

# Electric Baseboard Heater

## Owner's Guide

For how-to videos or more information, please visit:

[cadetheat.com/install/bb](http://cadetheat.com/install/bb)



**ESPAÑOL** ver la guía del propietario en [cadetheat.com/español/bb](http://cadetheat.com/español/bb)

**CADET**   
INVITING WARMTH



tested to UL standards

# IMPORTANT INSTRUCTIONS

⚠ When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

1. Read all instructions before using this heater.
2. A heater has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
3. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. If provided, use handles when moving this heater. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, and curtains away from heater.
4. To prevent a possible fire, do not block air intakes or exhaust in any manner. Do not use on soft surfaces, like a bed, where openings may become blocked.
5. Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock or fire, or damage the heater.

## SAVE THESE INSTRUCTIONS

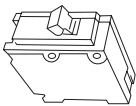
**NOTE: All baseboard heaters require a thermostat (sold separately)**

### KNOW YOUR VOLTAGE!

- The most important thing you need to do is verify the electrical supply wires you're using are the same voltage as the heater.
- **CHECK YOUR BREAKER!** If you're replacing an existing heater, check the labels of the old heater and use the same voltage.

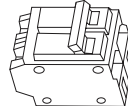
#### single-pole breaker

120 volt



#### double-pole breaker

240 volt



- Connecting a 120 volt heater to a 240 volt electrical supply will destroy the heater and void your warranty! Connecting a 240 volt heater to a 120 volt electrical supply will only give you 25 percent of the wattage!

### TOOLS REQUIRED OR YOU MAY NEED



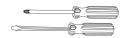
Wire Strippers



Wire Connectors



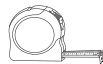
1½" Wood Screws



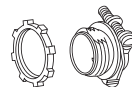
Straight and Phillips Screwdrivers



Drill and Drill Bits



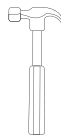
Tape Measure



½" Cable Clamp Connector



Volt Meter



Hammer (optional)



Stud Finder (optional)

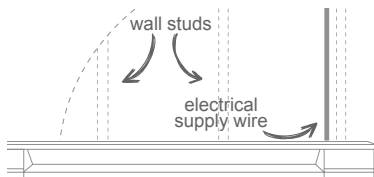
A multi-purpose tool or something to cut your existing base trim or molding (optional)

# INSTALLATION INSTRUCTIONS

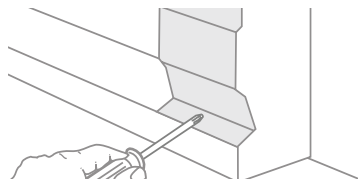
1. All electrical work and materials must comply with the National Electric Code (NEC), the Occupational Safety and Health Act (OSHA), and all state and local codes.
2. Use copper conductors only.
3. Do not install below an electrical receptacle.
4. Do not install the heater against combustible low-density cellulose fiberboard.
5. A heater has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
6. Maintain at least 12 inches minimum clearance in front of baseboard, and from objects hanging above (i.e., drapes), and 6 inches minimum on both sides.

## STEP 1 Locate or route electrical supply wires; mount heater to wall

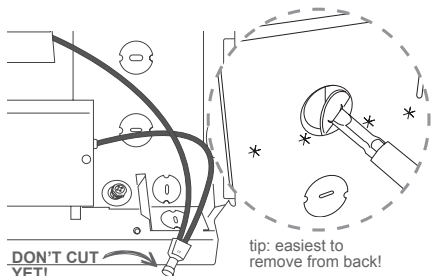
- For best results, install your baseboard heater under a window, along an outside wall, or as close as possible to an outside door. Install only in a horizontal position, not in a vertical position.
- Remove any floor base trim or molding so the heater will set flush against the wall. It can sit directly on any floor surface, including carpet.
- If you're wiring a **WALL** thermostat, route the electrical supply wire from the circuit breaker to the wall thermostat, and then to the baseboard. If you're wiring a **BUILT-IN** model BTF or SBFT2 thermostat, route the electrical supply wire from the circuit breaker directly to the baseboard.



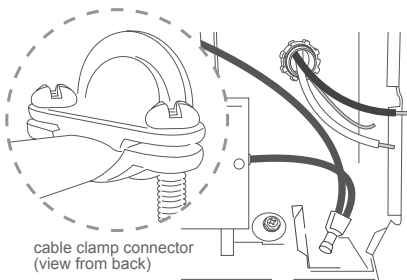
1. Turn off the electrical power supply. Locate wall studs and electrical supply wires. **DON'T CUT ANY FACTORY CONNECTIONS UNTIL YOU'RE READY TO WIRE!**



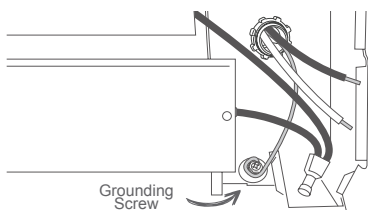
2. Remove only the wiring compartment cover. Wire connections can be made on either side of the baseboard.



