## **OWNER'S GUIDE**





For how-to videos or more information, please visit: <a href="http://cadetheat.com/install/com-pak">http://cadetheat.com/install/com-pak</a>

ESPAÑOL ver la guía del propietario en cadetheat.com/espanol/com-pak







- $\Delta$ 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.
- This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, etc. and curtains at least 3 feet (0.9 meters) from the front of the heater and keep them away from the sides and rear.
- 3. 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. Do not operate any heater after it malfunctions. Disconnect power at service panel and have heater inspected by a reputable electrician before reusing.
- Do not use outdoors.

- To disconnect heater, turn control(s) to off, and turn off power to heater circuit at main disconnect panel.
- 7. 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. To prevent a possible fire, do not block air intakes or exhaust in any manner.
- 9. 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, electric shock, or injury to persons.

# **TOOLS REQUIRED**



Wire Strippers



Wire Connectors



11/2" Wood Screws



Screwdrivers



Drill and Drill Bits



Tape Measure





1/2" Cable Clamp Connector



Volt Meter



Hammer



Stud Finder

A multi-purpose tool or something to cut your existing drywall or gypsum board.

# INSTALLATION INSTRUCTIONS

- 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.
- DO NOT install the heater directly above bathtub or sink. DO NOT install in shower stall area. Manufacturer recommends a minimum 2 foot (61 cm) side clearance.
- 4. Heater must be installed in a wall can:

Model CS - wall can models CC or CCSM

Model CST - wall can model CTC

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

 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.

Connect grounding lead to grounding screw provided. Keep all for-

eign objects out of heater.

 CĂUTIÓN-High temperature, risk of fire, keep electrical cords, drapery, furnishings, and other combustibles at least 3 feet (0.9 m) from the front of the heater and away from the side.

### **♠ KNOW YOUR VOLTAGE!** ♠

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

- Make sure the heater is the same voltage as the electrical supply wires you're using. The wire size must be correct for the voltage, the heater wattage and the circuit breaker.
- 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

20 volt



double-pole breaker

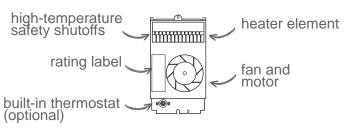
240 volt



 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 one quarter of the heat output.

Unanswered questions? Call our technical support team in Vancouver, Washington at **855.CADET.US**.

### PARTS OF YOUR HEATER



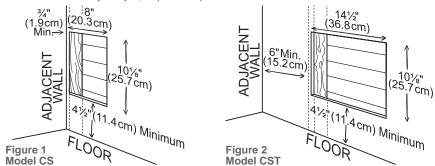
# INSTALLATION INSTRUCTIONS

#### TIPS BEFORE YOU BEGIN

- Verify power has been turned off before starting any work!
- The Com-Pak model CS can be mounted with the element up, or with the element on the left.
   For ceiling installation, see page 5. For multiple heater wiring, see page 6.
- The Com-Pak Twin model CST can only be mounted with the elements up. It cannot be mounted in the ceiling.
- For cleaner performance and longer heater life, install your heater 12 inches from the floor.
- All models can be installed to be Americans with Disabilities Act (ADA) compliant. Check your state and local requirements.
- A thermostat is required for models that do not come with a built-in thermostat. An electronic wall
  thermostat is recommended for ultimate comfort and energy savings.
- The wall can label arrows show the correct mounting orientation (arrows must point up).

### STEP 1 Cut a hole in the wall next to a wall stud

If you haven't installed drywall yet, skip this step.



### STEP 2 Locate or route electrical supply wires

If you're wiring a wall thermostat, route the electrical supply wire from the circuit breaker to the wall thermostat, and then to the heater location. If your heater has a built-in thermostat, route the electrical supply wire from the circuit breaker directly to the heater location.

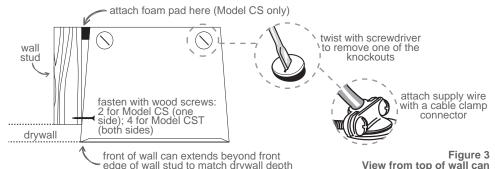
Remove a knockout from the wall can and attach the supply wire with a cable clamp connector (not included) leaving a minimum of 6 inches wire lead (See Figure 3).

# STEP 3 Mount the wall can

If you haven't installed drywall yet, make sure the front of the wall can extends beyond the front edge of the wall stud to match the drywall depth (Figure 3).

If you already have drywall installed, place the can into the cutout so the front is flush with the drywall.

Fasten the wall can to the stud with either 2 screws (Model CS) or 4 screws (Model CST) (not included), through holes provided in the wall can (Figure 3). As an option on model CS, the foam pad provided may be attached to the side of the wall can to square the wall can to the stud (See Figure 3).



