

**DESA Heating LLC<sup>tm</sup>**

***GFA Thermal Switch Testing & Replacement***

# Thermal Switch



- The thermal switch is part of the safety system on gas forced air heaters.
- If operating properly, the switch will shut off the heater if an over-temperature situation (such as the heater running with the fan off or unplugged)
- If faulty, the switch will cause unexpected shutdowns.

# Tools Needed

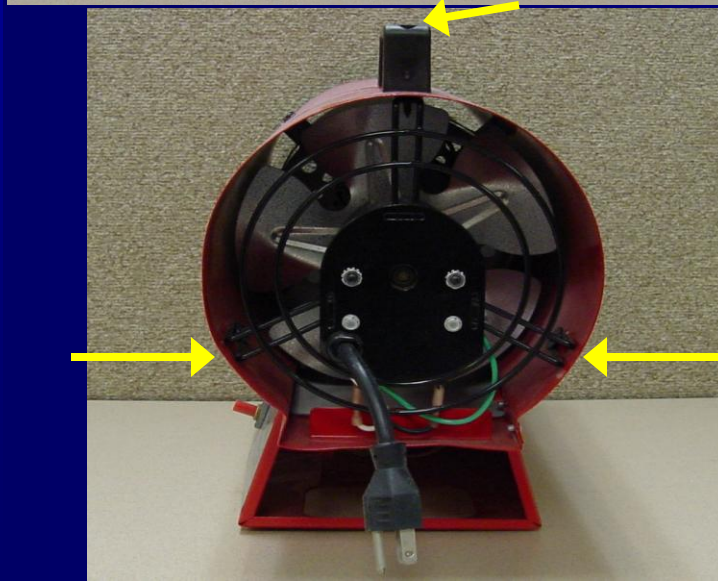


- 5/16" Nutdriver
- 1/4" Nutdriver
- 3/16" Nutdriver
- Philips screwdriver
- 3/8" Open-end wrench

# Getting Started

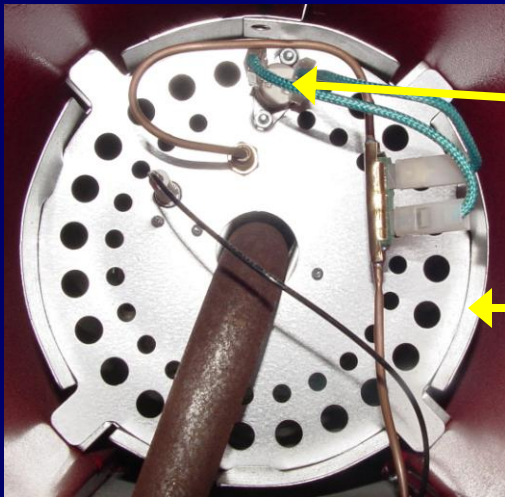


- Make sure the heater is disconnected from its gas supply and unplugged.



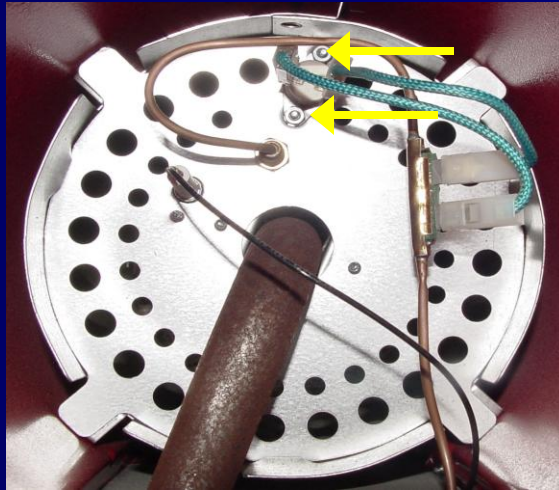
- Remove the screws holding the fan in place. There are two on either side of the heater and a third in the rear of the handle.

