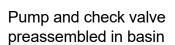


Zoeller<sup>®</sup> is a registered trademark of Zoeller Co. All Rights Reserved.

## **DRAIN PUMP**

MODEL #1104-0082

Español p. 19





Serial Number \_\_\_\_

Purchase Date \_\_\_\_

7000000

Æſ

Questions, problems, missing parts? Before returning to your retailer, call our customer service department at 1-800-584-8089, 7:30 a.m. - 5:00 p.m., EST, Monday - Friday.



## 

Please read and understand this entire manual before attempting to assemble, operate or install the product.

• **NOTE**: Pumps with the "UL" mark and pumps with the "US" mark are tested to UL Standard UL778. CSA certified pumps are certified to CSA Standard C22.2 No. 108. (CUS.)

# 

## • ELECTRICAL SHOCK HAZARD.

Always disconnect power source before performing any work on or near the motor or its connected load. If the power disconnect point is out-of-sight, lock it in the open position and tag it to prevent unexpected application of power. Failure to do so could result in fatal electrical shock.

## • ELECTRICAL SHOCK HAZARD.

Do not handle the pump with wet hands or when standing in water as fatal electrical shock could occur. Disconnect main power before handling unit for ANY REASON!

## • RISK OF ELECTRIC SHOCK.

These pumps have not been investigated for use in swimming pool areas.

# 

## ELECTRICAL SHOCK ALERT.

To reduce the risk of electric shock, install only a circuit protected by a ground-fault circuit-interrupter (GFCI). Make certain that the ground fault receptacle is within the reach of the pump's power supply cord. DO NOT USE AN EXTENSION CORD.

#### ELECTRICAL SHOCK ALERT.

Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

## • ELECTRICAL SHOCK ALERT.

Do not kink power cable and never allow the cable to come in contact with oil, grease, hot surfaces, chemicals or sharp objects. Replace damaged or worn wiring cord immediately.

#### ELECTRICAL SHOCK ALERT.

As a safety measure, each electrical outlet should be checked for ground using an Underwriters Laboratory Listed circuit analyzer which will indicate if the power, neutral and ground wires are correctly connected to your outlet. If they are not, contact a licensed electrician.

## ELECTRICAL SHOCK ALERT.

These pumps are supplied with a 3-prong grounded plug to help protect you against the possibility of electrical shock. DO NOT UNDER ANY CIRCUMSTANCES REMOVE THE GROUND PIN.

## • ELECTRICAL SHOCK ALERT.

Make sure the pump electrical supply circuit is equipped with fuses or circuit breakers of proper capacity. A separate branch circuit is recommended, sized according to the National Electrical Code for the current shown on the pump nameplate.

## CHEMICAL ALERT.

Prop65 Warning for California residents:

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

#### CAUTION

## • PRODUCT DAMAGE MAY RESULT

Make certain the power source conforms to the requirements of your equipment.

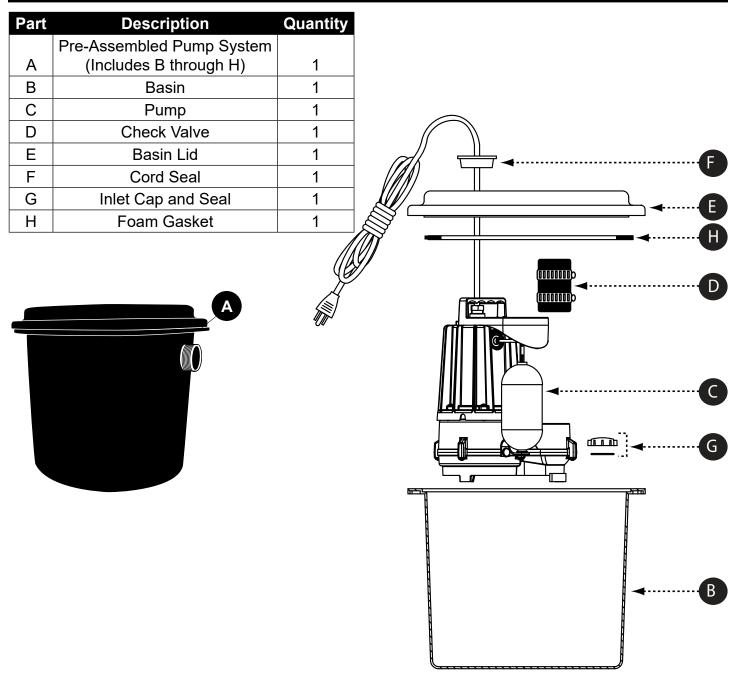
## • PRODUCT DAMAGE MAY RESULT

Maximum continuous operating water temperature for standard model pumps must not exceed 110°F (43°C).

