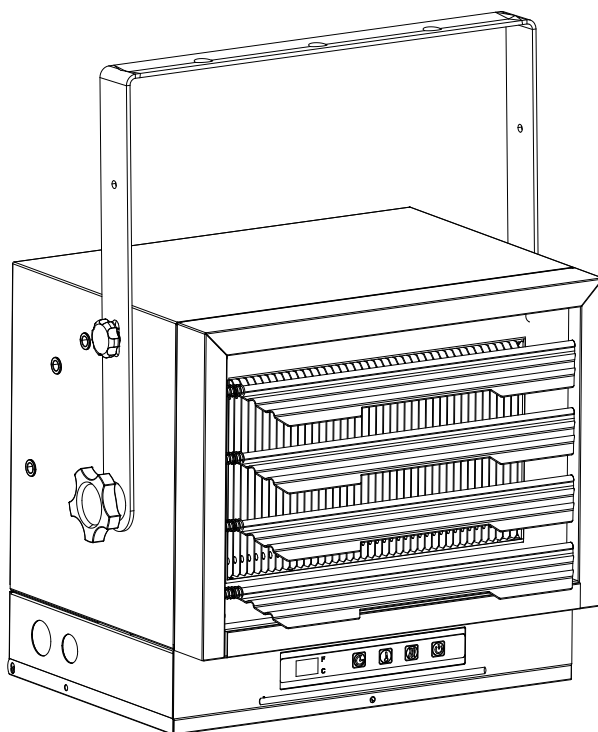


Electric Garage Heater

HS1285-08

8,500W / 240V / 29010 BTU

INSTALLATION & MAINTENANCE INSTRUCTIONS



Intertek
5022073
CONFORMS TO
UL STD 2021
CERTIFIED TO
CSA STD C22.2
NO.46

Before the first use of this heater, please read this USER'S MANUAL very carefully. This USER'S MANUAL has been designed to instruct you as to the proper manner in which to assemble, maintain, store, and most importantly, how to operate the heater in a safe and efficient manner. Please keep this manual for future reference.

CONSUMER: Retain this manual for future reference.

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 electrical cords, 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 to the heater when not in use.
5. Do not operate any heater after the heater malfunctions, has been dropped or damaged in any manner. Disconnect power at the service panel and have the 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. 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.
9. 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 become blocked.
10. 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.
11. 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.
12. To disconnect heater, turn controls to off, and turn off power to heater circuit at main disconnect panel.
13. This heater may include a visual alarm to warn that parts of the heater are getting excessively hot. If the alarm illuminates, immediately turn the heater off and inspect for any objects on or adjacent to the heater that may have blocked the airflow or otherwise caused high temperatures to have occurred. **DO NOT OPERATE THE HEATER WITH THE ALARM LIGHT ILLUMINATING.**

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 coatings burn off.

SAVE THESE INSTRUCTIONS



This Product can expose you to chemicals including Diisononyl phthalate (DINP) which is known to the State of California to cause cancer and Di-isodecyl phthalates (DIDP) which is known to the State of California to cause birth defects or other reproductive harm.

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SPECIFICATIONS

Rating	AMPS	BTU/hour
8500W II 240-1-60	35.4	29010
5600W I 240-1-60	23.3	19112
6400W II 208-1-60	30.7	21843
4200W I 208-1-60	20.2	14334

SAFETY INFORMATION



WARNING



THIS HEATER REQUIRES 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: COMPATIBLE WITH A 240V LINE VOLTAGE DOUBLE POLE WALL THERMOSTAT. MUST BE INSTALLED BY A CERTIFIED ELECTRICIAN.

READ AND UNDERSTAND ALL INSTALLATION & OPERATION INSTRUCTIONS PRIOR TO OPERATING THIS UNIT. OBSERVE ALL SAFETY INSTRUCTIONS.

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 all wall, floor and ceiling clearance requirements.
4. All wiring must be done according to national and local electrical codes. 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).

SAFETY INFORMATION

6. All electrical power must be disconnected at the main service box, which must be locked before connecting, inspecting, cleaning or servicing the heater. This is an important precaution to prevent serious electric shock.
7. This heater is not suitable for use in hazardous locations containing explosive liquids or vapours. This heater has hot or arcing or sparking pads 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 off the floor. For specific clearances, please see next page.



