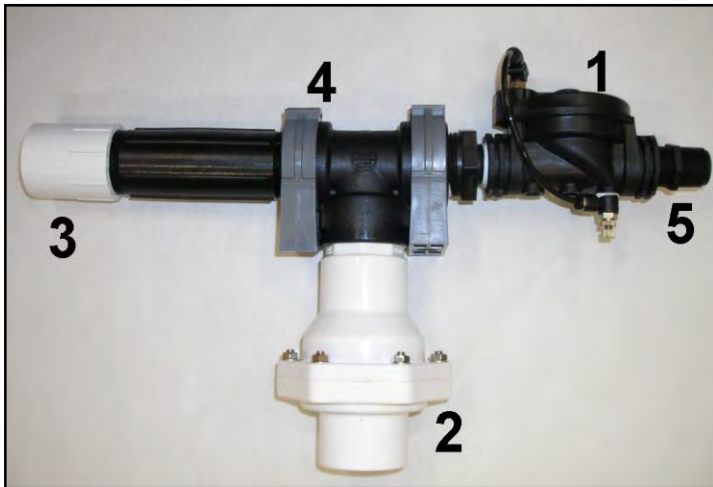
HB1000 pumps 1,000 GPH or approximately 1/2 the capacity of an electric sump pump at 2,000 GPH.

CB1500 pumps 1500 GPH or approximately 2/3 the capacity of an electric sump pump at 2,000 GPH.

### Return Policy

After reading these instructions, if you determine that this product is not suitable for your application, please call The Company or your dealer for return information. If the pump is installed and you choose to return it, call The Company for return approval. The Company is not responsible for any cost incurred with removal or pump repairs. Proper packaging of the returned product is the customer's responsibility and goods damaged in transit as a result of improper packaging will not be considered for credit.

**Basepump Ejector Kit**



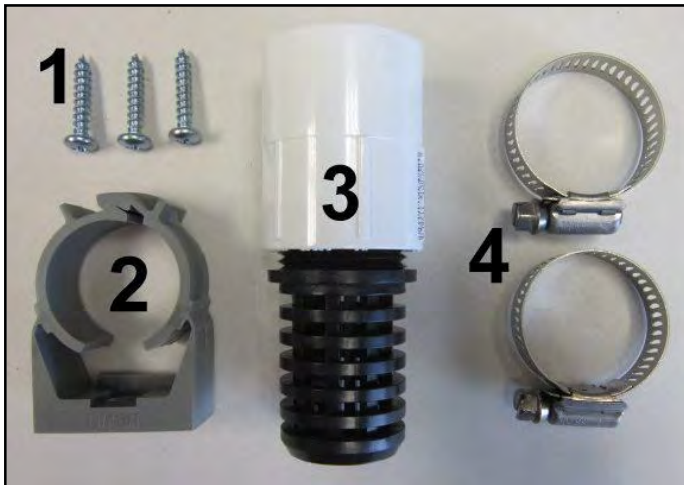
- 1. Ejector Main Control Valve
- 2. PVC Check Valve
- 3. PVC Exit Unit with Internal Diffuser Disk
- 4. (2) Clip-on Hangers
- 5. Polypro Male Adapter

**Float Kit**



- 1. Float Assembly
- 2. 15 Feet of Transfer Tubing
- 3. (4) Hook 'n Loop Straps

**Parts Kit**



- 1. (3) Wood Screws
- 2. Clip-on Hanger for Suction Pipe
- 3. Suction Screen with PVC Adapter
- 4. (2) Hose Clamps (1) for the alarm, (1) for the float

**3 Feet of Discharge Hose (not shown here)**

**Water Alarm Kit**



- 1. Alarm & Battery
- 2. Mounting Bracket & Screw
- 3. Cable Tie & Mounting Pad
- 4. Note: Sensor Float is inside battery compartment

Note: CB1500 includes a commercial water alarm that is different from this photo.