## • PRODUCT DAMAGE MAY RESULT

Do not use an automatic plumbing vent device such as a "Pro-Vent." Some states require this product to be installed by a licensed plumber.

## PACKAGE CONTENTS



#### PREPARATION

Before beginning installation of product, make sure all parts are present. Compare parts with package contents list. If any part is missing or damaged, do not attempt to assemble the product.

Estimated Installation Time: 2 hours

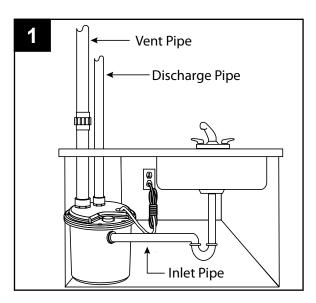
**Tools Required for Assembly (not included):** tape measure, pipe tape, hacksaw, flathead screwdriver, 2-step PVC glue system (primer and sealer).

**Parts Required For Standard Assembly (not included):** 2 in. slip by NPT coupling, 1-1/2 in. slip by NPT coupling, drain pipe, compression fitting for 1-1/4 in. drain pipe, PVC pipe and fittings as required to complete installation, additional check valve as required by codes.

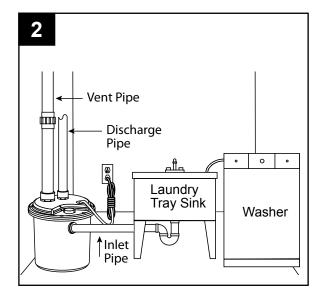
#### **GENERAL PUMP USES**

This pump system can be used in the following installations:

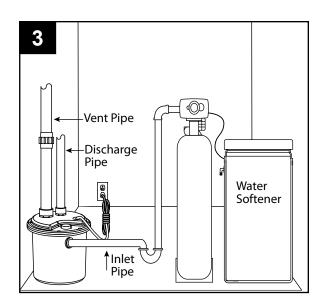
1. Wet bar sink pump



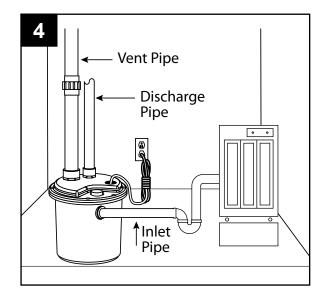
2. Laundry tray pump



3. Softener discharge pump

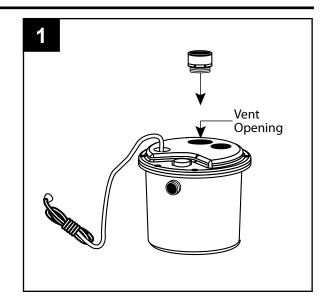


4. Dehumidifier pump



#### **INSTALLATION INSTRUCTIONS**

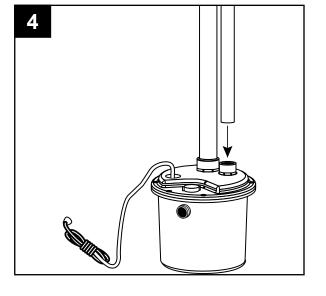
1. Thread 2 in. coupling (not included) into the vent opening on the top of the pre-assembled pump system.

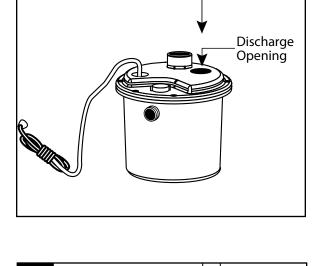


2. Thread 1-1/2 in. coupling (not included) into the discharge opening at the top of the pre-assembled pump system.

3. Attach rigid 2 in. vent pipe (not included) to the vent pipe coupling according to local, regional, and state codes.

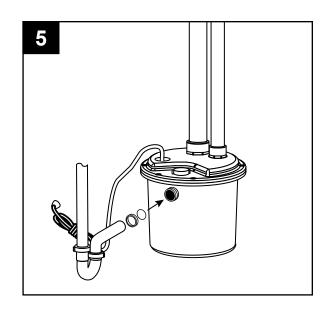
- 4. Attach rigid 1-1/2 in. discharge pipe (not included) to the discharge pipe coupling according to local, regional, and state codes. Plumb into existing drain pipe per local, regional, and state codes. Use check valve (not included) as required by codes.
- 3