WARNING

IMPROPER INSTALLATION OR FAILURE TO FOLLOW THE PROCEDURES OUTLINED IN THIS INSTRUCTION MANUAL CAN RESULT IN SERIOUS ELECTRICAL SHOCK.

LOCATING HEATER

Install heater away from traffic areas, maintaining clearances stated in figure 2 (below). The air flow direction should not be restricted (ie. by columns or machinery). The air flow should wipe exposed walls rather than blowing directly on them. When more than one heater is used in an area, heaters should be be installed so that the air discharge of each heater supports the air flow of the others, to provide best warm air circulation as shown in figure 3.

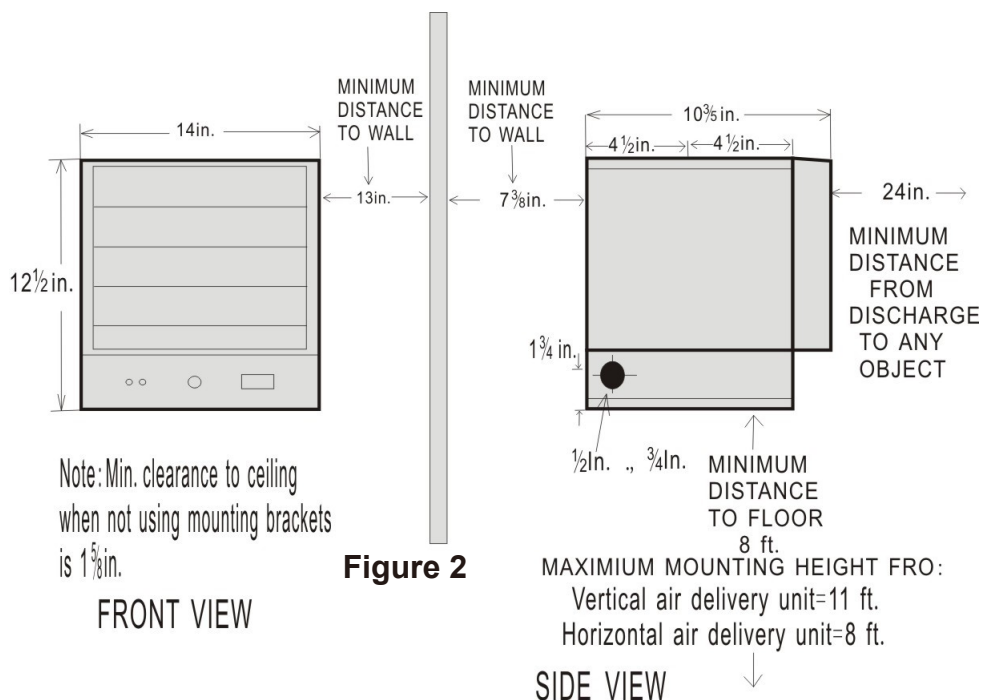


Figure 2

LOCATING HEATER

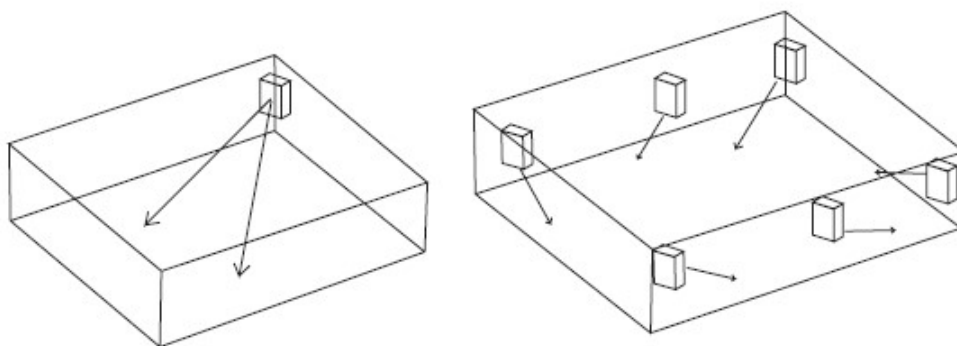
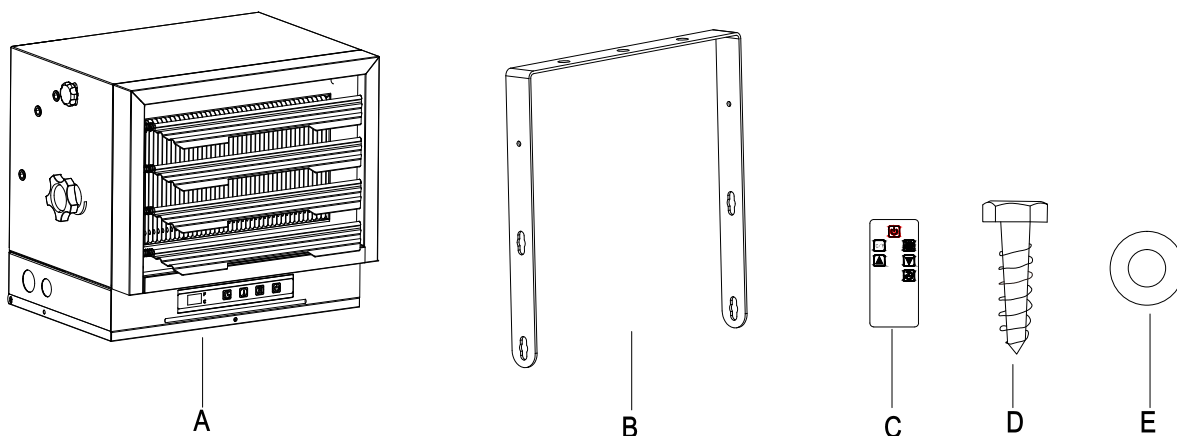


Figure 3

PRE-INSTALLATION



Part	Description	Quantity
A	Garage Heater	1
B	Mounting Bracket	1
C	Infrared Remote Control	1
D	Screw	3
E	Washer	6

INSTALLATION

