

# ZappBug Heater™

## Owner's Manual



**IMPORTANT NOTICE:**  
**Read Warnings Before Use!**

**SAFE PROVEN EXTERMINATION**

V2.01.19

This page is intentionally left blank

# Table of Contents

Important Safety Information.....4

WARNING!.....5

Hints & Tips.....7

Components Included.....8

Use & Operation.....9

    1. Unfold the ZappBug Heater.....9

    2. Connect the Heating Unit .....9

    3. Support Configuration.....10

    4. Wireless Thermometer Set Up.....11

    5. Turn on Heating Unit.....14

    6. Insert Items for Heat Treatment.....15

    7. Run Time.....15

    8. Remove Items After Heat Treatment.....16

    9. Folding and Storing the ZappBug Heater.....16

Heat Treatment Chart.....17

Troubleshooting.....18

Warranty Information.....20



## **Important Safety Information**

You must comply with all safety information and operating instructions when using this product. Please read all Warnings outlined in this manual.

Failure to comply could result in personal injury, damage to property, or fire hazards.



## Read This WARNING! Before Proceeding

### WARNING!

Power outlets with poor electrical connections can become dangerously overheated and may result in severe injury, damage to property, or fire.

High-power appliances require more electric current than most household items. Old or high-use outlets can have poor or loose connections. The high current required by this product, combined with a poor electrical connection can cause outlets to overheat and melt. It is important to make sure that any outlets used with this product have strong electrical contact.

**Follow the steps below for safe use of ANY high-power appliances:**

**1. Inspect outlet connection and contact strength.**

Insert a standard, two-prong plug (without third, Ground connection) into outlet. Ensure that both prong connections offer equal and strong resistance when inserted. If the two-prong plug does not offer strong resistance or one prong feels easier to insert than the other, this outlet could be unsafe for high-power appliances. Have an electrician inspect and/or replace outlet before use.

**2. Inspect outlets and plugs after each use**

**3. If you are unsure about an outlet, have an electrician inspect and/or replace the outlet.**

## Warning: Extension Cords

Some extension cords are not adequate to carry the load of current drawn by this heating unit without becoming dangerously overheated. If an extension cord *must* be used, do not use a cord rated less than *1500 watts* or *15 amps*, and of a minimum size of 16 gauge. Only use an extension cord with the UL seal. Use of an inadequate extension cord may result in overheating of the extension cord or fire.

## Warning: Old Electrical Wiring and Outlets

Each ZappBug heating unit will draw 12-15 amps of current (1500 Watts) and must be run on circuits rated **15 amps and above only**. Some old electrical wiring and outlets may not be capable of sustaining these loads. If you are unsure of the electrical wiring or outlets in your location, contact an electrician before operating ZappBug or any other high-current products. Old or faulty electrical wiring could lead to damage, injury, or fire. If an electrical cord appears deformed or feels hot to the touch, unplug it immediately and contact ZappBug customer service.

## Additional Warnings

- Failure to comply with the warnings presented by this manual may result in severe injury and/or damage to property.
- Incorrect assembly or improper use may result in hazardous conditions. Only assemble the ZappBug Heater according to instructions in this manual.
- **Do not block air intake or exhaust vents on heater.** Obstructions of the intake or exhaust vents can cause the heating unit to overheat and pose a fire hazard. Always maintain **6 or more inches of clearance** around the heating unit during operation.
- Do not use outside or in a wet environment. This product is designed for indoor use only.
- Do not reach into or insert objects into the ventilation fan while the heating unit is running. This may result in personal injury or damage to the unit.
- Do not place flammable objects or aerosols inside the ZappBug Heater.
- Some items may be damaged during heat treatment. Use caution when heat treating fragile items made of materials such as antique leather and wood.
- Consult the manufacturer of items in question, such as electronics, for a maximum safe temperature before placing them in the ZappBug Heater. Always monitor the temperature to ensure that it does not exceed the recommended level.

