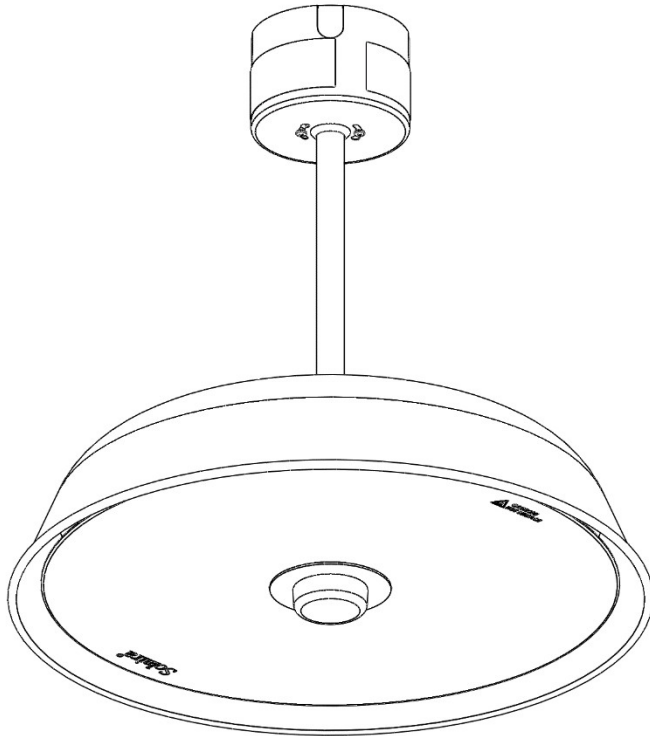
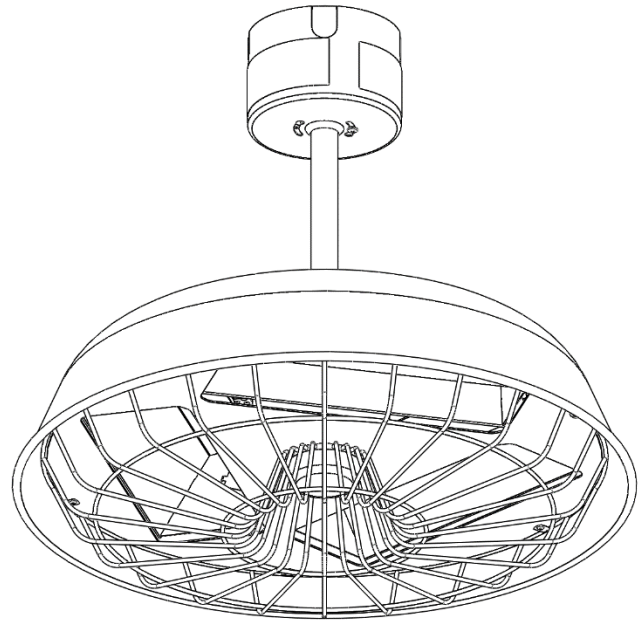


RADIUS

Safety and Installation Manual



RADIUS



RADIUS

INFRARED HEATERS FOR:

INDOOR USE – RESIDENTIAL AND COMMERCIAL USE

OUTDOOR USE – RESIDENTIAL AND COMMERCIAL USE WITH OVERHEAD ROOF WITH NO RAIN EXPOSURE

FOR USE IN NON-HAZARDOUS AREA ONLY!

This manual is for the following models:

Heater Model	208V	240V	277V
4500W Radius Glass	GRAD45208-C	GRAD45240-C	GRAD45277-C
3000W Radius Glass	GRAD30208-C	GRAD30240-C	GRAD30277-C
4500W Radius Cage	CRAD45208-C	CRAD45240-C	CRAD45277-C
3000W Radius Cage	CRAD30208-C	CRAD30240C	CRAD30277-C
3000W Carbon Emitter Radius Glass	CGRAD30208-C	CGRAD30240-C	-
3000W Carbon Emitter Radius Cage	CCRAD30208-C	CCRAD30240-C	-

*Some models available by special order ONLY. MOQ may apply.

⚠SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE⚠

⚠ WARNING

All persons involved with the installation, operation and maintenance of the heater must read and understand all the information in this manual.

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read and understand the installation, operating and maintenance instructions thoroughly before installing or servicing this heater.

Important safety messages have been provided in this manual and on your heater. Always read and obey all safety messages.



This is the safety alert symbol.

This symbol alerts you to potential hazards that can result in death or severe injury to you and others.

All safety messages will follow the safety alert symbol and either the word “DANGER”, “WARNING”, “CAUTION” or “IMPORTANT”. These words mean:

⚠ DANGER

You can be killed or seriously injured if you don't immediately follow instructions.

⚠ WARNING


You can be killed or seriously injured if you don't follow instructions.

⚠ CAUTION

You can be seriously injured if you don't follow instructions.

⚠ IMPORTANT

Notifies the specifier, installer or user about practices not related to physical injury, but to important items such as equipment, housekeeping or security.

-
1.  **Read all instructions carefully before installing, servicing, or using this heater.**
 2. **WARNING! This unit is not equipped with a thermal overheat device. When used in indoor residential applications, this heater must be installed with a thermostat or other temperature limiting device. Failure to install a temperature limiting device could result in fire!**
 3. 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 (0.9m) from the front of the heater and keep them away from the sides and rear.
 4. Extreme caution is necessary when any heater is used by or near children or individuals with disabilities or reduced mental or physical capacity.
 5. Do not operate any heater after it malfunctions, or if the heater has been dropped or damaged in any manner. Disconnect power at service panel and have heater inspected by a licenced electrician before reusing.
 6. To disconnect heater, turn controls 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 parts inside. Do not use it in areas where gasoline, paint or flammable vapors or liquids are used or stored.
 10. Installation **MUST** be performed by a licenced electrician and must conform to local, state, provincial or national electric codes.
 11. This heater must be installed with overhead cover and must be sheltered from rain.
 12. 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.
 13. **SAVE THESE INSTRUCTIONS**



 **WARNING: CALIFORNIA PROPOSITION 65**

This product can expose you to chemicals which are known to the state of California to cause cancer and cause birth defects or other reproductive harm.

 **WARNING: RISK OF FIRE**

Keep combustible material such as furniture, papers, clothes and curtains at least 3' feet (0.9m) from the front of the heater and away from the sides and rear.

