



# Installation Instructions

## 6 KW and 11.5KW Basic Circulation Water Heater and Pump

### Application:

The Basic Circulation Water Heater has been in use for nearly 50 years, and it is the most prevalent model in use by churches nationwide. These heaters feature rust resistant incoloy stainless steel heating elements, fiberglass insulated designs, and a 118°F high limit safety switch. They are designed for use with a 240V, single phase, GFCI protected circuit (GFCI not included). All heaters must be installed by licensed professionals.

The Basic Circulation of Water Heater is the best system for heating your baptistry water uniformly without having to manually stir the water.

**Warning:** Do not use chlorine, bleach or other highly corrosive chemicals with this system. Use of these chemicals will cause corrosion and are not recommended as they will shorten the life span of heaters and will void your warranty.

Model	Voltage	Watts	Amps Drawn	Thermostat
CR6KW-001	240	6000	25 amp	40° F to 107°

**Features:** The 6 KW Basic Circulation Water Heater features an adjustable thermostat from 40° F to 107 °F. The pump is a 1/40 HP cartridge style pump, capable of circulating 600 GPH at 1 foot of head. The 6 KW systems will heat 100 gallons per hour to a 20 °F rise, so the average 500 gallon baptistry will need 10 hours to rise from 54 ° to 94° F. Temperature rise is affected by ambient room conditions. We recommend the use of a baptistry cover for maximum efficiency.

Model	Voltage	Watts	Amps Drawn	Thermostat
CR11.5K-001	240	11.500	47.9 nominal	47° F to 107°

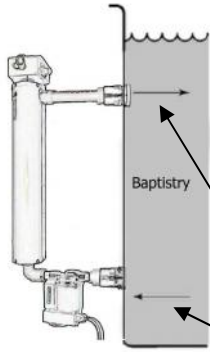
**Features:** The 11.5 KW Basic Circulation Water Heater features an adjustable thermostat from approximately 47° F to 107 ° F. The pump is a 1/40 HP cartridge style pump, capable of circulating 600 GPH at 1 foot of head. The 11.5 KW systems will heat 115 gallons per hour to a 30 °F rise, so the average 750 gallon baptistry will need 10 hours to rise from 54 ° to 94° F. Temperature rise is affected by ambient room conditions. We recommend the use of a baptistry cover for maximum efficiency.

### Items Included:

Before assembling please make sure you have all parts listed below. If parts are missing, please call or email us for replacements.

Qty	Description	Part
1	6kw or 11.5KW Basic Circulation Heater	A
1	Circulation Pump – 120v	B
2	Sink Strainers	C
2	Gaskets	D
2	O Rings	E
1	Slip x male 90° Elbow	F
2	Reducer Bushings 1" x ¾"	G
2	Spigot Plugs 1 ½" x 1"	H
1	6 ¾" PVC pipe	I
1	Sch 80 Nipple ¾" x 2"	J
1	Male Adaptor Reducing Plug	K
2	Tray Plug Adaptor 1 ½"	L
1	Honeywell Transformer	M - 11.5 KW system only
1	48 Amp Resistive Rating Contactor	N - 11.5 KW system only

## Pump Circulation System



**WARNING:** Do not plug in the pump until the Baptistry has been filled.

Circulation Pump



Pump may vary from photograph)

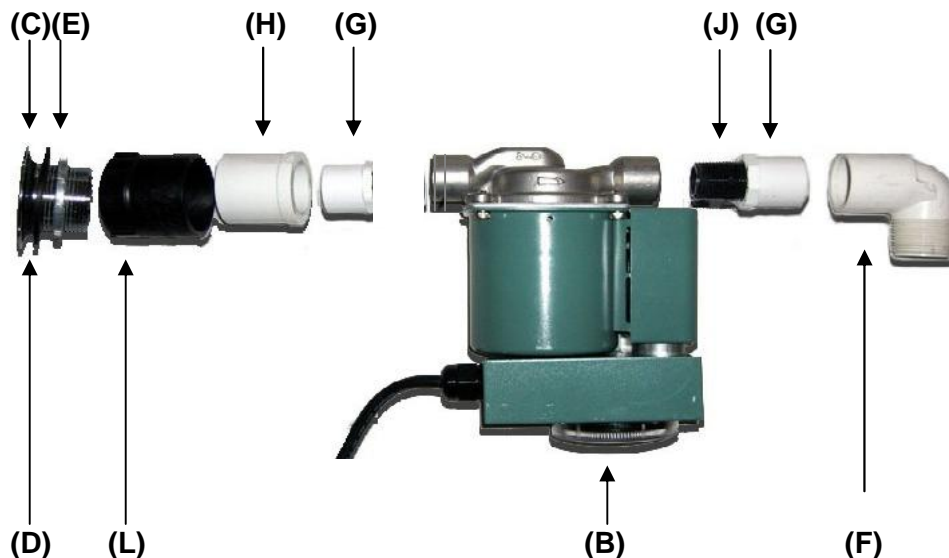
- 23 1/8" – from inlet to outlet (center): 6KW
- 24 1/4" – from inlet to outlet (center): 11KW
- 14" – from Back of heater to baptistry wall
- 37" - from top of heater to bottom of pump
- 29 3/16" - height of heater only
- No less than 2" from top of water level

