

PROFUSION®

H · E · A · T

INSTRUCTION MANUAL
HEAVY-DUTY FAN-FORCED CEILING-MOUNT HEATER
MODEL: HA24-75M

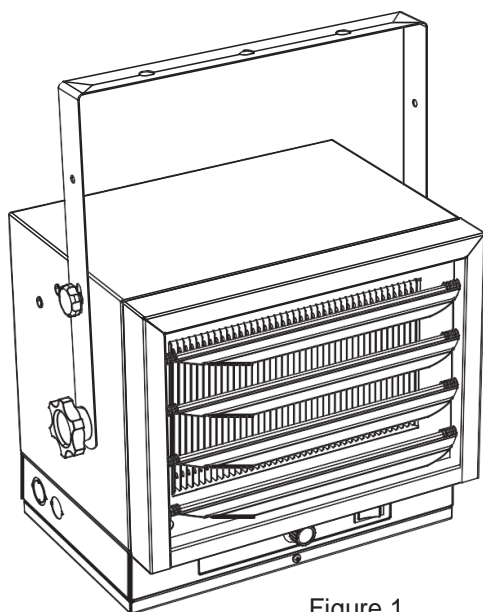


Figure 1

PET OWNERS WARNING: The health of some small pets including birds are extremely sensitive to the fumes produced during the first-time use of many appliances. These fumes are not harmful to humans but we recommended that you do not use your heater around birds and small pets during its initial use until the manufacturing corrosion (anti-corrosion) coatings burn off.

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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 heater.
2. 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 and curtains at least 3 feet (0.9 m) 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. Always turn off the power of heater when not in use.
5. Do not operate any heater after it malfunctions, had been dropped or damaged in any manner. Disconnect power at service panel and have heater inspected by a reputable electrician before reusing.
6. Do not use outdoors.
7. This heater is not intended for use in bathrooms, laundry areas and similar indoor locations. Never locate heater where it may fall into a bathtub or other water container.
8. To disconnect heater, turn controls to off, and turn off power to heater circuit at main disconnect panel.
9. Do not insert or allow any foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock or fire, or damage the heater.
10. 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 be blocked.
11. A heater has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint, or flammable liquids are used or stored.
12. All wiring must be carried out by a certified electrician and comply with national and local electrical codes in the United States and Canada.
13. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or personal injury.
14. This heater may include a visual alarm to warn that parts of the heater are getting excessively hot. If the alarm turns on, immediately turn the heater off and inspect for any objects on or adjacent to the heater that may have blocked the airflow or otherwise cause high temperatures. **DO NOT OPERATE THE HEATER WITH THE ALARM ILLUMINATING.**