# INSTALL ATION INSTRUCTIONS

#### INSERT THE HEATER ASSEMBLY IN THE WALL CAN

## STEP 4 Wire connections

Your heater has two connection wires on the back. Your supply wire has two connection wires and a supply ground wire.

- 1. Connect supply ground wire to grounding screw in wall can (See Figure 4).
- 2. Connect one supply wire to one heater wire with a wire connector (not included):
  - A. for 240 volts, it doesn't matter which heater wire;
  - B. for 120 volts, connect the neutral (white) supply wire to the white heater wire.
- Connect the remaining supply wire to the remaining heater wire with a wire connector (not included) (See Figure 4).
- Turn the heater back around and insert the bottom edge of the heater assembly into the D-shaped tabs at the bottom of the wall can (See Figure 5).
- Push all wires back into the bottom of the wall can. Make sure connections are tight and that none of the wires are caught between the motor and the wall can.
- 6. Attach the heater assembly at top of the wall can with screw provided.

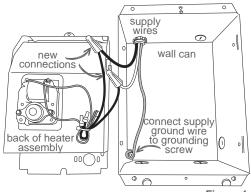


Figure 4

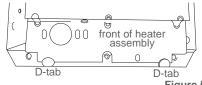


Figure 5 View from front

### STEP 5 Install Grill

Attach grill with screws provided. If you have a built-in thermostat, slide thermostat knob onto shaft. If you have a model without a thermostat, snap in the grill plug provided.

Turn power on at the main disconnect panel.

Proceed to OPERATING INSTRUCTIONS.

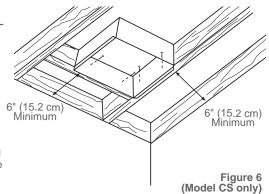
### **CEILING MOUNT (MODEL CS ONLY)**

### STEP 1 Mount The Wall Can

#### Important:

- Only for Model CS up to 1,500 Watts MAXIMUM.
- 2. Do not mount the heater in low density fiberboard or false ceilings.
- Models with a built-in thermostat are not recommended.

Fasten the wall can to ceiling rafters on any two sides (See Figure 6) with a minimum of 4 screws (not included). You may need to install an additional rafter perpendicular to your ceiling rafters. The front edge of the wall can must extend beyond the front edge of the ceiling rafter(s) to match the drywall depth.



# STEP 2 Route Supply Wires

Important: Supply connections must use wires suitable for at least 167°F (75°C) in the ceiling.

Route the electrical supply wire from the circuit breaker to the wall thermostat, and then to the wall can. Remove a knockout from the wall can and attach the supply wire with a cable clamp connector (not included) leaving a minimum of 6 inches wire lead (See Figure 3).

Continue to STEPS 4 and 5 above.

# INSTALLATION INSTRUCTIONS

#### MULTIPLE HEATERS WITH ONE THERMOSTAT (MODEL CS ONLY)

More than one heater can be wired in parallel on the same circuit breaker (be sure to check national and local codes for safety requirements). Additional electrical supply wire and cable clamp connectors are required, and you'll need to use a wall thermostat. When wiring multiple heaters to one thermostat, the heaters must be in the same room and be spaced a minimum of three feet apart.

The maximum amperage load you can put on one circuit breaker is limited to either 80% of the circuit breaker capacity, or the maximum amperage rating of the thermostat, whichever is lower.

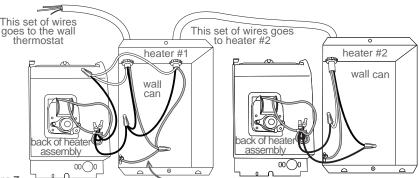


Figure 7

additional ground wire is used here to make the 3-wire connection

- 1. Route the electrical supply wire from the circuit breaker to the wall thermostat. At the wall can of heater #1, attach two sets of electrical supply wires with two cable clamp connectors (not included), leaving a minimum of 6 inches wire lead. One set of electrical supply wire goes to the wall thermostat and the other set goes to heater #2 (See Figure 7).
- There are two supply ground wires in the wall can of heater #1. You'll need to add a small piece of copper wire (not included) to make the 3-wire connection with the ground screw (See Figure 7).
- 3. For heater #1, connect each heater wire to one of the supply wires going to the thermostat, and to one of the supply wires going to the heater #2. Both wires from heater #1 must have a 3-wire connection.
- 4. For heater #2, make the connections in the wall can as shown in Figure 7 above.
- 5. Turn power back on at the main disconnect panel.
- 6. Proceed to OPERATING INSTRUCTIONS.