### ASSEMBLY

#### Inlet Assembly (Pump):

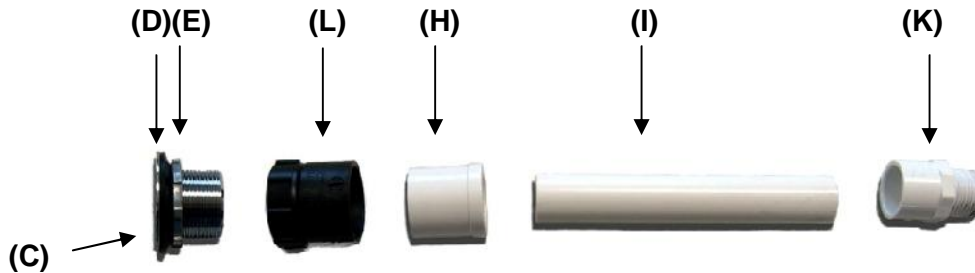
1. Screw in the SCH 80 Nipple (part J) into the Reducer Bushing (part G).
2. Connect the section from (step 1) into the smooth side of the elbow (part F).
3. Screw in the combined sections from (step 2) into the left side of the pump opposite the electric cord.
4. Connect the reducer bushing to the spigot plug (part H) and push the bushing end into the tray plug adaptor (part L).
5. Place the sink strainer (part C) into the bottom precut 2" hole of the baptistry. Add the gasket and tighten with the o-ring (part E).
6. Screw the combined section into the opposite side of the pump.
7. Screw the elbow section (part F) into the bottom inlet of the heater as shown in (diagram A) below.

\*\* ALL PARTS SHOULD BE JOINED WITH "THREAD SEAL" PIPE TAPE, PURPLE PRIMER AND PVC CEMENT WHICH IS USED IN PLUMBING COMPONENTS AS REQUIRED.



**Outlet Assembly:**

1. Place the sink strainer (part C) into the bottom precut hole of the baptistery. Add the gasket and tighten with the o-ring (part E).
2. Screw the tray plug adaptor (part L) into the sink strainer assembly (part 1).
3. Push the spigot plug (part H) into the open end of the tray plug adaptor (part L).
4. Connect the PVC pipe (part I) into the spigot plug (part H).
5. Connect the male adaptor reducing plug into the other end of the PVC pipe (part I).
6. Screw the combined section into the upper outlet of the heater as shown in (diagram A) below.



Attach the completed heater and pump assembly onto the drilled ports.

**WARNING:** Place a block under the heater and pump assembly to support the weight. This will help to prevent leakage at the baptistery wall fittings.

INSTALLATION

**Cautions:** Electric shock hazard! Disconnect all power before installing the heater!

Be certain heater and pump is turned off before draining Baptistery. Always fill Baptistery and turn on pump before turning the heater on. Dry operation will burn out heating element, and cause failure of the pump. These are not covered by warranty.

