

Hydropump Model DH900 Installation Instructions

Please read all the instructions before attempting to install this PUMP. The pumping capacity of this pump may vary depending on your piping configuration, battery age, and capacity. Remove all packaging and materials from shipping box. Both models install the same; the differences are in size and capacity only, as shown.

Specifications

| | |
|-----------------------|---|
| Pump Motor: | 12 Volt DC, 9 Amps |
| Battery Charger: | 1.0 AH @ 12 VDC, 0.4 Amp Load |
| Charger Service: | 120 VAC, 60 Hz, GFCI Outlet |
| Float Switch: | Tether type with mounting Clamps |
| Water Alarm: | Integrated, operated by float |
| Battery Requirements: | 12 Volt Marine Deep Cycle, Sealed Lead Acid, AGM, or Gel: Size 27 |
| Battery Not Included | (Ask for highest quality in Size 27, Best Warranty) |

Flow Rates: Gallons / Hour

| | | |
|-------------|-------|-----------------|
| 5 Foot Lift | 1,300 | 13ft. Max. Lift |
| 9 Foot Lift | 900 | |

Pumping Times:

30 Second Pumping Cycles

| | |
|------------------------|----------|
| At 1 Minute Intervals | 12 Hours |
| At 5 Minute Intervals | 48 Hours |
| At 15 Minute Intervals | 96 Hours |

Included Parts:

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|--|--|
| Motorized Submersible Pump | PVC Tee, Check valve, 1 Male Adapter, Elbow |
| Battery Case with Junction Box Attached | 3 Cable Ties, (1) 1-1/2" SS Hose Clamp |
| Plug-In Battery Charger | 4 Foot Discharge Hose with 2 Hose Clamps |
| Stainless Steel Mounting Bracket; 1 on pump; 1 loose | Tether Float & holder (clamped on pump) |
| Installation Instructions | (Optional Vertical Float with -VS Models only) |
| 2 Fuses (1 in yellow holder, 1 extra) 10 Amp Glass Tube Type | |
| 2 PVC 1-1/2" x 1-1/4" bushings | PVC Barbed adapter (1) |

Additional Parts needed:

| | |
|------------------------------------|--------------------------------|
| 12 Volt Marine Battery (See Above) | Check Valve for Main Sump Pump |
|------------------------------------|--------------------------------|

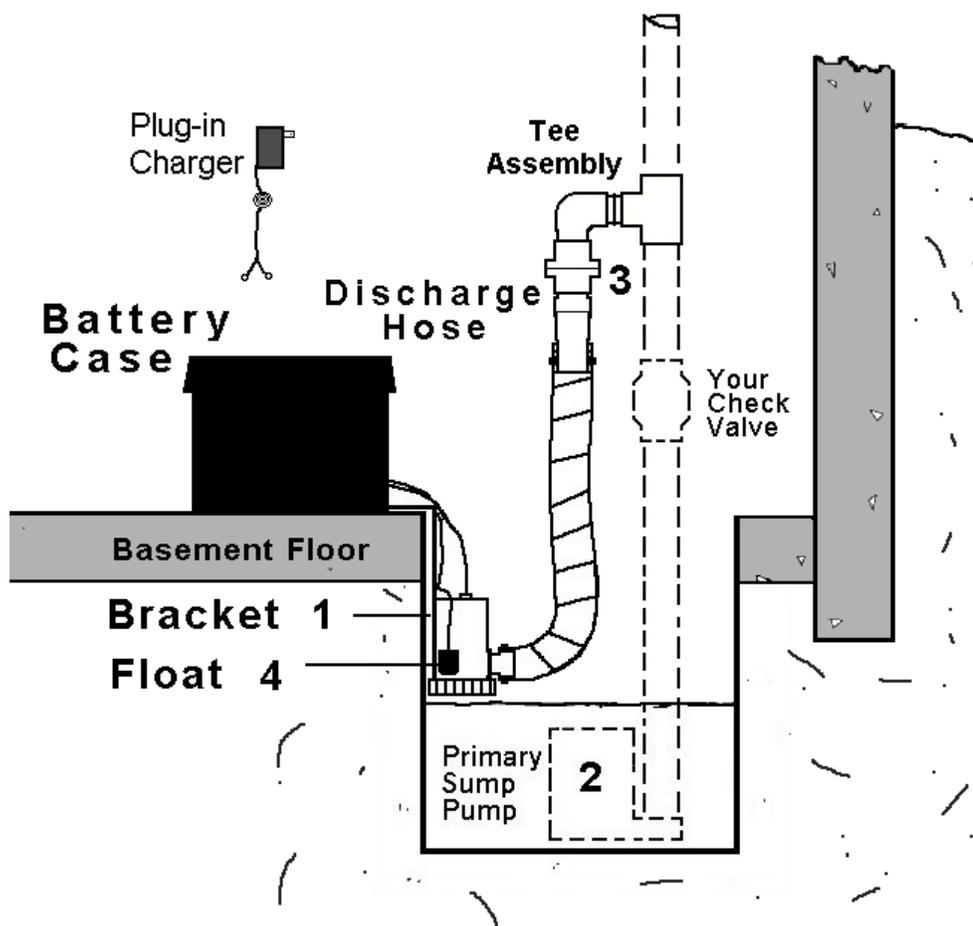
| | | | |
|--|---|---|---|
| ⚠ WARNING | ELECTRICAL SHOCK HAZARD | ⚠ WARNING | EXPLOSION OR FIRE HAZARD |
|  | Disconnect power before installing or servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes. |  | Do not use this product with flammable liquids. Do not install in hazardous locations as defined by National Electrical Code, ANSI/NFPA 70. |
| Failure to follow these precautions could result in serious injury or death. Replace product immediately if switch cable becomes damaged or severed. Keep these instructions with warranty after installation. This product must be installed in accordance with National Electric Code, ANSI/NFPA 70 so as to prevent moisture from entering or accumulating within boxes, conduit bodies, fittings, float housing, or cable. | | | |