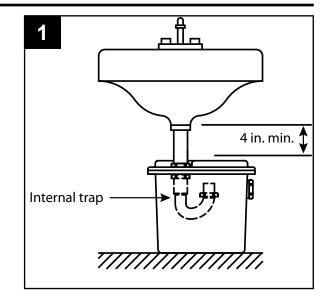
2

5. Thread compression fitting (not included) onto 1-1/4 in. drain pipe (not included). Insert drain pipe into the inlet opening on the side of the pre-assembled pump system and tighten fitting.

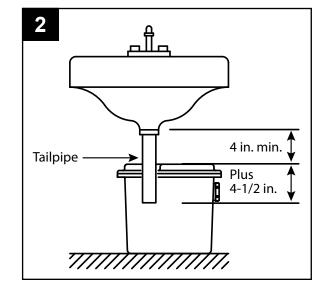


## INSTALLATION INSTRUCTIONS FOR SMALL SPACES

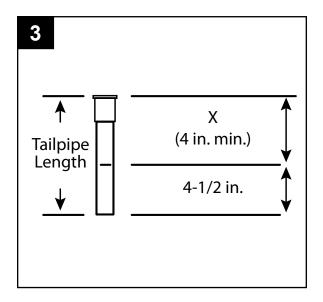
- 1. For areas where space does not allow for standard installation, pre-assembled pump system can be installed directly under a sink using an internal trap (not included).
- NOTE: Check local and state codes before using the internal trap option.



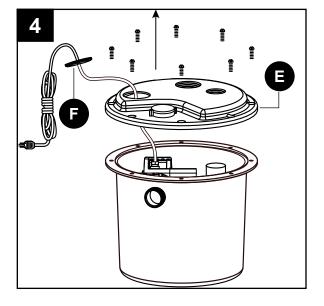
2. Place the pre-assembled pump system beneath the sink and measure the distance between the sink inlet and the basin lid. Minimum distance is 4 in. Add 4-1/2 in. to this dimension to determine total pipe length needed.



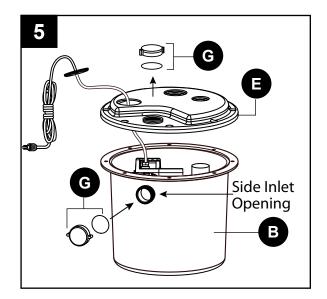
3. Cut a tailpipe (not included) to the total pipe length in step 2.



4. Unscrew 8 bolts from top of pre-assembled pump system and remove cord seal (F) and basin lid (E).



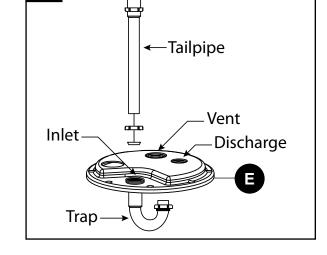
5. Remove black inlet cap and o-ring (G) from basin lid (E) and screw it onto the inlet opening on the side of the basin (B).



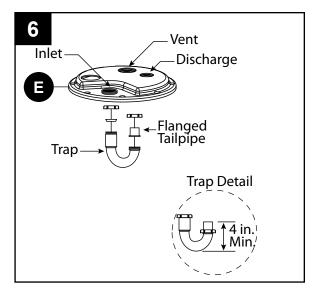
6. Attach trap components to the underside of the basin lid (E). Make sure the trap height is at least 4 inches to ensure a proper water seal.

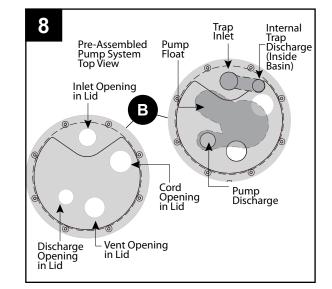
 Thread 1-1/4 in. compression fitting (not included) onto the tailpipe from step 3. Insert the tailpipe into the inlet opening on the basin lid (E).

8. Rotate the trap assembly so the trap inlet is closest to the pump float and the trap discharge is against the wall of the basin (B).

