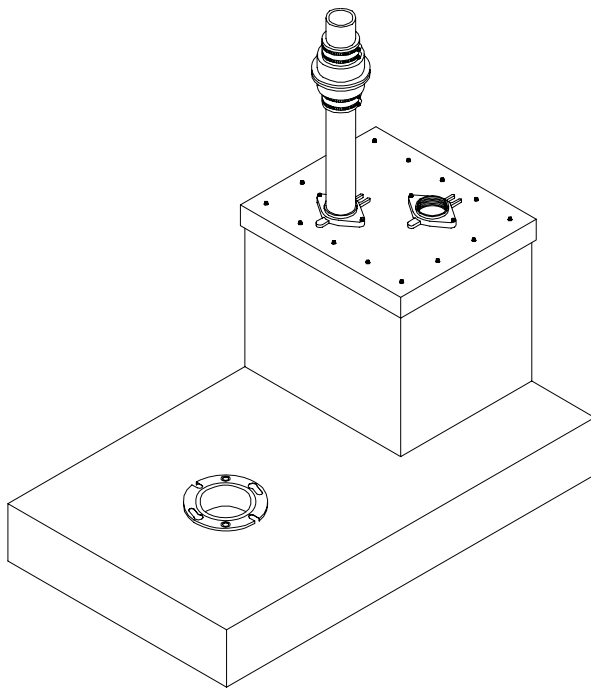


BARNES[®]

INSTALLATION MANUAL Basement GENIE



Series: BGB
 BGBSE411
 BGBSEV412

IMPORTANT!

*Read all instructions in this manual before operating pump.
As a result of Crane Pumps & Systems, Inc., constant product improvement program,
product changes may occur. As such Crane Pumps & Systems reserves the right to
change product without prior written notification.*

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Form No. 103430-Rev. H

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SAFETY FIRST!

Please Read This Before Installing Or Operating Pump. This information is provided for **SAFETY** and to **PREVENT EQUIPMENT PROBLEMS**. To help recognize this information, observe the following symbols:



IMPORTANT! Warns about hazards that can result in personal injury or indicates factors concerned with assembly, installation, operation, or maintenance which could result in damage to the machine or equipment if ignored.

CAUTION! Warns about hazards that **can or will cause minor** personal injury or property damage if ignored. Used with symbols below.

WARNING! Warns about hazards that can or will cause serious personal injury, death, or major property damage if ignored. Used with symbols below.



Hazardous fluids can cause fire or explosions, burns or death could result.



Extremely hot - Severe burns can occur on contact.



Biohazard can cause serious personal injury.



Hazardous fluids can Hazardous pressure, eruptions or explosions could cause personal injury or property damage.

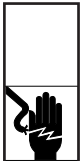


Rotating machinery Amputation or severe laceration can result.



Hazardous voltage can shock, burn or cause death.

Only qualified personnel should install, operate and repair pump. Any wiring of pumps should be performed by a qualified electrician.



WARNING! To reduce risk of electrical shock, pumps and control panels must be properly grounded in accordance with the National Electric Code (NEC) or the Canadian Electrical Code (CEC) and all applicable state, province, local codes and ordinances. Improper grounding voids warranty.



WARNING! To reduce risk of electrical shock, always disconnect the pump from the power source before handling or servicing. Lock out power and tag.



WARNING! Operation against a closed discharge valve will cause premature bearing and seal failure on any pump, and on end suction and self priming pump the heat build may cause the generation of steam with resulting dangerous pressures. It is recommended that a high case temperature switch or pressure relief valve be installed on the pump body.



CAUTION! Never operate a pump with a plug-in type power cord without a ground fault circuit interrupter.



CAUTION! Pumps build up heat and pressure during operation-allow time for pumps to cool before handling or servicing.



WARNING! Do not pump hazardous materials (flammable, caustic, etc.) unless the pump is specifically designed and designated to handle them.



CAUTION! Do not block or restrict discharge hose, as discharge hose may whip under pressure.



WARNING! Do not wear loose clothing that may become entangled in moving parts.



WARNING! Keep clear of suction and discharge openings. **DO NOT** insert fingers in pump with power connected.



Always wear eye protection when working on pumps.

Make sure lifting handles are securely fastened each time before lifting. **DO NOT** operate pump without safety devices in place. Always replace safety devices that have been removed during service or repair. Secure the pump in its operating position so it can not tip over, fall or slide.



DO NOT exceed manufacturers recommendation for maximum performance, as this could cause the motor to overheat.