30 Day Customer Satisfaction Guarantee and Two Year Limited Warranty

Within 30 days of purchase, if you are not completely satisfied with your new PUMP, we will refund your money, in full, excluding shipping charges. Pump must be returned unused and in re-salable condition. Please contact the dealer where you purchased your pump to obtain refund. If purchased directly from Base Products Corporation (The Company), you must call us at 800 554 1426 to receive authorization to process return or to receive Technical Assistance. Please give your name, address, phone number, date of purchase, and address of the installation. The Company warrants this Battery Powered Backup Sump Pump against defects in material and workmanship for a period of TWO YEARS from the date of purchase. In the event of any defect in the pump unit 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 office in Buffalo, New York. This shall constitute the exclusive remedy for any alleged defect. The Company shall not be responsible for any incidental, indirect, contingent, or consequential damages, including, without limitation, damages or other costs resulting from labor charges, delays, loss of use, revenue or profit, vandalism, negligence, fouling caused by foreign material, damage from peculiar water conditions, chemicals, electrical problems, or other circumstances over which The Company has no control. 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 applicable in the USA and Canada, only.

Step by Step Installation

Refer to installation drawing throughout installation.



Pump comes with a vent hole at discharge outlet to prevent an air lock.

Step #1 Mount PUMP to bracket:

Measure the distance from the basement floor down to the high water level in the sump (the water level at the moment the main pump starts). Select the proper holes on the long, "L" shaped floor bracket to match them to the screws on the pump bracket, and connect by removing and re-using the lock washers and hex nuts that are on the screws; tighten securely. This should set the pump to hang just above the water.

Note: PUMP may also be positioned to be partly below the surface as the water reaches its highest normal level, which may be necessary in shallow sumps or when the drain pipes under the floor enter at a low level.

Push one end of the flexible discharge hose onto barbed outlet fitting on base of pump and secure with stainless steel hose clamp. Place floor bracket on floor with pump hanging into the sump as shown above and put battery box on mounting bracket. Put pump and battery case into their final position on the floor and then put the battery into the case.

Do not connect any wires yet.

Tip: *Twisting the hose in a clockwise (right hand) direction while inserting OR removing makes each process easier. Liquid Dish soap on the fitting will help in the assembly process.*

Step #2 Disconnect primary pump:

Unplug primary pump and drain water from discharge pipe. A high quality, fully functioning check valve **MUST** be present above the main pump and below the PUMP discharge Tee connection, as shown above. Without it, PUMP will send water back down through your main sump pump and possibly flood your basement.