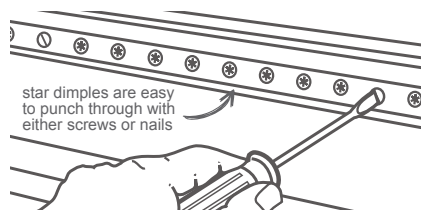
3. Remove one of the slotted knockouts in the wiring compartment.



4. Install a cable clamp connector (not included). Pull supply wires through the cable clamp connector leaving 6-inch wire leads.



5. Connect the grounding lead to the green grounding screw on the side you're wiring.



6. Mount the heater securely to two or three wall studs.

# INSTALLATION INSTRUCTIONS

## STEP 2 Baseboard Wiring

- KNOW YOUR VOLTAGE and CHECK YOUR BREAKER!
- All baseboards require three supply wires. For 120 volt baseboard wiring you will have 1 hot, 1 neutral and 1 ground. For 240 volt baseboard wiring you will have 2 hots and 1 ground; no neutral needed.
- If you're wiring a **model 8F2025**, go to page 5 now.
- Cut **ONLY ONE** factory connection and **ONLY** on the side you will be wiring!

### LEFT SIDE WIRING

If you're wiring on the left side, **CUT ONLY THE ONE FACTORY CONNECTION AT THE TOP.**

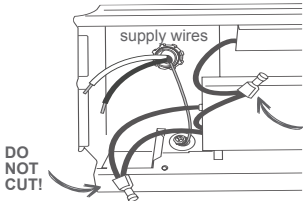


Figure 7a

**CUT ONLY THIS FACTORY CONNECTION! DO NOT CUT BOTH!**

### RIGHT SIDE WIRING

If you're wiring on the right side, **CUT ONLY THE FACTORY CONNECTION ON THIS SIDE.**

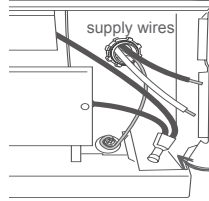


Figure 8a

**CUT ONLY THIS FACTORY CONNECTION!**

If you're wiring a **BUILT-IN** model BTF or SBF thermostat for your heater, go to those instructions now and follow that installation. When complete, proceed to **OPERATING INSTRUCTIONS**.

If you're wiring a **WALL** thermostat for your heater, follow the instructions below and the diagrams in Figures 7b or 8b, depending on which side you are wiring. Your electrical supply wires should be routed from the circuit breaker to the wall thermostat, and then to the baseboard.

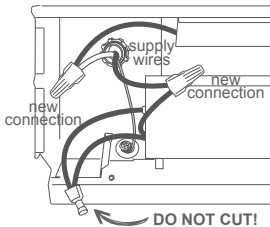


Figure 7b

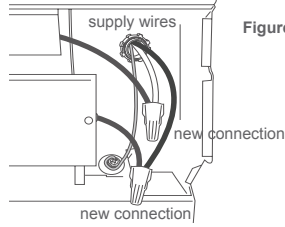


Figure 8b

1. Connect one supply wire to one of the heater wires that was just cut, it doesn't matter which one.
2. Connect remaining supply wire to remaining heater wire.
3. Screw the wiring compartment cover back on.
4. Turn power back on at the main disconnect panel.
5. Proceed to **OPERATING INSTRUCTIONS**.

## MULTIPLE BASEBOARD WIRING 240V SUPPLY ONLY

1. Multiple baseboard hook-up can be done with a wall thermostat. Two sets of electrical supply wires go through the strain relief connector of baseboard #1. One set of wires goes to the wall thermostat and the other set goes to baseboard #2.
2. There are two supply ground wires. You'll need another small piece of copper wire to make the 3-wire connection with the ground screw in baseboard #1.
3. For baseboard #1, connect each of the cut baseboard leads to one of the supply wires going to the thermostat, and one of the supply wires going to the other baseboard. They both must have a 3-wire connection.
4. For baseboard #2, make the connections in the wiring compartment exactly as shown in 7b or 8b above.
5. Turn power back on at the main disconnect panel.
6. Proceed to **OPERATING INSTRUCTIONS**.