MOUNTING THE BRACKET

Refer to Figures 4a and 4b.

1. Locate a wood stud in the wood ceiling joist. If you cannot locate a wood stud, you have to 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 may be required to properly secure the unit. See Figure 4a.

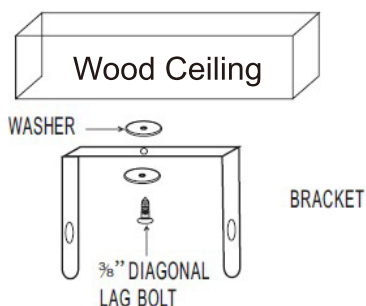


Figure 4a. Single-Screw Mounting

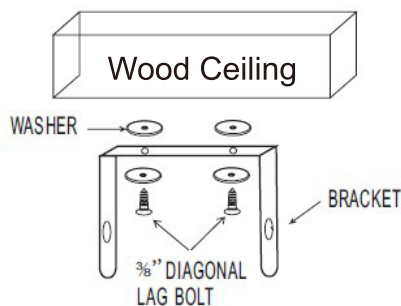


Figure 4b. Double-Screw Mounting

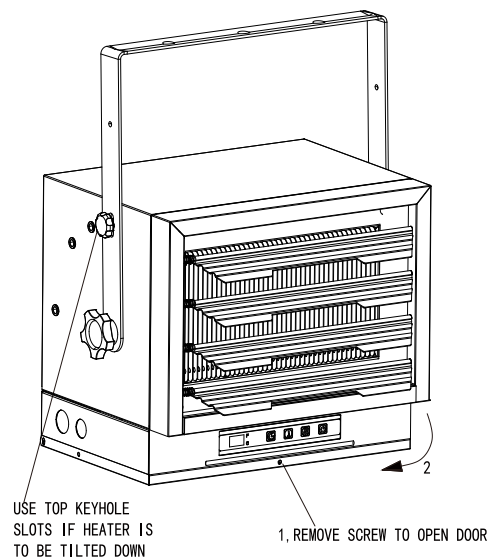
HANGING THE HEATER

1. Attach the heating unit to the mounting bracket.
2. Lift the heater up and into the mounting bracket.
3. Align the bracket screws with the keyhole slots in the mounting bracket.
4. If the heater is to be tilted it must be positioned in the keyhole slots - see figure 5.
5. Tighten the bracket screws with a wrench so the unit is securely 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 4a), 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 5).