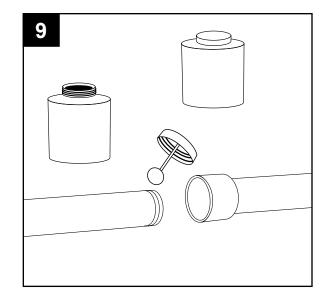


7

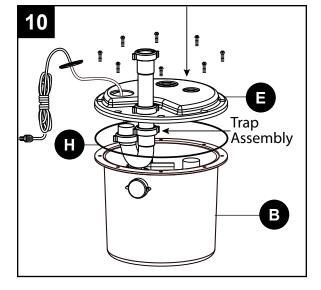




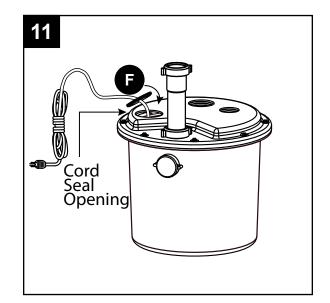
9. Apply pipe tape (not included) to all threaded connections, and a 2-step PVC glue system (not included) to non-threaded connections.



10. Place the basin lid (E)/trap assembly from step 7 on top of the basin (B), making sure the foam gasket (H) is firmly in place. Screw in the 8 bolts removed in step 3.



11. Pull excess power cord through the cord seal (F) opening and reinstall the cord seal (F). Make sure the o-ring is seated in the seal before reinstallation.

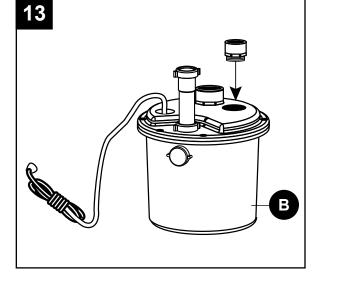


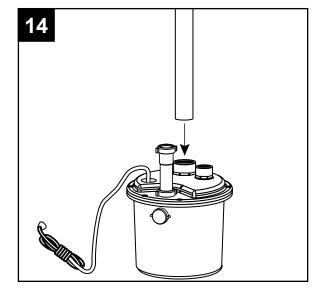
11

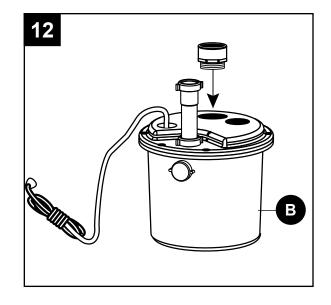
12. Thread 2 in. coupling (not included) into the vent opening on the top of the basin (B).

13. Thread 1-1/2 in. coupling (not included) into the discharge opening at the top of the basin (B).

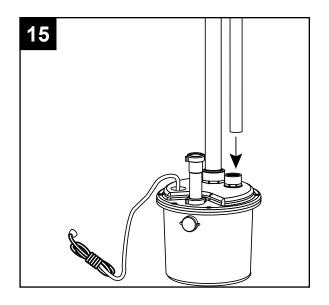
14. Attach rigid 2 in. vent pipe (not included) to the vent pipe coupling according to local, regional, and state codes.



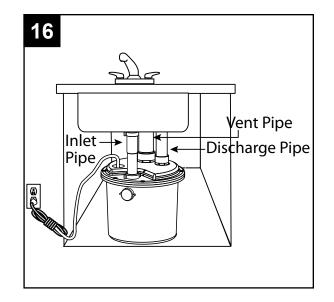




15. Attach rigid 1-1/2 in. discharge pipe (not included) to the discharge pipe coupling according to local, regional, and state codes. Plumb into existing drain pipe per local, regional, and state codes. Use additional check valve (not included) as required by codes.

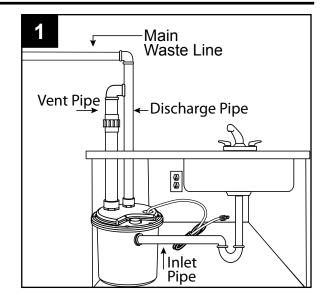


16. Connect inlet pipe (not included) to appliance according to local, regional, and state codes.

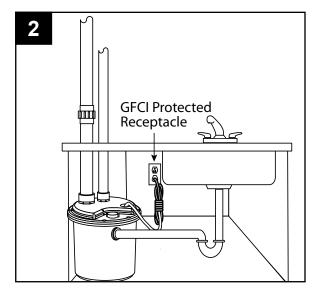


#### TESTING

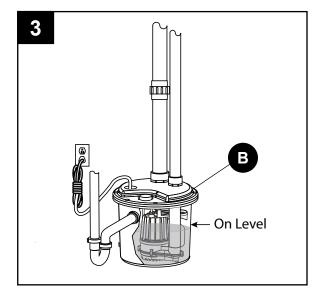
1. Connect remaining discharge pipe into main waste line to sewer or septic tank. Connect inlet piping as required for the installation and connect vent pipe according to local, regional, and state codes. Use additional check valve (not included) as required by codes.



