

RAYCHEM Part No. 979745  
Pressure Switch Replacement Kit 120/240 Volt  
For use with Raychem Model AA-400 Superheater

CONTENTS	QTY.	Description
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	2	"Push On" Terminals
	2	Pieces Shrink Tubing
	1	#6 Self Tapping Screw

Revision: A

979755-000

## PRESSURE SWITCH REPLACEMENT INSTRUCTIONS

### WARNING

Disconnect Superheater from compressed air and electrical power before performing maintenance.

#### A. Disassembly

1. Remove the bottom half of the case by removing the four screws underneath.
2. Remove the top half of the case by unscrewing the retaining ring from the regulator.
3. Disconnect the black & grey wires from the pressure switch, and the green wire from the pressure switch fitting.
4. Remove the pressure switch from the regulator body.

NOTICE: If the Superheater being worked on is a 120 volt unit with a Serial No. **greater** than 11870, or a 240 volt unit with a serial No. **greater** than 8925, skip Section B.

#### B. Air Regulator Modification

1. Remove the brass pressure switch fitting from the regulator body and discard.
2. On the top surface of the air regulator, mark a point approximately half the distance between the inlet air fitting and the pressure switch port, approximately 3/16 inch in from the edge of the regulator body.
3. Center punch and drill a 1/8 inch dia. hole 1/4 inch deep at the above mark.

#### C. Installation

1. Assemble the pressure switch to the regulator in the following manner:
  - a. Engage the switch thread to the regulator body.
  - b. Thread the switch into the regulator body 2 full turns from the point of thread engagement.
  - c. After 2 full turns continue to turn the switch clockwise until it is positioned as illustrated in Fig. 1. **CAUTION: DO NOT** apply any type of pipe sealing compound or lubricant to the air switch thread and **DO NOT EXCEED 3 TURNS**, or damage to the switch may occur.
2. Cut off the 2 ring terminals from the disconnected black & grey wires and strip the insulation 1/4 inch.
3. Crimp the 2 slip-on terminals (included in kit) onto the 2 stripped wires. Slip the included tubing over the slip-on terminals and heat to shrink, insulating the entire terminal.
4. Push the black wire onto one terminal and the grey wire onto the other terminal of the pressure switch.
5. Using the self taping screw provided, attach the 2 green ground leads to the back of the air regulator body.
6. Adjust the pressure switch as directed in sections D and E.

#### D. Pressure Switch Test

### WARNING

Do **NOT** connect the Superheater to an electrical power source when performing the following test.

1. Connect an ohmmeter or continuity checker to the two terminals of the pressure switch.

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2. Connect the control unit to its compressed-air source only. With the regulator control knob fully counterclockwise, the ohmmeter or continuity checker should indicate an open circuit ( $\infty$  ohms).
3. While observing the ohmmeter or continuity checker, slowly turn the regulator control knob clockwise until the gauge indicates 50 psi. The ohmmeter or continuity checker should indicate a closed circuit (zero ohms) when the air pressure reaches approximately 45 psi.
4. Slowly turn the regulator control knob counter-clockwise until the ohmmeter or continuity checker again indicates an open circuit. At this point, the pressure gauge should read between 42 and 46 psi. If it does, skip Section E.

#### E. Pressure Switch Calibration

**WARNING**  
Do **NOT** connect the Superheater to an electrical power source when calibrating the pressure switch.

1. Connect an ohmmeter or continuity checker to the two terminals of the pressure switch.
2. Connect the control unit to its compressed-air source only.
3. Remove the plug covering the pressure switch adjustment screw.
4. Turn the regulator control knob until the pressure gauge reads 44 psi.
5. With a screwdriver, turn the pressure switch adjustment screw until the ohmmeter or continuity checker reading changes. (If the ohmmeter or continuity checker readings from Section D were above 46 psi, turn the adjustment screw counter-clockwise, if the readings were below 42 psi, turn the adjustment screw clockwise).
6. Check the pressure switch setting according to the procedure in Section D above.
7. Repeat steps 4 & 5 until the readings indicated in Section D-4 have been met.
8. Disconnect the ohmmeter or continuity checker and disconnect the control unit from its compressed air supply, replace plug over adjustment screw.

#### E. Case Assembly

1. Install the top half of the case using the retaining ring removed in section A, making sure that the front panel fits in its groove, and all wires and air hoses fit in without strain.
2. Position the power cord so that it feeds through the slot in the case near the air fitting. The knot in the power cord must be inside the case.
3. Attach the lower half of the case using the 4 screws removed in section A, making sure that it fits properly without binding or pinching any hoses or wires.

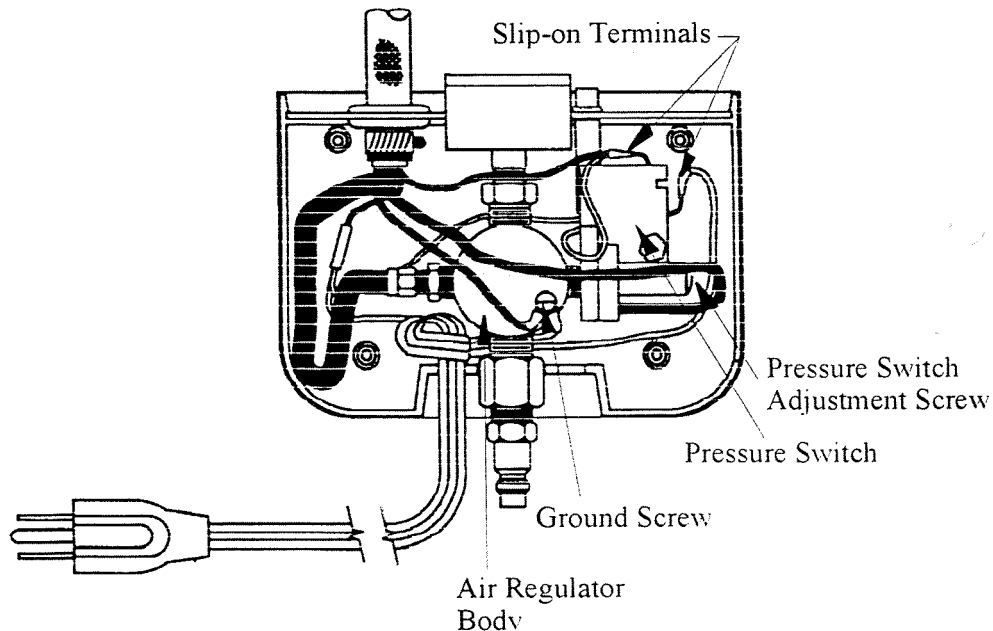


Fig. 1

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