

**OLD THERMOSTAT REMOVAL**

- 1 TURN UNIT OFF AND UNPLUG CORD.  
Allow unit to fully cool if unit has been in operation.
- 2 EMPTY ANY CONTENTS AND/OR WATER FROM VESSEL.  
Remove all accessories from unit.
- 3 REMOVE AND DISCARD THERMOSTAT KNOB.  
Pointer type knobs have a setscrew that will need to be unscrewed.
- 4 DISASSEMBLE SHROUD FROM WATER VESSEL ENOUGH TO ACCESS WIRING.
  - Place unit on its side and unscrew shroud or bottom closer from vessel.  
Rubber feet may need to be removed first.  
Slowly pull vessel away from shroud by tilting shroud until thermostat shaft clears hole provided in shroud.  
If included, remove and discard small rubber grommet in thermostat shaft hole of shroud.
- 5 CUT WIRE TIES OR DISCONNECT GREEN GROUND LEAD,  
IF NECESSARY TO FURTHER ACCESS INTERNAL WIRING.
- 6 DISCONNECT LEADS TO THERMOSTAT.  
Thermostat can be best accessed when vessel is set upside down on a work surface.
- 7 REMOVE SCREW(S), NUT(S), AND WASHER(S) SECURING THERMOSTAT  
TO THERMOSTAT BRACKET.  
You may need to save the screw(s), nut(s), and washer(s) for new thermostat installation.
- 8 REMOVE OLD THERMOSTAT AND DISCARD.
- 9 DISCONNECT LEADS TO THERMAL CUT-OUT.
- 10 REMOVE OLD THERMAL CUT-OUT AND DISCARD.

**NEW THERMOSTAT INSTALLATION**

See **WIRING DIAGRAM** on opposite page.

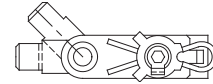
- 1 SET WATER VESSEL UPSIDE DOWN ON WORK SURFACE.
- 2 POSITION NEW THERMOSTAT, WITH ANGLED TERMINAL POINTING UPWARD,  
ONTO THERMOSTAT BRACKET.
- 3 Secure thermostat to thermostat bracket.
  - Use screws, nuts, and lockwasher which were saved above during old thermostat removal.  
Make sure lockwasher is under nut. Tighten nut to 18 in. lbs. (2.03 Nm) torque.
  - OR
  - Use the two Tinnerman clips provided in kit.
- 4 CUT RING TERMINAL OFF HEATING ELEMENT LEAD.  
Strip about ½" of insulation off this end of lead.
- 5 USING A WIRE NUT, CONNECT NOW STRIPPED END OF HEATING ELEMENT LEAD  
TO ALREADY STRIPPED END OF 3" EXTENSION WIRE, PROVIDED IN KIT.
- 6 CONNECT HEATING ELEMENT LEAD 3" EXTENSION FEMALE TERMINAL  
TO THERMOSTAT STRAIGHT TERMINAL.
- 7 USING A WIRE NUT, CONNECT OTHER HEATING ELEMENT LEAD, WITH STRIPPED END,  
TO POWER SUPPLY CORD (120V) WHITE OR (230V) BLUE LEAD AND  
TO THE TWO LIGHT WHITE LEADS.  
If unit includes spout warmer, also connect one lead from spout warmer into this junction.
- 8 CONNECT NEW THERMAL CUT-OUT LEAD FEMALE TERMINAL  
TO THERMOSTAT ANGLED TERMINAL.
- 9 USING A WIRE NUT, CONNECT STRIPPED END OF THERMAL CUT-OUT LEAD  
TO ALREADY STRIPPED END OF 9" EXTENSION WIRE, PROVIDED IN KIT, AND  
TO THE TWO LIGHT BLACK LEADS.  
If unit includes spout warmer, also connect other lead from spout warmer into this junction.
- 10 CONNECT THERMAL CUT-OUT 9" EXTENSION LEAD FEMALE TERMINAL  
TO ON-OFF SWITCH MALE TERMINAL.
- 11 CONNECT GREEN GROUND LEAD, IF DISCONNECTED PREVIOUSLY.
- 12 INSTALL VESSEL BACK INTO SHROUD.  
Align thermostat shaft into hole provided in shroud.
- 13 GATHER ALL WIRES WITH WIRE TIES TO PREVENT WIRES FROM TOUCHING VESSEL  
OR HEATING ELEMENT AFTER COMPLETE ASSEMBLY.
- 14 SECURE VESSEL TO SHROUD BY RE-INSTALLING  
BOTTOM CLOSER, SCREWS, AND RUBBER FEET.
- 15 INSTALL THERMOSTAT KNOB ONTO THERMOSTAT SHAFT BY ALIGNING KNOB  
ONTO SPLINE ON SHAFT AND PUSHING KNOB ONTO SHAFT.
- 16 SET UNIT UPRIGHT ONTO ITS FEET AND PLUG UNIT INTO POWER SOURCE.
- 17 CALIBRATE THERMOSTAT PER CALIBRATION INSTRUCTIONS.  
See **CALIBRATION PROCEDURE** on opposite page.