## General Specifications

READ all instructions BEFORE installing this pump. The average pumping capacity of this pump may vary depending on your municipal water supply, pressure, piping, head pressure, and any restrictions that may exist in your piping. These instructions are for installations in a broad range of applications. You may have a unique situation that requires greater expertise than we are able to give you in these instructions, or you may require the services of a professional plumber.

### Additional supplies needed

- Water supply pipe and fittings, (Copper, PEX, or CPVC) typically a "T", a couple 90° elbows, and enough pipe to connect your existing water supply to the inlet fitting of the pump.
- Full Flow "Ball" or "Gate" Valve; Union fitting; Female adapter to connect to threaded male fitting on pump.
- PVC primer/cleaner and cement (small cans) and pipe thread sealant or tape.
- 10 Foot Length PVC pipe: (more, if needed to fit your application; see pages 4-6).
- Suction and Discharge pipe sizes: RB750: 1" HB1000: 1-1/4" CB1500: 1-1/2"
- Water Supply Pipe Sizes: RB750: 1/2" or 3/4" HB1000: 3/4" CB1500: 3/4" or 1"

### Tools Needed

- Electric or cordless drill with screwdriver bits and hole saw attachment for drilling through house wall:  
RB750: 1 1/2" HB1000: 1 3/4" CB1500 2".
- Phillips and Slotted Screwdrivers; Utility Knife; Tape Measure; Short Level.
- Plumbing tools for water supply pipe as needed: torch, tubing cutter, solder, flux, pipe cleaning cloth, etc.

### Product Specifications

- Materials: Heavy-duty Schedule 80 Polypropylene, Stainless steel hardware, PVC Schedule 40 fittings
- Dimensions:
 

RB750:	Length: 14 1/2"	Width: 4"	Height: 10"	Weight: 1.5 lb.
HB1000:	Length: 15 1/2"	Width: 4"	Height: 10"	Weight: 2 lb.
CB1500:	Length: 15 1/2"	Width: 6"	Height: 10"	Weight: 3 lb.
- Water inlet fitting:
 

RB750:	1/2" or 3/4" Male threaded	Suction and Discharge Opening: 1" socket
HB1000:	3/4" Male threaded	Suction and Discharge Opening: 1-1/4" socket
CB1500:	1" or 3/4" Male threaded	Suction and Discharge Opening: 1-1/2" socket
- Water service requirements: Minimum pressure: 40 lb. PSI Maximum pressure: 90 lb. PSI
- Minimum City Water Flow Rate:
 

RB750: 7 GPM	HB1000: 10 GPM	CB1500: 15 GPM
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### Back-flow Prevention

Check with your local plumbing or water department for their requirements regarding back-flow prevention if you have any questions. Installation of an approved back-flow prevention device will cause little or no problem for this pump, but a reduction of pumping capacity may occur (usually less than 10%). However, some of these devices, such as RPZ backflow devices, are more restrictive than others, may affect published pumping rates at a greater rate, and also require annual inspections.

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

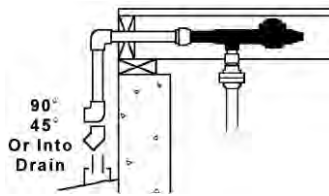
## Installation Notice

Basepump is designed to be discharged independently outdoors, separate from your primary sump pump discharge pipe. (See page 4 for details) However circumstances may make it necessary to connect the discharge indoors into the primary sump pump pipe. Here are some things to consider when connecting the discharges together indoors:

- Your primary sump pump discharge pipe MUST have a check valve installed. If this check valve fails, then the Basepump will send water back down into the sump and the basement will flood.
- If your primary sump pump discharge pipe becomes clogged or frozen, then the Basepump will also not be able to operate and the basement will flood.
- The Unified Plumbing Code (UPC) prohibits the discharge of a water powered pump into the primary discharge pipe.
- Drawings of several Outdoor (independent) and one Indoor (connected) Discharges are on the next page.

