

# Operation & Maintenance

## How to operate your heater

1. Once installation is complete and power has been restored, 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.

## Maintenance

As needed, or every six months, minimum.

- 1.) **▲ WARNING! Before removing grill, turn the electrical power off at the electrical panel board (circuit breaker or fuse box). Lock or tag the panel board door to prevent someone from accidentally turning the power on while you are working on the heater. Failure to do so could result in serious electrical shock, burns, or possible death.**
- 2.) Turn the heater thermostat all the way up and wait approximately 30 seconds (120 seconds for some electronic thermostats). If the heater turns on, you have turned off the wrong circuit breaker at the electrical panel board.
- 3.) If heater does not turn on, proceed with next step.
- 4.) Remove screws and take off grill.
- 5.) Wash grill with hot soapy water and dry immediately.
- 6.) While holding fan (to avoid damage or bending), use a hair dryer or vacuum on blow cycle to blow debris through the top element (Do not touch element).

- 7.) Vacuum fan area without touching the elements.
- 8.) Replace grill and secure with screws.
- 9.) Turn thermostat to desired setting.
- 10.) Turn power back on at the electrical panel board.

## About the Heater Temperature-Limiting Controls

The heater may be protected by two temperature-limiting controls. The first is a high temperature reset switch, designed to open the heater circuit when excessive operating temperature is detected. The problem must be assessed and the limit must be reset to resume operation. Further protection may be provided by a secondary over-temperature switch, which will open the heater circuit in severe over-temperature conditions, or in the event of component failure. If this occurs, the heater must be repaired or replaced.

## Resetting the Manual-Reset Limit Control

If the manual-reset limit control has opened the heater circuit due to excessive operating temperatures, the heater will not work until the limit reset button is pressed. After allowing the unit to cool for at least 10 minutes and resolving the problem causing the limit to trip; use a narrow object such as a ball-point pen to access the reset button through the lower-right center section of the heater grill. Press FIRMLY and be sure to listen and feel for a click, indicating it has been reset.

Note that resetting the manual limit control may not restore heater operation if a severe over-temperature condition has occurred. See the Troubleshooting Chart below for more information.

# Troubleshooting Chart

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

Symptom	Problem	Solution
Breaker trips immediately upon energizing heater.	<ol style="list-style-type: none"> <li>1. Incorrect supply voltage.</li> <li>2. Overloaded circuit.</li> <li>3. A short circuit exists in the supply or heater wiring.</li> <li>4. Defective circuit breaker.</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify that supply voltage matches the heater rating.</li> <li>2. The total amperage of all heaters on a branch circuit must not be more than 80% of the amperage rating of the circuit breaker and supply wire ratings. Use a lower wattage heater, or reduce the number of heaters on the circuit.</li> <li>3. Shorted supply or heater wires may be accompanied by severe sparking. Inspect all supply and heater wiring insulation for damage. Do not reset the circuit breaker until all electrical shorts have been repaired.</li> <li>4. Replace the circuit breaker.</li> </ol>
Heater fan operates, but does not discharge warm air.	<ol style="list-style-type: none"> <li>1. Insufficient element temperature.</li> <li>2. Incorrect supply voltage.</li> <li>3. Element has failed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Allow a few moments for element to reach operating temperature.</li> <li>2. Verify that supply voltage matches the heater rating.</li> <li>3. Replace element.</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> </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> </ol>
Heater discharges smoke or emits a burnt odor.	<ol style="list-style-type: none"> <li>1. Dust, lint or other matter has accumulated inside heater.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean heater (see "Operation &amp; Maintenance" section for instructions).</li> </ol>
Element heats for a moment without the fan turning, then immediately stops heating.	<ol style="list-style-type: none"> <li>1. Defective motor or internal connection.</li> <li>2. Fan or motor jammed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Heater or fan motor requires replacement.</li> <li>2. Remove obstruction and press heater reset button (after allowing the unit to cool). Test heater operation--if reset button has been pressed (be sure to listen and feel for a click indicating it has been reset), but heater does not run, heater requires repair or replacement.</li> </ol>
Heater does not run.	<ol style="list-style-type: none"> <li>1. Thermostat set too low.</li> <li>2. Heater has tripped the high-temperature reset switch.</li> <li>3. Heater has tripped the secondary over-temperature switch.</li> <li>4. Power not on at the circuit breaker.</li> <li>5. Broken or poorly connected wire(s) to heater.</li> <li>6. Defective thermostat.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust thermostat to a higher temperature until heater operates (see Problem #6 if the problem persists).</li> <li>2. Press the heater reset button (see "Operation &amp; Maintenance" section for instructions).</li> <li>3. A severe over-temperature condition has occurred. Repair or replace heater.</li> <li>4. Turn on the correct circuit breaker in the main panel.</li> <li>5. Turn off power at circuit breaker. Check supply wire continuity and proper connection to heater wires.</li> <li>6. Turn off power at circuit breaker. Jumper across thermostat terminals. Turn on main circuit breaker. If heater operates, thermostat is defective and should be replaced. Remove jumper before operating heater.</li> </ol>

# Warranty

**LIMITED ONE-YEAR WARRANTY:** Cadet Manufacturing Co. will repair or replace any Cadet product, including thermostats, found to be defective or malfunctioning from first date of purchase through the first year.

## Extended Product Warranty

**LIMITED FIVE-YEAR WARRANTY:** Cadet Manufacturing Co. will repair or replace any Cadet Register(tm) Plus (RM) element or motor found to be defective or malfunctioning from first date of purchase through the fifth year.

## These warranties do not apply:

1. To conditions resulting from improper installation or incorrect supply voltage;
2. To conditions resulting from improper maintenance, misuse, abuse, accident, or alteration;
3. To service calls, or any warranty labor not performed at the Cadet Manufacturing facility;
4. If the date of manufacture cannot be determined;

5. To freight damaged products.

**CADET SHALL NOT BE LIABLE FOR DAMAGES SUCH AS PROPERTY DAMAGE AND/OR INCIDENTAL EXPENSES RESULTING FROM BREACH OF THESE WRITTEN WARRANTIES OR ANY IMPLIED WARRANTY.**

These warranties give you specific legal rights, and you may also have other rights which vary from state to state. Cadet neither assumes, nor authorizes anyone to assume for it, any other obligation or liability in connection with these electric heaters or any part of such heaters.

If the product should become defective during the warranty period, contact Cadet Manufacturing Co. at 360-693-2505 for instructions on how to have the repair or replacement processed. Products returned without authorization will be refused.

## Parts and Service

Contact Cadet for information on Parts or Service.