# Hints & Tips

## BED BUGS

- Researchers have found that bed bugs at **all life stages** die quickly at temperatures at or above **120°F**.
- Bed bug eggs are nearly translucent and incredibly difficult to detect.
- A best practice is to **heat treat all items** that may have been in the vicinity of bed bugs even if no bed bugs are found. For pictures of bed bugs and bed bug eggs, please visit [\*\*zappbug.com/bed-bug-pictures\*\*](http://zappbug.com/bed-bug-pictures).
- Bed bugs can survive for up to **18 months without feeding**. It is critical that all potentially infested items are heat treated or, alternatively, sealed and stored for 18 months.
- Bed bugs can flatten their bodies and **slip into tiny cracks**.
- Bed bugs are unable to climb smooth, nonporous surfaces like the lining of the ZappBug Heater.
- For more information please visit [\*\*zappbug.com/get-rid-of-bed-bugs\*\*](http://zappbug.com/get-rid-of-bed-bugs).

## THE ZAPPBUG HEATER

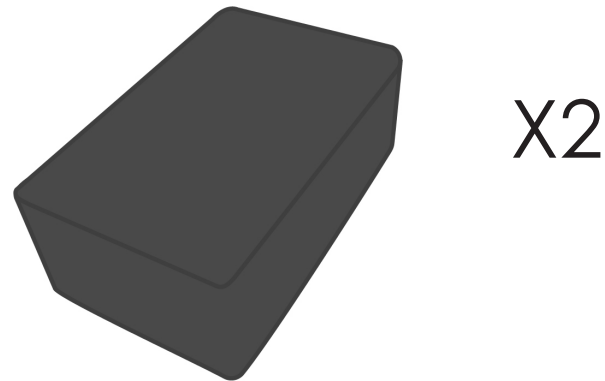
- Always use provided support blocks and/or net to ensure maximum air circulation around your belongings. If your belongings are densely packed together it will take significantly more time for them to reach bed bug killing temperatures.
- Make sure to turn the heating unit on **before placing potentially infested items inside the ZappBug Heater**.
- Only use indoors with an **ambient room temperature at or above 70°F**. The heating unit works by adding heat to the air from the room in which it is located. If the ambient temperature is below 70°F, the ZappBug Heater may not reach bed bug killing temperatures.
- Always **monitor the temperature** inside the ZappBug Heater with the thermometer and thermometer probe provided.
- Do not place the ZappBug Heater directly on cold floors such as concrete. **Always place the ZappBug Heater on surfaces at or above 70°F**.

# Components Included

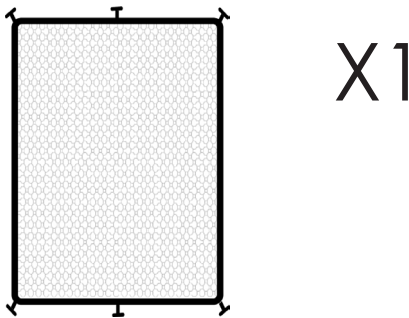
The following components are required for proper use of this product. If you did not receive all of the components listed below, contact ZappBug immediately by phone at (206)-430-5514 or by e-mail at [service@ZappBug.com](mailto:service@ZappBug.com).

*Note: Some components may appear different from the representations below.*

Support Block



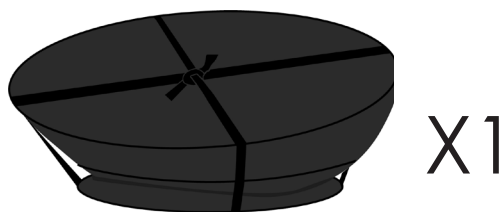
Support Net



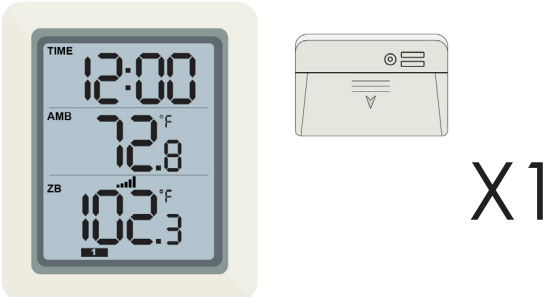
ZappBug Heating Unit with Integrated Timer



