

IMPORTANT INSTRUCTIONS

⚠ WARNING

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 heater.

2. ⚠ WARNING

Risk of Fire. This heater is hot when in use. Caution—High Temperature. Risk of Fire. Keep electrical cords, drapery, furnishings, and other combustibles at least 3 feet from the front of the heater and 6 inches above and on both sides.

3. ⚠ WARNING

Burn Hazard. To avoid burns, do not let bare skin touch hot surfaces. Extreme caution is necessary when any heater is used by or near children or invalids and whenever the heater is left operating and unattended.

4. ⚠ WARNING ⚠

Risk of Electrical Shock. Do not operate any heater after it malfunctions. Disconnect power at service panel and have heater inspected by a qualified electrician before reusing.

5. ⚠ WARNING

Do not use outdoors.

6. To disconnect heater, turn controls to off, and turn off power to heater circuit at main disconnect panel.

7. ⚠ WARNING ⚠

Risk of Electrical Shock. 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.

8. ⚠ WARNING

Risk of Fire. To prevent a possible fire, do not block air intakes or exhaust in any manner.

9. ⚠ WARNING

Fire or explosion may occur. 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.

10. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electrical shock, or injury to persons.

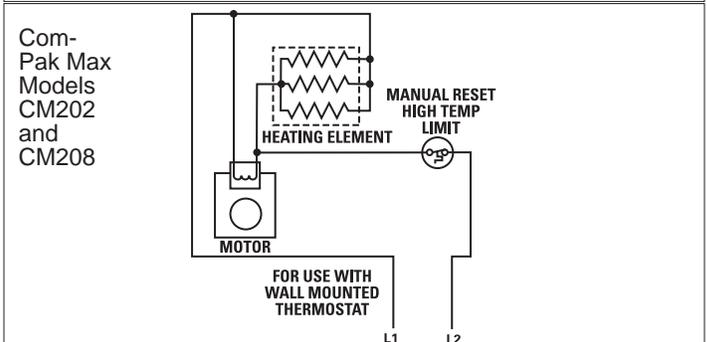
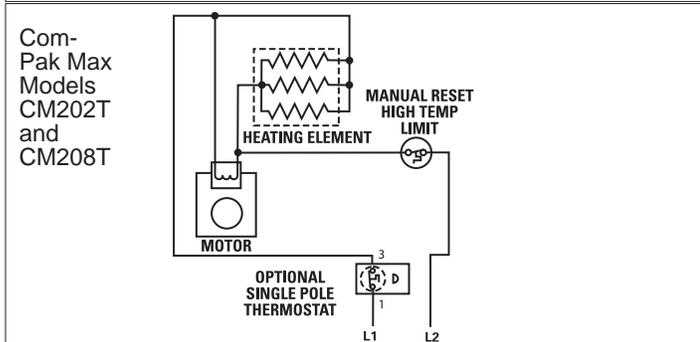
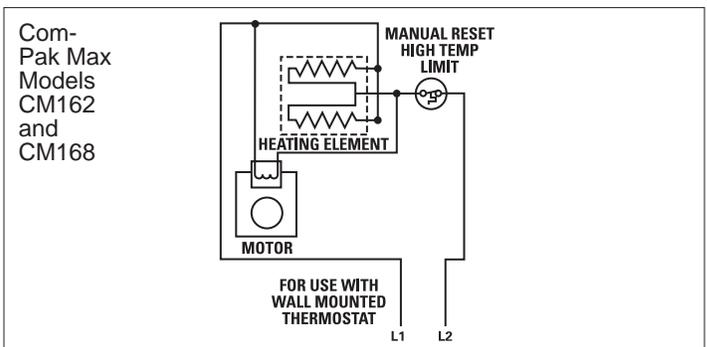
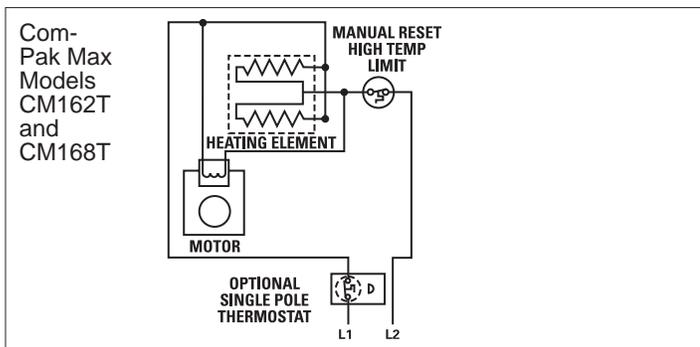
11. The heater must be properly installed before it is used.