SAVE THESE INSTRUCTIONS

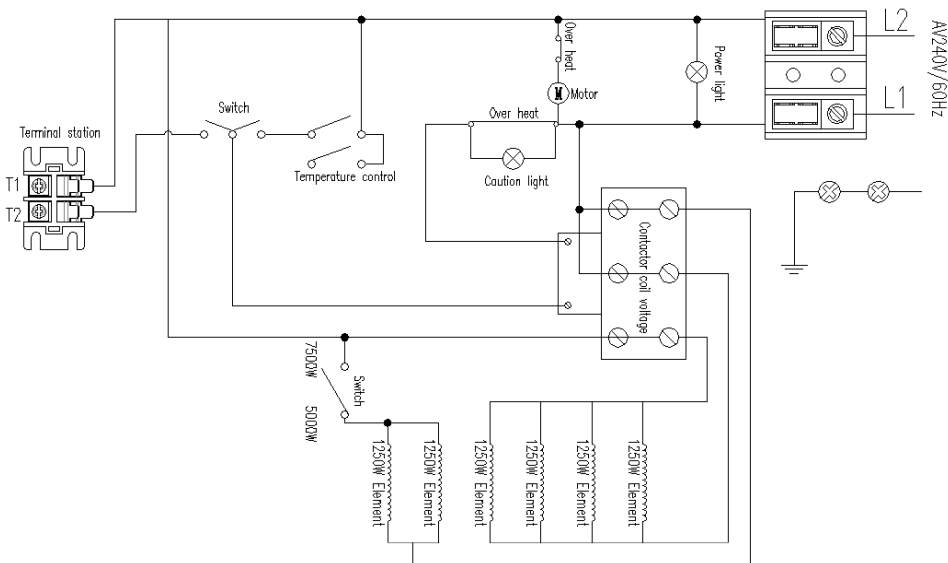
DESCRIPTION

The heavy-duty electric heater is designed for garages, workshops and similar locations. It features two heat settings, for a maximum heat production of 25,589 BTU per hour. It includes horizontal and vertical air flow and a built-in thermostat with overheating safety thermal cut out.

SPECIFICATIONS

Rating	VOLTAGE	AMPS	BTU/hour
7500W II	240V	31.3	25,589
5000W II	240V	20.9	17,065

HEATER RATING & VOLTAGE	HEATER AMPS	FUSE SIZE	WIRE SIZE 60°C COPPER
7500W&240V	31.3	45	#8



Circuit diagram Figure 2

Warning: This appliance must be grounded!

Warning: The appliance must be connected to a 45-Amp current protection circuit or device before being connected to power supply!

GENERAL SAFETY INFORMATION

▲WARNING : This heater requires a hardwire installation (no plug). The installation of this product must be carried out by a certified electrician and in accordance with all local and national electrical codes.

NOTE: This appliance is compatible with a 240V line voltage single pole wall thermostat (not included). This heater must be installed by a certified electrician.

▲WARNING Read and understand all installation and operation instructions prior to operating this unit. Observe all safety instructions at all times.

1. Use only copper wires rated for at least 60°C.
2. Heater air flow must be directed parallel to or away from adjacent wall.
3. Observe wall, floor and ceiling clearance requirements.
4. All wiring must be done according to national and local electrical codes in the United States and Canada. The heater must be grounded as a precaution against possible electrical shock. Heater circuit must be protected with proper fuses.
5. The mounting structure and the anchoring hardware must be capable of supporting the weight of the heater and the mounting bracket (if used).
6. All electrical power must be disconnected and the main service box, which must be locked before connecting, inspecting, cleaning or servicing the heater. This is a precaution to prevent serious electric shock.
7. This heater is not suitable for use in hazardous locations as defined by the national fire protection association (NFPA) in the United States. This heater has hot and arcing sparking parts inside. Do not use it in areas where gasoline paint or flammable liquids are used or stored.
8. This heater is not suitable for use in corrosive atmospheres such as marine greenhouses or chemical storage areas.
9. This heater must be mounted at least 8 feet above the floor.

▲WARNING Improper installation or failure to follow the procedures outlined in this instruction manual can result in serious electrical shock.

LOCATING HEATER

Install heater out of traffic areas, maintaining clearances stated in figure 3. The direction of air flow should not be restricted by columns or machinery and the air flow should wipe exposed walls rather than blowing directly on them. When more than one heater is used in an area, the heaters should be installed in a way that the air discharge of each heater supports the air flow of the others, to provide best circulation of warm air as indicated in figure 4.

