



S E R V E R

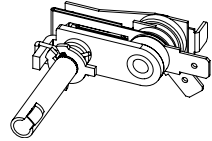
SERVE BETTER™

KIT 81280

REPLACEMENT THERMOSTAT for TWIN FS, FSP, and FS-4 120V

Series prior to 1981

PART	QTY.	DESCRIPTION
04387	2	TINNERMAN
10001	1	WRENCH, HEX L-KEY, 1.5MM
11171	1	NUT, WIRE
81036	1	CUT-OUT, THERMAL ASSY,184C,9.44 (OR)
81054	1	WIRE ASSY,16GA,STRD,250C, 3"
81055	1	KNOB, THERMOSTAT (OR)
81224	1	THERMOSTAT, 60C (OR)



OLD THERMOSTAT REMOVAL

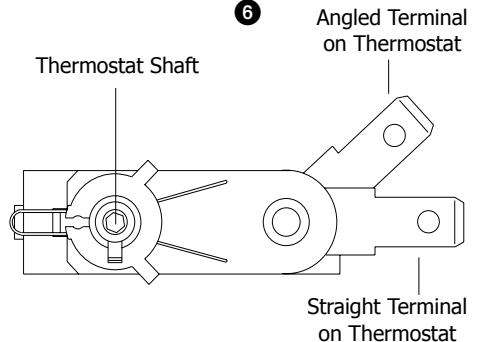
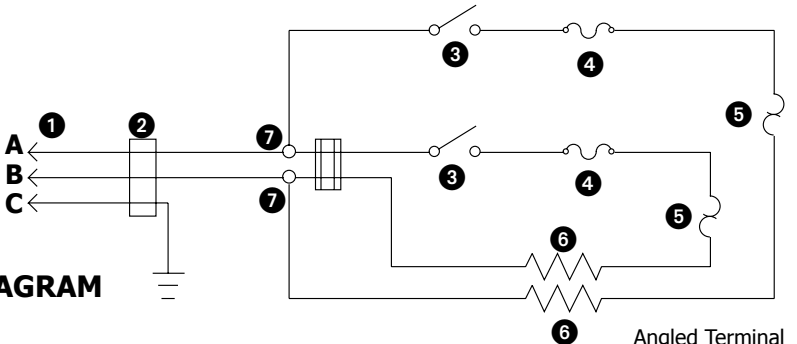
- 1 TURN UNIT OFF AND UNPLUG CORD.
Allow unit to fully cool if unit has been in operation.
- 2 REMOVE ALL ACCESSORIES AND SPACERS FROM WATER VESSELS.
- 3 EMPTY WATER OUT OF WATER VESSELS by tipping unit over a drain.
- 4 REMOVE AND DISCARD OLD THERMOSTAT KNOB from the old thermostat which you will be replacing.
- 5 remove the two screws securing the water vessels to the bottom closer.
- 6 REMOVE BOTTOM CLOSER.
 - For some units, this would require removing the four screws along each edge of the bottom of the unit.
 - Other units may just require the four rubber feet in the corners to be unscrewed.
- 7 Pull the water vessel, which is going to receive the new thermostat, out of shroud by slowly pulling and tilting the water vessel away from the shroud as the thermostat shafts clear the holes in the shroud.
 - If your unit has a small rubber grommet in the thermostat shaft hole in the shroud, remove and discard the grommet from the old thermostat which you will be replacing.
- 8 DISCONNECT LEADS from the old thermostat which you will be replacing. See Wiring Diagram.
- 9 remove OLD thermostaT by removing the two screws, nuts, and washers securing the old thermostat to the thermostat bracket.

NEW THERMOSTAT INSTALLATION

- 1 ON THE HEATING ELEMENT WHICH WILL BE RECEIVING THE NEW THERMOSTAT, CUT RING TERMINAL OFF OF HEATING ELEMENT LEAD. Then strip the end of the lead by removing about 1/2" of the insulation which it is wrapped in.
- 2 CONNECT THE STRIPPED END OF THE 3" EXTENSION WIRE, PROVIDED IN THE KIT, TO THIS STRIPPED END OF THE HEATING ELEMENT LEAD using a wire nut, provided in the kit.
- 3 POSITION NEW THERMOSTAT ONTO THERMOSTAT BRACKET AND SECURE with the two Tinnerman clips supplied in the kit.
- 4 CONNECT LEADS. See Wiring Diagram below.
- 5 INSTALL WATER VESSELS BACK INTO SHROUD.
- 6 install BOTTOM CLOSER AND the screws securing the water vessels to the bottom closer.
 - For some units, this would require installing the four screws along each edge of the bottom of the unit.
 - Other units may just require the four rubber feet in the corners to be screwed back in.
- 7 SET UNIT UPRIGHT ONTO ITS FEET AND PLUG UNIT INTO POWER SOURCE.
- 8 CALIBRATE UNIT per calibration instructions on opposite page.

WIRING DIAGRAM

- 1 Cord Assembly:
120V/60Hz
 - A Black
 - B White
 - C Green (Ground Wire)
- 2 Bushing/Strain Relief
- 3 Switch, Snap-In Rocker
- 4 Thermal Cutout
- 5 Thermostat
- 6 Heating Element
- 7 Wire Nut



Factory-installed thermostats are sealed after calibration.

Do not attempt to calibrate a factory-installed thermostat.