Figure 5



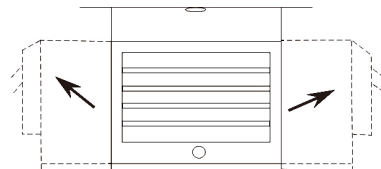
INSTALLATION

NOTE: For the heater to be tilted vertically, it must be mounted in bottom keyhole slots of mounting brackets to maintain adequate clearance and prevent possible overheating.

3. Adjust louvers to the desired position (see Figure 6).

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

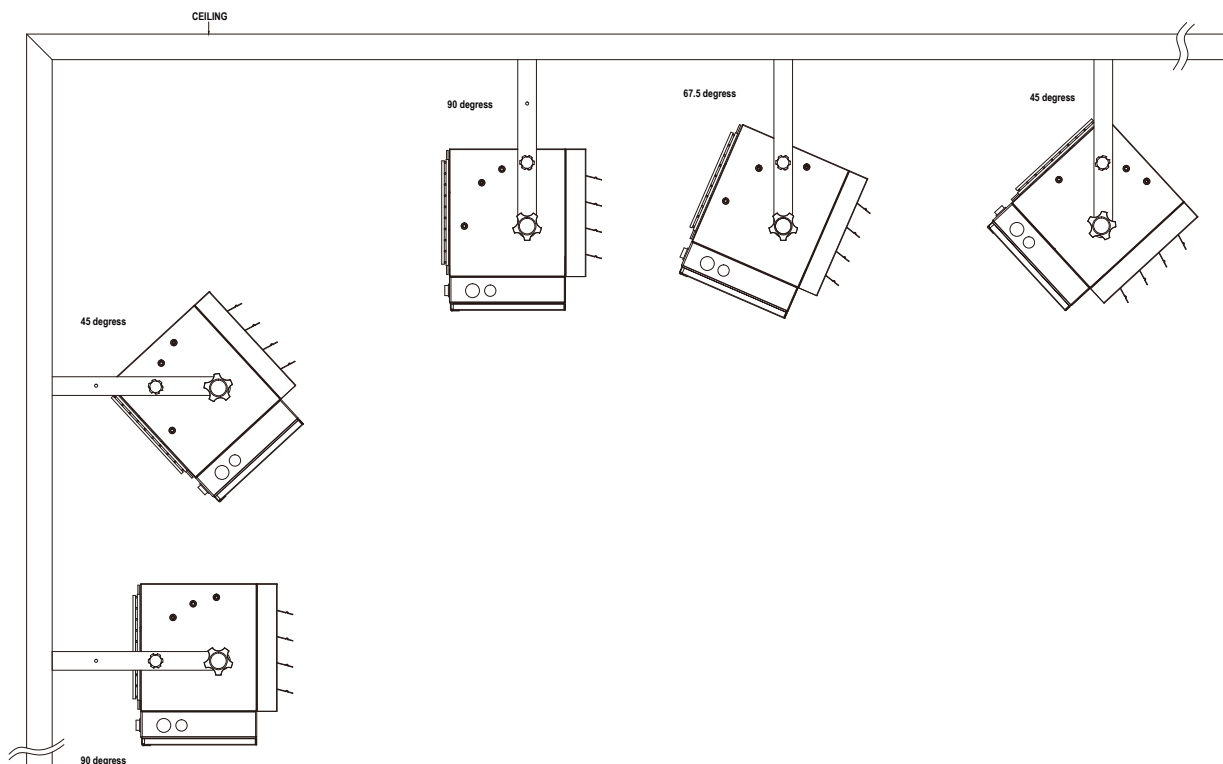