DO NOT remove cord and strain relief. **DO NOT** connect conduit to pump.



WARNING! Cable should be protected at all times to avoid punctures, cut, bruises and abrasions. Inspect frequently. Never handle connected power cords with wet hands.



WARNING! To reduce risk of electrical shock, all wiring and junction connections should be made per the NEC or CEC and applicable state or province and local codes. Requirements may vary depending on usage and location.



WARNING! Submersible Pumps are not approved for use in swimming pools, recreational water installations decorative fountains or any installation where human contact with the pumped fluid is common.



WARNING! Products returned must be cleaned, sanitized, or decontaminated as necessary prior to shipment, to insure that employees will not be exposed to health hazards in handling said material. All Applicable Laws And Regulations Shall Apply.



Bronze/brass and bronze/brass fitted pumps may contain lead levels higher than considered safe for potable water systems. Lead is known to cause cancer and birth defects or other reproductive harm. Various government agencies have determined that leaded copper alloys should not be used in potable water applications. For non-leaded copper alloy materials of construction, please contact factory.



Crane Pumps & Systems, Inc. is not responsible for losses, injury, or death resulting from a failure to observe these safety precautions, misuse or abuse of pumps or equipment.

SECTION: A SPECIFICATIONS

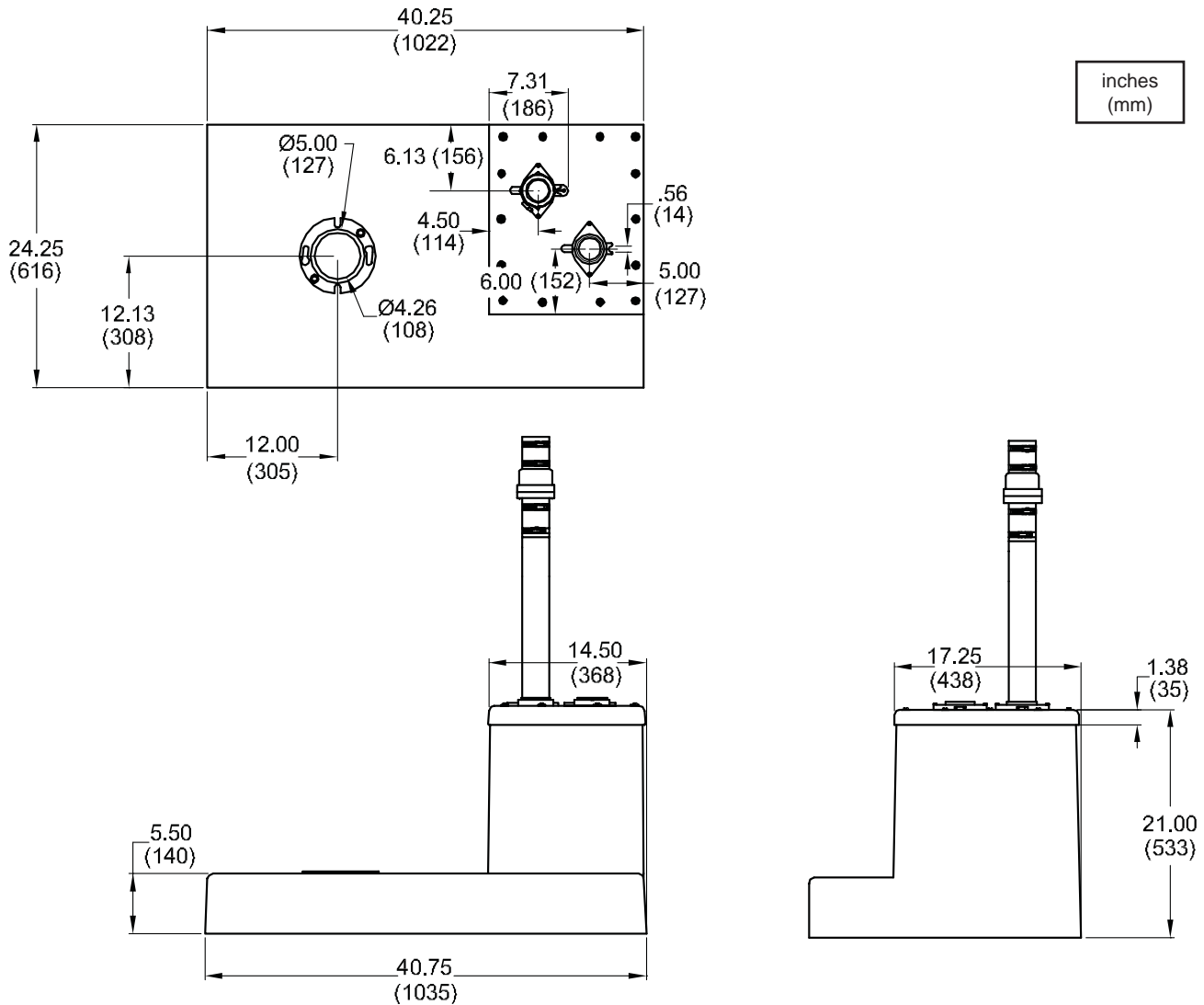
The Basement Genie Basin can be installed almost anywhere. It can accommodate a toilet, vanity, humidifier or shower. It is perfect for basements, family rooms, warehouses, factories and room additions. Fits almost anywhere and can be used with many toilet styles. The Basement Genie Basin can be installed free standing on any level surface (no need to destroy concrete floors) or the tank and all piping can be hidden behind a wall and under the floor.