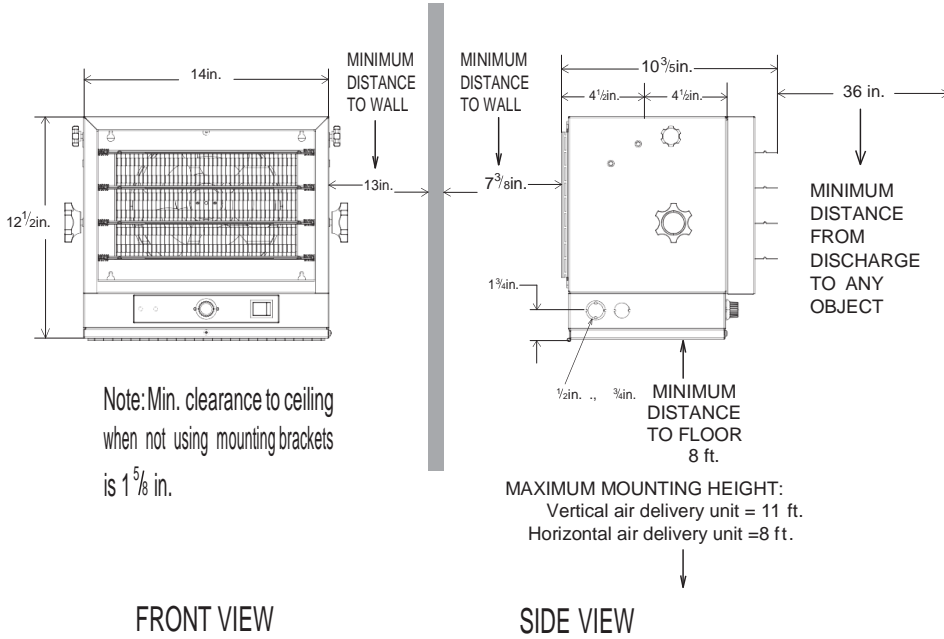


Figure 3

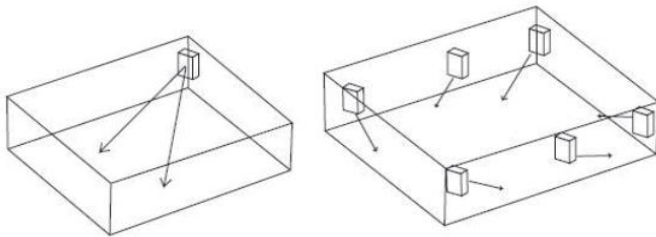


Figure 4

INSTALLATION

Hardware needed

You will also need the following hardware, which can be purchased from your local hardware store or electrical supply store:

- Electric wire in the adequate gauge and length for your application
- Proper size fuse or breaker for your heater's amperage
- Proper wire connectors for your application
- Fasteners appropriate for your application **that are strong enough to hold the unit**

Comment [kj1]: add

Mounting the Bracket

Refer to Figures 5a and 5b.

1. Locate a wood stud in the wood ceiling joist. If you cannot locate a wood stud, you must install a wood piece on the ceiling as this heater must be securely fastened.
2. Remove the mounting bracket from the heating unit by loosening bracket screws with a wrench and slipping the handle off over the screw heads.
3. Place a washer on screws before inserting through the holes in the mounting bracket and screw them securely into a ceiling joist.

NOTE: If you want to swivel the heater either to the right or left, adding a washer to both sides of the bracket is recommended. A longer lag bolt (not included) may be required to properly secure the unit. See Figure 5a.