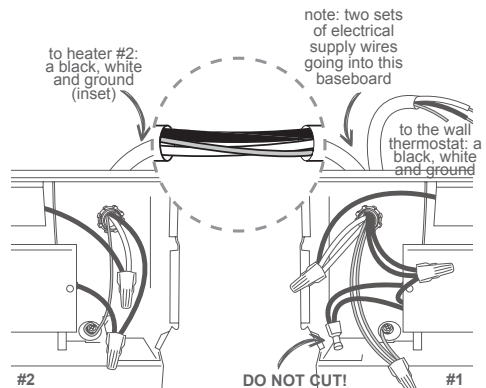


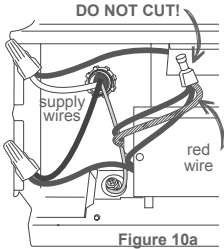
Figure 9

# INSTALLATION INSTRUCTIONS

## 8F2025 ONLY / LEFT SIDE WIRING

If you're wiring a **BUILT-IN** model BTF or SBF thermostat for your heater, go to those instructions now and follow that installation. When complete, proceed to **OPERATING INSTRUCTIONS** below.

If you're wiring a **WALL** thermostat for your heater, **FOLLOW THE INSTRUCTIONS BELOW** and the diagrams in Figures 10 or 11, depending on which side you're wiring. Your electrical supply wires should be routed from the circuit breaker to the wall thermostat, and then to the baseboard.



1. Cut the factory connection without the red wire.
2. Connect one supply wire to one heater wire.
3. Connect the remaining supply wire to the remaining heater wire.

Figure 10a

1. Cut the factory connection. Do not cut any connections on the left side.
2. Connect one supply wire to one heater wire.
3. Connect the remaining supply wire to the remaining heater wire.

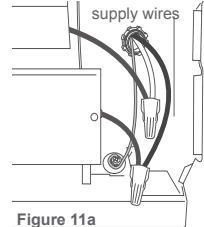
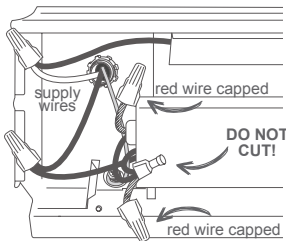


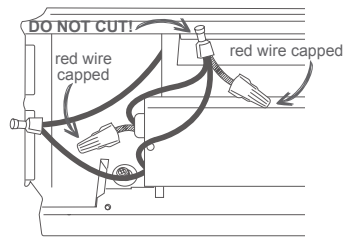
Figure 11a

4. All model 8F2025 model baseboards are factory set for 2500 watts. If you want to change to 2000 watts, proceed to Step 5 and the diagrams in Figure 10B or 11b, depending on which side you're wiring. If you do not want to change your baseboard's wattage, proceed to step 6 below.
5. For 2000 watt applications: Cut red wire and cap both loose ends with wire connectors, or wrap loose ends with electrical tape.



Left Side of Baseboard Shown  
2000 Watt Configuration / Heater is wired on left side

Figure 10b



Left Side of Baseboard Shown  
2000 Watt Configuration / Heater is wired on right side

Figure 11b

6. Screw wiring compartment cover back on.
7. Turn power back on at the main disconnect panel.
8. Proceed to **OPERATING INSTRUCTIONS**.

# OPERATING INSTRUCTIONS

1. The heater must be properly installed before it is used.
2. **DANGER:** High temperatures may

be generated under certain abnormal conditions. Do not partially or fully cover or obstruct the front of this heater.

## How to operate your heater

The room temperature is controlled by a line voltage thermostat located either on the wall, or on the heater. Once installation is complete and power has been restored, follow the steps below for your thermostat.

If you have a mechanical wall or built-in thermostat:

1. Turn the thermostat knob fully clockwise.
2. When the room reaches your comfort level, turn the thermostat knob counterclockwise until the heater turns off. The heater will automatically cycle around this preset temperature.
3. To reduce the room temperature, turn the knob counterclockwise. To increase the room temperature, turn the knob clockwise.

If you have an electronic wall or built-in thermostat, follow the instructions in the programming and operating guide included with your thermostat.

**PLEASE NOTE:** Upon initial start-up, the heater may emit a burning odor. This is not dangerous, and is due to a protective lubricant used during the manufacturing process. It typically dissipates within several hours.

# MAINTAINING YOUR HEATER

Clean heater at least every 24 months or as required.

