

Important Safety Notice

Replacement of Upper Thermal Limit Switch Instructions 22306301 for PTAC Owners

ATTENTION

In cooperation with the U. S. Consumer Product Safety Commission, Goodman Company, L.P. is conducting a safety recall of certain PTAC units because of a reported fire hazard. You should read these instructions carefully and completely before starting to install the replacement switch on these units.

Description

The following installation instructions explain how to replace the upper Thermal Limit Switch on the heating element assembly of certain Amana, Trane, and American Standard Branded PTAC's. Goodman and Trane/American Standard are separate, unrelated entities. A photo of the Upper Thermal Limit Switch is located on page 2.



WARNING

To avoid personal injury or death due to electrical shock, or property damage, you must unplug or otherwise disconnect power to the unit before you service it. Units installed with a subbase will require the removal of the access panel on the front of the subbase to access the unit's power cord. To disconnect power to any unit hard wired to the building's power supply, move the unit's circuit breaker to the "OFF" position, or remove the unit's fuse(s).

Tools Needed

¼" Nut Driver

5/16" Nut Driver

3/8" Open End Wrench

Two 11/32" Open End Wrenches (supplied with the kit for Type 1 Limits Only)

Needle Nose Pliers

Marker or Pen

Repair Sticker (supplied)

Penetrating Lubricant & Toothbrush

Thermal Limit Replacement Procedures

1. Set the selector switch to the "OFF" position and disconnect power to the unit as described in the warning above.



2. Remove the front cover assembly by pulling from the bottom straight out until clips release, and lift up the cover. Inspect the air filter and clean if required. Set cover aside in safe place.

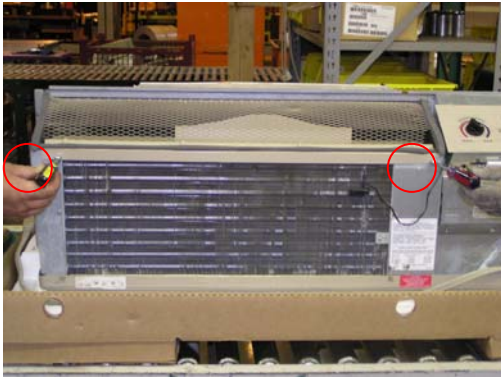
NOTE: Some units may have two ¼" screws securing the front cover to the unit. These screws are located in the filter compartment. You will need to remove these screws before removing the front cover.



3. Remove the discharge screen by removing the two screws securing the screen to the unit. Use a 5/16" nut driver to remove the screws, which are located on each corner of the discharge screen as indicated by the circles in the image below. Once screws have been removed, carefully remove the screen and set it aside.



- Remove the blower intake and attached heating element by removing the two screws (circled) securing the intake assembly. Use a ¼" nut driver to remove the screws.



- Next, lift out the blower intake and heating element assembly from the PTAC unit. Be careful not to pinch or cut the two wires attached to the heating element. Damaged wires must be replaced; call the telephone number provided at the end of these instructions for assistance.



- The upper Thermal Limit Switch used on the heating element is one of two types. The following two photos illustrate the two different types of limit switches.**

Note: Only the upper thermal limit switch (located closest to the top of the unit) is replaced as part of these instructions.



Thermal Limit Type 1



Thermal Limit Type 2

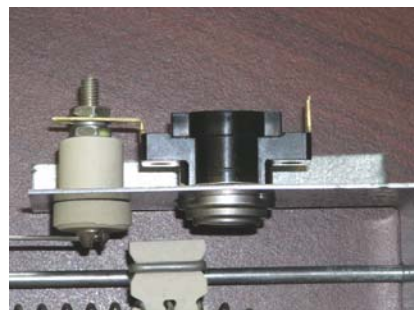
- If the Thermal Limit is Type 2 follow steps 8-10. For Type 1 proceed to step 11. Only the top Thermal Limit Switch will be replaced.**

Beginning of Type 2 Thermal Limit repair procedure

- Using needle nose pliers disconnect the brown wire to the thermal limit switch. Using a 3/8" open-end wrench carefully loosen the 3/8" nut securing the thermal limit switch located on the top of the heating element. The nut does not have to be completely removed, just loosened to the end of the post. This will allow enough space to remove the limit switch. Lift out the old limit switch.