 **WARNING: RISK OF INJURY**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, serious injury or death. Read and understand the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

Safety Symbols	2
IMPORTANT SAFETY INSTRUCTIONS	3
Contents	4
Introduction	5
Safety	5
Before using this appliance	5
Heater Specification	6
Applications	6
Commercial / Industrial (indoors and outdoors)	6
Overall heater dimensions	7
heater specification	8
Radius Glass Specification	8
Radius Cage Specification	8
Installation Instructions	9
Grounding Instructions	9
Clearances Between Heaters	9
Clearances to Combustibles	10
Clearances for ceramic glass grille models	11
Clearances for wire cage grille models	12
Installation on Angled Ceilings	13
Installing the Heater Mounting Bracket	14
Preparing the Heater	14
Making the Electrical Connections	18
Circuit Diagrams	19
208v circuit diagram	19
240v circuit diagram	19
277v circuit diagram	20
Component Diagram	21
Operation Instructions	22
Maintenance Instructions	22
Maintenance Instructions	22
Emitter Replacement Instructions	24
Limited Warranty	27

The Solaira Radius heater produces radiant heat like the sun, warming people and objects rather than the air in between. The Radius is available in two grille configurations: Ceramic Glass and Wire Cage. The Wire Cage grille configuration produces short wave radiant heat and is suitable for a wide variety of installations, including areas with high wind exposure. The Ceramic Glass configuration produces both radiant and convective heat and is suitable for more protected environments and temperate climates.

Please read the following instructions carefully before use. The safety of this heater is guaranteed only by its correct usage in accordance with these instructions, therefore they should be retained for future reference.

**WARNING!****BEFORE USING THIS APPLIANCE**

1. Check that the supply voltage indicated on the heater rating label corresponds to the supply voltage.
2. **WARNING!** This unit is not equipped with a thermal overheat device. When in indoor residential applications, this heater must be installed with a thermostat or other temperature limiting device. Failure to install a temperature limiting device could result in fire!
3. **WARNING!** Do not install the heaters less than the clearances specified in the clearances chapter. Always respect to distances to the ceiling and adjacent walls.
4. **WARNING!** Do not install this heater on a recessed ceiling box. This appliance must be installed on a surface mounted 4x4x1.5" steel octagonal ceiling junction box.
5. **WARNING!** Use supply wires, ceiling junction boxes and conduit rated for at least 194°F / 90°C.
6. **WARNING!** This appliance must be grounded!
7. Ensure that the heater has been securely fastened in its final mounting position.
8. Do not cover or obstruct the heater while it is in use.
9. Do not insert any object through any slot or opening in the heater.
10. Do not use if the grille emitter guard is not present.
11. The heater is not intended for use by young children. An operating heater must be supervised by a responsible person at all times.
12. Do not use or store flammable materials near this appliance.
13. Do not attempt to alter the unit in any manner.
14. Do not install the heater directly near a bathtub, shower, swimming pool or other body of water. Do not install switches within reach of places where people could be exposed to water such as bathtubs or pools.
15. This heater should be cleaned regularly to maintain its appearance and more importantly its performance. Refer to the maintenance section for further details.

APPLICATIONS

Commercial / Industrial (indoors and outdoors)

This heater is certified for use inside and outside commercial and industrial buildings such as restaurants, hotels, patios, seating areas and stadiums. Before installing always ensure clearances outlined in this manual are followed, and always ensure clearances to combustibles.

Residential (indoors and outdoors)

This heater is certified for use inside and outside residential buildings. This includes garages, living areas, kitchens or fully enclosed outdoor rooms. Consult your local fire marshal and/ or insurance provider if you are unsure of your application.

WARNING: HEATER MUST BE INSTALLED WITH OVERHEAD COVER

This heater has not been tested for use in outdoor, exposed environments with rain or snow. When installing outdoors, this heater must be installed with an overhead ceiling and protected from snow or rain.

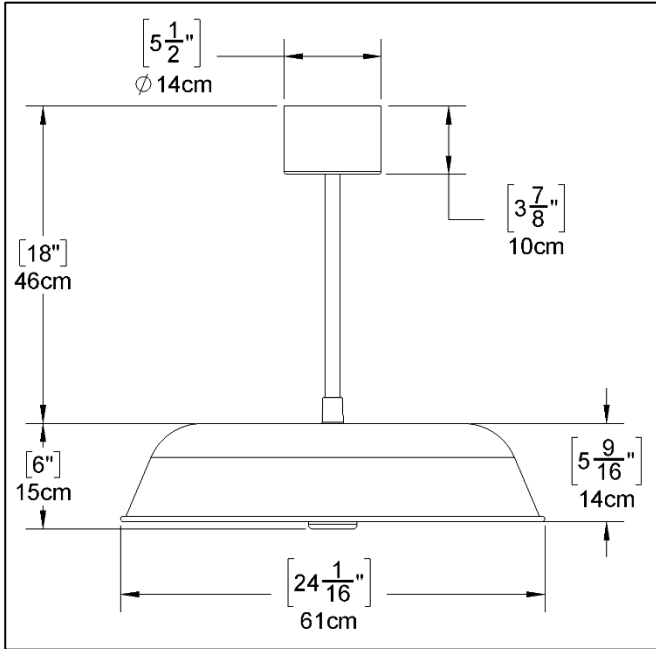
WARNING: THERMOSTAT OR THERMAL PROTECTION REQUIRED INDOORS

This unit is not equipped with a thermal overheat device. When used in indoor residential applications, this heater must be installed with a thermostat or other temperature limiting device. Failure to install a temperature limiting device could result in fire!