Figure 6



WARNING

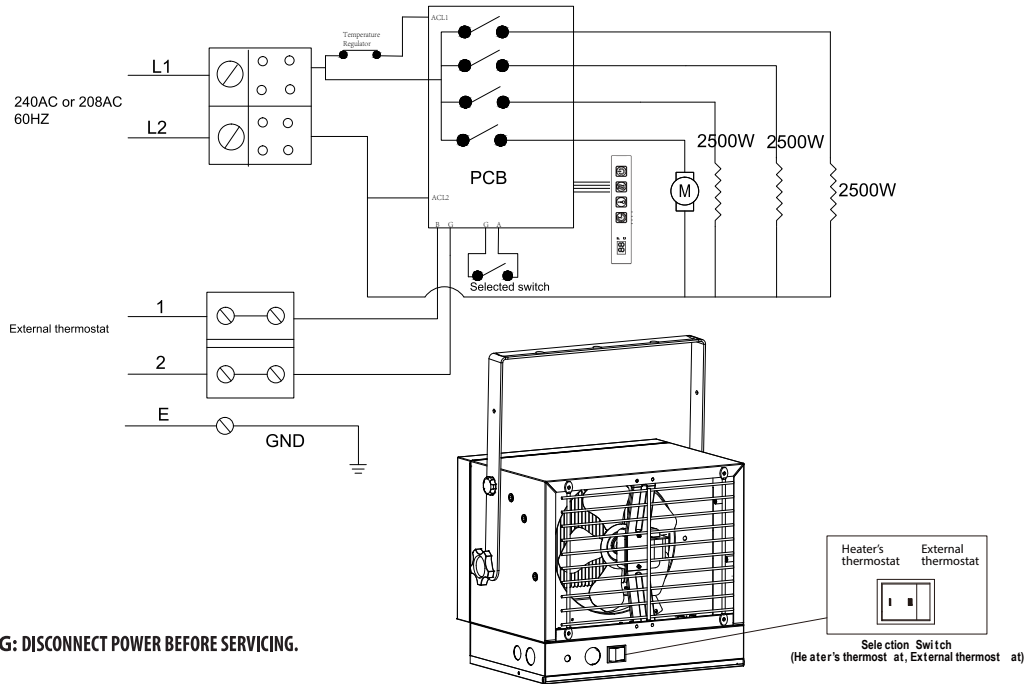
TO PREVENT POSSIBLE ELECTRIC SHOCK, DISCONNECT POWER TO THE HEATER AT THE MAIN SERVICE BOX BEFORE ATTEMPTING TO ADJUST THE HEAT OUTPUT OF THIS UNIT.

MULTIPLE VERTICAL ANGLES



INSTALLATION

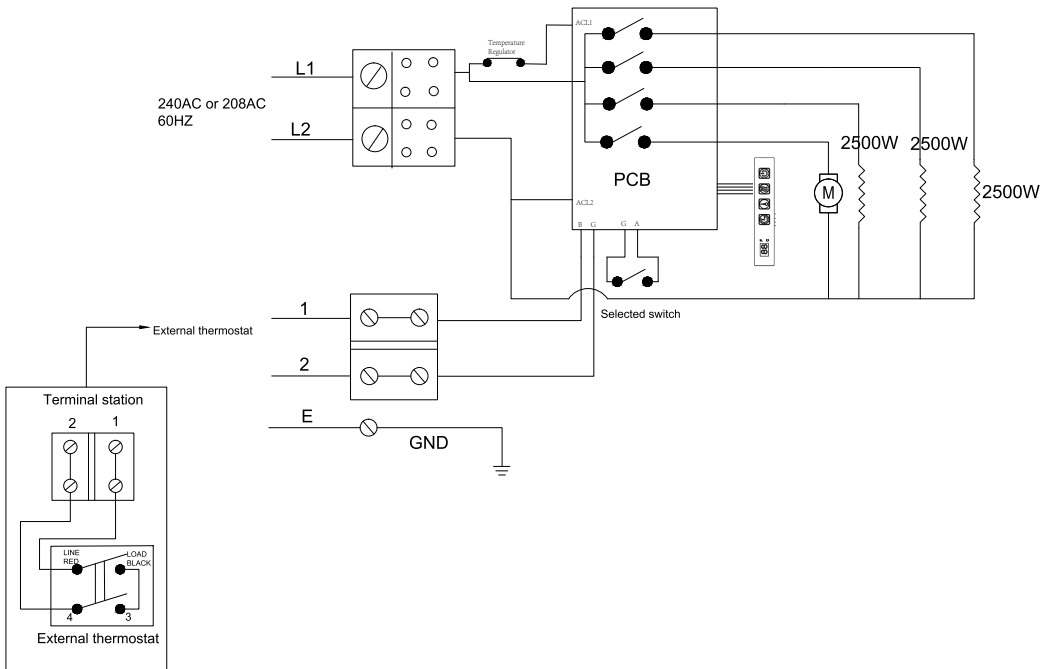
CONNECTING THE POWER



WARNING: DISCONNECT POWER BEFORE SERVICING.