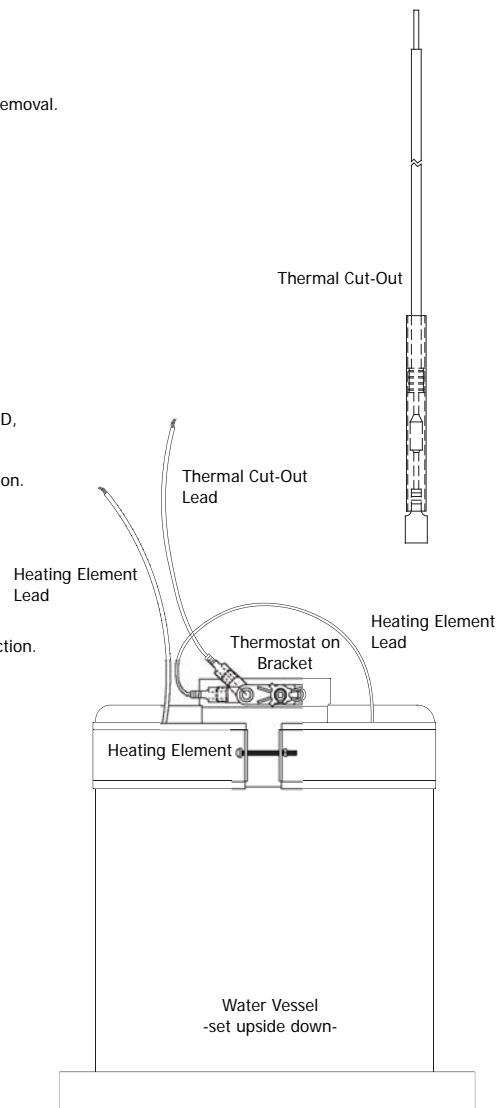
SERVER

**Thermostat  
Replacement Kit  
Stock No. 81610**

This kit includes thermostat 81224

(For LFS, LFSP, & LNCS Units  
Series Prior to 81)**Kit Includes:**

PART#	QTY.	DESCRIPTION
04387	2	Tinnerman Clip
06071	1	9" Extension Wire
10001	1	Wrench, Hexagonal, 1.5mm
11171	1	Wire Nut
81054	1	3" Extension Wire
81055	1	Thermostat Knob
81224	1	Thermostat
81331	1	Thermal Cutout



## WIRING DIAGRAMS

### 1 Cord Assembly

**120V/60Hz**      OR      **230V/50Hz**  
**A** Black                      **D** Brown  
**B** White                      **E** Blue  
**C** Green (Ground Wire)   **F** Yellow/Green

### 2 (120V) Right Angle Heyco (230V) Strain Relief Bushing

### 3 Snap-In Rocker Switch

### 4 9" Black Wire

### 5 Wire Nut

### 6 Thermal Cut-Out

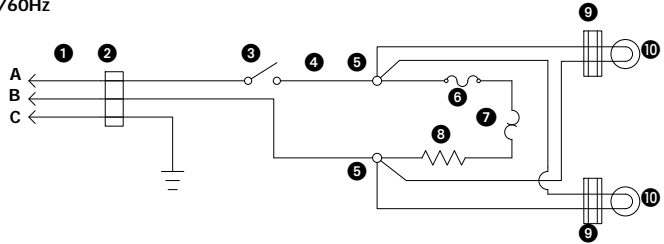
### 7 Thermostat

### 8 Heating Element

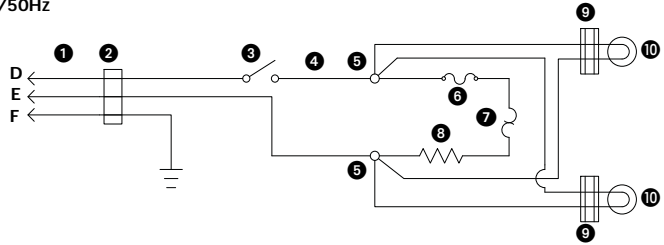
### 9 9/16 Snap Bushing

### 10 Light Socket Bayonet Base

120V/60Hz



230V/50Hz



## CALIBRATION PROCEDURE

### 1 FILL VESSEL AT LEAST 1/2 FULL OF WATER.

### 2 PLACE A COVER OVER VESSEL AND INSERT DIAL THERMOMETER THROUGH HOLE IN COVER SO THAT IT CAN READ THE WATER TEMPERATURE.