OVERALL HEATER DIMENSIONS

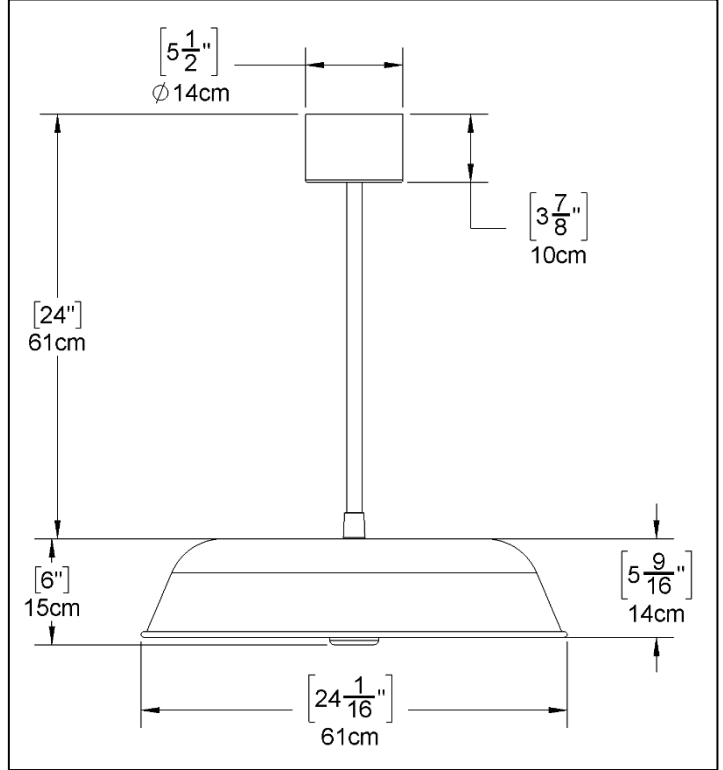
3000W GLASS MODELS

GRAD30208-C | GRAD30240-C | GRAD30277-C
CGRAD30208-C | CGRAD30240-C



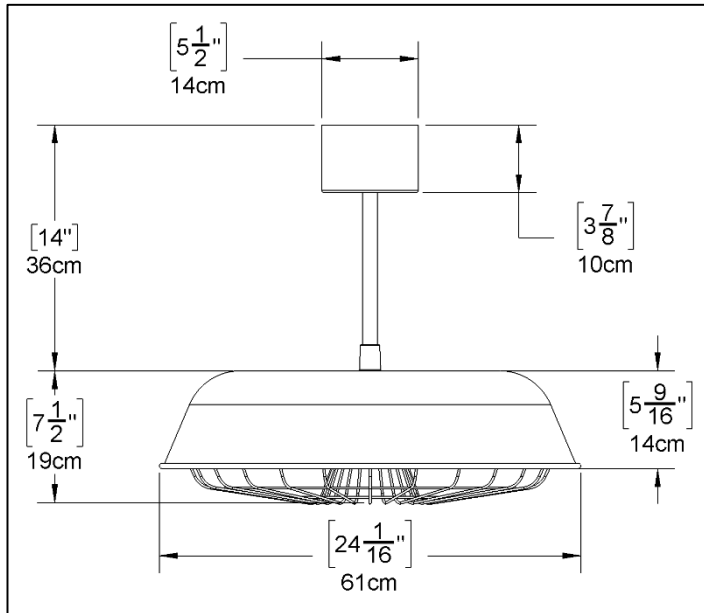
4500W GLASS MODELS

GRAD45208-C | GRAD45240-C | GRAD45277



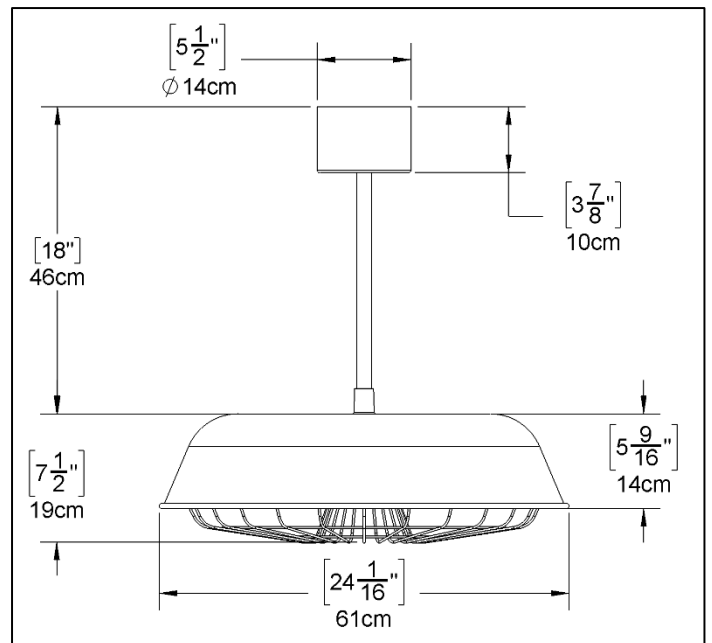
3000W CAGE MODELS

CRAD30208-C | CRAD30240-C | CRAD30277-C
CCRAD30208-C | CCRAD30240-C



4500W CAGE MODELS

CRAD45208-C | CRAD45240-C | CRAD45277-C



HEATER SPECIFICATION

Radius Glass Specification

Model Part Number	Lamp type, Power	Voltage (V)	Power (W)	Power (BTU/h)	Current (A)	Minimum Mounting Height	Minimum Wall Clearance	Minimum Ceiling Clearance	Suspension Pole provided
GRAD45208-C	1500W Tungsten	208	4500	15,345	21.6	8' 2.4m	30" 0.8m	24" 61cm	20" 51cm
*GRAD45240-C	1500W Tungsten	240	4500	15,345	18.8				
		*208	3375	11,509	16.2				
GRAD45277-C	1500W Tungsten	277	4500	15,345	16.2	8' 2.4m	30" 0.8m	18" 46cm	14" 36cm
GRAD30208-C	1500W Tungsten	208	3000	10,230	14.4				
*GRAD30240-C	1000W Tungsten	240	3000	10,230	12.5				
		*208	2250	7,673	10.8	8' 2.4m	30" 0.8m	18" 46cm	14" 36cm
GRAD30277-C	1000W Tungsten	277	3000	10,230	10.8				
CGRAD30208-C	1000W Carbon	208	3000	10,230	14.4				
*CGRAD30240-C	1000W Carbon	240	3000	10,230	12.5	8' 2.4m	30" 0.8m	18" 46cm	14" 36cm
		*208	2250	7,673	10.8				

*Models rated for use on 240V circuits may be used on 208V circuits. Heater output and current will be reduced by approximately 25%.