If you will use an external temperature control (external thermostat) to control the heater to be operated or not, please follow below attention points:

1. Make sure that the heater's temperature control knob (thermostat knob) is turned fully clockwise.
2. Connect the wire according to below wiring diagram.



INSTALLATION

CONNECTING THE POWER

3. The external temperature control (external thermostat) should be in accordance with the requirement of UL or ETL standard.
4. The lead wire of external temperature control (external thermostat) can not be less than 22 AWG.

TO PROTECT THE HEATING ELEMENT

When starting the heater, turning the temperature control clockwise slowly to terminal, the unit starts the fan first then starts the heating element.

When shutting off the heater, turning the temperature control counter-clockwise to off, the heating element first will turn off then the fan will run a short cooling cycle and then turn off.

WARNING

THIS APPLIANCE MUST BE GROUNDED!
THE APPLIANCE MUST CONNECT TO A CURRENT PROTECTION CIRCUIT OR DEVICE AT 50AMP OR LESS BEFORE BEING CONNECTED TO POWER SUPPLY!

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 7) and slide the 10-gauge wire through the cable connector.

NOTE: All wiring must be carried out by a Certified Electrician and must be in accordance to national and local electrical codes. For certain applications, conduit may be required, See Figure 7. 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 conduit to allow the heater to be turned.

3. Connect the wire to the power block located in the base of the heater - See Figure 7.
4. Turn on the power at the main service.

WARNING

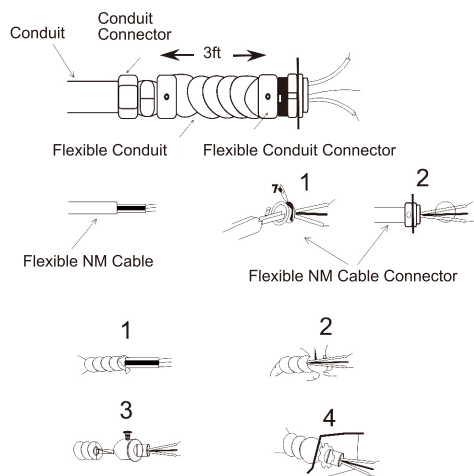
HIGH TEMPERATURES – RISK OF FIRE. KEEP FLAMMABLE MATERIALS, SUCH AS FURNITURE, PILLOWS, BEDDING, PAPERS, CLOTHES, ELECTRICAL CORDS AND CURTAINS AT LEAST 3 FT. (0.9 M) FROM THE FRONT AND TOP OF THE HEATER AND KEEP THEM AWAY FROM THE SIDES AND REAR. TO REDUCE THE RISK OF FIRE, DO NOT USE IT IN AREAS WHERE GASOLINE, PAINT OR FLAMMABLE LIQUIDS ARE USED OR STORED.

WARNING

TO REDUCE THE RISK OF FIRE, DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THE HEATER.

