

OWNER'S GUIDE

# SOFTHEAT

EBKN BUILT-IN THERMOSTAT KIT



For how-to videos or more information, please visit:  
<http://cadetheat.com/install/softheat>

ESPAÑOL ver la guía del propietario en [cadetheat.com/espanol/ebkn](http://cadetheat.com/espanol/ebkn)

**CADET**   
INVITING WARMTH

cadetheat.com  
855.CADET.US  
Vancouver, Washington



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 installing or using this thermostat.
2. Use this thermostat only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
3. 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 or thermostat.
4. To disconnect thermostat turn off power to heater circuit at main disconnect panel.
5. Do not operate any thermostat after it malfunctions. Disconnect power at main disconnect panel and have thermostat inspected by a qualified electrician before reusing.
6. A thermostat has arcing or sparking parts inside. Do not use in areas where gasoline, paint, or flammable liquids are stored.

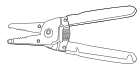
## SAVE THESE INSTRUCTIONS

### **⚠ WORKING WITH ELECTRICITY ⚠**

If you are uncomfortable working with electricity, running electrical supply wire or installing a circuit breaker, please consult a licensed electrician.

Unanswered questions? Call our technical support team in Vancouver, Washington toll free 855.223.3887 or outside the USA 360.693.2505.

### TOOLS REQUIRED



Wire Strippers



Volt Meter



Wire  
Connectors

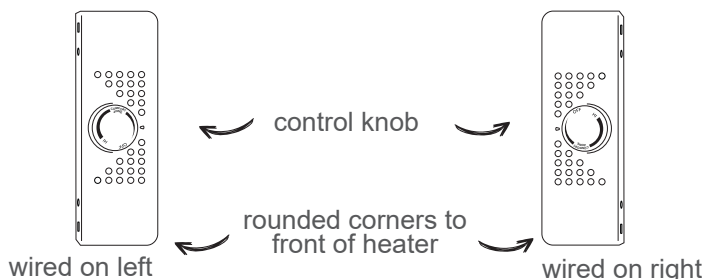


Phillips Screwdriver

### TIPS BEFORE YOU BEGIN

- **Verify power has been turned off before starting any work!**
- Follow the instructions in your SoftHeat Baseboard Owner's Guide (included with your heater) until prompted to make thermostat connections.

### PARTS OF YOUR THERMOSTAT



# 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. Use only on SoftHeat baseboard heaters.
4. Turn off power to heater at main disconnect panel.
5. Connect grounding lead to grounding screw provided on the heater.
6. Use wire connectors (not included) for all connections.

1. Remove the SoftHeat baseboard end cap by removing the screw and clip located on the back of the heater and sliding the end cap off. Keep the screw and clip to use with the thermostat. Slide the thermostat end cap onto the heater. Make sure no wires are caught between the thermostat and heater. Fasten to the heater using the screw and clip.
2. Make wire connections below, depending on whether you are wiring on the right end or the left end.

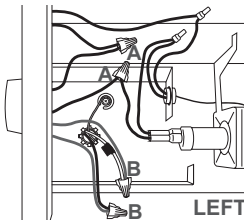
For 240 volts, both supply wires (black and white) are hot. For 120 volts, one supply wire is hot (black) and one is neutral (white). For 208 volts, applications vary and both supply wires (black and white) can be hot or you may have one hot and one neutral.

## IMPORTANT!

**FOR LEFT END WIRING**, cut only one factory connection on your heater. **For 240 volts**, you can cut any connection. **For 120 volts**, cut the one with the white wire. **For 208 volts**, cut the one with the orange wire.

**FOR RIGHT END WIRING**, cut the one factory connection.

## DOUBLE POLE (4-WIRE) - 240 or 208 VOLT WITH TWO HOT

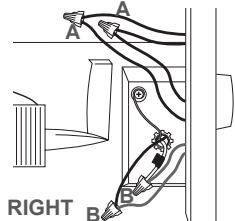


**A.** Connect the two black thermostat wires to the two loose heater wires.

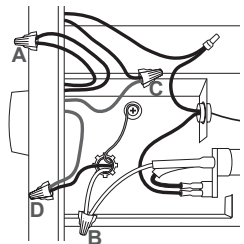
**B.** Connect the two hot supply wires to the two red thermostat wires.