Radius Cage Specification

Model Part Number	Lamp type, Power	Voltage (V)	Power (W)	Power (BTU/h)	Current (A)	Minimum Mounting Height	Minimum Wall Clearance	Minimum Ceiling Clearance	Suspension Pole provided
CRAD45208-C	1500W Tungsten	208	4500	15,345	21.6	7' 2.1m	30" 0.8m	18" 46cm	14" 36cm
*CRAD45240-C	1500W Tungsten	240	4500	15,345	18.8				
		*208	3375	11,509	16.2				
CRAD45240-C	1500W Tungsten	277	4500	15,345	16.2	7' 2.1m	30" 0.8m	14" 36cm	10" 25cm
CRAD30208-C	1000W Tungsten	208	3000	10,230	14.4				
*CRAD30240-C	1000W Tungsten	240	3000	10,230	12.5				
		*208	2250	7,673	10.8	7' 2.1m	30" 0.8m	14" 36cm	10" 25cm
CRAD30277-C	1000W Tungsten	277	3000	10,230	10.8				
CCRAD30208-C	1000W Carbon	208	3000	10,230	14.4				
*CCRAD30240-C	1000W Carbon	240	3000	10,230	12.5	7' 2.1m	30" 0.8m	14" 36cm	10" 25cm
		*208	2250	7,673	10.8				

*Models rated for use on 240V circuits may be used on 208V circuits. Heater output and current will be reduced by approximately 25%.

All heaters are fitted with 3 feet (90cm) of high temperature supply cable. All heaters must be hard wired.

⚠ WARNING: READ AND FOLLOW SAFETY NOTES BELOW

- **WARNING!** Wiring procedures and connections shall be in accordance with local, state, provincial, Canadian or National Electric Codes (NEC/ CEC)
- **WARNING! USE SUPPLY WIRES, CEILING JUNCTION BOXES AND CONDUIT RATED FOR AT LEAST 194°F / 90°C.**
- **CAUTION!** High temperature, Risk of fire. Keep electrical cords, drapery, furnishings and other combustibles at least 3' (0.9m) from the front of heater and away from the sides and rear.
- **WARNING!** To reduce the risk of fire, do not store or use gasoline or other flammable vapours and liquids in the vicinity of the heater.
- **WARNING!** Do not install this heater on a recessed ceiling box. This appliance must be installed on a surface mounted 4x4x1.5" steel octagonal ceiling junction box.
- **WARNING!** If the supply cords become damaged, they must be immediately replaced by a qualified person.
- **WARNING!** This heater has not been tested for use in outdoor, exposed environments with rain or snow. When installing outdoors, this heater must be installed with an overhead ceiling and protected from snow or rain.
- **WARNING!** This unit is not equipped with a thermal overheat device. When used in indoor residential applications, this heater must be installed with a thermostat or other temperature limiting device. Failure to install a temperature limiting device could result in fire!
- **CAUTION!** Disconnect electric power supply before working circuit wiring to prevent electric shock.
- **CAUTION!** Ensure all distances to both flammable and inflammable objects are followed.
- **IMPORTANT** Fire sprinkler systems must be located at an appropriate distance from the heater to avoid accidental discharge. Distances to sprinkler systems may need to be greater than the minimum heater clearances and clearances to combustibles published in this manual.
- **IMPORTANT:** This heater must be cleaned regularly. The glass screen, reflectors and emitters should be cleaned frequently to prevent overheating from buildup of airborne debris. **In seaside environments, this heater should be cleaned monthly to remove salt spray and dust from the glass screen, reflectors and emitters.**

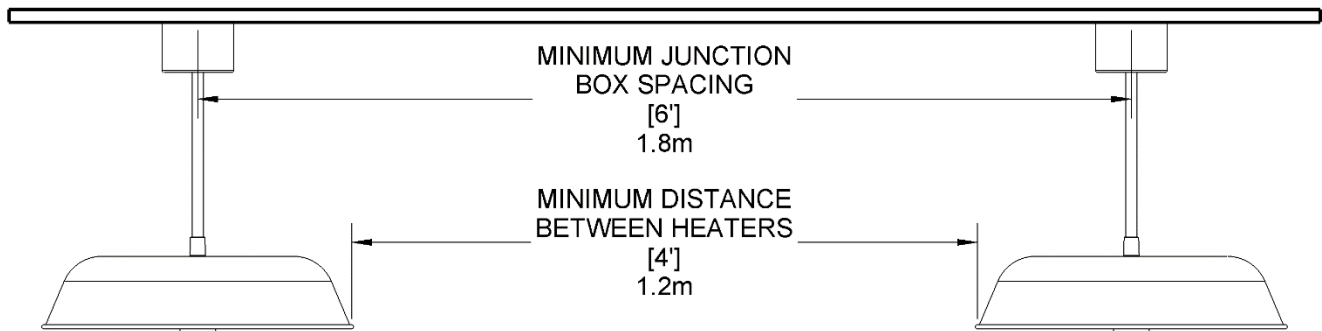
GROUNDING INSTRUCTIONS

This heater is for use on either 208, 240 or 277 volts. The heater voltage must match the building supply power. This product must be grounded. The green wire represents ground.

CLEARANCES BETWEEN HEATERS

⚠ WARNING: ALWAYS MAINTAIN MINIMUM HEATER SPACING

Heaters must be installed minimum 4' apart. Failure to provide the minimum 4' clearance could result hotspots on surfaces due to the overlap in radiant heat zones.



CLEARANCES TO COMBUSTIBLES

WARNING: RISK OF FIRE

- Proximity of explosive objects, flammable liquids and vapours and aerosol cans may result in explosion, fire, property damage, serious injury or death
- To reduce the risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.
- Do not operate the heater in dusty environments.
- Keep combustible material such as furniture, papers, clothes and curtains at least 3' feet (0.9m) from the front of the heater and away from the sides and rear. Do not cover the heater in any way.
- Failure to adhere to these warnings could result in property damage, permanent injury or death.

Heater clearances must be followed to ensure safe operation. 3' (0.9m) clearance to combustible materials must be maintained at all times. Non-combustible objects with low heat tolerances must maintain the same clearances to the front of the heater or they may discolour, degrade or deform under heat load. Materials with low heat tolerances should be considered and in some cases the heater must be installed more than the published clearances to combustibles. Examples include, but are not limited to:

- Vehicles parked under the heater
- Tables or objects placed on top of tables
- Sprinkler heads
- Storage areas with stacked materials
- Overhead doors and tracks or rails
- Gas or electricity lines
- Ceiling fans
- String lights or suspended lighting fixtures

When installing the heating system, the minimum clearances to combustibles must be maintained. If you are unsure of potential hazards associated with installation or proximity to fire hazards, consult your local fire marshal or insurance provider to approve the heater installation.