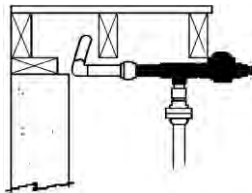
**Suction/Discharge Options**

**Standard Outdoor Discharge**



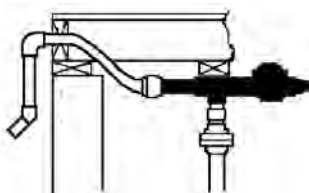
Basepump mounted on side of ceiling joist; Discharge to exterior.

**Perpendicular Outdoor Discharge**



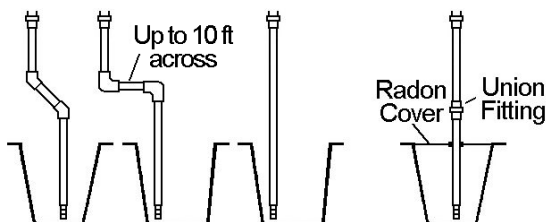
Basepump perpendicular to exterior wall with discharge turned at an angle

**Under Joist Outdoor Discharge**



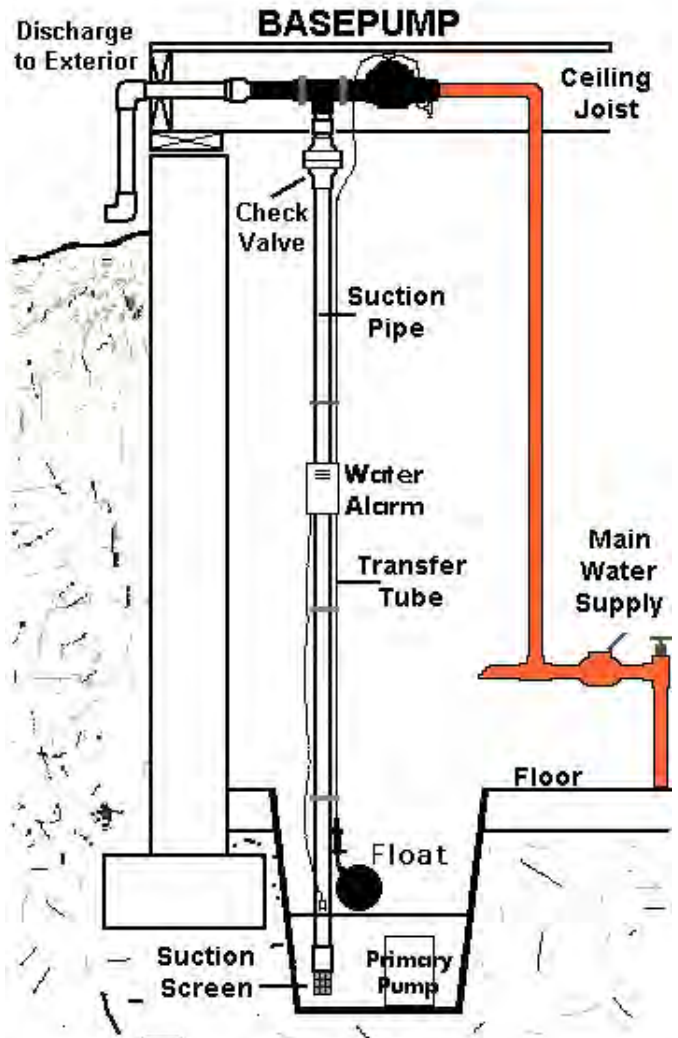
Basepump mounted under ceiling joist with Discharge hose sloping upward and out.

**Suction Pipe Options**

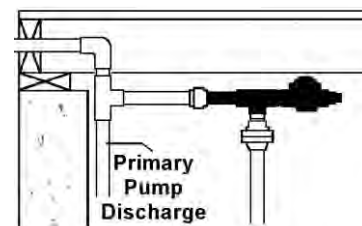


Pump does not need to be directly above the sump in case of an obstacle such as a heat duct, electrical panel, window, stairway, etc. Horizontal distance up to 10 Feet across.

**Basic Outdoor Installation**



**Indoor Discharge**



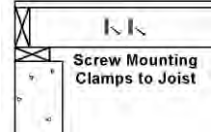
Shared discharge with Primary Pump. You must have a fully functional check valve below the tee and above the primary sump pump or you will flood the basement.

