



## Power Vent in High Ambient Conditions

This technical bulletin is for all Non-ULN 40- and 50-gallon models, tall and short.

Water heaters installed in high ambient temperature conditions can create issues with operation and safety. Rheem has developed a kit and instructions to allow for water heaters to be installed in these high ambient temperature conditions such as attics, garages, etc.

The blower motor housing consists of a high temperature limit switch. This switch disables the heater before the high heat can compromise the vent material (PVC, CPVC, ABS). Each type vent material has different temperature limits. The attached instructions need to be followed if the power vent water heater is installed in a high temperature ambient condition. Greater than 100°F is considered high ambient conditions.

This high ambient temperature kit includes a high temperature limit switch with a higher temperature rating (175°F). Therefore, the vent material needs to be selected carefully. Use of this kit requires the first 10 equivalent feet of vent pipe and/or fittings be of CPVC or ABS. See the Use & Care Manual for additional information.

**Note:** Gluing different types of plastic may require special solvents and glue. This may also be prohibited in your area. Please check with authority having jurisdiction.

Included in the kit part number SP21171:

- Temperature Limit Switch
- Installation instructions (AP22143)

Vent Pipe Material

- CPVC (Schedule 40, ASTM F441)
- ABS (Schedule 40, ASTM D2661)

Fittings Material

- CPVC (Schedule 40, ASTM F438)
- ABS (Schedule 40 DWV, ASTM D2661)

# INSTALLATION INSTRUCTIONS

## Temperature Switch Replacement

### for 40 & 50 Gallon, Residential PowerVent Water Heaters

Read these instructions thoroughly and understand all steps and procedures before proceeding with the installation.

**⚠DANGER:** Failure to properly install the temperature switch in the blower assembly may result in unsafe operation of the water heater causing bodily injury, explosion, fire or death.

#### 1. INSPECT SHIPMENT:

Inspect contents for possible missing or damaged components.

This kit includes:

Qty. 1 – Temperature Switch

Qty. 1 – Installations Instruction Sheet

#### 2. ADDITIONAL INSTRUCTIONS REQUIRED:

Refer to the Use and Care Manual supplied with the water heater for complete information on the installation, lighting instructions, operation and maintenance of the water heater.

#### TOOLS REQUIRED:

- Torx T-20 screwdriver
- Long or Needle Nose Pliers

#### 3. POWER SUPPLY DISCONNECTION

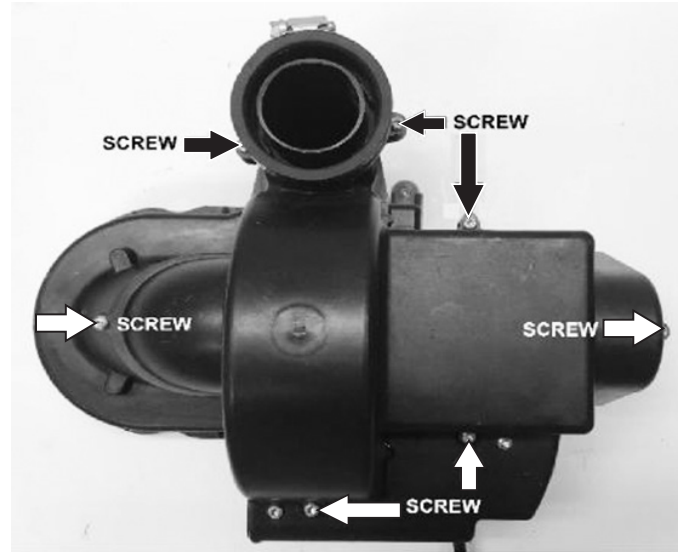
- Slide the “ON/OFF” switch located on the gas control to the “OFF” Position.
- Unplug the electrical supply cord of the blower assembly from the electrical supply.

#### 4. VENT PIPE AND HOUSING DISASSEMBLY

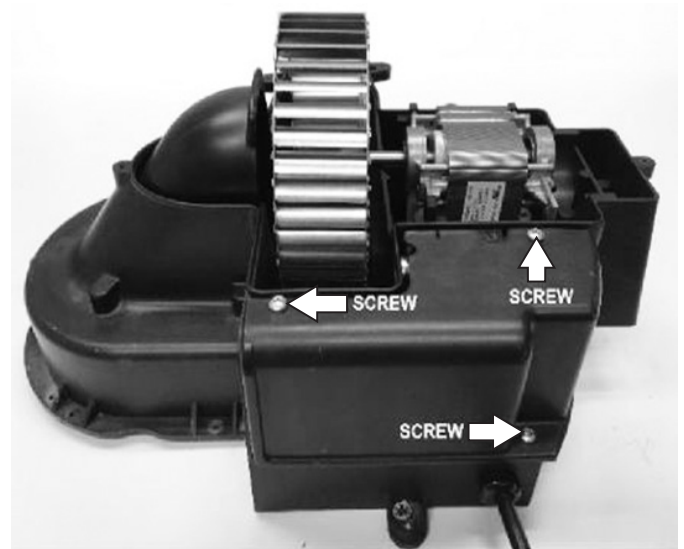
- Using a 5/16” Nut Driver or Slotted Head Screwdriver loosen the hex head, band clamp then disconnect the vent pipe or fitting from the blower assembly.