Folded ZappBug Heater Shell and Carry Bag



Wireless Thermometer and probe

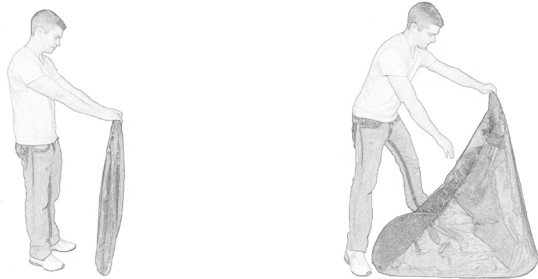




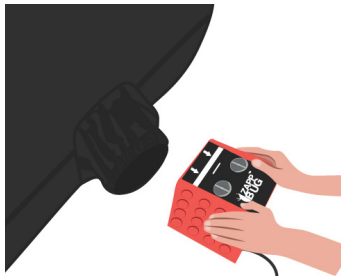
# Use & Operation

## 1. Unfold the ZappBug Heater

**Note:** It is normal for one side of the ZappBug Heater to appear warped. This allows the ZappBug Heater to easily fold and does not affect functionality. If warping appears excessive, shake the ZappBug Heater to ensure that each side panel is fully extended.



## 2. Connect the Heating Unit



Locate Ventilation Tube



Place Base of Heating Unit  
in Tube



Stretch Tube Around Heater  
(Observe "Do Not Cover" markings)

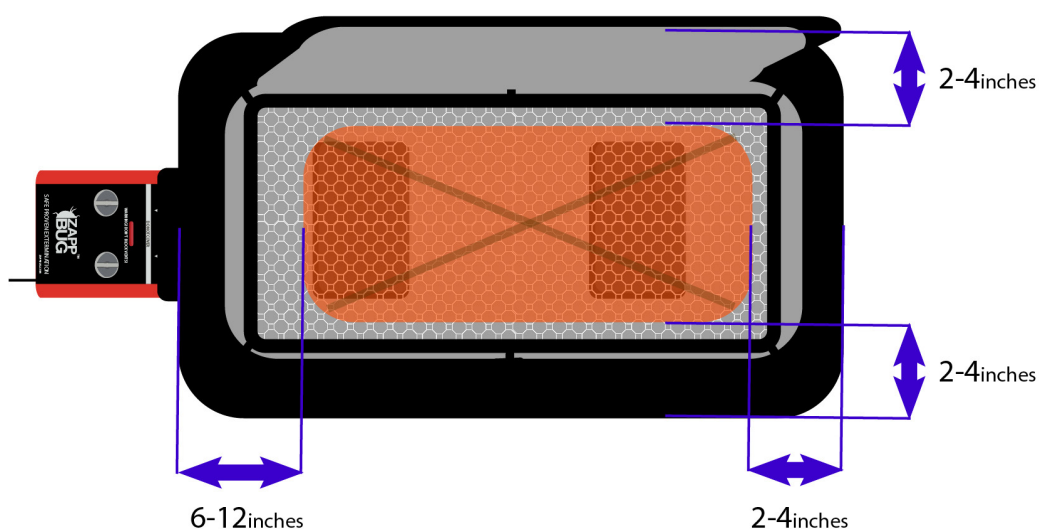
**Note:** It is normal for small gaps to appear between the textured side of the heating unit and the ventilation tube. Bed bugs **will not escape** through these gaps if the heating unit is on. Bed bugs experience thermal shock and are not capable of moving toward the heating unit. Always ensure that the heating unit is on when placing potentially infested items inside the ZappBug Heater.

**Safety Note:** Always maintain a minimum clearance of 6 inches around the heating unit when operating.

# Use & Operation (continued)

## 3. Support Configuration

The ZappBug Heater has a unique and modular support system which is designed to accommodate a wide range of items. Support blocks allow for ventilation around rigid, heavy items such as luggage and small furniture. A combination of **support blocks** and the **support net** allow for ventilation around loose items such as books and clothing. Follow the appropriate support configuration for your items as shown below. It is critical that air is allowed to flow freely around the items you are heat treating.