INSTALLATION

CONNECTING THE POWER



Connectors, cable, and hardware used to wire the heater

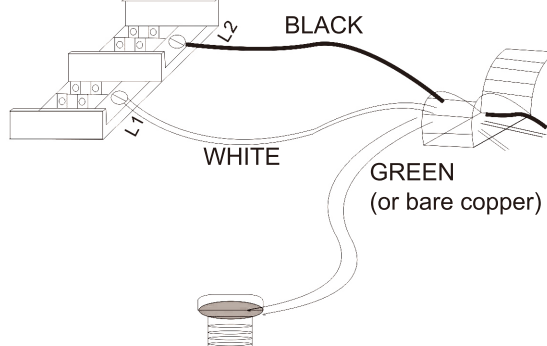


Figure 7

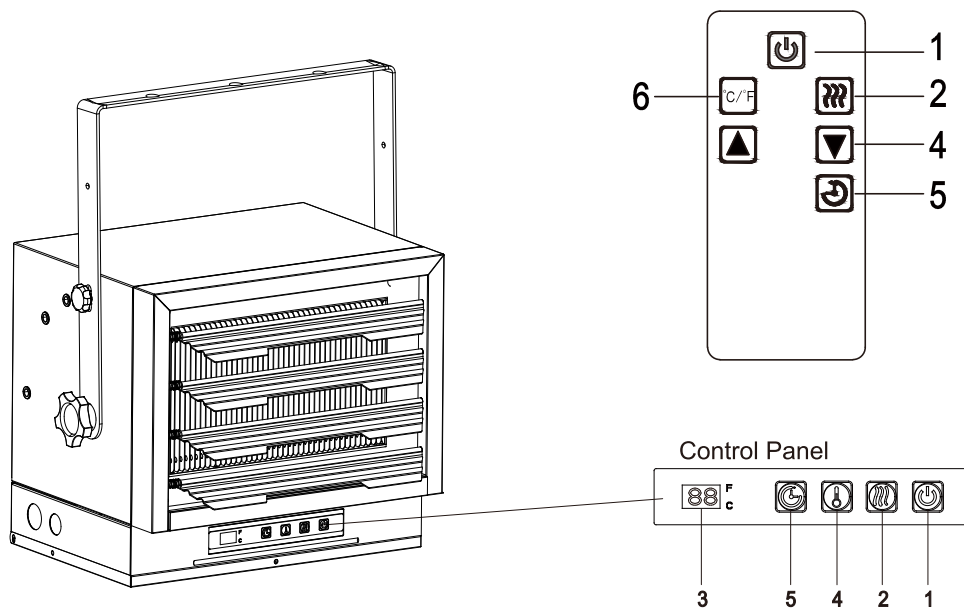
OPERATING INSTRUCTIONS



WARNING



THE HEATER MUST BE PROPERLY INSTALLED BEFORE IT IS USED.



OPERATING INSTRUCTIONS

Check that the garage heaters outlet grill is not covered or obstructed in anyway, and make sure the power to the unit is switched on.

The garage heater control functions can be accessed in two (2) ways:

- Using the touchpad control panel, located on the front of the garage heater below the air guide plates.
- Using the multifunction remote control unit.

1. Main Power Button:

This button supplies power to all of the garage heaters functions. It must be turned on for the garage heater to work.

2. Heater Control Button:

This button adjusts the 3 heating stages: OFF , FA (Fan Only), AU : LOW (6400W displays "L") or High(8500W displays"H").

3. Temperature/Timer Display:

This LED display shows the set point for the temperature and timer functions. When either of these functions is activated, the display the set point for about 10 seconds and then fades to black. Any change to the set point of the temperature or timer will reactivate the display, which again fades after about 10 seconds.

4. Temperature Control Button

REMOTE:

▼ **DOWN Control Button:** Only in "AU",this button is used to decrease temperature.

▲ **UP Control Button:** Only in "AU",this button is used to increasing temperature.

GARAGE HEATER :

Only in "AU",this button is increasing temperature setting. To switch from Fahrenheit to Celsius, or vise-versa,hold this button for 3 seconds.

The temperature range between 10°C - 35°C (50°F - 95°F) in 1- 2°F (1/1°C) increments.

In the AU (H/L) gear , when the set temperature morethan or equal to ambient temperature 1 degrees , but less than or equal to 5 degrees,the heater will be switched toow power to save energy.The heater is firing high power only when the set temperature is out of 5 degrees range. Until the ambient temperature more than set temperature,The heater is stop heating , but fan will stop work after 60 seconds.

5. Timer Button:

This button controls the Timer OFF (no display) and 8 settings from 1 to 8 hours. When the Timer isturned on,it will come on at the shortest time setting (1hour). Each time the Timer button is pressed.the time increases by 1 hour, up to the longest setting (8 hours). Once the set time expires, all garageheaters functions will be automatically turn off.

6. Fahrenheit/Celsius Button:

REMOTE:

This button displays F (Fahrenheit) or C (Celsius) depending on how the temperature mode is set. When the garage heater is turned on, the Fahrenheit (F) temperature will be displayed.

GARAGE HEATER :

To switch from Fahrenheit to Celsius, or vise-versa, when the garage heater is ON, hold HEATER CONTROL button for 3 seconds. Unless power to the unit has been interrupted, the garage heater will remember the last temperature mode setting will start at that setting.

