



## Preparation Before Using Heaters & Fans

The main reason combining electric heat and fans have become the #1 method for killing bed bugs and eggs is because the heat penetrates everything in the infested area and all bed bugs **and their eggs** die quickly at around 120°F/49°C.

In order for the heat to penetrate everywhere bed bugs might be hiding you need to create enough space so the **hot air can circulate around** everything in the treatment area: furniture, appliances, clothing, wall hangings, behind electrical outlets and light switch plates, etc.

For best results follow these steps:

### Properly Prepare Infested Area for Heat Treatment – Do it Right the First Time to Avoid Having to Do It Again!

1. Seal all vents, windows and seams/cracks around doors with plastic sheeting (or insulation board) using **blue painters' tape** – **NO COLD AIR GETS IN, NO HOT AIR GETS OUT!**
2. Remove all light switch and electrical outlet plates for optimum heat penetration – bed bugs like the warmth
3. **FURNITURE:** move 3+ feet away from wall and not touching other furniture, remove cushions, unfold beds
4. **CLOSETS:** separate clothes on hangers so the hot air can circulate between them. Remove some clothes as needed and drape over furniture or lay them on the floor to maximize hot air circulation
5. **DRESSERS:** open or remove drawers, loosen clothes and other items in drawers, remove some clothes as needed and drape over furniture or lay them out on the floor
6. **WINDOWS:** to be safe remove vinyl blinds from the treatment area. Most are fine, some can warp
7. **ELECTRONICS:** leave in the treatment area but make sure they are turned off and unplugged. **DO NOT UNPLUG THE REFRIGERATOR.** Remove cell phones, tablets and laptops from treatment area.
8. Remove anything from the area being treated that will melt or explode or be harmed by the heat including **pets, plants, crayons, candles, cosmetics, ammunition, fireworks, fire extinguishers, aerosol cans, alcohols, lighters, etc. Prescription and non-prescription medications can be put in refrigerator. NOT A COMPLETE LIST – PLEASE USE COMMON SENSE OR CALL US AT 970-221-1036**
9. To speed up the process warm up the treatment area using furnace, boiler, PTACs (combined AC/HEAT units found in most hotel rooms), space heaters, etc. Preheat the area using the hottest setting possible for a minimum of 2 hours or overnight when possible. Starting your heat treatment at 80-90°F/27-32°C versus starting at 65°F/18°C will shorten the time it takes to achieve lethal temperatures and improve results. Bed bugs like it warm but die when it get's too hot.
10. Anything removed from the treatment area prior to starting a heat job must first be placed into plastic lawn/leaf or contractor bags and sealed tightly to avoid spreading bed bugs and their unhatched eggs into non-infested areas and making the problem worse. Bagged items should be disposed of or put into a dryer on highest/hottest temperature setting (very dry) for at least 20 minutes.
11. **BATHROOMS: DO NOT HEAT TREAT** as the wax ring underneath the toilet may melt. If you have seen or suspect bed bugs in the bathrooms move any infested items into the main heat treatment area and close the bathroom door being sure to use blue painters tape to seal the gap under the door.



### Using the Bed Bug Heater & Fans

1. Insert **orange** fiberglass pole into hole on top of heater and attach **black end** of black thermistor cord (pulls out from top of heater) to top of fiberglass pole with attached velcro strap. You will see the temperature at the tip of this cord on the front LCD readout of the heater.
2. Plug **orange heater power cord** into 110/120v standard wall outlet. This activates the internal heater fan and the automatic LCD thermostat which regulates the temperature. Air is drawn into the top, through the finned heater elements and blown out of the bottom of the heater on 3 sides
3. Be sure that **black heater switch** is in “OFF” position. On heater, connect twist-lock connector at one end of **black power cord** into underneath/bottom of thermostat control panel. **BE SURE TO BOTH PUSH UP AND TWIST INTO LOCKED POSITION. FAILURE TO TWIST INTO A LOCKED POSITION CAN CAUSE DANGEROUS ELECTRICAL CURRENT ARCING AND WILL VOID WARRANTY.**
4. **Do not touch the red automatic thermostat buttons.** The temperature has been preset at the factory not to exceed **145°F/63°C**.
5. Plug the other end of the **black power cord** into a stove receptacle, dryer receptacle or generator receptacle using one of the 4 included pig tail adapters. (Does not apply to HOTEL PACKAGE which plugs into PTAC outlets).
6. Once both ends of the **black power cord** are connected to the heater and plugged into a power source confirm **GREEN LIGHT** on front of control panel is **glowing which confirms power is flowing into the heater. You are now ready to turn on the heater.**
7. Turn **black heater switch** to “ON” position to activate heater elements. After 1-2 minutes heat will begin to come out of the bottom of the heater on 3 sides. **Toggles: 3 UP = 10,000 Watts. 3 DOWN = 6,250 Watts – see “Toggle Switches Explained” document.**
8. Plug **blue fan(s)** into standard 110/120v wall outlet 5-10 feet away from heater and point airflow either straight up towards ceiling or at an angle towards the ceiling, depending on the size of the room. Only operate fan(s) on HIGHEST/FASTEST setting. **Leave TIMER switch in ON position only.** The goal is to distribute the hot air throughout the treatment area as evenly as possible. **NOTE: Fans can plug into one another (daisy chain) as needed if wall sockets are limited.**

### Temperature Monitoring & Heater Shut-Down

1. Place 1 of the 3 battery operated temperature sensors on the floor, the 2<sup>nd</sup> sensor on furniture about 4 feet above the floor or windowsill and a the 3<sup>rd</sup> sensor as close to the ceiling as possible (on top of a ladder or tall furniture). Both the sensors and the readout have been programmed at the factory so **do not to push any buttons** on any of them.
2. Run heater and fans until treatment area reaches 120°F/49°C, about 90-120 minutes average, and place plastic milk crates or risers in between the mattress and box spring or lean them up against each other in an “A” configuration. This ensures equal heat penetration from all sides
3. Continue treatment for 3-4 additional hours or until internal/core temp of furniture reaches >120°F/49°C.

TIP: use a digital meat thermometer to confirm internal lethal temperatures (>120°F/49°C) in furniture.

4. Turn **black heater switch** to “OFF” position to deactivate heater elements
5. To ensure maximum lifespan of heaters allow internal heater fan (**orange power cord**) to run for 5-10 additional minutes to allow heater elements to cool down
6. Unplug **orange heater power cord** to disconnect internal heater fan
7. Turn off and unplug external **BLUE FANS** or use them to draw in cooler air from outside the treatment area
8. Open windows and/or turn on AC to bring temperature down to normal

The user of this equipment is responsible for verifying the building electrical system is adequate, properly sized and installed per NFPA 70: National Electrical Code for the load indicated. PestPro Thermal Systems is not responsible for damages or non-functionality due to an improper electrical system. PestPro Thermal Systems recommends consulting with a licensed electrician prior to connecting the heater(s).