IMPORTANT

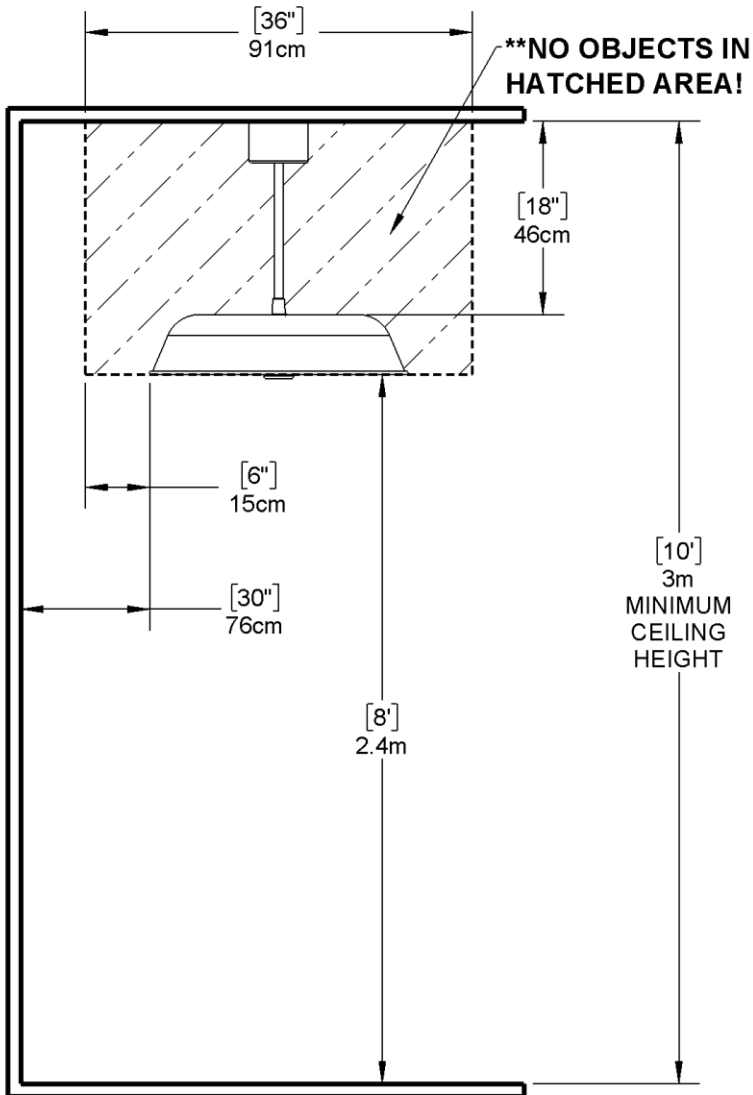
Specifier, installer and user must be aware of heater proximity to temperature sensitive building equipment such as sprinkler systems or fire alarms. Specifying engineer or consultant is responsible for appropriate placement of sprinkler or fire alarm systems with respect to infrared electric heaters.

CLEARANCES FOR CERAMIC GLASS GRILLE MODELS

- Heaters must be installed while maintaining the minimum clearances shown in the diagrams below.
- Installing the heater at clearances less than the minimum required clearances will result in voiding the product warranty.

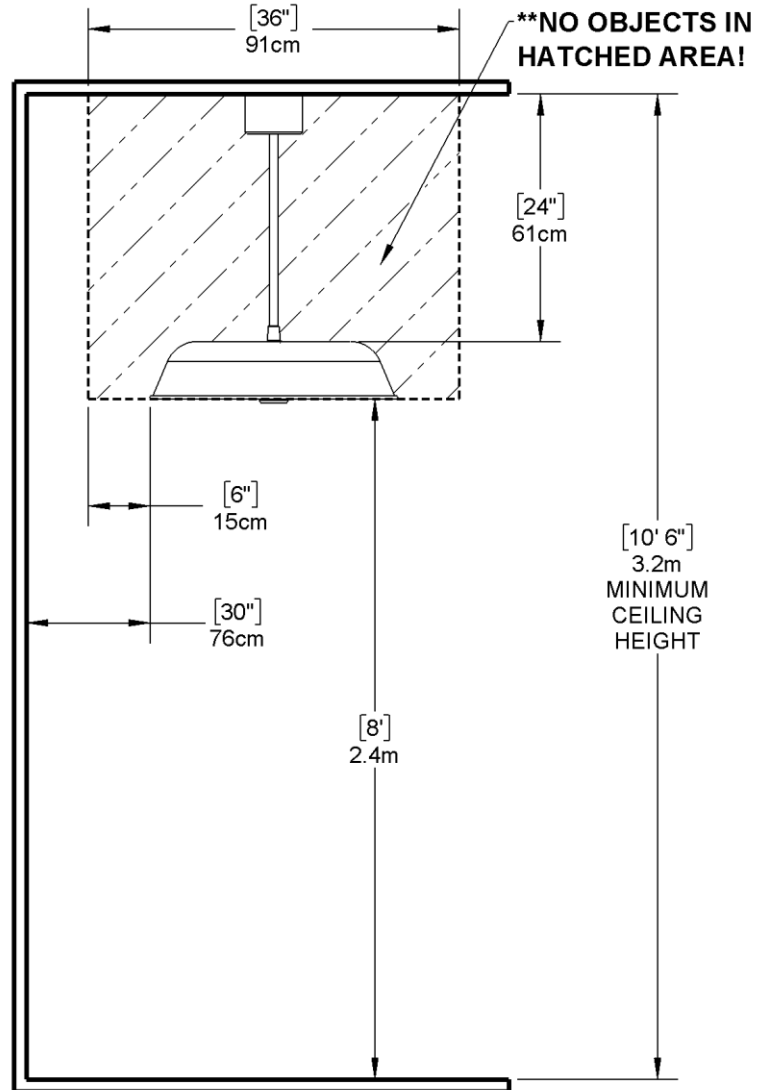
3000W GLASS MODELS

GRAD30208-C | GRAD30240-C | GRAD30277-C
CGRAD30208-C | CGRAD30240-C



4500W GLASS MODELS

GRAD45208-C | GRAD45240-C | GRAD45277



****IMPORTANT****

This heater must be cleaned regularly. The glass grille, reflectors and emitters should be cleaned frequently to prevent overheating from buildup of airborne debris. **In seaside environments, this heater should be cleaned monthly or as required to remove salt spray and dust from the glass screen, reflectors and emitters.**

****IMPORTANT****

HEATER EXHAUSTS HOT AIR! Do not install heat sensitive equipment within a 36" circle (or 6" distance) between the front of the heater housing and the ceiling as shown! Specifier, installer and user must be aware of heater proximity to temperature sensitive building equipment such as sprinkler systems or fire alarms. Specifying engineer or consultant is responsible for appropriate placement of sprinkler or fire alarm systems with respect to infrared electric heaters. Specifier and installer are also responsible for appropriate placement of ceiling fans.