12. ⚠ WARNING ⚠

Risk of Electrical Shock and Fire. Do not operate without grill.

13. Save these instructions.

Wiring Diagrams



SAVE THESE INSTRUCTIONS

INSTALLATION INSTRUCTIONS

1. ⚠️ WARNING

Verify that the electrical supply wires are the same voltage as the heater.

2. If replacing an existing heater, check the label of the old heater.

3. 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.

4. If you need to install a new circuit or need additional wiring information, consult a qualified electrician.

5. Use copper conductors only.

6. ⚠️ WARNING ⚠️

Risk of Electrical Shock. DO NOT install the heater directly above bathtub or sink. DO NOT install in shower stall area (Manufacturer recommends a minimum 2 foot clearance).

7. Heater must be installed in a wall can:

Model CM Wall Can CC

8. ⚠️ WARNING

Risk of Fire. DO NOT install the heater in a floor, in the ceiling, below a towel bar, behind a door, or anywhere the air discharge may be blocked in any manner.

9. ⚠️ WARNING

Fire or Explosion May Occur. 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.

10. ⚠️ WARNING ⚠️

Risk of Electrical Shock. Connect grounding lead to grounding screw provided. Keep all foreign objects out of heater.

11. ⚠️ WARNING

Risk of Fire. This heater is hot when in use. Caution—High Temperature. Risk of Fire. Keep electrical cords, drapery, furnishings, and other combustibles at least 3 feet from the front of the heater and 6 inches above and on both sides.

Part One

PLACEMENT: Install the Com-Pak Max (Model CM) vertically (recommended), or horizontally with optional grill kit. Note wall can position for correct horizontal mounting. NOT APPROVED FOR CEILING MOUNT.

THERMOSTAT: A wall thermostat is required for models without a built-in thermostat. Vertically mounted units can use built-in thermostat. Horizontally mounted units must use a wall thermostat. A Cadet Electronic thermostat is recommended for ultimate control and comfort.

How do I install for new construction?

STEP 1 Mount The Wall Can

REQUIRED MINIMUM distance of 6 inches from adjacent surfaces and 4-1/2 inches from the floor (See Figures 4a and 4b). However, Cadet RECOMMENDS 12 inches from adjacent surfaces and floor for longer and cleaner performance. Heaters must be spaced at least 3 feet apart.

Review the wall can label for correct direction (as noted by the UP arrows) before mounting the wall can to the stud. In the VERTICAL mounting position the element of the heater assembly will be at the TOP. In the HORIZONTAL mounting position the element of the heater assembly will be to the LEFT.

Keeping front of the wall can flush with the finished wall surface (See Figure 1), secure the wall can to the stud with 2 screws (not included) through holes provided in the wall can. The rubber shim provided may be attached to the side of the wall can to square the wall can to the stud (See Figure 2).

Figure 1

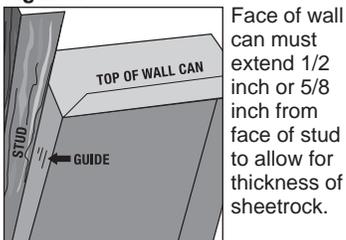
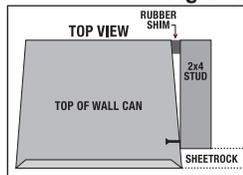


Figure 2



STEP 2 Route Supply Wires

Route supply wire from the circuit breaker, to the thermostat, to the wall can. For models with a built-in thermostat, route supply wire from the circuit breaker to the wall can. Remove a knockout from the wall can and attach the supply wire with a strain relief connector (not included) leaving a minimum of 6 inches wire lead for later use. Connect supply ground wire to grounding screw in wall can (See Figure 3).