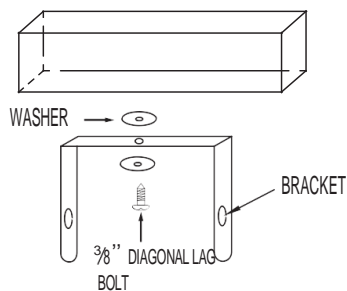


Figure 5a-single-Screw Mounting

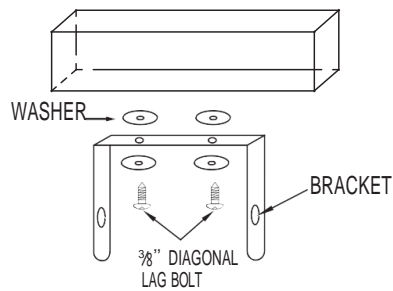
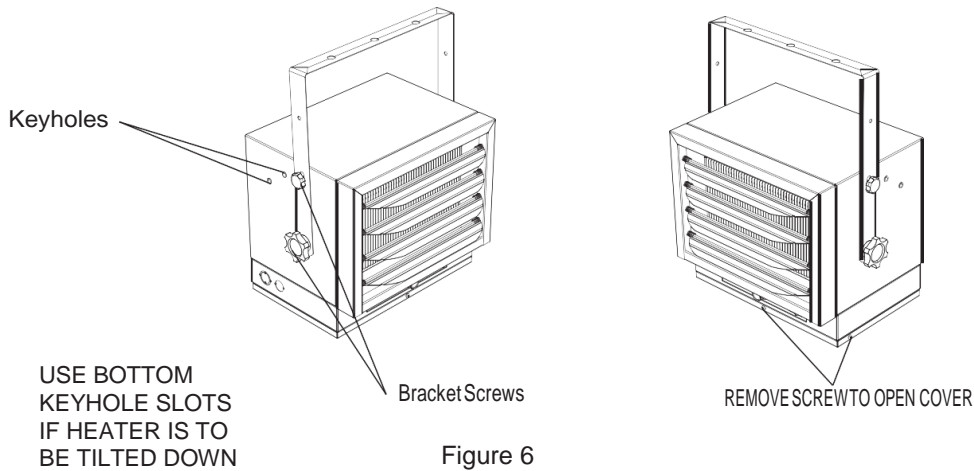


Figure 5b-Double-Screw Mounting

HANGING THE HEATER

- 1) Lift the heater up and into the mounting bracket.
- 2) Align the bracket screws with the keyhole slots in the mounting bracket.
- 3) If the heater is to be tilted, it must be positioned in the keyhole slots - see figure 6.
- 4) Tighten the bracket screws with a wrench to secure the unit once suspended at horizontal or vertical level.



ADJUSTING AIR FLOW DIRECTION

1. To turn the unit when it has been installed with a single lag bolt (as shown in figure 5a), simply turn the entire heater as needed. The unit cannot be turned horizontally if it has been installed with 2 lag bolts.
2. To tilt the unit vertically, loosen the bracket screws (see figure 6).
3. Adjust louvers to the desired position.

NOTE: The louvers are designed so they cannot be completely closed. Do not attempt to defeat this feature; damage to the unit can result.

NOTE: To prevent possible overheating, please maintain adequate clearance as shown in figure 3.

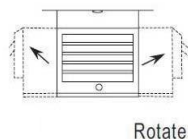


Figure 7

MULTIPLE VERTICAL ANGLES

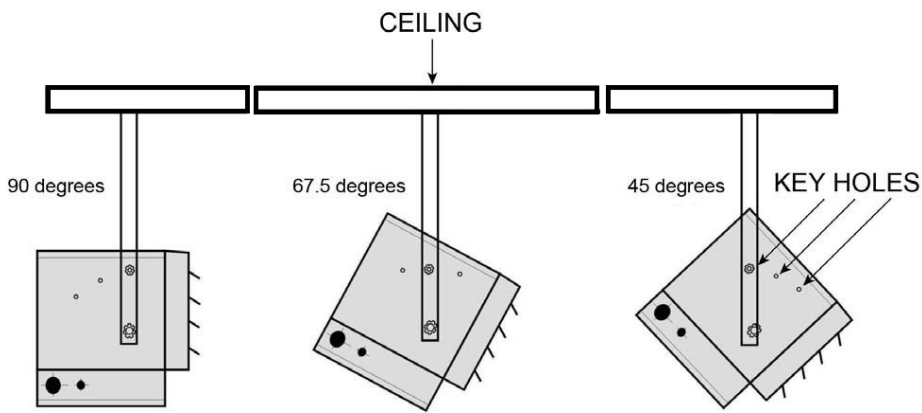









Figure 8

MOUNTING THE HEATER IN THE WALL'S WOOD STUDS ONLY

Comment [kj2]: modified

						
tripod	support plate	M6*16	M4*12	ST10*30	M10*20	washer
1	1	2	1	2	1	5

Refer to Figures 9A to 9E.