2. Connect pump power supply cord to a receptacle protected by a ground fault circuit interrupter (GFCI).



3. Fill the basin (B) with water to check operation. The pump will start when the water level has reached the switch "on" level.



## TROUBLESHOOTING

| Problem                     | Possible Cause  | Corrective Action  |
|-----------------------------|---|--|
| Pump will not start or run. | 1. Blown fuse or tripped circuit breaker.               | <ol> <li>If blown, determine cause and then<br/>either replace with properly sized fuse<br/>or reset breaker.</li> </ol> |
|                             | 2. Low line voltage.                                    | 2. Contact an electrician.   |
|                             | 3. Overload is open.                                    | 3. Allow motor to cool, and overload to reset.   |
|                             | 4. Motor is defective.                                  | 4. Replace pump.   |
|                             | 5. Switch is defective.                                 | 5. Replace switch.   |
|                             | 6. Wiring is incorrect.                                 | 6. Plug pump into a working 115V receptacle.   |
|                             | 7. Switch is obstructed.                                | 7. Remove obstruction to ensure free motion of switch.   |
|                             | 8. Impeller is obstructed.                              | 8. Remove screen and volute. Clean impeller or replace impeller.   |
| Motor overheats and trips   | 1. Incorrect voltage.                                   | 1. Make sure pump is connected to 115V electrical service.   |
| overload or blows fuses.    | 2. Impeller is obstructed.                              | 2. Remove screen and volute. Clean impeller or replace impeller.   |
|                             | 3. Motor is defective.                                  | 3. Replace pump.   |
| Pump starts and             | 1. Check valve is missing.                              | 1. Install check valve.  |
| stops too often.            | 2. Switch is defective.                                 | 2. Replace switch.   |
|                             | 3. Check valve not functioning properly or leaking.     | <ol> <li>Be sure check valve is installed and<br/>operating properly. Replace check<br/>valve if necessary.</li> </ol>   |
|                             | 4. Float is too tight on float rod.                     | 4. Clean debris build-up off float rod.  |
|                             | 5. Overload is open.                                    | 5. Allow motor to cool and overload to reset.  |
| Pump will not               | 1. Switch is defective.                                 | 1. Replace switch.   |
| shut off.                   | 2. Switch is obstructed.                                | 2. Remove obstruction to ensure free motion of switch.   |
|                             | 3. Discharge pipe is clogged.                           | 3. Remove clog in discharge piping.  |
|                             | 4. Water inflow exceeds pump capacity.                  | 4. Recheck sizing calculations to determine proper pump size.  |
| Pump operates               | 1. Low line voltage.                                    | 1. Contact an electrician.   |
| but delivers little         | 2. Inlet screen clogged.                                | 2. Remove debris.  |
| or no water.                | 3. Broken impeller or debris in impeller cavity.        | 3. Remove screen and volute. Clean impeller or replace impeller.   |
|                             | 4. Water inflow exceeds pump capacity.                  | 4. Recheck sizing calculations to<br>determine proper pump size.   |
|                             | 5. Check valve is stuck, closed, or installed backward. | 5. Be sure check valve is installed and<br>operating properly. Replace check<br>valve if necessary.                      |
|                             | 6. Vent hole is clogged.                                | 6. Clean vent hole.  |

#### TROUBLESHOOTING

| Problem                      | Possible Cause                       | Corrective Action   |
|------------------------------|--------------------------------------|---|
| Capacity or flow             | 1. Clogged inlet or discharge pipe.  | 1. Clean all piping.  |
| drops after a period of use. | 2. Check valve clogged or defective. | 2. Be sure check valve is installed and operating properly. Replace check valve if necessary. |
|                              | 3. Abrasive material or chemicals    | 3. Remove base and inspect.   |
|                              | damaged impeller or pump housing.    |   |