Proceed to PART TWO.

How do I install in an existing wall?

STEP 1 Cut A Hole In The Wall

REQUIRED MINIMUM distance of 6 inches from adjacent surfaces and 4-1/2 inches from the floor (See Figures 4a & 4b). However, Cadet RECOMMENDS 12 inches from adjacent surfaces and floor for longer and cleaner performance. Heaters must be spaced at least 3 feet apart.

Vertical Mount: Cut a hole 8 inches wide by 10 1/4 inches high next to a wall stud.

Horizontal Mount: Cut a hole 10 1/4 inches wide by 8 inches high next to a wall stud.

STEP 2 Route Supply Wires

Route supply wire from the circuit breaker, to the thermostat, to the wall can. For models with a built-in thermostat, route supply wire from the circuit breaker to the wall can. Remove a knockout from the wall can and attach the supply wire with a strain relief connector (not included) leaving a minimum of 6 inches wire lead for later use. Connect supply ground wire to grounding screw in wall can (See Figure 3).

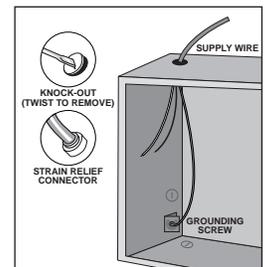


Figure 3

STEP 3 Mount The Wall Can

Review the wall can label for correct direction (as noted by the UP arrows) before mounting the wall can to the stud. In the VERTICAL mounting position the element of the heater assembly will be at the TOP. In the HORIZONTAL mounting position the element of the heater assembly will be to the LEFT. Insert wall can into wall opening.

Keeping front of the wall can flush with the finished wall surface, secure the wall can to the stud with 2 screws (not included) through holes provided in the wall can. The rubber shim provided may be attached to the side of the wall can to square the wall can to the stud (See Figure 2).

(Note: Vertical installation places half round slots on the bottom, horizontal installation places half round slots to the right).

Proceed to PART TWO.

INSTALLATION INSTRUCTIONS (continued)

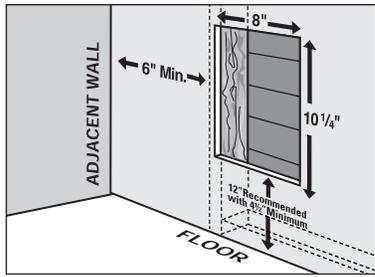


Figure 4a
Vertical
Mounting

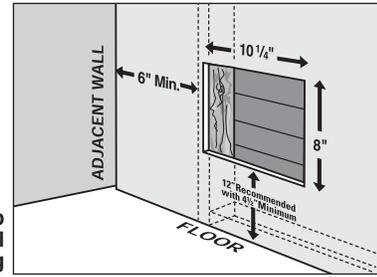


Figure 4b
Horizontal
Mounting

Part Two

After you have followed all instructions in PART ONE you are ready to install the heater assembly.

How do I configure my wattage?

STEP 1 Multi-Watt Element Wiring Configuration:

The multi-watt heaters listed below are factory set for the highest possible wattage. If you would like to keep the wattage at the highest setting, proceed to Step 2. If you would like to reduce your heater's wattage from the factory setting, refer to the table below that corresponds to your heater model. Once you are finished, proceed to Step 2.

MODEL	VOLT-AGE	IF YOUR DESIRED WATTAGE IS:	YOUR WIRES WILL BE CONFIGURED LIKE THIS:		
			Lower Element A	Upper Element C	Middle Element B
			800W-240V	500W-240V	700W-240V
CM202	240/208V	2000/1500	Blue Connector	Yellow Connector	Yellow Connector
		1500/1125	Yellow Connector	None (*)	Yellow Connector
		1200/900	None (**)	Yellow Connector	Yellow Connector
		800/600	Yellow Connector	None (***)	None (***)
		500/375	None (****)	Yellow Connector	None (****)
			800W-208V	500W-208V	700W-208V
CM208	208V	2000	Blue Connector	Yellow Connector	Yellow Connector
		1500	Yellow Connector	None (*)	Yellow Connector
		1200	None (**)	Yellow Connector	Yellow Connector
		800	Yellow Connector	None (***)	None (***)
		500	None (****)	Yellow Connector	None (****)