- Next, install the new thermal limit switch and retighten the loosened nuts. Reconnect the brown wire removed in the previous step to the terminal on the new thermal limit switch.

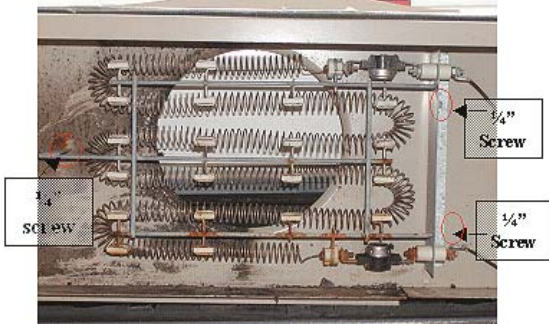


- When the new thermal limit switch and brown wire are reconnected, proceed to step 12.

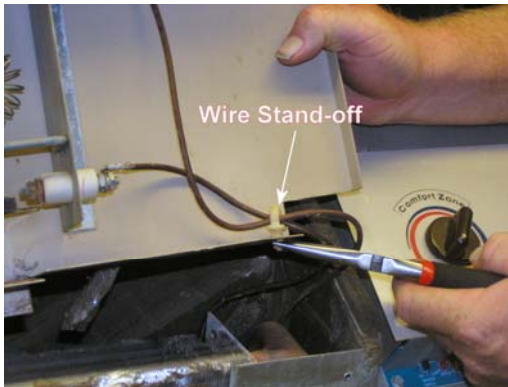
Beginning of Type 1 Thermal Limit repair procedure

11. If the thermal limit is Type 1, use the following steps for replacing the thermostat.

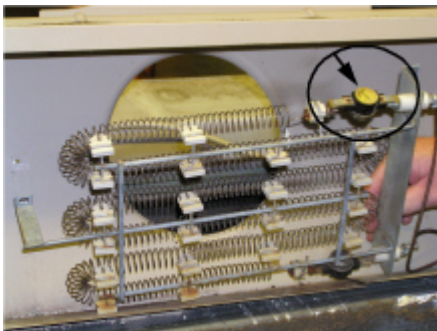
- a. Using a 1/4" nut driver remove the two (possibly three) 1/4" screws securing the heater assembly to the blower intake.



- b. Next, unhook plastic "wire stand-off" (see picture below) and remove blower intake. Carefully set aside the blower intake.



- c. Lean the heater assembly forward and identify the top thermal limit switch by marking it with a "T".



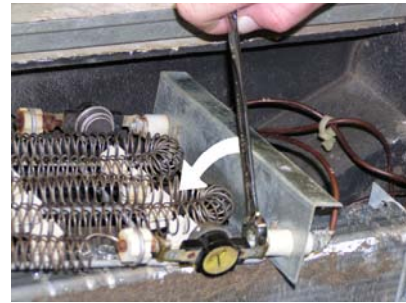
- d. Lay the heater across the top of the coil and blower wheel to gain access to the back side of the thermal limit switch and nuts.



IMPORTANT NOTE

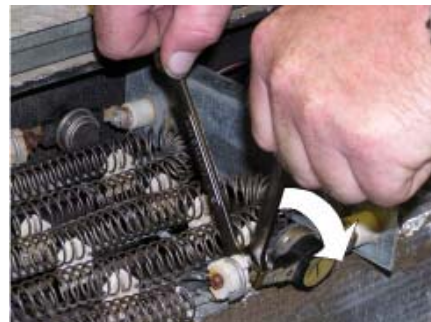
If there is rust present on the nuts and threads, apply "Penetrating Lubricant" to the nuts and threads using a toothbrush. Allow a minute to soak and then loosen the nuts.