1. Slide the support plate into the tripod; align both square holes and tighten with screws. (Figure 9A)
2. Install the tripod on the wall with two screws. (Figure 9B)
3. Attach the bracket on the heater, making sure it is securely fastened. (Figure 9C)
4. Place the heater (with its bracket) on the support plate. The heater can be tilted at 3 different angles. Use two screws to secure the unit in the desired angle. (Figure 9D)
5. Adjust the horizontal angle (Figure 9E)

Wall Hanging Installation (wood stud only)

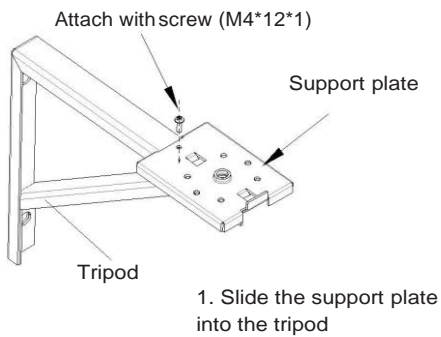


Figure 9A

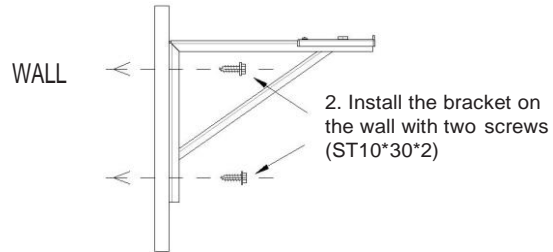


Figure 9B

3. Use the keyholes to lock different angles

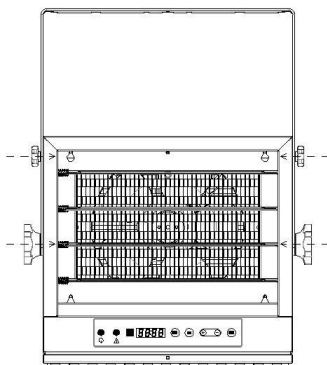


Figure 9C

4. Attach the heater to the brackets with washer & screw (M10*20*1)

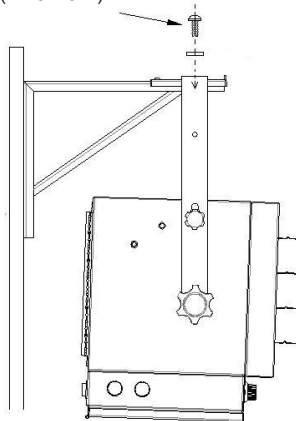


Figure 9D

5. The heater can be tilted at 3 different angles. Use two screws (M6*16*2) to secure the unit in each angle.

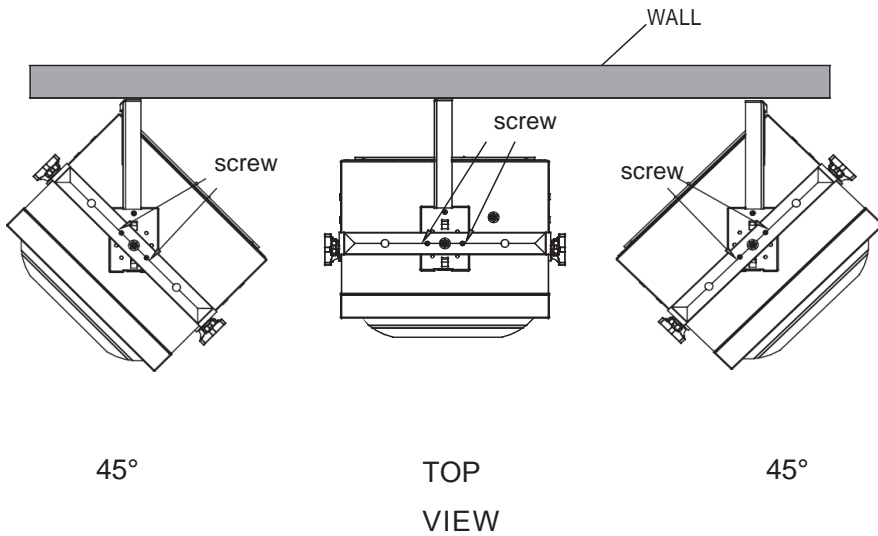
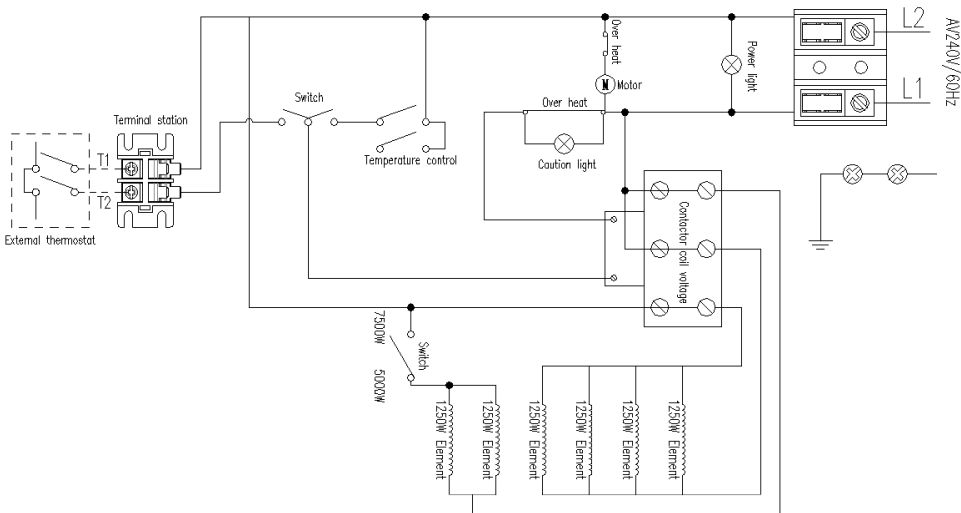