## Installation Instructions (Outdoor Discharge)

### Basepump Ejector Kit

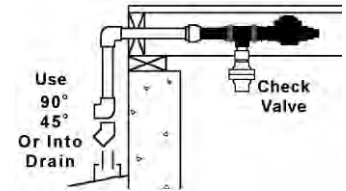
#### Step 1. Mount Ejector on Joist

- Mount the Ejector above the sump against the side or bottom of one of the ceiling joists (See page 4). For Outdoor Discharge, check the building exterior to make sure the discharge will clear any obstacles. Pump may be offset to clear obstacles (See page 4).
- The suction pipe can be fitted in various ways to accommodate this location. Attach the mounting clamps to the ceiling joist using 1" wood screws and snap the pump unit into the clamps.



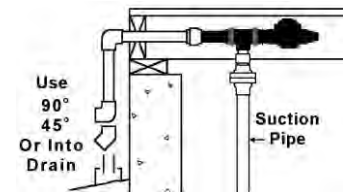
#### Step 2. Install Outdoor Discharge

- **\*\* (For Indoor Discharge: Refer to pages 3 & 4 for Installation Notice and details.) \*\***
- Drill a 1-1/2" hole through the building exterior wall for the discharge hose or PVC pipe. Vertical rises of more than 2 feet on the discharge will reduce pumping rates.
- Cement a 90° elbow (in most cases) onto the included discharge hose outside the building, as shown. See page 4 for various installation options.
- Cement a short length of PVC pipe into the bottom of the Elbow to direct the water down toward the ground. Use a 90° or 45° elbow to divert the flow away from the foundation, onto the ground, a splash block, or into a larger drain pipe. Remember, this is a back-up sump pump and will only run during a sump pump failure.



#### Step 3. Install Suction Pipe

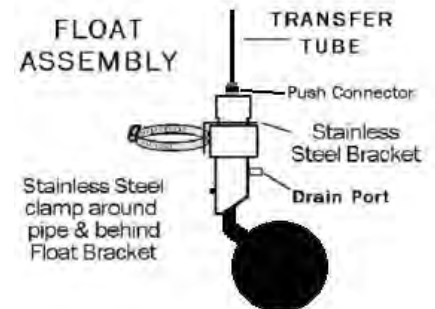
- Locate the suction pipe in the sump to clear the primary pump and all obstructions (See page 4). Cement the pipe into the PVC female fitting on the Suction Screen.
- Cut pipe to the proper length, cement the upper end into the Ejector check valve, making sure that the lower end of the Suction Screen is approx. 2-4 inches above the bottom of the sump. Either 45 or 90 degree elbows maybe used to offset the suction pipe, if necessary (See page 4). Suction pipe may be fastened to the side of the sump, if necessary, using the extra gray clamp included in the kit.



### Float Kit

#### Step 4. Install the Float

- Clamp the Float Assembly to the suction pipe so the float ball hangs just above the "normal high water level"; tighten clamp securely around the pipe.
- Make sure the Float Assembly clears your sump cover and that the float ball moves freely; you may rotate or adjust the angle of the float ball to clear any obstruction. You may need to cut the cover to help it clear.



#### Step 5. Connect Transfer Tube

- Push one end of the thin Transfer Tube into the open branch of the small Tee on top of the Ejector until it passes through an O-ring and bottoms out. Hang the tube down along the suction pipe to the Float Assembly. No need to cut off excess; it may be coiled up loosely (don't kink it) and tied off at the top near the pump or at the bottom near the float. (If you do cut off the excess, leave about 12 Inches of slack for future adjustments.)
- Push lower end of the tube into the push connector at the top of the float assembly.
- Use included Hook 'n Loop straps to attach the tubing to the suction pipe. Do not pinch or kink the tubing.
- To remove tubing from a fitting: PUSH in plastic ring while you PULL out the tubing.