Place support blocks **under** the support net

Attach **support net** to loops located **inside** the ZappBug Heater

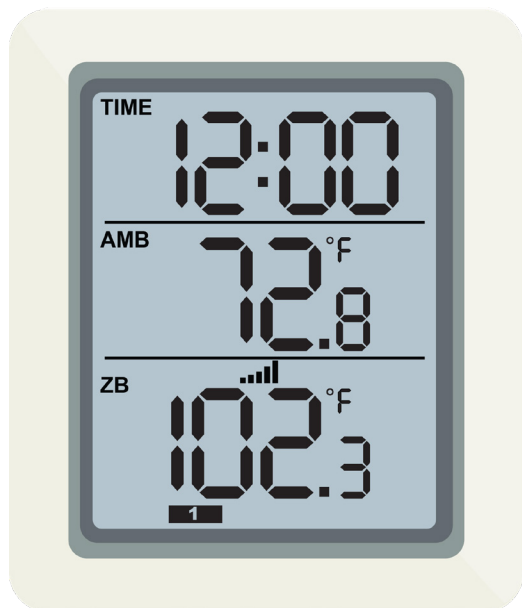
If air cannot flow freely in the unit it will take longer to reach 120°F. If items are placed too close to the heaters, or if airflow inside is obstructed and the heater will beep. Whenever possible, do not allow items to touch the sides, top, or bottom of the ZappBug Heater to ensure adequate airflow.

**Note:** Densely packed items will take longer to treat. Better air circulation will heat your items faster and ensure bed bug killing temperatures. Always use the included thermometer and thermometer probe.

# Use & Operation (continued)

## 4. Wireless Thermometer Set Up

The ZappBug Heater comes with a thermometer base station and a remote probe.



**Thermometer Base Station**



**Thermometer Probe**

**Note:** Set up the thermometer base station first

# Use & Operation (continued)

## Thermometer Base Station Set Up

1. Remove the battery door on the back of the base station as, shown in **Figure 1** below.
2. Insert one AA battery. The LCD segments will light up for a few seconds to verify that all segments are operating properly.
3. The thermometer base station will instantly display the ambient temperature. The probe temperatures will update on the display within a few minutes after you place batteries in the thermometer probe. **See Thermometer Probe Set Up on page 13.**