Wrap supply (white) wire with black tape to identify it as hot.

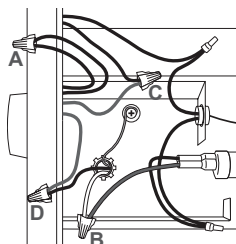
**NOTE: TWO HOT SUPPLY WIRES**



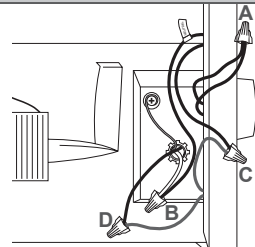
## DOUBLE POLE (4-WIRE) - 120 or 208 VOLT WITH ONE NEUTRAL



120 VOLT - LEFT



208 VOLT - LEFT



120 or 208 VOLT - RIGHT

**A.** Connect the two black wires from the thermostat together.

**B.** On the left end, connect the neutral (white) supply wire to the white heater wire for 120 volts. For 208 volts, connect the neutral (white) supply wire to the orange heater wire.

On the right end, connect the heater wire labeled NEUTRAL to the neutral (white) supply wire.

**C.** Connect the black wire from the heater to one of the red thermostat wires.

**D.** Connect the remaining red thermostat wire to the remaining supply wire.

3. Tuck all the wires back into the wiring compartment, and make sure the connections are tight.
4. Screw the wiring compartment cover back on.
5. Return to your SoftHeat Baseboard Owner's Guide and go to **Mount heater to wall** to complete installation.

# OPERATING INSTRUCTIONS

Make sure all wires are properly connected and installation is complete before you turn on the heater.

## How to operate your heater

The room temperature is controlled by the thermostat on the heater. Once installation is complete and power has been restored, follow the steps below for your thermostat:

1. Turn the thermostat knob all the way to the right.
2. When the room reaches your comfort level, turn the knob to the left, just until it clicks and the heater turns off. The heater will automatically keep the room temperature around this setting.
3. To reduce the room temperature, turn the knob to the left. To increase the room temperature, turn the knob to the right.

## INTERNAL HEATER WIRING DIAGRAMS

All wiring connections inside wiring compartment

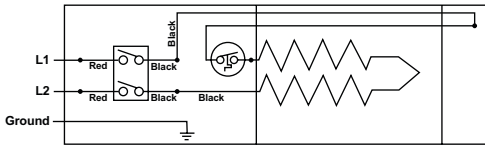


Figure 2  
Wiring Diagram for use with  
240 and 208 volt heater  
Two hot supply wires

Figure 3  
Wiring Diagram for use with  
240 and 208 volt heater  
Two hot supply wires

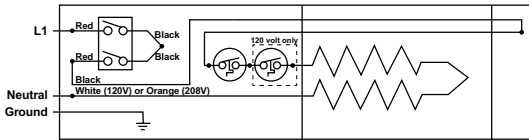
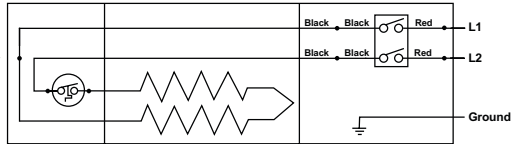
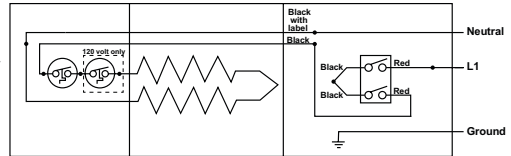


Figure 5  
Wiring Diagram for use with  
120 and 208 volt heater  
One hot, one neutral supply wire

Figure 4  
Wiring Diagram for use with  
120 and 208 volt heater  
One hot, one neutral supply wire



## 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 ONE YEAR WARRANTY:** Cadet will repair or replace any Cadet EBKN thermostat found to be defective within one year after the date of purchase.

**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 855.223.3887 or 360.693.2505 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)

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



### 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.