MODEL	VOLT-AGE	IF YOUR DESIRED WATT-AGE IS:	YOUR WIRES WILL BE CONFIGURED LIKE THIS:	
			Upper Element C	Middle Element B
			900W-240V	700W-240V
CM162	240/208V	1600/1200	Yellow Connector	Blue Connector
		900/675	Yellow Connector	None (*)
		700/525	None (**)	Yellow Connector
			900W-208V	700W-208V
CM168	208V	1600	Yellow Connector	Blue Connector
		900	Yellow Connector	None (*)
		700	None (**)	Yellow Connector

*Disconnect and cut wire with Blue Connector at Terminal C. Cap loose end with wire connector or wrap with electrical tape. Move Yellow Connector from Terminal B to Terminal C.

**Disconnect and cut wire with Blue Connector at Terminal C. Cap loose end with wire connector or wrap with electrical tape.

DO NOT DISCONNECT THE YELLOW CONNECTOR FROM TERMINAL A !

***Cut jumper wire between terminals B and C. Remove connectors at Terminals A and C. Move Yellow Connector from Terminal B to Terminal A. Cap loose end with wire connector or wrap with electrical tape.

****Cut jumper wire between terminals B and C. Remove connectors at Terminals A and C. Move Yellow Connector from Terminal B to Terminal C. Cap loose end with wire connector or wrap with electrical tape.

DO NOT DISCONNECT YELLOW CONNECTOR AT TERMINAL D !

Figure 5a

How do I insert the heater assembly into the wall can?

STEP 2 Install Heater Assembly

Turn heater assembly upside down (Element down with motor facing you). Connect the supply wires to the heater wires with connectors (See Figure 7). Now rotate the heater so the element and the fan are facing you.

For VERTICALLY MOUNTED units the element should be at the top. Insert the bottom edge of the heater assembly into the half round slots (tabs) in the bottom lip of the wall can (See Figure 8a). [IMPORTANT: Push wires into bottom of wall can during insertion. Be sure that supply wires are not caught between motor and wall can.] Attach assembly at top with screw provided.

For HORIZONTALLY MOUNTED units the element should be to the left. Insert the right edge of the heater assembly into the half round slots (tabs) on the right side of the wall can (See Figure 8b). [IMPORTANT: Push wires into right side of wall can during insertion. Be sure that supply wires are not caught between motor and wall can.] Attach assembly at left with screw provided.

STEP 3 Install Grill

Secure grill with the screws provided. If you have a built-in thermostat model, slide thermostat knob onto shaft. Turn power on at the electrical panel board.

Warranty is void if any material is sprayed on the element or blower. Use a paint mask to cover any exposed areas of the heater if walls are to be textured or painted.