TOOLS NEEDED FOR CALIBRATION PROCEDURE

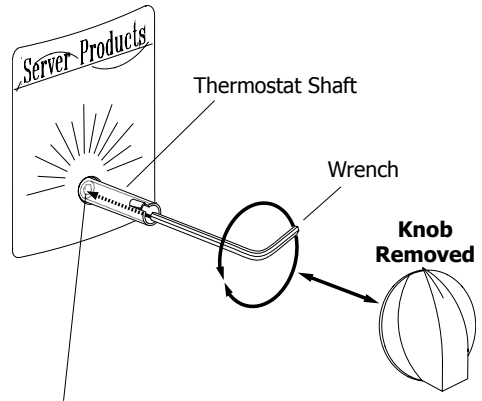
- Hexagonal Wrench or Allen Wrench (1.5 mm)
-included in thermostat kit
- Dial Thermometer (stem type)
-to measure water temperature from 90° to 170°F (32.2°-76.7°C)
- Cover (with hole in it)
-to contain heat within unit and to hold the Dial Thermometer.

CALIBRATION PROCEDURE

- 1 ALIGN KNOB ONTO THERMOSTAT SHAFT AND PRESS KNOB ONTO SHAFT.
- 2 TURN KNOB TO SETTING OF: **135°F (57.2°C)**
- 3 CAREFULLY REMOVE KNOB WITH STRAIGHT PULL TO AVOID TURNING THERMOSTAT SHAFT.
- 4 PLACE COVER (WITH HOLE IN IT) OVER UNIT AND INSERT THERMOMETER THROUGH COVER OPENING.
- 5 TURN UNIT ON AND ALLOW UNIT TO HEAT UP TO A MINIMUM OF: **145°F (62.8°C)**
 - The above "Heat Up-To" temperature is considered a minimum temperature because exceeding the temperature will not affect the final calibration.
- 6 IF THE TEMPERATURE DOES NOT REACH THE MINIMUM "HEAT UP TO" TEMPERATURE, HOLD THE THERMOSTAT SHAFT WITH ONE HAND AND ROTATE THE CALIBRATION SCREW 1/2 TURN COUNTERCLOCKWISE, USING THE SUPPLIED WRENCH. Continue to repeat the 1/2 turn of the calibration screw, until the temperature reaches the minimum.
- 7 WHEN THE TEMPERATURE REACHES THE MINIMUM "HEAT UP TO" TEMPERATURE, TURN CALIBRATION SCREW TWO FULL TURNS CLOCKWISE.
- 8 ALLOW APPLIANCE TO COOL TO: **135°F (57.2°C)**
 - If unit does not cool to the above "Cool To" temperature, turn calibration screw two additional full turns clockwise.
- 9 WHEN THE TEMPERATURE REACHES THE "COOL TO" TEMPERATURE, TURN CALIBRATION SCREW COUNTERCLOCKWISE UNTIL A SOFT AUDIBLE CLICK IS HEARD (ON). The unit will now start and continue to heat up until another audible click is heard (OFF), this second click indicates that the heating has stopped.
- 10 REPEAT STEPS 6 THROUGH 10 UNTIL THE AUDIBLE CLICK IS CONSISTENTLY HEARD WHEN THE KNOB IS TURNING BETWEEN: **142°F (61.1°C) and 152°F (66.74°C)**
- 11 SECURE THE CALIBRATION SCREW BY PLACING SUITABLE THREAD-LOCKING MATERIAL, SUCH AS

LOCTITE, IN THE SHAFT CENTER.

- 12 ALIGN KNOB ONTO THERMOSTAT SHAFT AND PRESS KNOB ONTO SHAFT. If unit includes a knob guard, install knob guard.
- 13 RE-CHECK SETTING AND RETURN UNIT TO SERVICE.
Clockwise rotation of the calibration screw lowers operating temperature.
Counterclockwise rotation of the screw raises the operating temperature. Rotation of the knob or the thermostat shaft does just the opposite.



Turn calibration screw, using wrench, COUNTERCLOCKWISE for steps 7 and 10.

Turn calibration screw, using wrench, CLOCKWISE for steps 8 and 9.

GENERAL SERVICE, REPAIR, OR RETURNS

Before sending any item to Server Products for service, repair, or return, contact Server Products customer service to request a **Return Authorization Number**. Merchandise must be sent to Server Products with this number.

Merchandise being returned for credit must be in new and unused condition and not more than 90 days old and will be subject to a 20% (percent) restocking charge. Electrical parts (thermostats, heating elements, etc.) are not returnable.

Server Products maintains a fully staffed service department with highly skilled factory trained personnel. Service is extremely prompt. Under normal circumstances, a repaired unit is shipped out the day after it is received. Labor charges are reasonable.

SERVICE

Contact your dealer or Server Products Inc. customer service department for the following:

ORDERING REPLACEMENT PARTS

Be prepared to give this information:

- Model Letters/Name/Numbers
- Part Numbers- P/N
- Series Numbers/Letters
- Part Description

This information and other important data is stamped on the lid or cylinder of pumps or on the bottom or back side of every unit.

Servicing Cord

Specific tools are required for safe and proper power supply cord removal and installation. If cord must be replaced, only a representative of the OEM (original equipment manufacturer) or a qualified technician may replace cord. Cord must meet code designation H05 RN-F requirements.

SERVER PRODUCTS LIMITED WARRANTY

All Server Products equipment is backed by a two-year limited warranty against defects in materials and workmanship. For complete warranty information go to: **www.server-products.com**



Server Products Inc.

3601 Pleasant Hill Road
Richfield, WI 53076 USA



262.628.5600



800.558.8722



262.628.5110



spsales@server-products.com



www.server-products.com