Tip: *A flexible coupling type or PVC compression type check valve is recommended to allow you to service the main pump in the future without disconnecting backup PUMP.*

Step # 3 Install Discharge:• **Typical Indoor Discharge:**

Tee Assembly: Use the discharge hose as a guide to determine the position for the finished Tee assembly to be inserted into the main pump discharge pipe.

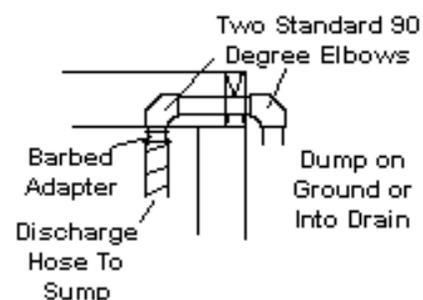
Mark the position on the main discharge pipe so the PUMP discharge hose will run upward and into the main sump pump discharge pipe without any tight bends or kinks, as in the drawing on Page 2. Cut PVC primary pump discharge pipe at the location you marked, using a hand saw or PVC cutter. Remove a 2" section of the pipe for insertion of the Tee fitting. Use the two reducer bushings only if needed, otherwise set them aside. Make sure fittings are in correct position, then remove and add cement to one pipe end only and insert fully, making sure it is in the correct position. Then add cement to the other pipe end, and insert fully. **Tip:** A pencil mark on the edge of the tee where it meets the pipe helps assure proper alignment and depth of insertion.

NOTE: Connection between the tee and the elbow is threaded and can be turned, in case your installation is not into a vertical pipe. The arrow on the check valve is direction of water flow.

Tip: *Hose may be cut to fit, using sharp utility knife or hacksaw.* A few drops of dish soap make the hose easier to connect on all the fittings.

• **Direct Discharge to Exterior:**

Pump may also be installed using its own separate discharge to the exterior, if desired. This may be necessary when excessive main discharge piping is present or you simply want it to be independent. Use the discharge hose included with the PUMP and add additional hose or pipe as necessary. Refer to the example on the right as a guide to run a separate discharge.

Direct Discharge to Exterior

Step # 4 Float Switch: 2 mounting choices are available:

• **Pump Mounting:**

The float is factory mounted to the pump at the correct length. Do not attempt to make the cord longer, but you may shorten it, if necessary. The float may be adjusted to operate in any direction.

Important Note: The float switch must be positioned to turn off the pump before the water level reaches the bottom of the pump suction opening to ensure that the pump will not run dry.

• **Discharge Pipe Mounting (shown to the right):**

To do this, you replace the large clamp on the tether float holder with the smaller hose clamp included. Attach clamp to the primary pump discharge pipe and set in the proper position above the primary pump. Insert the cord into the clamp and adjust the length of the cord. When correct position with proper swing is set, tighten clamp securely around cord.

**1. Start Up:**

Connect **Red (+) Positive** wires from charger and junction box on the side of the battery box securely to positive (+) battery terminal. Connect **Black (-) Negative** wires from charger and junction box securely to negative (-) battery terminal (use wing nuts on battery terminals for this). After battery is connected, plug charger into a GFCI protected wall outlet.

Note: If connecting a second battery using our "Dual Battery Case", all the **Red Wires** go to the **Positive (+) Battery Terminals** and all the **Black Wires** go to the **Negative (-) Battery Terminals**. Connect the proper-colored wire to each terminal of the first battery and "jump" to the matching terminals of the second battery using the wires that come with the Dual Battery Case. This keeps the batteries in "parallel" and allows the charger to maintain both batteries. Be sure to keep the cable ends from touching each other while connected to the battery, or they will short circuit and cause harm to the system or even cause injury.

Important: Fill sump with water from a hose if needed to test for proper installation. You may simulate the rising water by lifting the float by hand, but never run either pump dry. Confirm that the location and position of the PUMP and float are correct and float moves freely. Raise float to reach the desired "high level" so pumping begins before water reaches the top of the sump (Best if also below the inflow pipes). Confirm that the float shuts the pump off when returned to the "low level" while water surface still covers the PUMP intake. **Do not** allow it to pull air or it will damage the pump. Repair any leaks now during this process. A hole is purposely drilled near pump outlet to prevent airlock.