Figure 9E

NOTE: The louvers are designed so they cannot be completely closed. Do not attempt to defeat this feature; damage to the unit can result.

CONNECTING THE POWER



External thermostat wiring diagram

Figure 9

NOTE: If you use an external temperature control (external thermostat), please follow the instructions below:

Note 1: You must turn off the ON/OFF switch on the front of heater before you select the built-in / external thermostat.

Note 2. Please find the rocker switch on the back of the heater as shown in Figure 10 and shift the switch to “—” position. Then the heater will be controlled by external thermostat.

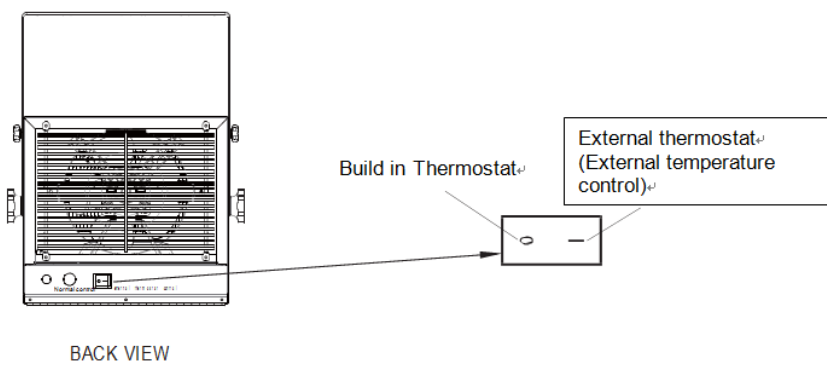


Figure 10

Note3. Connect the wire according to wiring diagram as shown in figure 9.

Note4. The external temperature control (external thermostat) should comply with UL or ETL standard requirements.

Note5. The lead wire of external temperature control (external thermostat) must have a minimum gauge of 16 AWG.