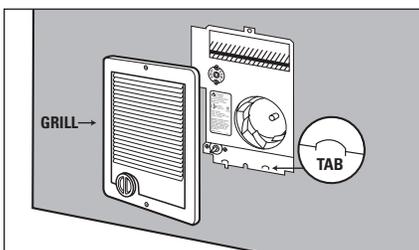


Figure 8a

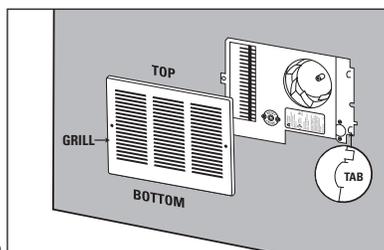


Figure 8b

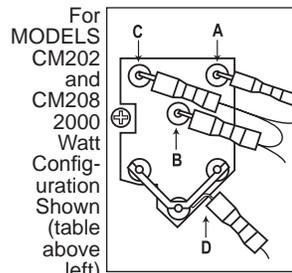


Figure 6a

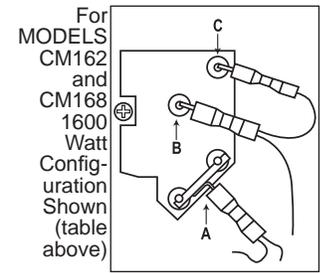


Figure 6b

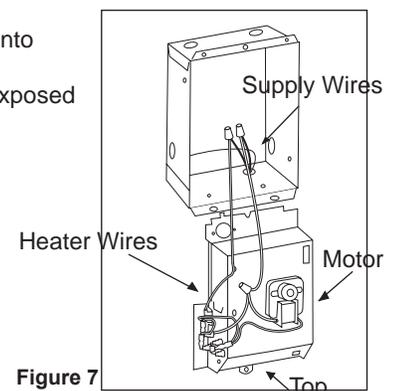


Figure 7

OPERATING INSTRUCTIONS

⚠ WARNING Risk of Electrical Shock and Fire. The heater must be properly installed before it is used.

1. Do not operate without grill.
2. Keep electrical cords, drapery, furnishings and other combustibles at least 3 feet away from the front of the heater and 6 inches away from the sides.
3. Do not tamper with the over temperature limit control.
4. If the heater over temperature limits trip more than once per day, the heater must be replaced.

How to operate your heater

The room temperature is controlled by a line voltage thermostat located either on the wall or built-in to the 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.

5. Clean heater at least every six months.
6. After allowing the heater to cool, turn power off at circuit breaker panel before removing grill.
7. Use a hair dryer or vacuum on blow cycle to blow debris through the top element (do not touch element).
8. Install the grill before turning on power.

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

About the Manual Reset Temperature Limit Control

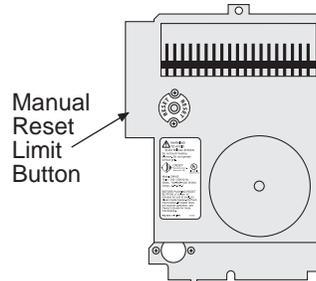
The heater is protected by a temperature-limiting control. The manual reset temperature limit control is designed to open the heater circuit when excessive operating temperatures are detected. The problem must be assessed and the limit must be reset to resume operation.

Resetting the Manual Reset Limit Control

Resetting the Manual Reset Temperature 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 manual reset limit button is pressed.

After allowing the unit to cool for at least 10 minutes and resolving the problem causing the limit to trip (typically the heater is blocked or needs cleaning-see Maintenance Instructions); use a narrow object such as a ball-point pen to access the manual reset button through the upper-left center section of the heater grill. Press FIRMLY and be sure to listen and feel for a click, indicating it has been reset.



Warranty

For more effective and safer operation and to prolong the life of the heater, read the Owner's Guide and follow the maintenance instructions. Failure to properly maintain the heater will void any warranty and may cause the heater to function improperly. Warranties are non transferable and apply to original consumer only. Warranty terms are set out below.

LIMITED THREE-YEAR WARRANTY: Cadet will repair or replace any Com-Pak Max (CM) heater found to be defective within three years 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 product is serviced by anyone other than Cadet;
4. If the date of manufacture of the product cannot be determined;
5. If the product is damaged during shipping through no fault of Cadet.
6. CADET'S WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT AS SET OUT HEREIN. CADET SHALL NOT BE LIABLE FOR DAMAGES SUCH AS PROPERTY DAMAGE OR FOR CONSEQUENTIAL DAMAGES AND/OR INCIDENTAL EXPENSES RESULTING FROM BREACH OF THESE WRITTEN WARRANTIES OR ANY EXPRESS OR IMPLIED WARRANTY.

7. 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.

8. 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 its products other than as set out herein.

If you believe your Cadet product is defective, please contact Cadet Manufacturing Co. at 360-693-2505, during the warranty period, for instructions on how to have the repair or replacement processed. Warranty claims made after the warranty period has expired will be denied. Products returned without authorization will be refused.

Parts and Service

Visit http://www.cadetco.com/parts_service.php for information on where to obtain parts and service.

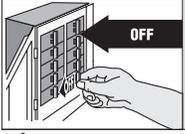


Reduce-Reuse-Recycle

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.

MAINTAINING YOUR HEATER

Maintenance As Needed, or every six months minimum.



⚠ 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.