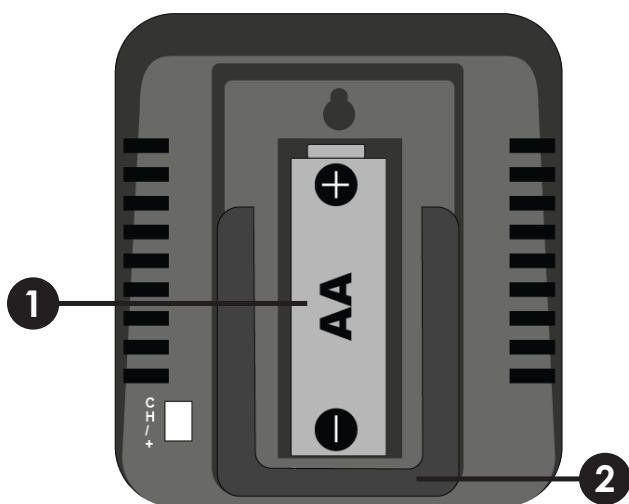


Figure 1

Figure 1

1. Battery Compartment
2. Stand Mount

**IMPORTANT: Insert batteries and set up thermometer base station first**

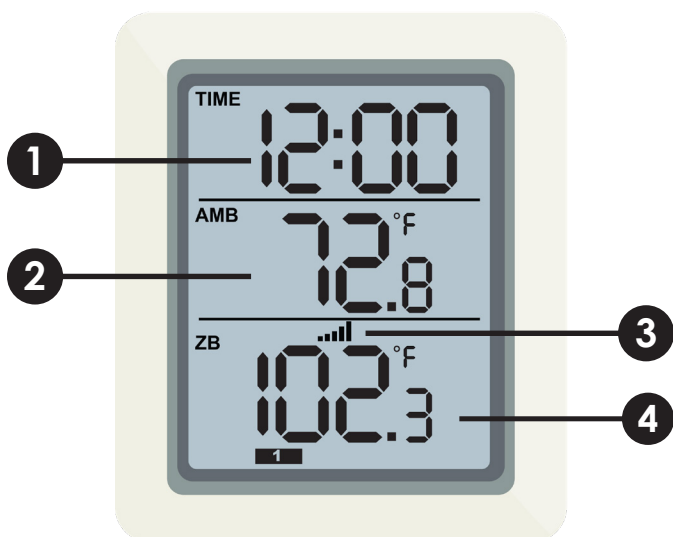


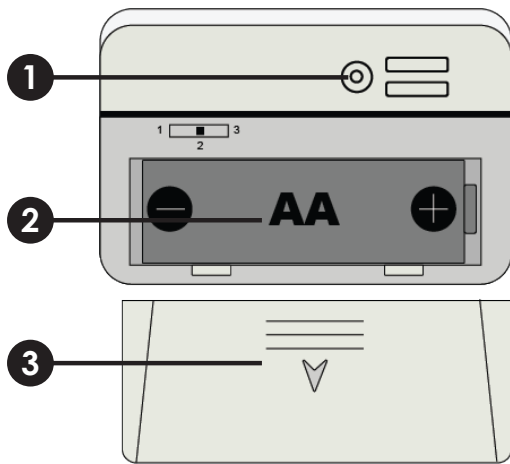
Figure 2

Figure 2

1. Time
2. Ambient Room Temperature
3. Reception Icon
4. Probe Sensor Temperature

# Use & Operation (continued)


## Thermometer Probe Set Up



### Thermometer Probe

1. Wireless Transmitter LED
2. AA Battery
3. Battery Door

Remove the battery door on the back of the thermometer probe by sliding the door down and insert one AA battery.

1. After inserting the battery, the remote sensor LED indicator will light for 4 seconds, and then flash once per minute, thereafter. Each time it flashes, the sensor is transmitting data.
2. Close the battery door. While in search mode, the reception icon  will flash on the thermometer base station. **See Figure 2.**
3. Place the wireless thermometer probe in the deepest, most insulated part of the item being treated. Allow the ZappBug Heater to run for 60 minutes or longer after the temperatures reaches 120°F.
4. If you are not present while the unit is running, we advise setting the timer to 8 hours, however this is generally more time than required for the ZappBug Heater to reach 120°F and maintain it for one hour.
5. If the base station does not update, view troubleshooting tips on **page 18.**

# Use & Operation (continued)

## 5. Turn on Heating Unit

1. Plug the heating unit into power outlet
2. Place power switch in ON position.
3. Press the TIMER button to select desired run time.

We recommend using the 8-hour setting for large loads and the 4-hour setting for small to medium loads. Always use the included thermometer and thermometer probe to confirm that the temperature reaches lethal levels. See Heat Treatment Chart **on page 17** for more information.

**Safety Note:** Each heating unit draws 1500 watts of electrical power. Do not use extension cords rated below 1500 watts.

## Warning Light

If the unit overheats, the warning light will turn on and the unit will begin to beep.

**If the warning light is on, turn the heating unit off by switching the power switch to the OFF position.** Remove the heating unit from the ventilation tube and allow it to cool for 20 minutes.

The unit overheats when hot air is being blocked from exiting the heating unit.

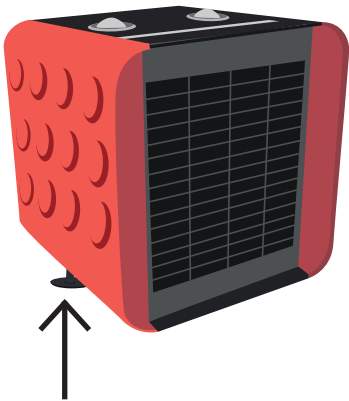
**Before restarting the treatment**, be sure that all ZappBug enclosure contents are at least 6 inches away from the heating unit to ensure proper air circulation.

If the problem persists, contact ZappBug customer service.



# Use & Operation (continued)

## Safety Tip Over Switch



Safety Tip Over Switch

If the heating unit and timer are plugged into an outlet, and the timer is ON, the heating unit should automatically begin to run. If the unit is plugged in but not operating, check the safety tip-over switch located on the bottom of the heating unit. The safety tip-over switch is a small black button that must be pressed in to run the heating unit. This switch is a safety feature to stop the unit from running if it is tipped over.