External thermostat installation:

1. Pop the piece out to open the hole

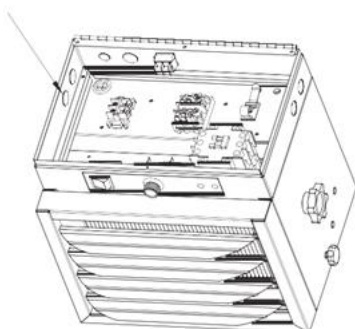


Figure 11A

2. Remove both screws

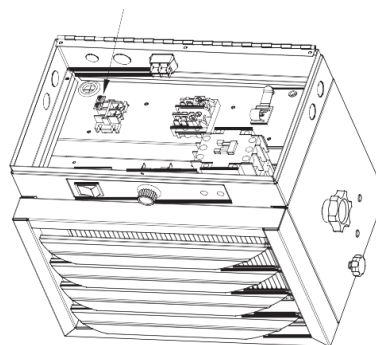


Figure 11B

3. Strip away the cover of lead wire for 50mm
From the external control box.

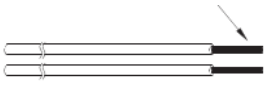


Figure 11C

4. Twist the wire through the end



Figure 11D

5. Bend each wire into a circle

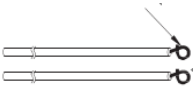


Figure 11E

6. Place the twisted wires through the hole

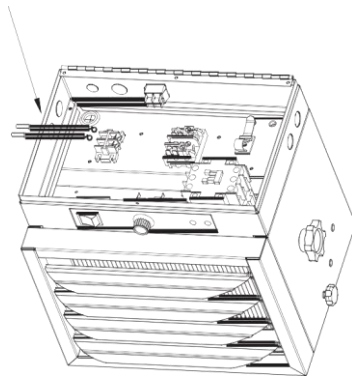


Figure 11F

7. Connect the wires to the heater and secure in place.

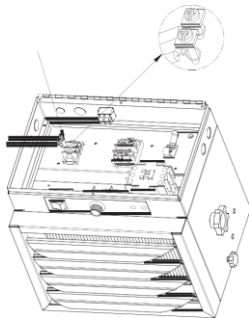


Figure 11G

8. Tighten back the screws with a screwdriver

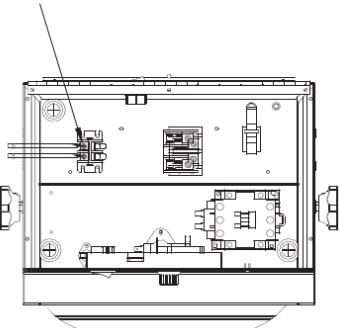
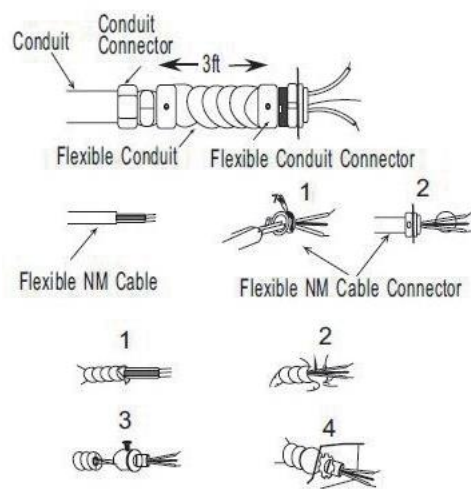


Figure 11H

Connection of power cables:

1. Remove the screw from the front of the unit to connect the power to the heater.
2. Attach the cable connectors to the unit (See Figure 12) and slide the 10-gauge wire through the cable connector.
3. Connect the wire to the power block located in the base of the heater - See Figure 13.
4. Turn on the power at the main service panel.

NOTE: All wiring must be carried out by a certified electrician and comply with national and local electrical codes in the Canada & United States. For certain applications, conduit may be required. Check local electrical codes. If you run the wiring in conduit and wish to be able to turn the heater be sure to purchase enough flexible conduits to allow the heater to be turned.



Connectors, cable, and hardware used to wire the heater

Figure 12

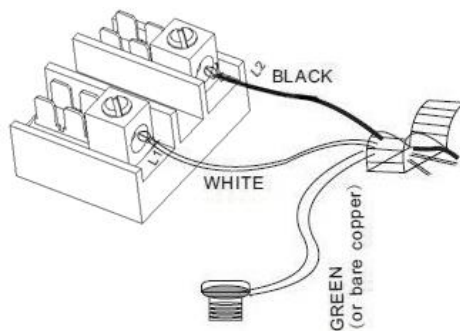


Figure 13

OPERATING INSTRUCTIONS

Note: After setting an external thermostat to control the heater, the power selection switch on the unit will be the only working function on the heater itself.