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

1. It is important that you verify power has been turned off and no power is going to the heater before proceeding. Circuit breakers are often not marked correctly and turning the wrong breaker off could mean electricity is flowing to the heater, even if the heater does not appear to be working. If you are uncomfortable working with electrical appliances, unable to follow these guidelines, or do not have the necessary equipment, consult a qualified electrician.
2. Once you verify the power has been turned off correctly, proceed to the next step.
3. Remove thermostat knob (if any), screws and take off grill.
4. Wash grill with hot soapy water and dry immediately.
5. 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).
6. Vacuum fan area without touching the elements.
7. Do not lubricate motor.
8. Replace grill and secure with screws. Replace thermostat knob.
9. Turn thermostat to desired setting.
10. Turn power back on at the electrical panel board.

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"> 1. Incorrect supply voltage.* 2. Overloaded circuit.* 3. A short circuit exists in the supply or heater wiring.* 4. Defective circuit breaker.* 	<ol style="list-style-type: none"> 1. Verify that supply voltage matches the heater rating. 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. 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. 4. Replace the circuit breaker.
Heater fan operates, but does not discharge warm air.	<ol style="list-style-type: none"> 1. Insufficient element temperature. 2. Incorrect supply voltage.* 3. Element has failed.* 	<ol style="list-style-type: none"> 1. Allow a few moments for element to reach operating temperature. 2. Verify that supply voltage matches the heater rating. 3. Replace element.
Heater will not shut off.	<ol style="list-style-type: none"> 1. Heat loss from room is greater than heater capacity.* 2. Defective thermostat. 3. Thermostat wired incorrectly to heater.* 	<ol style="list-style-type: none"> 1. Close doors and windows. Provide additional insulation, or install a higher wattage heater or multiple heaters if necessary. (If your circuit is rated for more capacity.) 2. Adjust thermostat to its lowest setting. If heater continues to run (allow two minutes for the thermostat to respond), and room temperature is greater than 50°; replace the thermostat. 3. Refer to thermostat documentation and correct wiring.
Heater discharges smoke or emits a burnt odor.	<ol style="list-style-type: none"> 1. Dust, lint or other matter has accumulated inside heater. 2. Poor or loose electrical connections. 	<ol style="list-style-type: none"> 1. Clean heater (see "Maintenance" section above for instructions). 2. Turn off power at circuit breaker. Inspect all supply and heater wire connections to make sure nothing is loose or poorly connected. Secure or reconnect all loose connections. Do not reset circuit breaker until all connections have been checked and repaired.
Element heats for a moment without the fan turning, then immediately stops heating.	<ol style="list-style-type: none"> 1. Defective motor or internal connection.* 2. Fan or motor jammed. 	<ol style="list-style-type: none"> 1. Heater or fan motor requires replacement. 2. Remove obstruction and press heater manual reset button (see "Operating" section for instructions).
Heater does not run.	<ol style="list-style-type: none"> 1. Thermostat set too low. 2. Heater has tripped the manual reset temperature limit control. 3. Grill pressed against manual reset button, tripping the manual reset temperature limit control. 4. Power not on at the circuit breaker. 5. Broken or poorly connected wire(s) to heater. 6. Defective thermostat. 	<ol style="list-style-type: none"> 1. Adjust thermostat to a higher temperature until heater operates (see Problem #6 if the problem persists). 2. Press the manual reset button (see "Operating" section for instructions). 3. Position grill so louvers do not press against manual reset button. 4. Turn on the correct circuit breaker in the main panel. 5. Turn off power at circuit breaker. Check supply wire continuity and proper connection to heater wires. 6. The entire heater, or any of its components may be checked for continuity to determine the cause of any problems. Repair or replace the heater or thermostat.
Heater continually trips the manual reset temperature limit control.	<ol style="list-style-type: none"> 1. Dust, lint or other matter has accumulated inside heater. 2. Airflow is blocked. 3. Fan or motor is jammed. 4. None of the above. 	<ol style="list-style-type: none"> 1. Clean heater (see "Maintenance" section for instructions). 2. Remove obstruction. Maintain a minimum distance of 6 inches from adjacent surfaces, 4.5 inches from the floor, and 3 feet from furniture or other objects placed directly in front of the heater. 3. Remove obstruction, and press heater manual reset button (see "Operating" section for instructions). 4. Replace heater assembly.