# Disassembly

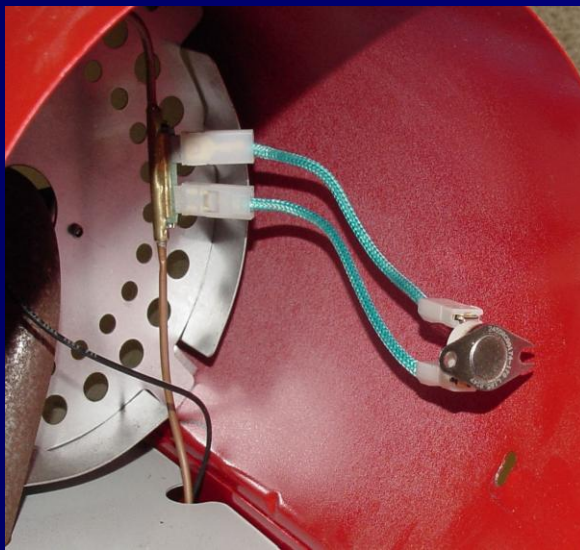


- Remove the fan from the back of the heater and set aside.
- We now have access to the thermal switch on the back of the burner head.

# Removing the thermal switch



- Use your 3/8" and 1/4" nut drivers to remove the bolts and nuts that hold the thermal switch in place

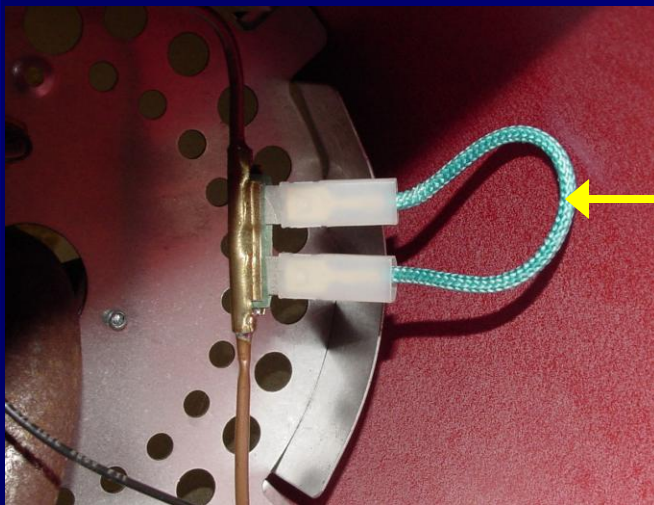


- Disconnect the switch from the two blue wires that connect it to the thermocouple assembly.

# Bypass test



- Set the thermal switch and screws aside



- Remove one of the two blue wires and set aside; loop the other blue wire to the other spade, completing the circuit.

# Caution!



- Plug the fan in first before igniting the heater. Turn the gas off before unplugging the heater. Failure to follow these steps will cause a flame that burns on the backside of the burner head, damaging the wiring and thermal switch.

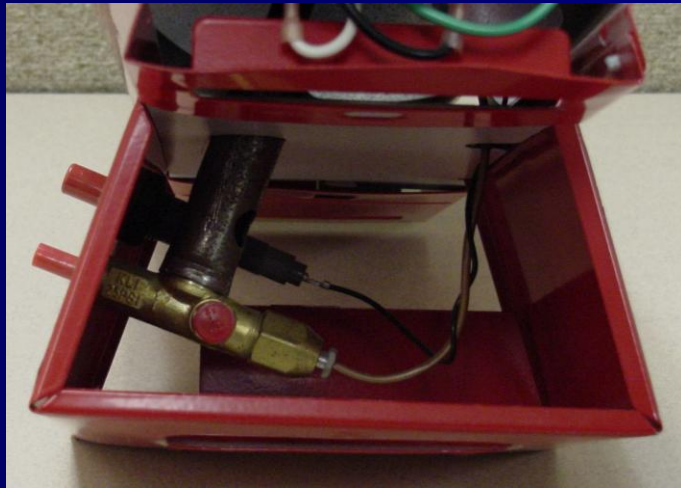


# Testing



- If the unit runs as it normally should, the thermal switch needs to be replaced.
- Operation without the switch is for testing purposes only – do not use this heater without the thermal switch in place

# Testing cont.



- If the heater still shuts off and does not run correctly there could be a problem with the thermocouple or the valve.



- Contact DESA heating technical services at 1-866-672-6040 for further troubleshooting.

**Desa Heating LLC**

**Thank you!**