#### 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 TWO YEAR WARRANTY:** Cadet will repair or replace any Cadet Com-Pak (CS) or Com-Pak Twin (CST) heater found to be defective within two 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 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 <u>cadetheat.com/parts-service</u> for information on where to obtain parts and service.

To register your product, visit <u>cadetheat.com/product-registration</u>

# **OPERATING INSTRUCTIONS**

- 1. The heater must be properly installed before it is used.
  2. Do not operate without grill.
- 3. Do not tamper with the high-temperature safety shutoff.

#### How to operate your heater

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

If you have a wall or built-in 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.

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

PLEASE NOTE: On initial start-up, the heater may cause an odor due to the manufacturing process. It typically goes away within several hours.

More frequently asked questions on our website here: 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.

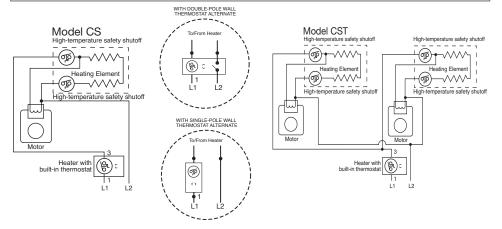
# MAINTAINING YOUR HEATER

Clean heater at least every 6 months or as required. Do not lubricate motor.

- 1. Turn off power at the main disconnect panel.
- 2. Wait for the element to cool.
- 3. Remove thermostat knob (if any) and grill.
- 4. Wash grill with hot soapy water and dry.
- 5. Blow air through the heating element with a hair dryer or shop vacuum on blow cycle.
- 6. Clean the fan with a vacuum cleaner.
- 7. Replace cover and thermostat knob (if any).
- 8. Turn power back on at the main disconnect panel.

Any service other than cleaning should be performed by an authorized service representative.

#### INTERNAL HEATER WIRING DIAGRAMS



TROUBLESHOOTING CHART		
Symptom	Problem	Solution
	Supply connections are loose.	Turn off power at main disconnect panel. Inspect and/ or tighten all the wire connectors inside the heater and at any connection points inside junction boxes or at the wall thermostat.
	Heater has tripped one of its high-temperature safety shutoffs.	2. TO RESET: Turn power off at main disconnect panel. Allow 20 minutes to cool. Make sure heater is not blocked and is clean. Restore power. If the high-temperature safety shutoff trips more than once a day, replace the heater.
	3. Heater has tripped its secondary high-temperature safety shutoff.	3. Replace heater.
	4. Supply circuit is faulty.	4. Call a licensed electrician.
Breaker trips immediately after installing heater.	A short circuit exists in the electrical supply wires or heater wiring.	An incorrect connection in the heater or electrical supply wires may cause sparking or arcing. Inspect all heater and electrical supply wiring insulation for damage or call an electrician.
	2. Circuit breaker and heater are not the same voltage.	2. Double check the voltage of the heater to make sure it matches the voltage of the circuit. Replace heater with a model that is 240 volts.
	3. Circuit is overloaded.	3. Use a lower wattage heater, or reduce the number of heaters on the circuit.
Heater blows	Supply circuit is faulty.     Bernent has failed.	Call a licensed electrician.     Replace heater.
cold air or doesn't get hot.	Only one side heats and the other side has tripped one of its high-temperature safety shutoffs (Model CST only).	2. TO RESET: Turn power off at main disconnect panel. Allow 20 minutes to cool. Make sure heater is not blocked and is clean. Restore power. If the high-temperature safety shutoff trips more than once a day, replace the heater.
Heater smells after installation or not being used.	Odor from element manufacturing process.	On initial start-up, the heater may cause an odor due to the manufacturing process. It typically goes away within several hours.
	Dust or lint inside the heater.	Clean heater (see "MAINTAINING YOUR HEATER" on page 7 for instructions).
	3. Supply connections are loose.	3. Turn off power at main disconnect panel. Inspect and/ or tighten all the wire connectors inside the heater and at any connection points inside junction boxes or at the wall thermostat.
Fan/motor doesn't spin or spins slow.	1. Circuit breaker is 120 volts and heater is 240 volts.	Double check the voltage of the heater to make sure it matches the voltage of the circuit. Replace heater with a model that is 120 volts.
	2. Defective motor or motor out of alignment.	2. Replace motor.
Heater doesn't turn off.	Thermostat is defective.	Replace thermostat.
tuili oli.	2. No thermostat hooked up to control heater.	2. A thermostat is required for all Com-Pak heaters. Purchase a built-in or wall thermostat for your heater.
	3. Incorrect heater wattage for room size.	3. Install higher wattage model or additional heaters if circuit allows.

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