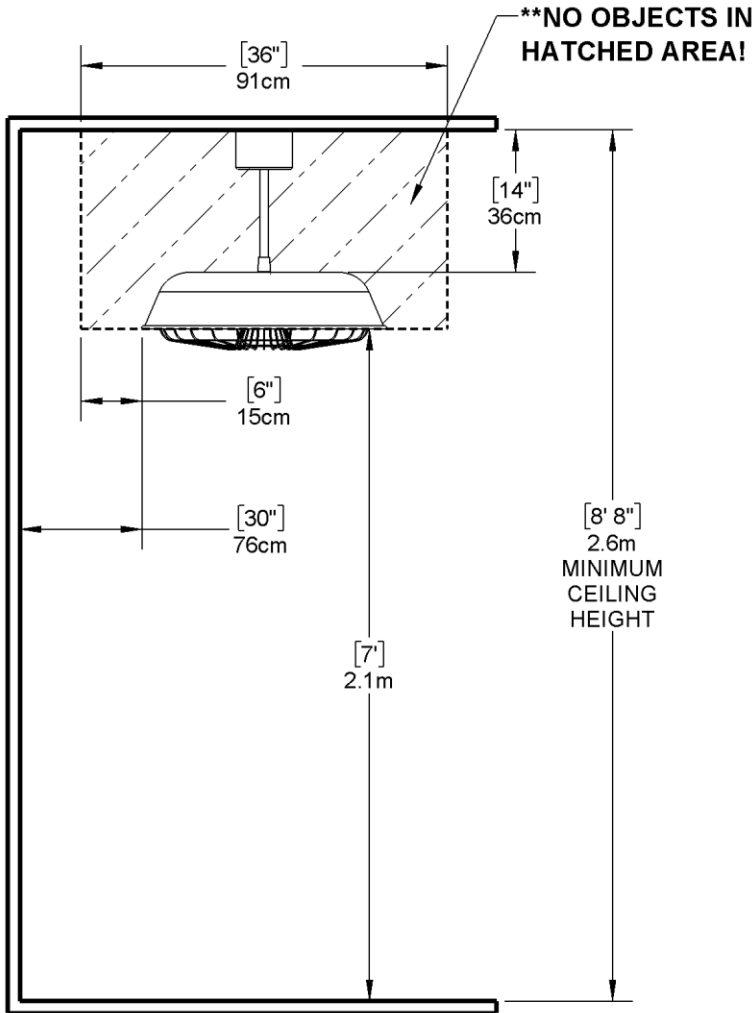
CLEARANCES FOR WIRE CAGE GRILLE MODELS

- Heaters must be installed while maintaining the minimum clearances shown in the diagrams below.
- Installing the heater at clearances less than the minimum required clearances will result in voiding the product warranty.

3000W CAGE MODELS

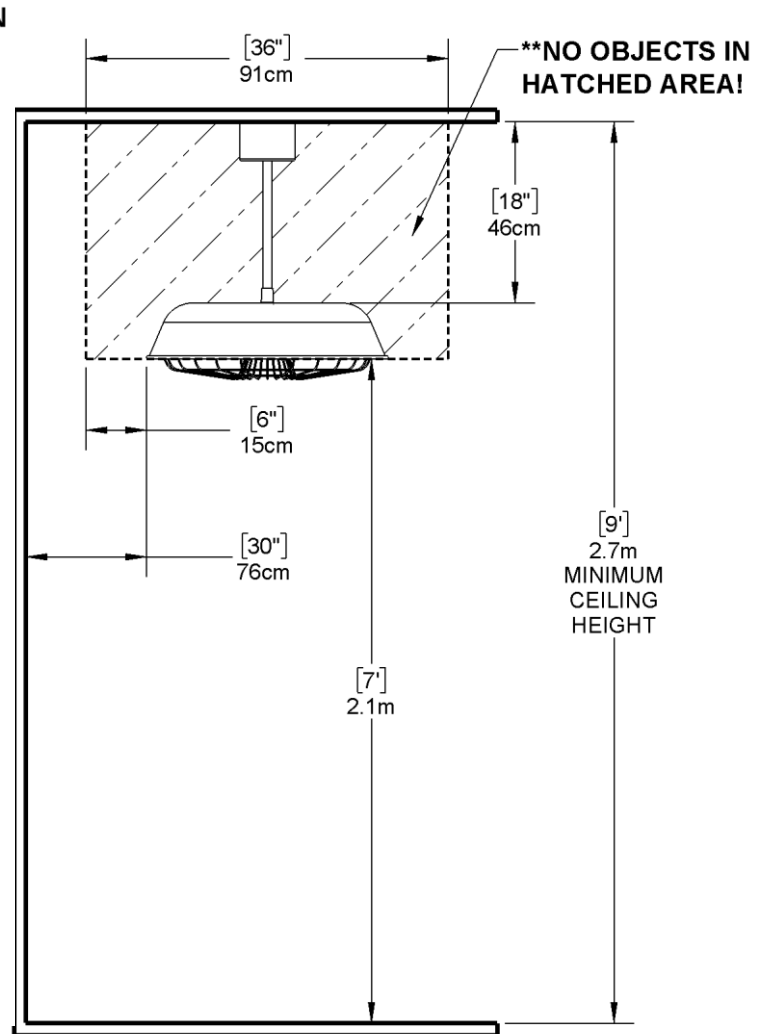
CRAD30208-C | CRAD30240-C | CRAD30277-C

CCRAD30208-C | CCRAD30240-C



4500W CAGE MODELS

CRAD45208-C | CRAD45240-C | CRAD45277-C



**** IMPORTANT****

This heater must be cleaned regularly. reflectors and emitters should be cleaned frequently to prevent overheating from buildup of airborne debris. **In seaside environments, this heater should be cleaned monthly or as required to remove salt spray and dust from the reflectors and emitters.**