**Safety Note:** The heater draw 1500 watts of electrical power. Do not use extension cords rated below 1500 watts.

## 6. Insert Items for Heat Treatment

Place items inside the ZappBug Heater on top of support blocks and/or support net. To **ensure adequate airflow**, items should not touch the walls or ceiling of the chamber. Place the wireless thermometer probe in the deepest location in the items being treated to ensure all the materials will be exposed to the 120°F necessary to kill bed bugs. After that, zip the top cover closed.

**Hint:** Always open luggage and **arrange items loosely** to ensure proper air circulation. If items are densely packed, they take longer to heat.

## 7. Run Time

Once the remote sensor reaches a temperature of 120°F or above, run the heating unit for 60 minutes.

Bed bugs die at temperatures of 120°F or above in less than two minutes. The higher the temperature, the less time it takes to kill them. The standard practice for heat treating is to measure the temperature at one, representative location. When the temperature at this location reaches 120°F and is held at 120°F (or above) for one hour, you can be confident that any bed bugs in your belongings are dead.

# Use & Operation (continued)

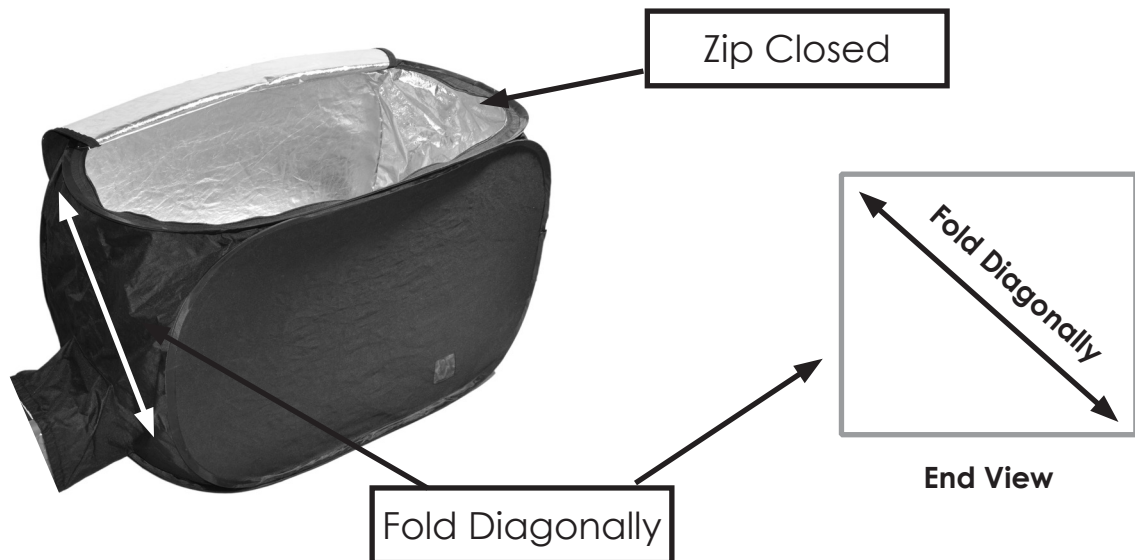
## 8. Remove Items After Heat Treatment

**WARNING:** Items may be hot after heat treatment. Wait for items to cool before handling. Items such as metal zippers can remain hot after heat treatment and cause burns.

**Hint:** If your home is infested with bed bugs, place all items into sealed plastic bags or containers immediately after heat treatment to prevent re-exposure.

## 9. Folding and Storing the ZappBug Heater

1. Disconnect ZappBug Heating Unit
2. Zip the top flap of the ZappBug Heater closed
3. Fold ZappBug Heater by pushing one of the four long edges across to the long edge diagonally opposite.



Store the **folded ZappBug Heater, thermometer and thermometer probe, support blocks** and **net** inside the carry bag. Store in a dry place.