MAINTENANCE

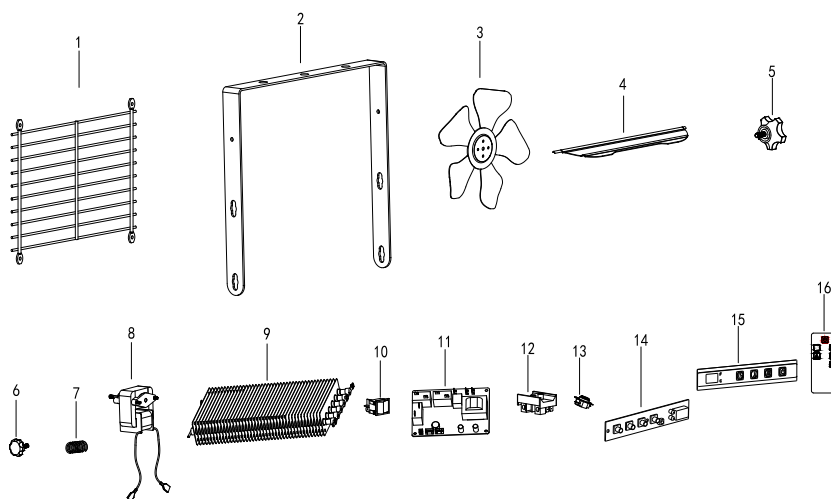
1. Before cleaning, make sure the power has been turned off at the circuit breaker panel and that the heating element of the heater is cool.
2. To maintain the external appearance of the heater, the unit occasionally needs to be wiped with a dry duster. During the summer months, or at other times when the appliance is not in use and is completely cold, it should be wiped over with a damp cloth.
3. Do not use abrasive clearing powders or furniture polish. Do not use chemical or abrasive products, metallic scourers and so on, which may deteriorate the surface, to clean the appliance.
4. During the summer months, or at other times when the appliance is not in use, disconnect the power supply. Keep the appliance in a dry and cool place.
5. All other servicing should be performed by qualified service personnel. Do not try to repair the heater yourself.

NOTE: The motor is permanently lubricated, and no further lubrication is needed.

REPLACEMENT PARTS

Part	Description	Part#
1	Back mesh	HS1250-06001
2	Hanging plate	HS1250-06002
3	Fan Blade	HS1250-06003
4	Air guide plate	HS1250-06004
5	Large handle seat	HS1250-06005
6	Small handle seat	HS1250-06006
7	Spring	HS1250-06007
8	Motor	HS1250-06008

Part	Description	Part#
9	Heater	HS1285-06001
10	Selection Switch	HS1250-06011
11	Main Board	HS1275-08001
12	Terminal block	HS1250-06014
13	Temperature CUT-OFF	HS1250-06017
14	Control Panel Circuit Board	HS1275-08002
15	Button surface sticker	HS1275-08003
16	Infrared Remote Control	HS1275-08004



TROUBLESHOOTING

PROBLEM	DISPLAY CODE	ROOT CAUSE	CORRECTIVE ACTION
Unit is not heating	Display shows "EE"	The thermostat sensor is broken or disconnected.	Please call customer service.
	The product does not have electricity entering	The overheat protection has activated.	Inspect the garage heater and check that the air inlets and outlets are not blocked as this may cause overheating. Switch off the circuit breaker to the garage heater for 30 minutes and allow it to cool down. Turn the power back on and operate.
	The heater button is invalid	Heater is in Lock Mode	Hold the POWER button for 10 seconds to unlock the heating function.
	Display shows "FA" and blows cold air	The heater is set to FAN ONLY mode	Change the setting and switch to "AUT" heating mode
	The heater will not start	The room temperature has already reached the set thermostat temperature	Adjust the temperature setting to make sure the thermostat setting temperature is higher than current room temperature.
	The heater will not start	The breaker has tripped	Reset the breaker at the fuse panel and restart the heater
Garage heater emits a burning smell		During production dust and/or oil debris gathered on heating coils.	Make sure the room is well ventilated. Allow the garage heater to run until the smell is dissipated.
		Check and make sure there is no combustible material within 0.9 meters (3 feet) of the garage heater.	Remove the combustible material around the garage heater.
		This heater must be mounted at least 8 feet off the floor, for specific clearances, please check the "LOCATING HEATER" section in the instruction manual	Relocate the garage heater so there is enough space between the heater and adjacent wall and floor.

[illegible]