Battery charging: Refer to charger instructions for more information about operation and the light indicators.

******* Don't forget to plug the primary pump back in when you are finished!! *******

2. Water Alarm:

This alarm is activated at the same time that PUMP activates, to let you know there is a high water situation. It will sound each time PUMP runs and will turn off at the end of each cycle. Remember, not all sump pump failures are the result of power failures; this alarm may be your only way of knowing something is going on with your sump pump. Inside the junction box on the side of the large battery case, there is a wiring connection that can be disconnected if **quieter operation** is desired. Remove the four screws from the small junction box cover, pry it open, and remove the thin, alarm wire from terminal block to silence alarm.

3. Maintenance Procedures:

Every 2-3 months, lift the PUMP float by hand and confirm pump operation and water removal. Confirm that the float is allowed to move freely and hits no obstacles. Check battery age and charger status lights. This charger is automatic; no adjustments or maintenance are required. Follow battery manufacturer's recommendations and procedures for maintenance of each battery. Do not mix different types of batteries when using two of them. It is best to make a note of the date each time you test the pump and check the battery.

4. Troubleshooting:

Pump is running but little or no water is being removed from pit.

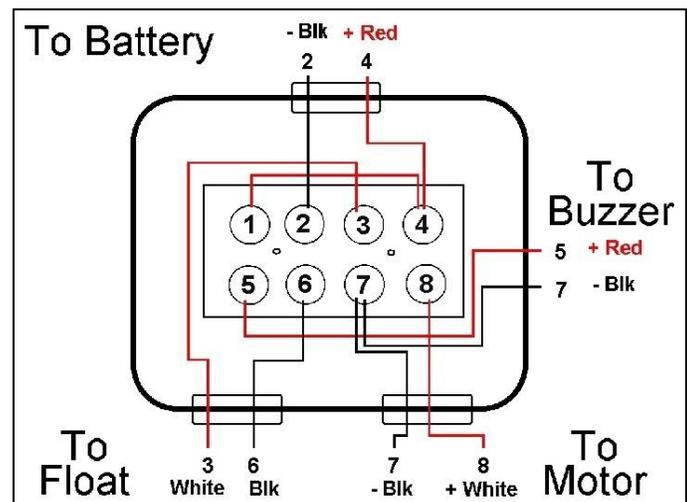
- **Jammed impeller:** Make sure impeller is spinning freely & not blocked by debris.
- **Clogged discharge:** clear obstruction and restart.
- Pump may be **air-locked**. Clear vent hole on side of pump next to discharge exit near base of pump.
- **Excessive discharge** length or configuration can produce a pressure drop; accept the lower flow or change the layout, direction, length, etc.
- **Battery may need charging** or replacing. A new battery often needs 24 - 36 hours of charging. If it is more than 3 years old, it may need replacing.

Pump will not turn on or off properly.

- Float must be **down for off** and **up for on** and operates within a 90 degree swing cycle at 45° and 135°. Adjust float to test pump and adjust position and length of swing to assure proper operation within pumping range.
- **Battery terminals** may be connected improperly: correct and tighten securely. Red to Positive; Black to Negative.

Pump won't run at all.

- **Check battery connections** and all wires to be sure all are secure. Check battery condition.
- **Check glass-tube fuse inside yellow fuse holder.** Replace if necessary, with appropriate matching fuse. 900 GPH Pump uses 10 Amp fuse and 1800 GPH Pump uses 20 Amp fuse.



Return Policy

Before installation, if you determine that this product is not suitable for your application, call The Company or your dealer for return information. **After installation**, if you choose to return it, call The Company for return approval; there may be parts that cannot be credited. The Company is not responsible for any cost incurred with installation, removal, or pump repairs. Proper packaging of the returned product is the customer's responsibility and goods damaged while in transit as a result of improper packaging will not be considered for credit. Unused product may be returned within 30 days for full refund; from 31 to 90 days after purchase a 15% restocking fee will be charged; no returns accepted after 90 days.