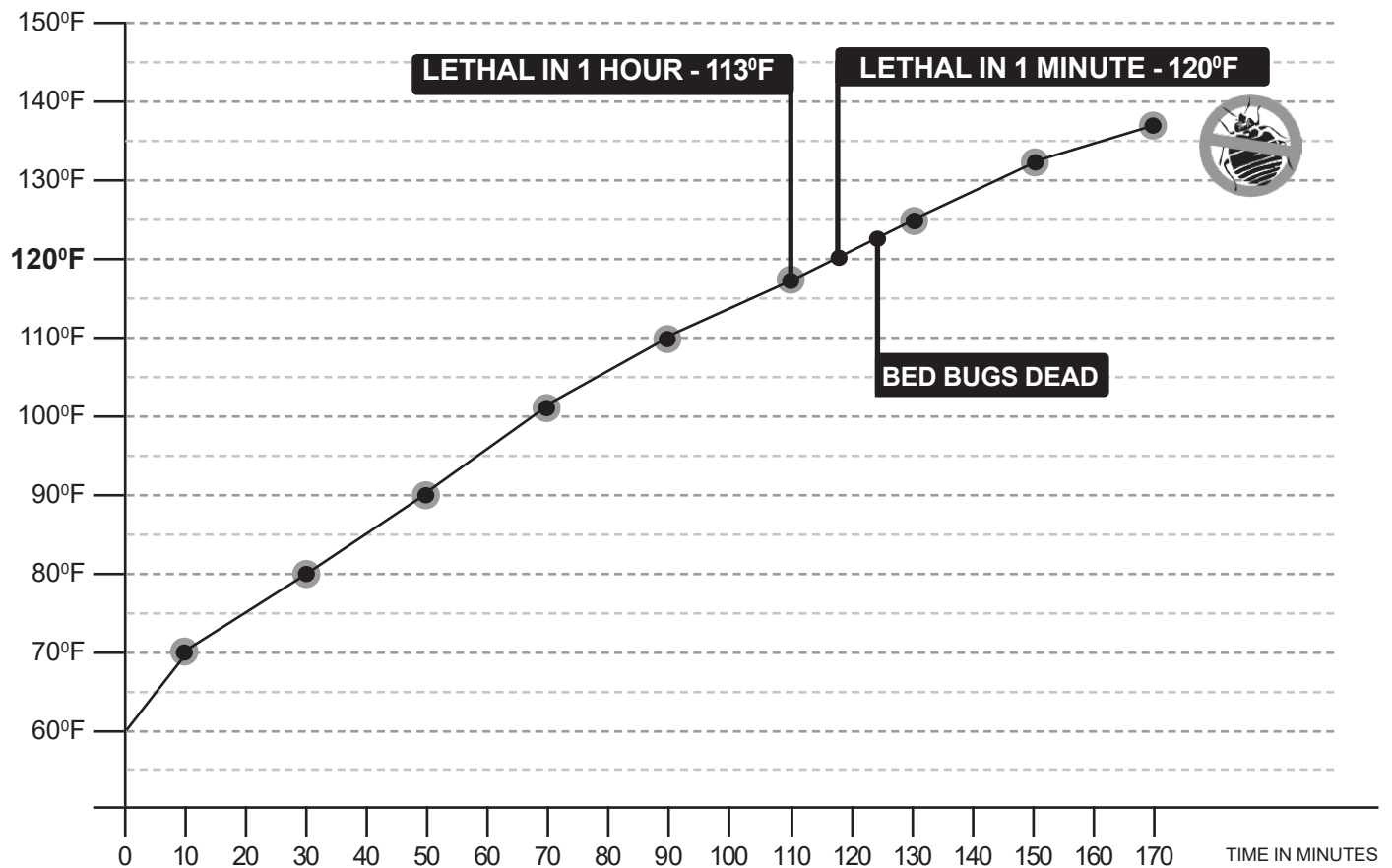


# Heat Treatment Chart

## Typical Heat Treatment

(Actual Treatment Times Will Vary)

TEMPERATURE  
INSIDE ZAPBUG



PEST	TREATMENT TEMPERATURE	HOW LONG BEFORE THEY DIE	PEST	TREATMENT TEMPERATURE	HOW LONG BEFORE THEY DIE
Ants	120°F	5 mins	Termites	125°F	10 mins
Bed Bugs	120°F	1 min	Scabies	122°F	10 mins
Cockroaches	130°F	7 mins	Lice	130°F	30 mins
Dust Mites	140°F	8 mins	Moths	120°F	30 mins
Fleas	140°F	10 mins	Carpet Beetles	120°F	30 mins

ZappBug recommends adding one hour to the suggested treatment time to ensure extermination.