System includes pump, basin 2" PVC discharge pipe, two 2" NPT vent flange, 2" straight discharge flange, three 2" rubber gaskets, cast iron closet flange, rubber cord grommet, 3/8" foam lid gasket, 2" check valve and hardware.

STANDARD COLOR..... White

MATERIAL Polypropylene

WEIGHT 47lbs. - BGB
92lbs. - BGBSEV412
102lbs. - BGBSE411



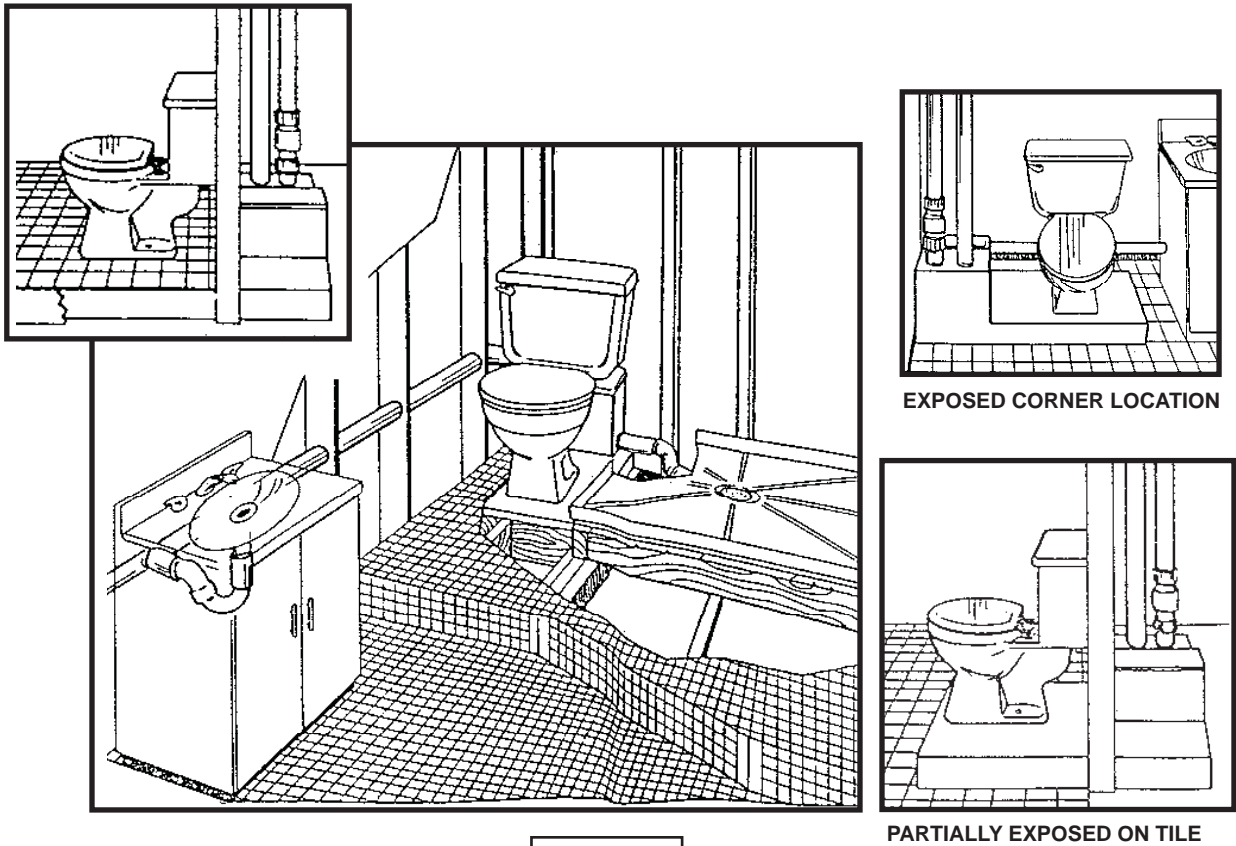


FIGURE 1

SECTION B: GENERAL INFORMATION

B-1) Introduction:

Barnes® Pumps Basement Genie is inspected by a Quality Assurance Program to allow years of continuous service. Through proper installation this unit will provide superior service. This manual will provide basic information for installation of basin, also see pump manual.

B-2) Receiving:

Upon receiving this unit, inspect it for damage or shortages. If damage has occurred, file a claim immediately with the delivery company that delivered your equipment. If the manual is removed from the crating, do not lose or misplace it.

B-3) Storage:

This unit has been packaged and protected for shipping and indoor storage. If it is to be stored outside for an extended period, additional protection must be added.

Short Term - For best results, retain factory assembled, in a dry atmosphere with constant temperature for up to six (6) months.

Long Term - Any length of time exceeding six (6) months, but not more than twenty four (24) months. The units should be stored in a temperature controlled area, a roofed over walled enclosure that provides protection from the elements (rain, snow, wind blown dust, etc..), and whose temperature can be maintained between +40 deg. F and +120 deg. F.

B-4) Service Centers:

For the location of the nearest Barnes Service Center, check your Barnes representative or Crane Pumps & Systems, Inc., Service Department in Piqua, Ohio, telephone (937) 778-8947 or Crane Pumps & Systems Canada, Inc., Bramton, Ontario (905) 457-6223.

SECTION C: INSTALLATION

Position basin at desired location that is level for the length and width of the tank. For built-in installations, the unit is designed to fit within 2" x 4" floor joist. See Figure 1.

Determine closest locations for the pump discharge and vent lines. Take necessary measurements and determine what plumbing parts are required.

IMPORTANT ! - TO REDUCE THE RISK OF ELECTRICAL SHOCK, A PROPERLY GROUNDED RECEPTACLE MUST BE INSTALLED AND PROTECTED BY A GROUND FAULT CIRCUIT INTERRUPTER (GFC) IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE OR CANADIAN ELECTRICAL CODE, STATE, PROVINCE AND LOCAL CODES. NEVER REMOVE GROUND PIN FROM PLUG.



Install cast iron closet flange (11), lip side down, onto basin (1). Attach 1-3/8" bolts (12) through holes in flange; 2-1/4" toilet bolts will be installed through the closed slots. Make sure to align closet bolt slots to allow installation of closet bowl in desired direction. Seal flange to unit using a water proof caulk. (It is necessary that this is a waterproof seal.) See Figure 2.

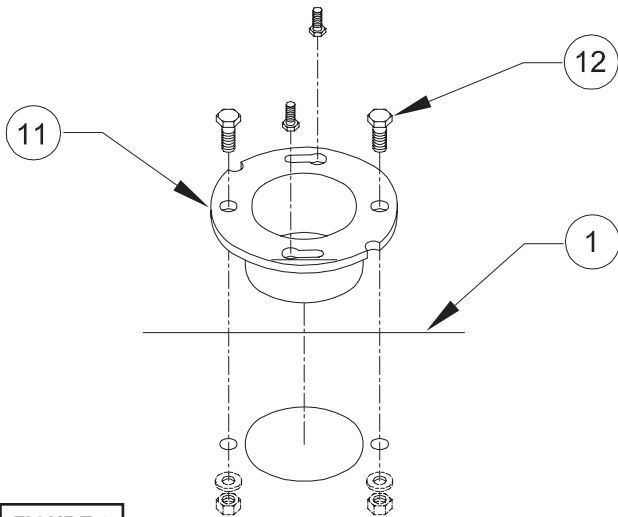


FIGURE 2

Drill a 1/8" diameter hole approximately 6" above the pump end of the discharge pipe. Attach discharge pipe to pump discharge. See Figure 3.



IMPORTANT ! Set float switch settings per Section D.

Set pump in pump chamber aligning discharge pipe with discharge hole in cover (2). Insert foam gasket into groove at the top of the pump chamber. Place top (2) on chamber (1), sliding discharge pipe (3) through round opening and power cord(s) through slotted opening.