**** IMPORTANT****

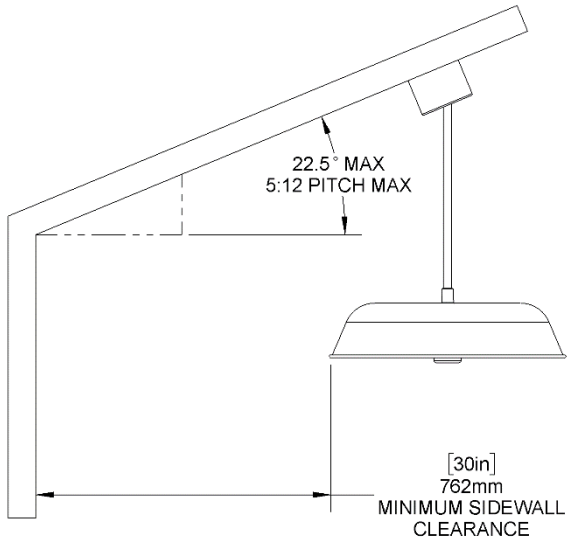
HEATER EXHAUSTS HOT AIR! Do not install heat sensitive equipment within a 36" circle (or 6" distance) between the front of the heater housing and the ceiling as shown! Installer and user must be aware of heater proximity to temperature sensitive building equipment such as sprinkler systems or fire alarms. Specifying engineer or consultant is responsible for appropriate placement of sprinkler or fire alarm systems with respect to infrared electric heaters. Specifier and installer are also responsible for appropriate placement of ceiling fans.

INSTALLATION ON ANGLED CEILINGS

⚠️ WARNING: ALWAYS MAINTAIN MINIMUM CLEARANCES

Minimum clearances to adjacent walls and ceilings must be followed when installing heaters on angled ceilings

All Solaira Radius Infrared Heaters are supplied with a ceiling suspension kit which allows for installation on angled ceilings. For ceilings with a pitch greater than 22.5°, a flat buildout to mount the junction box is required.



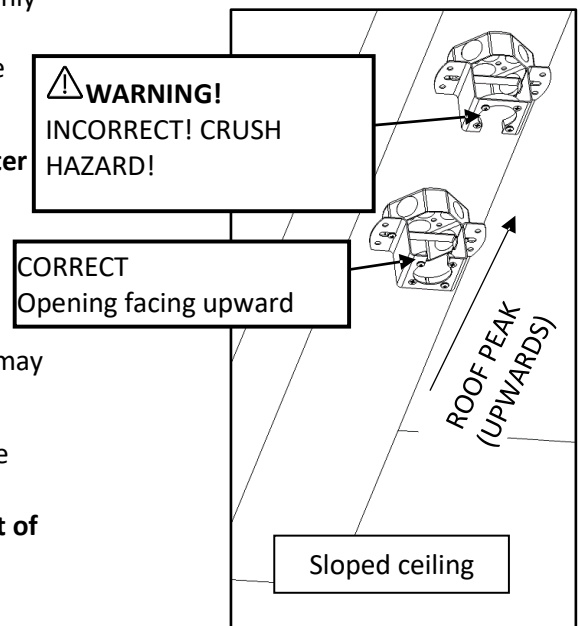
All Heater models	Maximum Mounting Angle
	22.5° 5:12 Pitch

INSTALLING THE HEATER MOUNTING BRACKET

⚠️ WARNING: CRUSH HAZARD

- **WARNING!** Incorrect mounting of the Ceiling Mounting Bracket on the metal electrical box/ building joist may result in the heater falling to the ground or falling on a person. Always ensure that the surface the heater will be mounted to is strong enough to support the weight of the heater.
- **WARNING!** Installer is responsible for selecting appropriate mounting screws or hardware to support the weight of the heater.
- **WARNING!** Failure to properly install the ceiling hung heater could result in property damage, permanent injury or death.
- **WARNING!** Do not install this heater on a recessed ceiling box. This appliance must be installed on a surface mounted 4x4x1.5" steel octagonal ceiling junction box.

1. Select a suitable location to mount the heater. This heater must only be installed on a ceiling mounted junction box or other Solaira approved mounting accessories. The junction box must be surface mounted and must not be recessed into the ceiling.
2. **When installing the heater on angled or sloped ceilings, the heater mounting bracket must be installed with the opening pointing towards the ceiling. DO NOT INSTALL THE BRACKET WITH THE OPENING FACING DOWNWARDS. This could result in the heater dropping from the ceiling.**
3. For installation on ceilings with a steep roof pitch, a flat buildout may be required to mount the heater junction box.
4. Install the ceiling box provided to a suitable surface to support the weight of the heater. **The installer is responsible for selecting appropriate mounting screws or hardware to support the weight of the heater (30 lbs / 13.5 kg)**
5. Install the ceiling mounting bracket on the ceiling junction box.



PREPARING THE HEATER

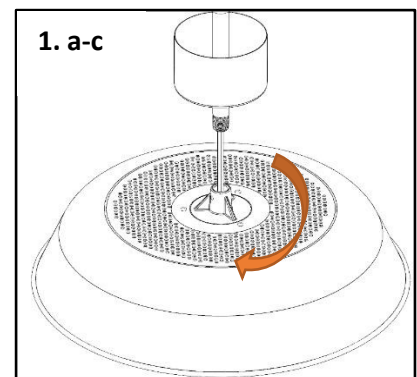
⚠️ WARNING: CRUSH HAZARD

- **WARNING!** Ensure the suspension tube hardware is correctly installed as shown in the diagram! Ensure the pin is correctly installed. Always use the steel safety cable.

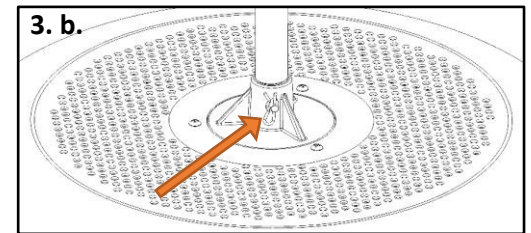
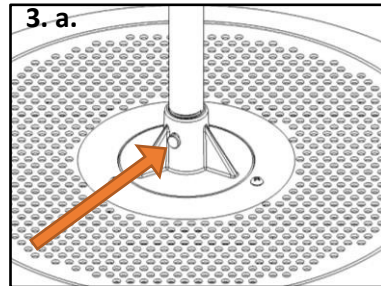
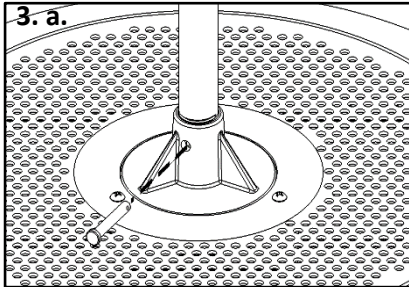
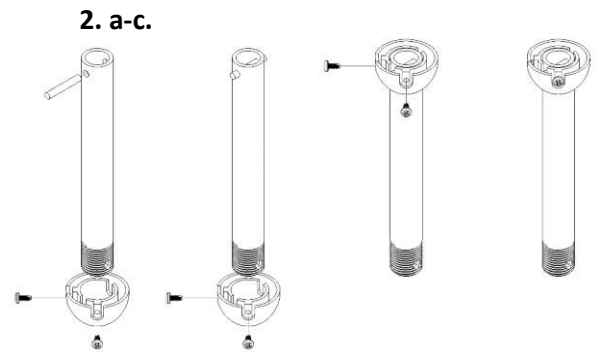
⚠️ WARNING: FIRE HAZARD

- **WARNING!** Ensure the appropriate length suspension tube is used. Incorrect tube selection could result in Fire.