- Using the Torx T-20 screwdriver, remove the seven (7) screws securing the top of the blower housing.

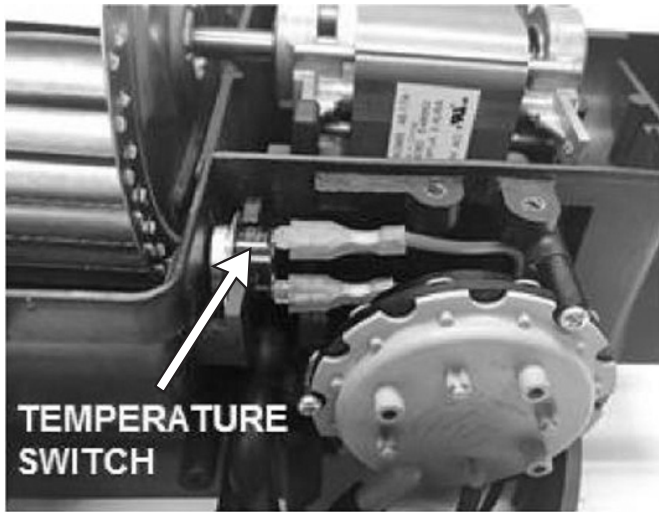


- Lift the top housing off the blower assembly and set it aside.
- Using the Torx T-20 screwdriver, remove the three (3) screws securing the control compartment door then remove the door and set it aside.

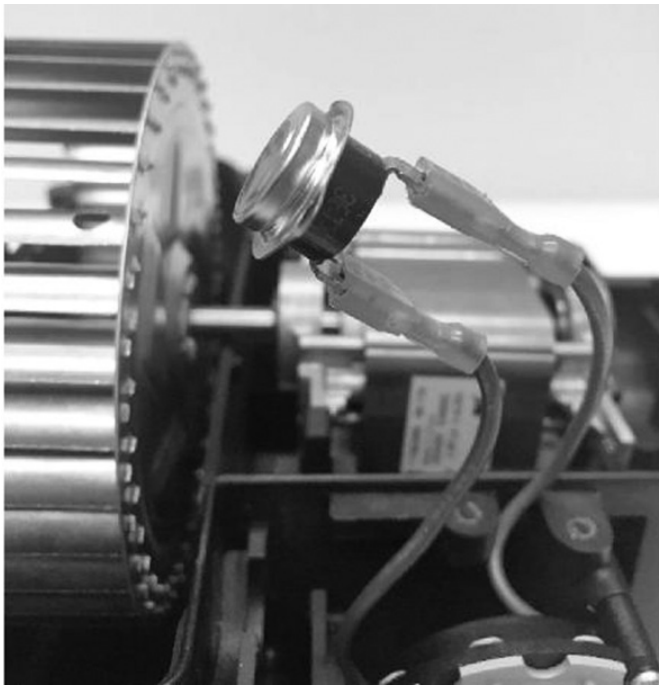


#### 5. TEMPERATURE SWITCH REMOVAL

- Locate the temperature switch and pull it up and out of its mounting bracket.



- b. Disconnect the two female, wiring terminal connectors from the temperature switch.



## 6. TEMPERATURE SWITCH INSTALLATION

- a. Locate the new temperature switch from the Service Parts Kit.

**IMPORTANT: Your temperature switch and its setting may be different from the one removed or shown above.**

- b. Connect the two female, wiring terminal connectors to the temperature switch.  
c. Reposition the temperature switch back into its mounting bracket on the blower assembly.

## 7. VENT PIPE AND HOUSING ASSEMBLY

- Replace the control compartment door back onto the blower assembly then reinstall the three (3) screws that secure the door in place.
- Replace the top housing back onto the blower assembly then reinstall the seven (7) screws that secure the housing in place.
- Ensure that the rubber coupling in the vent outlet is in place and in good condition and shows no signs of cracks or tears
- Reinstall the vent pipe or fitting into the blower coupling making sure that the vent pipe is fully seated then tighten the hex head, band clamp.

## 8. POWER SUPPLY CONNECTION

- Plug in the electrical supply cord of the blower assembly to the electrical supply.
- Slide the “ON/OFF” switch located on the gas control to the “ON” Position.
- Rotate the gas control, temperature knob to the desired setting.
- If the appliance will not operate, follow the instructions “TO TURN OFF GAS TO APPLIANCE” found on markings on the water heater and in the Use & Care Manual that was supplied with the water heater.

**IMPORTANT: Use of this kit requires the first 10 feet equivalent of vent pipe and/or fittings be of CPVC or ABS. See the Use & Care Manual for additional information.**

**Refer to the Use and Care Manual supplied with the water heater for the remainder of information on the installation, lighting instructions, operation and maintenance of the water heater.**