Place rubber gasket (5), (lip facing up) and straight flange (6) over discharge pipe (3) and attach to cover using two 7/8" bolts. See Figure 3.

Install 2" check valve (7) on discharge pipe (3), square side down. Connect to overhead sewer line. Test pump switch levels before fastening top and check basin for leaks.

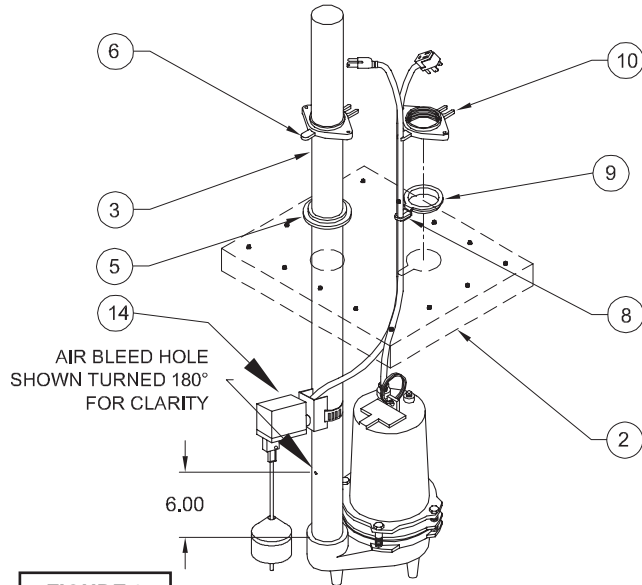


FIGURE 3

Fasten top (2) to basin using fourteen 5/8" screws and washers (4). Trim rubber cord grommet (8) so it will allow two power cords to pass through. Place the grommet (8) around the power cord(s) coming out of the vent opening. Slide grommet into the slot of the vent hole on the basin cover flat side up. Bend rubber gasket, (9) lip facing down, to fit into slot of vent opening. Place threaded flange (10) onto venting hole and attach using two 7/8" bolts.

Install vent line making sure to connect to line leading to roof. Follow State and Local codes. Toilet will not flush properly unless vented.



CAUTION ! - DO NOT USE AUTOMATIC VENTS WITH BASEMENT GENIE.

Install any additional fixtures to basin using 2" flange and gasket making sure any holes drilled in the side of the tank are a minimum of 5" above the base. Install toilet in desired direction. Connect using wax ring and following instructions on wax seal box.

Hook up water line to toilet turn on water and fill tank, re-test for leaks. Flush toilet and allow pump to cycle to insure proper operation. All plumbing and electrical connections must be made according to all Federal, State, Province and Local Codes.

SECTION D: FLOAT SWITCH SETTINGS



IMPORTANT ! - VERTICAL FLOAT SWITCH MUST BE SET PROPERLY IN ORDER FOR BASEMENT GENIE SYSTEM TO OPERATE CORRECTLY.

1. Take lower rubber adjustable stop off of vertical float switch.
2. Take plastic float off of rod.
3. Place upper rubber adjustable stop 4-1/2" from floor.
4. Place plastic float on rod.
5. Place lower rubber adjustable flush with bottom of rod.
6. Test the pump by partially filling the basin to an approximate depth of 4". This can be checked by measuring through the hole where the toilet is to be installed. Plug the switch into the wall and the pump into the switch. The pump must turn on before the water reaches 4-1/2" inside the basin.

CAUTION: Unplug the pump before adjusting the switch. If pump does not turn on before 4-1/2", lower the upper rubber adjustable stop on the switch rod and re-test. If the pump starts before 3-1/4", raise the upper rubber adjustable stop. The lower rubber adjustable stop should remain flush with tip of the rod. Pump must turn on between 3-1/4" and 4-1/2".

SECTION: E WARRANTY REPAIR

E-1 INFORMATION NEEDED:

ALWAYS furnish the following information:

1. Pump serial number and date code.
2. Pump model number.

E-2 MODEL NUMBER:

This designation consists of numbers and letters which represents the horsepower, motor phase and voltage, and pump design. This number is used for ordering and obtaining information.

E-3 SERIAL NUMBER:

The Serial Number block consists of a six digit number, which is specific to each pump and may be preceded by a alpha character, which indicates the plant location. This number will also be suffixed with a three or four digit number, which indicates the date the unit was built (Date Code).

EXAMPLE: A012345 495

Reference the six digit portion (Serial Number) of the number when referring to the product.