### Water Supply

#### Step 6. Connect Water Supply

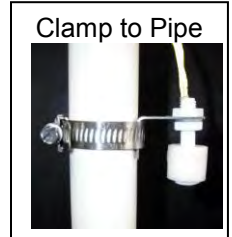
- See recommended pipe and sizes at the bottom of page 2. Use approved plumbing procedures and materials to connect the water supply from your home water source to the pump.
- **NOTE:** Flush the water pipe before final connection to the pump to remove any debris that may be inside the pipe before it clogs or damages the Ejector.



## Water Alarm Kit

### Step 7. Install Water Alarm (see specifications with alarm) (RB and HB sizes only; CB alarm is different)

- **Install the battery:** Remove battery compartment cover on the back of the alarm. Pull out float and wire stored inside. Snap a 9-volt battery onto the battery connector, place the battery inside compartment, line up float wire into slot at bottom of alarm, and replace cover.
- **Mount the Alarm:** Stick plastic cable tie mount to upper back of alarm; wrap releasable cable tie through the mount and around the suction pipe ~4 feet above floor, or to a wall using screws.
- **Position the sensor float:** Clamp bracket to the pipe (shown here) or screw to the sump wall. Typical height would be just above the normal high water level in the sump, so it alarms at the same time as the backup pump turns on.
- **Replace the battery** when the alarm has operated for an extended period of time. Alarm will “chirp” when the battery needs to be replaced. A new battery should last a year, on standby.
- **Relay Outputs:** These are no volt, *Normally Open*, “dry” contacts that close when the alarm sounds and open when it stops. These may be connected to a security system or auto-dialer.
- **Operation:** When the float is up the alarm sounds and the relays close. Alarm must be manually reset by pressing the “Test/Reset” button located on the side of the alarm.



## Start Up Procedure

Open the water shut-off valve and check for leaks. **Note:** Pump may turn on at this time so be sure the discharge piping is completed. Lift the float ball for 10 seconds to release air trapped in the Ejector and Transfer Tube. Air and water will release from the drain port on the float unit just above the float ball. The first cycle may take longer than normal to shut off. Factory setting is approximately **30 seconds after the float ball drops** to its lowest position. Pump should stop after 30-60 seconds. Lift the float a second time after the first run is over. If pump continues running too long or shuts off too quickly, see “**Adjusting the Timing Control**” section on page 8.

## Operating Instructions

Pump operates automatically. To operate manually, lift the float ball in the sump to its upper position for a few seconds till the water starts running and then lower it, simulating a normal rise and fall of the water and allowing the pump to operate through a complete cycle. This flushes the water pipes and confirms that the pump is functioning properly.

## Periodic Testing Procedures

It is necessary to test this pump at least once every 3-4 months to ensure proper basement flood protection and to protect your warranty. Follow the procedures noted here, write down each of your test dates, and keep it with these instructions in a convenient location on or near the pump.

### **Confirm that:**

- Float ball moves freely up and down in sump.
- When float ball is lifted, water flows from the port just above the float ball and the water stops flowing from this port when you lower the float ball.
- The pump runs and removes water for approximately 30-40 seconds AFTER the float ball drops to its lowest position.
- Pump then turns itself off. This is the factory setting, but it may have been adjusted to run longer or shorter depending on sump water inflow rates. If needed, see “**Adjusting the Timing Control**” on page 8.

## Troubleshooting

### **Unit does not pump at all:**

- Make sure water supply valves to the pump and to the whole house are open completely.
- Confirm that there is adequate water flow: Perform the 5-gallon bucket test. (See page 1 #2. Household Water Flow)

### **Unit does not pump adequately:**

- **Low water pressure:** Municipal water pressure must be 40 lb. PSI minimum at pump location.
- **Low water flow:** Minimum water supply piping must be ½" and 7 gallons per minute (See page 1, #2).
- **Restrictions:** Piping kinks or restrictions such as water conditioners, filters, globe valves, etc. will prevent Basepump from operating.
- **Suction screen** must be clear of debris or obstruction and suction pipe must be free of any leaks.