1. It is important that you verify power has been turned off and the element is cool.
2. Remove cover.
3. Wash cover with hot soapy water and dry.
4. Use a hair dryer, or vacuum on blow cycle, to blow debris through the element (do not touch element).
5. Vacuum area without touching the element.
6. Replace cover.
7. Turn power back on at the main disconnect panel.

Any other service not detailed in this Owner's Guide should be performed by an authorized service representative.

## TROUBLESHOOTING CHART

**\*CONSULT LOCAL ELECTRICAL CODES TO DETERMINE WHAT WORK MUST BE PERFORMED BY QUALIFIED ELECTRICAL SERVICE PERSONNEL.**

| Symptom                    | Problem   | Solution   |
|----------------------------|---|--|
| Snapping noise             | <ol style="list-style-type: none"> <li>1. Unit may have a loose end plate.</li> <li>2. Heater may not be mounted properly.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Loosen end plate screws ¼ turn after allowing heater to warm, move end plate back and forth, then tighten.</li> <li>2. Loosen heater from wall by turning mounting screws ¼ turn.</li> </ol>   |
| Heater not working         | <ol style="list-style-type: none"> <li>1. Heater does not have proper voltage to function correctly.*</li> <li>2. Loose wire connections.</li> <li>3. Incorrect circuit breaker.*</li> <li>4. Defective limit.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Check voltage at the heater between supply wires and make sure it matches required heater voltage.</li> <li>2. Tighten any loose wire connections.</li> <li>3. Circuit breaker positioned incorrectly - relocate breaker.</li> <li>4. Replace limit.</li> </ol>  |
| Heater will not shut off   | <ol style="list-style-type: none"> <li>1. Heat loss from room is greater than heater capacity.</li> <li>2. Defective thermostat.</li> <li>3. Thermostat wired incorrectly to heater.</li> <li>4. Temperature in room lower than thermostat's lowest setting.</li> </ol> | <ol style="list-style-type: none"> <li>1. Close doors and windows. Provide additional insulation, install a higher-wattage heater or multiple heaters, if necessary.</li> <li>2. Adjust thermostat to its lowest setting. If heater continues to run (allow two minutes for the thermostat to respond), replace thermostat.</li> <li>3. Refer to thermostat documentation and correct wiring.</li> <li>4. Change thermostat to double pole model with positive off (single pole thermostats have a minimum temperature setting with no "off" position).</li> </ol> |
| Room does not heat quickly | <ol style="list-style-type: none"> <li>1. Unit wired incorrectly.*</li> </ol>   | <ol style="list-style-type: none"> <li>1. Check voltage at the heater between supply wires and make sure it matches required heater voltage.</li> </ol>  |

More frequently asked questions on our website here: [cadetheat.com/support/FAQ](http://cadetheat.com/support/FAQ)

## WARRANTY

For more effective and safer operation and to prolong the life of the heater, read the Owner's Guide and follow the instructions. Failure to properly maintain the heater will void any warranty and may cause the heater to function improperly.

**LIMITED LIFETIME WARRANTY:** Cadet will repair or replace any Cadet Electric Baseboard (F) heater found to be defective at any time.

**These warranties do not apply:**

1. Damage occurs to the product through improper installation or incorrect supply voltage;
2. Damage occurs to the product through improper maintenance, misuse, abuse, accident, or alteration;
3. The use of unauthorized accessories or unauthorized components constitutes an alteration and voids all warranties. Refer to Cadet website or call customer service at 855.CADET.US for list of authorized accessories and components.

4. CADET'S WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT.

5. IN THE EVENT CADET ELECTS TO REPLACE ANY PART OF YOUR CADET PRODUCT, THE REPLACEMENT PARTS ARE SUBJECT TO THE SAME WARRANTIES AS THE PRODUCT. THE INSTALLATION OF REPLACEMENT PARTS DOES NOT MODIFY OR EXTEND THE UNDERLYING WARRANTIES. REPLACEMENT OR REPAIR OF ANY CADET PRODUCT OR PART DOES NOT CREATE ANY NEW WARRANTIES.

If you believe your Cadet product is defective, please contact Cadet during the warranty period, for instructions on how to have the repair or replacement processed.

### Parts and Service

Visit [cadetheat.com/parts-service](http://cadetheat.com/parts-service) for information on where to obtain parts and service.

To register your product, visit [cadetheat.com/product-registration](http://cadetheat.com/product-registration)



### Reduce-Reuse-Recycle

This product is made primarily of recyclable materials. You can reduce your carbon footprint by recycling this product at the end of its useful life. Contact your local recycling support center for further recycling instructions.