SE411 Pump

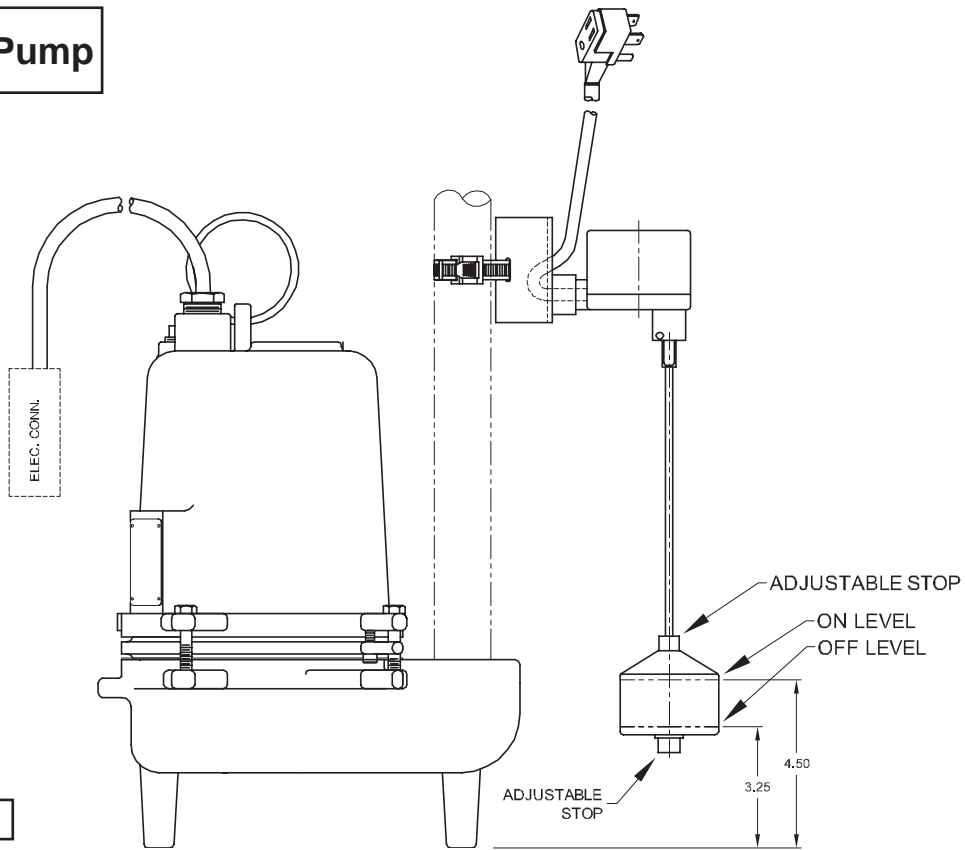


FIGURE 4

SEV412 Pump

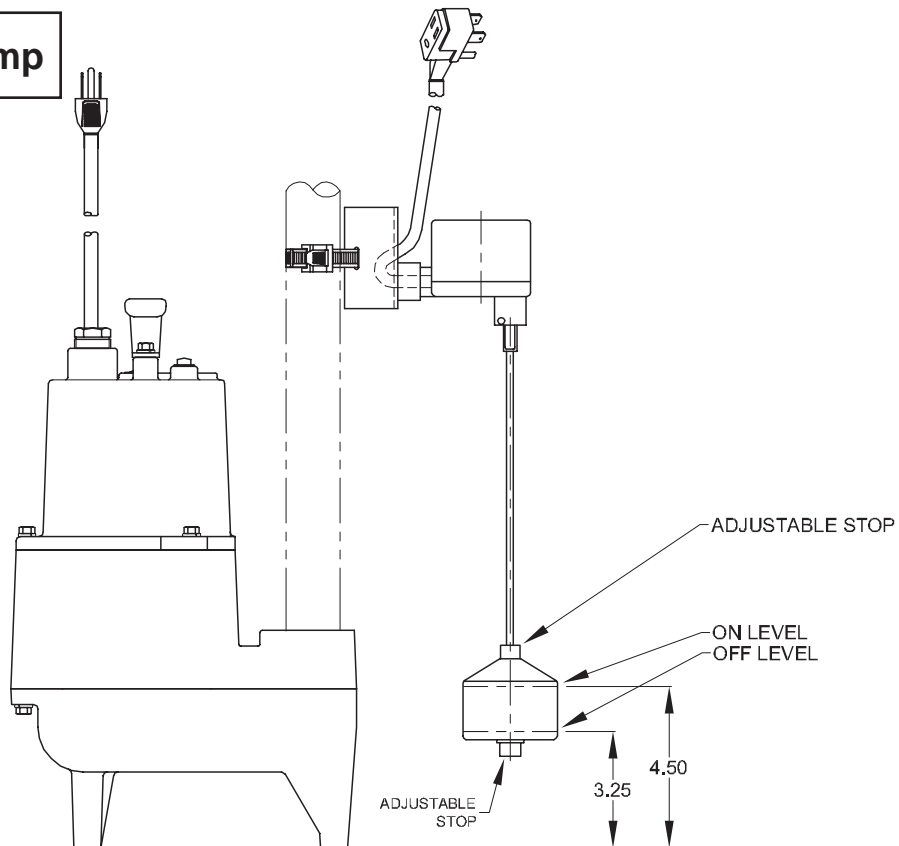


FIGURE 5

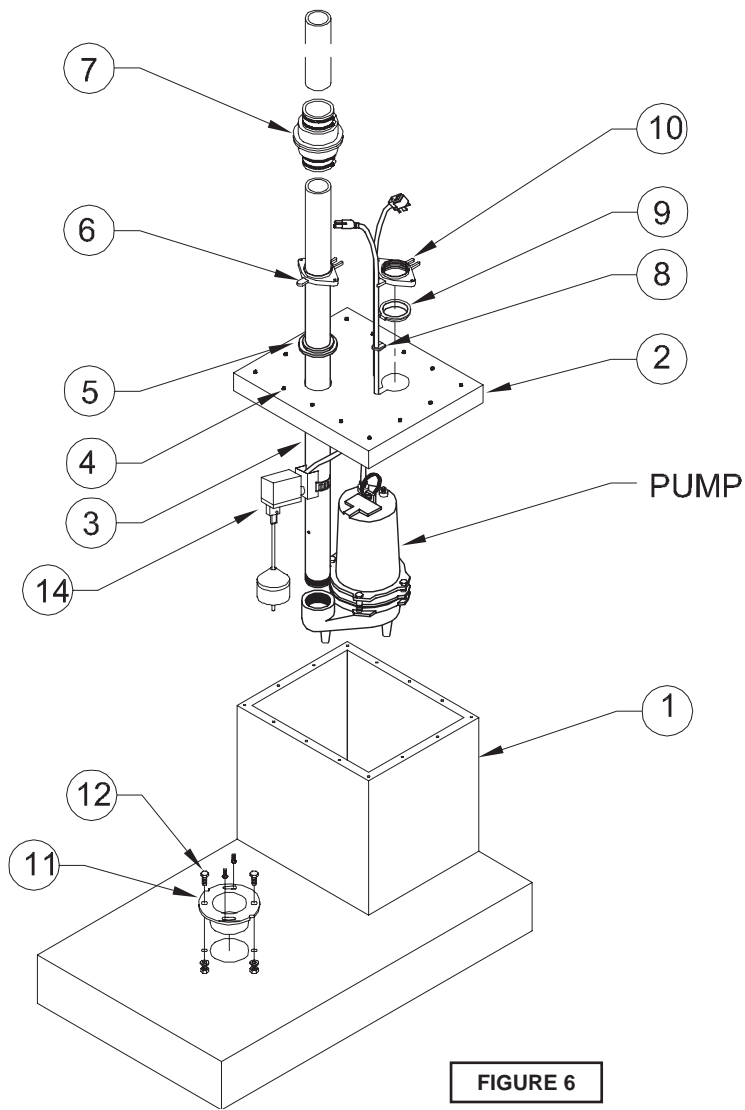


FIGURE 6

PARTS LIST

| ITEM | QTY. | DESCRIPTION |
|------|-----------|--------------------------------|
| 1 | 1 | Basin |
| 2 | 1 | Basin Cover |
| 3 | 1 | Discharge Pipe |
| 4 | 14 | Cap SCrews & washers 5/8" |
| 5 | 2 | 2" Discharge Gasket |
| 6 | 1 | Straight Flange, Discharge |
| 7 | 1 | Check Valve |
| 8 | 1 | Cord Grommet |
| 9 | 1 | 2" Vent Gasket |
| 10 | 1 | Threaded Flange, Vent |
| 11 | 1 | Closet Flange |
| 12 | 2 | Cap Screws, Washers & Hex Nuts |
| 13 | 66 inches | Lid Gasket (Not Shown) |
| 14 | 1 | Float, Pipe Mounted |