### **Pump does not shut off:**

- Timing Knob maybe closed. See "**Adjusting the Timing Control**" section on page 8.
- Timing Control maybe clogged. Remove tubing with procedure below:
- Remove the short piece of tubing from side outlet of timing Knob (with one hand **PUSH** in retainer ring that holds the tubing in place and with the other hand **PULL** out tubing). Turn on water to the pump. If water comes out of the opening, it is clear. If not, open the knob (counterclockwise or left) till it does. If it stops turning (don't force it) and no water has come out, it is likely plugged. It can be removed from the Ejector using a small wrench counterclockwise on the base nut. Turn off the water, remove it, check it for debris, solder, etc. Verify that turning the knob moves the inner parts up and down freely. Replace timing control and refer to page 8. If necessary, call the factory for a replacement.

### **Pump does not turn on:**

- Timing Knob maybe opened too far. See "**Adjusting the Timing Control**" section on page 8.
- Make sure all water supply valves to the pump are fully open.
- Check for a clogged or frozen discharge pipe.
- Check for a pinched Transfer Tube. Water drains from Float Port above float ball when lifted; stops when it is down.
- If nothing's pinched and no water exits the Float Port when ball is lifted, turn off the water supply to the pump and remove the tubing from the top of the Float Assembly (**PUSH** in the plastic ring while you **PULL** out the tubing). Point the end of the tubing into the sump and turn the water on to the pump. If water shoots out of the tubing and the pump turns on, then it appears the float is the problem. Call the factory for support and/or replacement.
- If no water comes out, check the other end of the Transfer Tube at the small tee on top of the Main Valve the same way: turn off water, pull out tubing, turn on water, check for water coming out and pump turning on. If not, go to the other side of the tee on the short piece of tubing, same thing. If not, check the timing control connection, same thing. If none of this turns the pump on, call the factory for tech support.

### **Pump Leaks:**

- Valve cover leaks or "spits" water upon shut-off: Securely and evenly tighten the 6 screws on top that hold the cover down. If this does not solve the problem, excessive water pressure may be the cause. Check the house water pressure to confirm and refer back to Page 1. If this still occurs, you will need to move your tee-in point to a location downstream from the PRV or call us for a "point of use" PRV.
- Thin transfer tubing leaks at any push fitting: Turn off water supply valve. Lift float ball to relieve pressure. With one hand **PUSH** in release ring on the fitting while with the other hand **PULL** out the tubing. (See pg. 8) Using scissors or sharp utility knife, snip off 1/2" of tubing to create a fresh, clean, square-cut end. Push newly cut end back into fitting until you feel it bottom out and turn the water supply valve back on. If it still leaks, contact the factory.

### **Pump makes noise:**

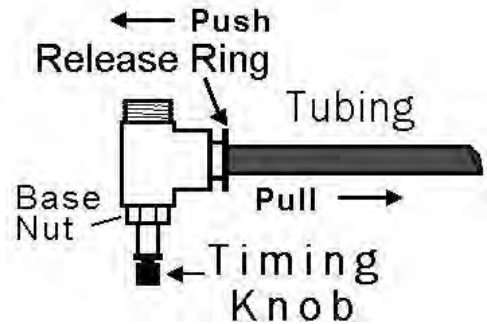
**Note:** This pump does not run silently; it is very powerful and some noises will occur normally during each phase of operation depending on water flow, pressure, piping, etc.

- Secure all piping and if needed, place insulating material between the pump, pipe, and joist to deaden any particularly noisy areas.
- If water hammer is experienced (banging in the pipes upon closure), this will not damage the pump. You may install a **water hammer arrester** in the water supply pipe before the ejector to reduce the noise and vibration.
- In some cases, the check valve on the base of the Ejector will thump or flutter as the valve shuts off and air exits the system. This is normal.