- e. Remove the thermal limit switch marked with the "T" from the heating element assembly by loosening the thermal limit's right side 3/8" nut with a 3/8" wrench and the left side 11/32" nut using the two 11/32" wrenches provided.

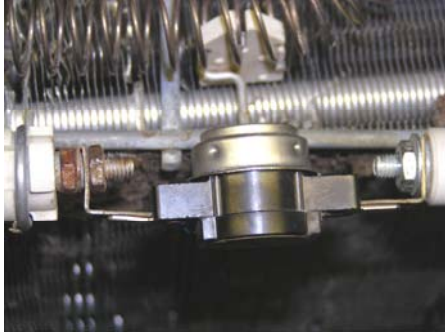


- f. There are two nuts on the left side securing the thermal limit in place. You will need the two 11/32" open-end wrenches provided to loosen the nuts. Use one wrench to hold the rear nut tight, and the second wrench to loosen the front nut on the thermal limit switch. Lift out the old limit switch.

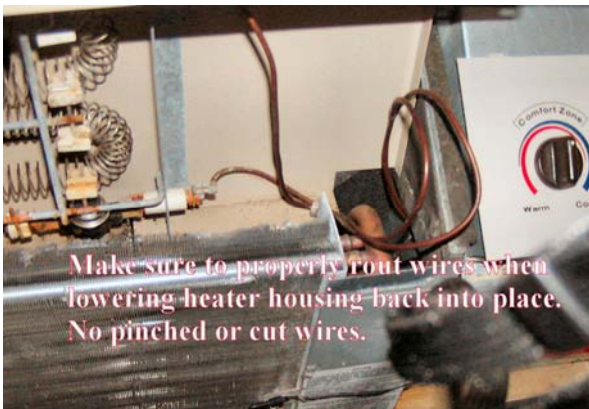
If the ceramic insulator is cracked or becomes cracked during the replacement procedure, call the telephone number provided at the end of these instructions for assistance.



- g. Now install the new thermal limit switch in heating element assembly. Remember to use the second 11/32" wrench as a back up when tightening the nut on the left side of the thermal limit switch. Ensure that the limit faces the heating element as shown in the picture below.



- h. Reattach the wire stand-off removed in step 11B. Reposition the heating element assembly back in place and resecure the element to blower intake using the screws removed in step 11A.
12. Once the heater and the wires have been reconnected, re-inspect the heater assembly to ensure the heating element was not broken, bent or otherwise damaged during the replacement procedure. Then reassemble the unit.
13. Lower the blower intake assembly back into the chassis. Make sure the blower intake is seated correctly so discharge screen will not touch the blower intake. Be careful not to pinch the heater wires when reinstalling the assembly.



14. With blower intake seated, reinstall the 1/4" screws removed in step 4, and set the discharge screen back in place. Make sure to seat the top of the discharge screen between the foam insulation and the top of the chassis. Then reinstall the screws removed in step 3.

15. Once the thermal limit switch has been replaced, you must place the label supplied with the kit on the control panel next to the model and serial number sticker. This indicates the PTAC has been repaired.
16. You can now reinstall the front cover on the PTAC. Set the top of the cover on first so top rail of chassis clips into the front, and then lower the bottom of front cover until the clips engage. Make sure selector switch is still in the "OFF" position and reconnect power.
17. Check unit operation in both heating and cooling mode. Permanently dispose of the old thermal limit switch.

IMPORTANT NOTE

If the threaded studs (see step 8 or 11E) of the heating element assembly or the heating coil are damaged during replacement, an alternative repair will need to be made. Do not return the unit to service. Please contact (800) 729-6123 for further instructions.

IMPORTANT NOTE

If you have any questions or concerns regarding these instructions or need any help understanding how to replace the limit switch, please contact us at (800) 729-6123.