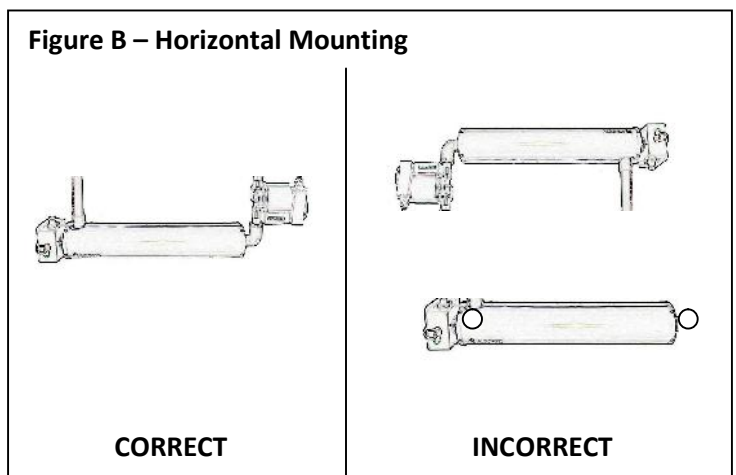
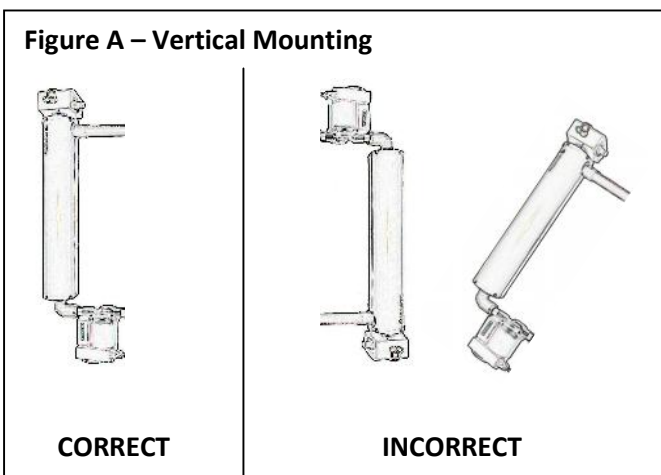
**Vertical Mounting (Preferred)**

When the heater is vertically mounted, the terminal housing will be at the top of the heater. The water inlet pipe will be located on the side near the bottom of the heater and the outlet pipe at the top. The axis of the chamber will be in a vertical position as in the photo above and in Figure A.

**Note:** A drain pipe located at the bottom of the heater should be provided and enough room left, when mounting the heater to allow draining the heater.

**Horizontal Mounting (Optional)**

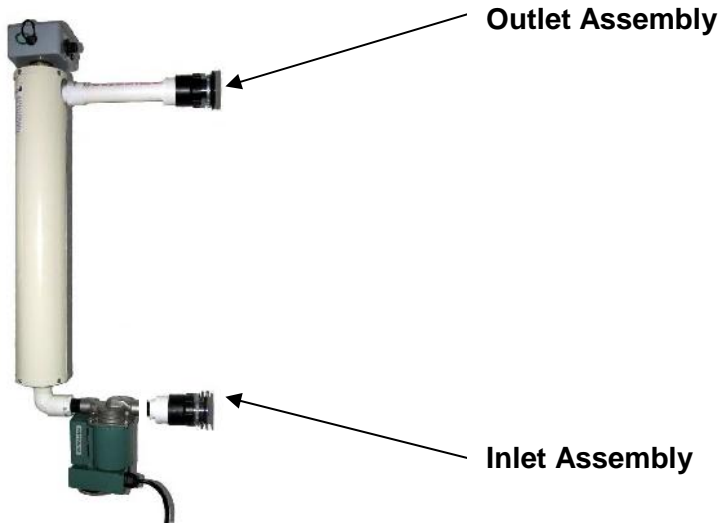
When mounting heater horizontally, inlet and outlet pipes **must** be up. In any other position, heater cannot be purged of air and the heater elements may be damaged (See Figure B).



## INSTALLATION (continued)

Locate the most accessible place around the baptistery for installation. Drill a 2" diameter hole 4 ½" up from the baptistery floor. Smooth the hole and install the chrome faced inlet flush port, by loosening at the slip joint nut. Apply clear RTV sealant under the chrome flange. Remove any outside insulation so the port rubber gasket fits against the outside of the fiberglass wall. Measure and mark the center to center distance exactly between the inlet and outlet fittings. Locate and drill the 2" hole for the top port using the same method as above.