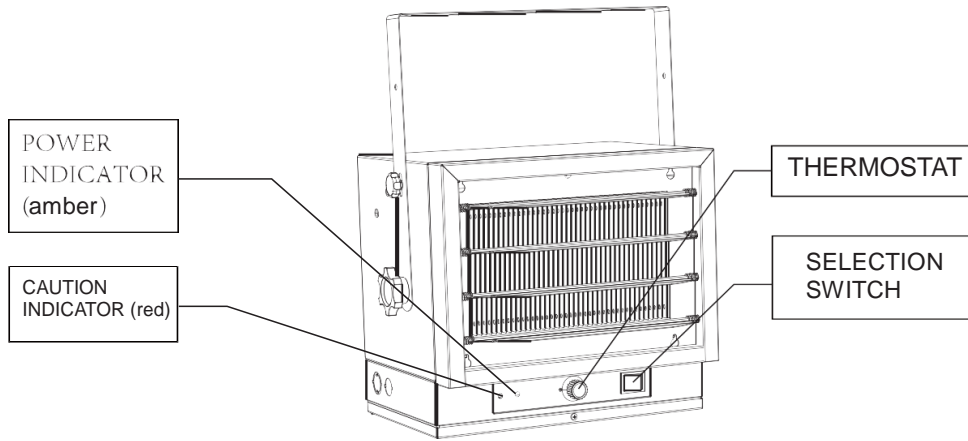


Figure 14

WARNING: the heater must be properly installed before it is used.

TO PROTECT THE HEATING ELEMENT

The heater includes a fan delay function to prevent overheating. When starting the heater, the unit will start the heating element first and then start the fan when the heating element reaches a certain temperature. When turning the heater off, the unit will turn off the heating element first; the fan will continue to work for a few minutes to dissipate residual heat.

SETTING THE THERMOSTAT

- 1) Rotate thermostat knob clockwise to its highest position; the amber POWER INDICATOR will turn on.
- 2) Once the room reaches your desired comfort level, rotate thermostat knob counter-clockwise until a click is heard, then rotate it slightly clockwise. Your heater will now cycle on and off to maintain your set room temperature.

POWER SELECTION SWITCH

Using the SELECTION SWITCH, select the heating output: I for 5000W, II for 7500W



POWER SELECTION SWITCH

THERMAL CUT-OUT

The heater will automatically turn off when parts of it overheat. When this happens, the red indicator will turn on. The heater will turn ON again and the red indicator will turn off when the unit cools down back to normal levels, but the reason of the overheating must be determined and corrective action taken before further operation.

THE HEATER MUST BE TURNED OFF IMMEDIATELY WHEN THE CAUTION INDICATOR IS GLOWING RED.

NOTE: When the thermal cut-out is activated, the caution indicator will turn red. In this case, immediately turn the heater OFF and inspect for any objects on or adjacent to the heater that may cause high temperatures. Let heater cool off completely before turning on again.

MAINTENANCE INSTRUCTIONS

1. Before cleaning, make sure the power has been turned off at the circuit breaker panel and the heating element of the heater is completely cool.
2. To maintain the appearance of the heater, it need only be wiped over occasionally with a dry duster. During the summer months, or at other times when the appliance is not in use and is completely cold, it can be cleaned by wiping it with a damp cloth. Do not let water drip inside the heater.
3. Do not use abrasive clearing powders or furniture polish to clean this appliance. Do not use chemical or abrasive products, metallic scourers and similar items; they may deteriorate the surface.
4. During the summer months, or at other times when the appliance is not in use, disconnect the power supply, and cover the whole appliance with a dust cloth. Store the appliance in a dry and cool place.
5. All servicing should be performed by qualified service personnel. Do not try to repair the heater yourself.