To learn more, please visit us at [ZappBug.com](https://ZappBug.com) 17

# Troubleshooting

## Thermometer Reset

If you're having issues getting a temperature reading, you may need to reset the thermometer and probe. To do that, remove the batteries from the sensor and the display screen at the same time. Put the batteries back in the **display screen first**, followed by the probe.

Keep in mind that the display screen may lose signal if it is too far away from the thermometer probe, or if the unit heats above 140°F. If this happens, simply follow the reset instructions above.

## Safety Tip Over Switch

If you plug in and turn on the heating unit and it still does not turn on, please check the safety tip over switch which is a little black button on the bottom of the red square heating unit. This button needs to be pressed in for the heating unit to turn on and is designed so that if the unit is knocked over, possibly blocking the vents, it turns off for safety. When the heating unit is plugged into a wall outlet and is flat on the ground the button should naturally be pressed in and the heating unit should turn on.

## Getting Up to Temperature

It can take a while for the unit to fully heat up, sometimes 2-3 hours or more depending on ambient temperature or the size of the treatment load.

The most common reasons why the unit struggles to get up to 120°F are ambient conditions and item arrangement. The ZappBug Heater works best in rooms that are 70°F or above.

Whenever possible do not place the ZappBug Heater on concrete flooring. If you must, place insulation such as cardboard or area rugs between the ZappBug Heater and the floor in order to limit heat loss.

Always arrange items as spread out as possible to allow air to flow easily throughout the ZappBug Heater.

## Thermometer Probe Channel

If you are aren't able to receive a signal from the thermometer probe you may need to set the probe channel. To do that, take the back off of the thermometer probe and change the channel by sliding the button to position 1. The probe needs to be on the correct channel in order to monitor treatment correctly.

[illegible]

 [service@zappbug.com](mailto:service@zappbug.com)

# Warranty Information

## One Year Limited Warranty for the ZappBug Heater™

ZappBug™ warranty obligations are limited to the terms set forth below:

ZappBug warrants this product against defects in materials and workmanship for a period of 365 days from the date of original retail purchase. This warranty is good only to the original purchaser.

### What Does This Warranty Cover?

This warranty covers any defects or malfunctions in the ZappBug Heater. This includes ZappBug Heater items such as: one heating unit, one Zappbug Heater shell, one carry bag, one support net, two support blocks, and one wireless thermometer and probe set. Coverage terminates if you sell or otherwise transfer the ZappBug Heater.

### What Does This Warranty Not Cover?

This warranty does not cover the following:

1. Any defect or malfunction of the ZappBug Heater caused by abuse, misuse, neglect, carelessness, or accident.
2. Any defect or malfunction caused by alteration or modification of the ZappBug Heater.
3. Any defect or malfunction of the ZappBug Heater which would not have occurred if instructions in the owner's manual had been followed.
4. The cost of repairing or replacing any electronics that are placed in the ZappBug Heater. (In our experience, the ZappBug Heater operates at temperature ranges that are safe for most electronics, but we do not cover any damage to electronics that might occur while using the ZappBug Heater).
5. The cost of repairing or replacing any property which is damaged when the ZappBug Heater does not work properly.
6. The cost of repairing or replacing any property which is damaged due to not following the instructions in the owner's manual.

### What is the Period of Coverage?

Coverage under this warranty is for 365 days from the original date of purchase. Coverage terminates if you sell or otherwise transfer the ZappBug Heater.

### What Will We Do to Correct Problems?

If there is a problem, ZappBug will replace or repair (at ZappBug's discretion) the ZappBug Heater, free of charge. You are responsible for shipping charges to send the ZappBug Heater to us for repair or replacement. We are responsible for shipping charges to return the repaired or replaced ZappBug Heater to you.

### How Do You Get Service if There is a Problem?

E-mail us at [service@zappbug.com](mailto:service@zappbug.com) or call us at (206)430-5514. Tell us the problem and when and where you purchased the ZappBug Heater. We will e-mail you back with instructions on how to send us the ZappBug Heater for repair or replacement.

### How State Law Applies

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This page is intentionally left blank



**ZappBug™ Customer Service**

[service@zappbug.com](mailto:service@zappbug.com)

(206) 430-5514

Experts are waiting to assist

9a.m. - 5p.m. PST, Monday-Friday