### 3 TURN KNOB TO SETTING OF 150°F (65.6°C)

### 4 CAREFULLY REMOVE KNOB WITH A STRAIGHT PULL TO AVOID TURNING THERMOSTAT SHAFT.

### 5 TURN UNIT ON AND ALLOW TO HEAT UP TO A MINIMUM OF 160°F (71.1°C).

- 160°F (71.1°C) is a minimum because exceeding this temperature will not affect the final calibration. This is the lowest temperature that the thermostat will need to "open" at, which is equal to turning heating element "off".
- It might take as long as 45 minutes to reach 160°F (71.1°C).
- If temperature does not reach 160°F (71.1°C)- hold thermostat shaft with one hand and rotate calibration screw, inside shaft, 1/4 turn counterclockwise, using hexagonal wrench. This will "close" thermostat and increase temperature of heating element.
- If temperature still does not reach 160°F (71.1°C)- repeat 1/4 turn of calibration screw, until temperature reaches 160°F (71.1°C).

### 6 WHEN UNIT REACHES MINIMUM TEMPERATURE OF 160°F (71.1°C), ROTATE CALIBRATION SCREW TWO FULL TURNS CLOCKWISE TO ALLOW UNIT TO COOL TO 150°F (65.6°C).

- This will "open" thermostat completely, which is equal to turning heating element "off" to decrease temperature of heating element.
- If unit does not cool to 150°F (65.6°C)- rotate calibration screw two additional full turns clockwise.

### 7 WHEN TEMPERATURE COOLS TO 150°F (65.6°C), ROTATE CALIBRATION SCREW COUNTERCLOCKWISE UNTIL A SOFT AUDIBLE CLICK IS HEARD.

- Or rotate calibration screw two full turns counterclockwise to "close" thermostat completely, which is equal to turning heating element "on".
- Unit will now start and continue to heat up until another audible click is heard. This second click indicates that heating has stopped and unit is now working properly.

### 8 CHECK CALIBRATION SETTING.

- Turn unit off and then turn unit back on again.
- Return unit to service when unit can hold a stable temperature around 150°F (65.6°C) after unit has been on for about 45 minutes. Otherwise, repeat entire calibration procedure.

### 9 SECURE CALIBRATION SCREW BY PLACING SUITABLE THREAD-LOCKING MATERIAL, SUCH AS LOCTITE, IN SHAFT CENTER.

### 10 INSTALL THERMOSTAT KNOB ONTO THERMOSTAT SHAFT BY ALIGNING KNOB ONTO SPLINE ON SHAFT AND PUSHING KNOB ONTO SHAFT.

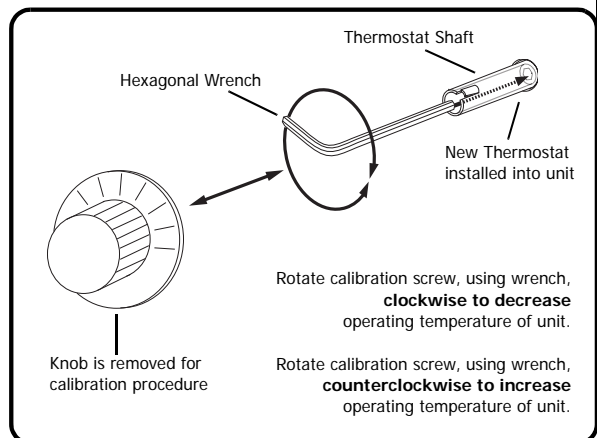
- If unit includes knob guard, install knob guard also.

Factory-installed thermostats are sealed after calibration with Loctite or similar bonding material.

Do not attempt to calibrate a factory-installed thermostat.

## TOOLS NEEDED FOR CALIBRATION PROCEDURE

- **Hexagonal Wrench or Allen Wrench (1.5 mm)**  
-included in thermostat replacement kit
- **Stem type Dial Thermometer**  
-to measure water temperature of 90°-170°F (32.2°-76.7°C)  
-not included in thermostat replacement kit
- **Cover to contain heat within unit**  
-needs to have small hole in it to hold dial thermometer  
-not included in thermostat replacement kit



SERVER



Server Products Inc.  
 3601 Pleasant Hill Road  
 Richfield, WI 53076 USA



(262) 628-5600



1 (800) 558-8722



(262) 628-5110



pumps@execpc.com



http://www.server-products.com