BARNES®



burks®

WEINMAN®

DEMING®

PROSSER®

Limited 24 Month Warranty

Crane Pumps & Systems warrants that products of our manufacture will be free of defects in material and workmanship under normal use and service for twenty-four (24) months after manufacture date, when installed and maintained in accordance with our instructions. This warranty gives you specific legal rights, and there may also be other rights which vary from state to state. In the event the product is covered by the Federal Consumer Product Warranties Law (1) the duration of any implied warranties associated with the product by virtue of said law is limited to the same duration as stated herein, (2) this warranty is a LIMITED WARRANTY, and (3) no claims of any nature whatsoever shall be made against us, until the ultimate consumer, his successor, or assigns, notifies us in writing of the defect, and delivers the product and/or defective part(s) freight prepaid to our factory or nearest authorized service station. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply. **THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY AND ALL WARRANTIES WITH RESPECT TO ANY PRODUCT SHALL BE TO REPLACE OR REPAIR AT OUR ELECTION, F.O.B. POINT OF MANUFACTURE OR AUTHORIZED REPAIR STATION, SUCH PRODUCTS AND/OR PARTS AS PROVEN DEFECTIVE. THERE SHALL BE NO FURTHER LIABILITY, WHETHER BASED ON WARRANTY, NEGLIGENCE OR OTHERWISE.** Unless expressly stated otherwise, guarantees in the nature of performance specifications furnished in addition to the foregoing material and workmanship warranties on a product manufactured by us, if any, are subject to laboratory tests corrected for field performance. Any additional guarantees, in the nature of performance specifications must be in writing and such writing must be signed by our authorized representative. Due to inaccuracies in field testing if a conflict arises between the results of field testing conducted by or for user, and laboratory tests corrected for field performance, the latter shall control. **RECOMMENDATIONS FOR SPECIAL APPLICATIONS OR THOSE RESULTING FROM SYSTEMS ANALYSES AND EVALUATIONS WE CONDUCT WILL BE BASED ON OUR BEST AVAILABLE EXPERIENCE AND PUBLISHED INDUSTRY INFORMATION. SUCH RECOMMENDATIONS DO NOT CONSTITUTE A WARRANTY OF SATISFACTORY PERFORMANCE AND NO SUCH WARRANTY IS GIVEN.**

This warranty shall not apply when damage is caused by (a) improper installation, (b) improper voltage (c) lightning (d) excessive sand or other abrasive material (e) scale or corrosion build-up due to excessive chemical content. Any modification of the original equipment will also void the warranty. We will not be responsible for loss, damage or labor cost due to interruption of service caused by defective parts. Neither will we accept charges incurred by others without our prior written approval.

This warranty is void if our inspection reveals the product was used in a manner inconsistent with normal industry practice and/or our specific recommendations. The purchaser is responsible for communication of all necessary information regarding the application and use of the product. **UNDER NO CIRCUMSTANCES WILL WE BE RESPONSIBLE FOR ANY OTHER DIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO TRAVEL EXPENSES, RENTED EQUIPMENT, OUTSIDE CONTRACTOR FEES, UNAUTHORIZED REPAIR SHOP EXPENSES, LOST PROFITS, LOST INCOME, LABOR CHARGES, DELAYS IN PRODUCTION, IDLE PRODUCTION, WHICH DAMAGES ARE CAUSED BY ANY DEFECTS IN MATERIAL AND/OR WORKMANSHIP AND/OR DAMAGE OR DELAYS IN SHIPMENT. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

No rights extended under this warranty shall be assigned to any other person, whether by operation of law or otherwise, without our prior written approval.



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Fax: (905) 457-2650

**IMPORTANT!
WARRANTY REGISTRATION**

Your product is covered by the enclosed Warranty.
To complete the Warranty Registration Form go to:

<http://www.cranepumps.com/ProductRegistration/>

If you have a claim under the provision of the warranty, contact your local
Crane Pumps & Systems, Inc. Distributor.

RETURNED GOODS

**RETURN OF MERCHANDISE REQUIRES A "RETURNED GOODS AUTHORIZATION".
CONTACT YOUR LOCAL CRANE PUMPS & SYSTEMS, INC. DISTRIBUTOR.**



**Products Returned Must Be Cleaned, Sanitized,
Or Decontaminated As Necessary Prior To Shipment,
To Insure That Employees Will Not Be Exposed To Health
Hazards In Handling Said Material. All Applicable Laws
And Regulations Shall Apply.**