**All items should be dry-fitted prior to using cement!**



## WARRANTY

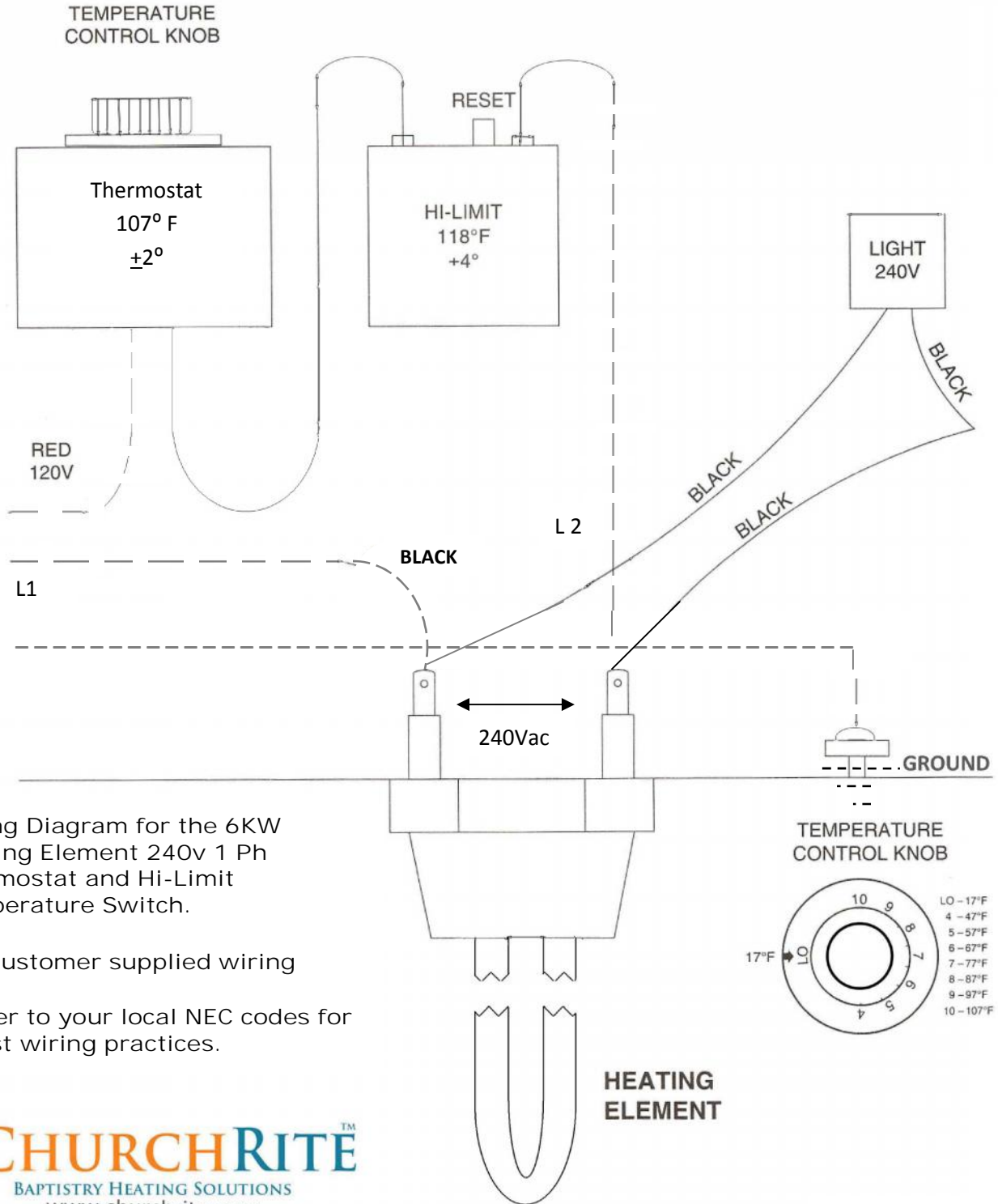
This heater system comes with a 1 year warranty for manufacturer's defects. Any alteration to the heater or pump system could result in the warranty being voided. Please contact us if you have any questions.

Web site: [www.churchrite.com](http://www.churchrite.com)

Email: [mail@churchrite.com](mailto:mail@churchrite.com)

# Wiring Diagram for the 6KW Circulation Baptistry Heater

All heaters must be installed by licensed professionals.



Wiring Diagram for the 6KW Heating Element 240v 1 Ph Thermostat and Hi-Limit Temperature Switch.

- - - Customer supplied wiring

\*Refer to your local NEC codes for best wiring practices.



REVISION: 8-28-17

# Wiring Diagram for the 11.5KW Circulation Baptistry Heater

All heaters must be installed by licensed professionals.