### Adjusting the Timing Control

(Factory set to run for approximately 30 seconds after float ball drops):

- Use sketch to guide you and the marking on the end of the knob as a guide. Control is located on bottom of Ejector and has the small tubing coming out of it connecting to the small "Tee" on the top of the Ejector.
- **Pump stops too soon:** ¼ Turn Timing Knob right (clockwise) to produce a 15 Second Longer Run Time. If you close it completely, pump will not shut off.
- **Pump runs too long:** ¼ Turn Timing Knob left (counter-clockwise) produces a 15 Second Shorter Run Time. If you open it too far, pump may run for too short a time to be effective.
- **If you lose your place and must start over:** Turn the Timing Knob all the way in to the right (clockwise) and then back to the left (counter-clockwise) 1 ¼ Turn. This is the factory setting.
- 30 - 45 seconds run time after the float drops is a good average "rule-of-thumb". Running it dry will not harm it, but it does use water unnecessarily when this happens.



**This backup sump pump is to be tested to ensure proper operation at least 3-4 times per year. Lift the float by hand and confirm pumping, runtime, and automatic shut-off. Record the date after each test.**

**Place these instructions back into the plastic bag they came in and keep them near the pump for future reference.**

### 30 Day Customer Satisfaction Guarantee

Within 30 days of purchase, if you are not completely satisfied with your new Water Powered Backup Sump Pump, it must be returned in its original packaging, unused, and in re-salable condition. The Company will then refund your money, in full, excluding shipping charges. If returned in 31-90 days after purchase, a 15% Restocking Charge will be applied. No returns accepted after 90 days. Please contact the dealer where you purchased your pump to obtain refund. If purchased directly from The Company, you must call our Customer Satisfaction Department at 800 554 1426 to process return or to receive Technical Assistance. Please give your name, address, phone number, date of purchase, and model number.

### Five Year Limited Warranty

Base Products Corporation (the "Company") warrants the Basepump (the "Product") against defects in material and workmanship for a period of Five Years from the date of the shipment. In the event of any defect within the warranty period, the Company will, at its option, replace or recondition the Product without charge providing the Product is returned, prepaid to our offices in Buffalo, New York. The replacement or reconditioning of the Product shall constitute the exclusive remedy for any alleged defect.

CUSTOMER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS LIMITED WARRANTY SHALL BE PRODUCT REPAIR OR REPLACEMENT AS PROVIDED HEREIN. CLAIMS BASED ON IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR, OR THE SHORTEST PERIOD ALLOWED BY LAW, BUT NOT LESS THAN ONE YEAR. THE LIABILITY OF THE COMPANY SHALL NOT IN ANY CASE EXCEED THE COST OF REPLACEMENT OF THE PRODUCT, AND IN NO CASE, SHALL THE COMPANY OR ANY OF ITS DISTRIBUTORS BE LIABLE FOR ANY INCIDENTAL, INDIRECT, CONTINGENT OR CONSEQUENTIAL LOSS OR DAMAGES SUCH AS PROPERTY DAMAGE OR EXPENSES RESULTING FROM THE FAILURE OF THE PRODUCT, DELAYS, LOSS OF USE, NEGLIGENCE, DAMAGE FROM PECULIAR WATER CONDITIONS, CHEMICALS OR FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE COMPANY'S NEGLIGENCE OR FAULT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, EXCEPT AS PROVIDED IN THIS LIMITED WARRANTY. THIS WARRANTY BECOMES VOID BY ANY MISAPPLICATION, MISUSE, ABUSE, OR IMPROPER INSTALLATION OF THE PRODUCT. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE. WARRANTY IS APPLICABLE IN THE USA AND CANADA, ONLY.

This warranty does not cover defects in the Product resulting from: (a) abuse or mishandling of the Product; (b) modification, alteration, repair or service of the Product by anyone other than Base Products Corporation; (c) improper or neglect in maintenance. This warranty does not cover any water damages caused by defects in the Product as such defect should have been identified during periodical testing. The owner's use of these Products confirms the understanding that these Products **do not constitute an insurance policy** and they are only loss mitigation products used to reduce the risk of water damage, however not eliminating such risk.

The above warranty may not be altered except in writing signed by both parties hereto.