## **SPECIFICATIONS**

| MOTOR DATA CHART |       |       |             |          |                      |
|------------------|-------|-------|-------------|----------|----------------------|
| HP               | Phase | Volts | Code Letter | Max Amps | Locked Rotor<br>Amps |
| 1/3              | 1     | 115   | Α           | 3.1      | 9.5                  |

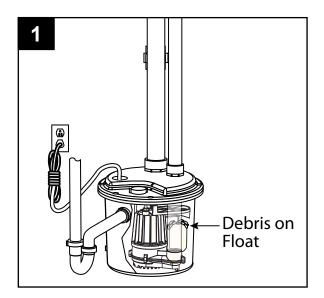
| PERFORMANCE    |     |             |            |                        |                   |
|----------------|-----|-------------|------------|------------------------|-------------------|
| ltem<br>Number | HP  | Ft. of Head | Flow (GPM) | Shut Off<br>Head (Ft.) | Discharge<br>Size |
| 1104-0082      | 1/3 | 0           | 43         | 18                     | 1-1/2 in.         |
|                |     | 5           | 38         |                        |                   |
|                |     | 10          | 30         |                        |                   |
|                |     | 15          | 14         |                        |                   |

#### CARE AND MAINTENANCE

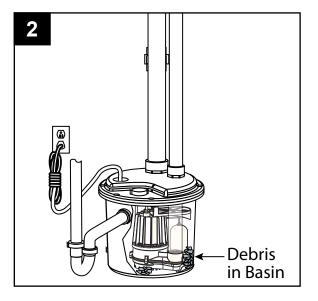
**WARNING:** Always disconnect pump from power supply before handling.

Inspect and test system for proper operation at least every three months.

1. Remove any build-up of debris from the switch or float, and check to be sure it moves freely.



2. Remove any debris from the basin that could interfere with the operation of the switch.



#### WARRANTY

This product is warranted for one (1) year from the date of purchase.

Subject to the conditions hereinafter set forth, the manufacturer will repair or replace to the original consumer, any portion of the product which proves defective due to defective materials or workmanship. This warranty does not cover replacement parts for failure due to normal wear and tear. To obtain warranty service, contact the dealer from whom the product was purchased. The manufacturer retains the sole right and option to determine whether to repair or replace defective equipment, parts or components. Damage due to conditions beyond the control of the manufacturer is not covered by this warranty.

THIS WARRANTY WILL NOT APPLY:

- (a) To defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided;
- (b) to failures resulting from abuse, accident or negligence or use of inappropriate chemicals or additives in the water;
- (c) to normal maintenance services and the parts used in connection with such service;
- (d) to units which are not installed in accordance with normal applicable local codes, ordinances and good trade practices; and
- (e) if the unit is used for purposes other than for what it was designed and manufactured.

#### **RETURN OF WARRANTED COMPONENTS:**

Any item to be repaired or replaced under this warranty must be returned to the manufacturer at Kendallville, Indiana or such other place as the manufacturer may designate, freight prepaid.

THE WARRANTY PROVIDED HEREIN IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES, AND MAY NOT BE EXTENDED OR MODIFIED BY ANYONE. ANY IMPLIED WARRANTIES SHALL BE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY AND THEREAFTER ALL SUCH IMPLIED WARRANTIES ARE DISCLAIMED AND EXCLUDED. THE MANUFACTURER SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, SUCH AS, BUT NOT LIMITED TO DAMAGE TO, OR LOSS OF, OTHER PROPERTY OR EQUIPMENT, LOSS OF PROFITS, INCONVENIENCE, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY TYPE OR NATURE. THE LIABILITY OF THE MANUFACTURER SHALL NOT EXCEED THE PRICE OF THE PRODUCT UPON WHICH SUCH LIABILITY IS BASED.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow limitations on duration of implied warranties or exclusion of incidental or consequential damages, so the above limitations may not apply to you.

In those instances where damages are incurred as a result of an alleged pump failure, the Homeowner must retain possession of the pump for investigation purposes.

## **REPLACEMENT PARTS LIST**

For replacement parts, call our customer service department at 1-800-584-8089, 8 a.m. - 8 p.m., EST, Monday - Friday.

| PART | DESCRIPTION | PART NO. |
|------|-------------|----------|
| В    | Basin       | 013017   |
| С    | Pump        | 152289A  |
| D    | Check Valve | 019768   |
| E    | Basin Lid   | 013018   |
| F    | Cord Seal   | 006018   |