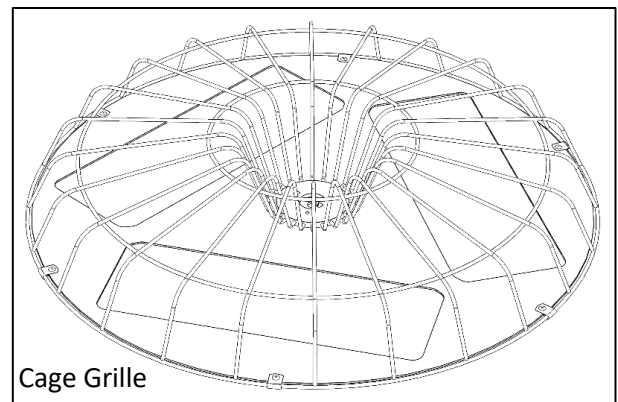
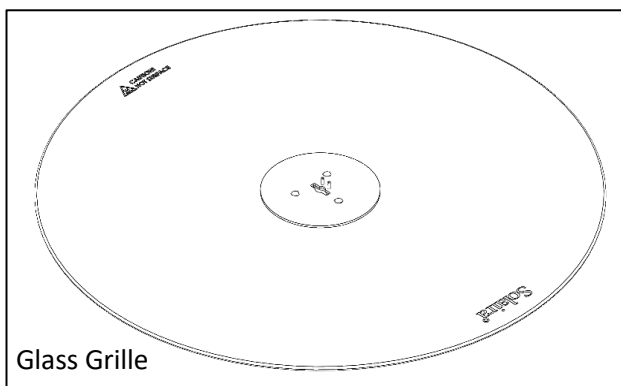
1. Carefully remove the heater from the box. The heater is supplied with appropriate high temperature cable.
 - a. Feed the lead wires from the heater through the suspension tube. Do not install the ball yet. Installing the ball will prevent you from screwing in the suspension tube.
 - b. Screw the suspension tube into the heater.
 - c. Install the ceiling canopy.

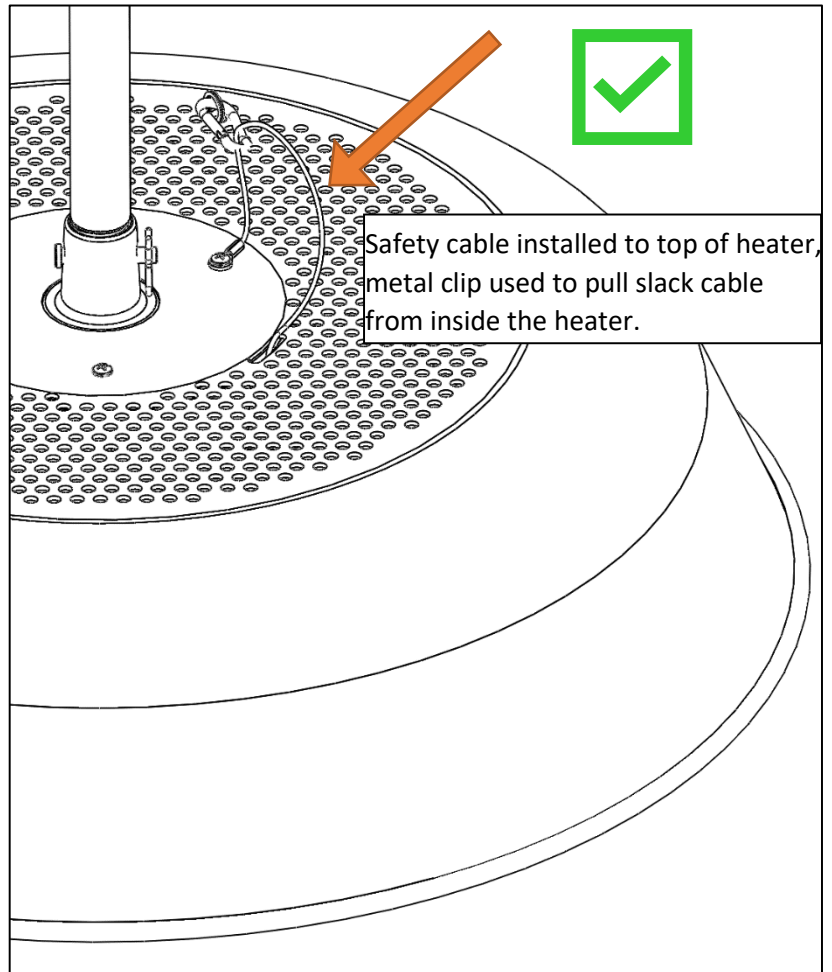
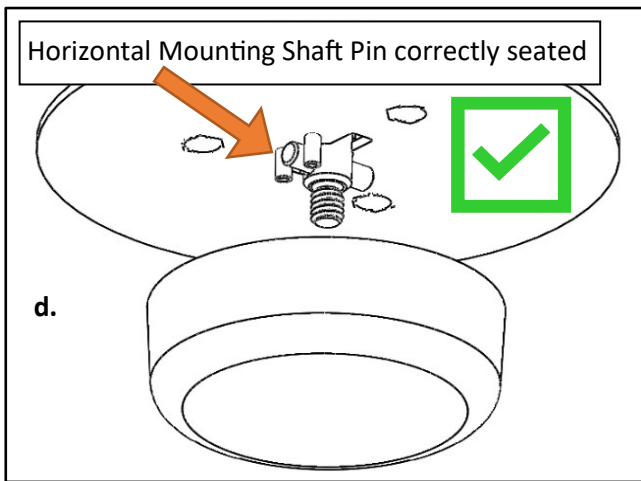
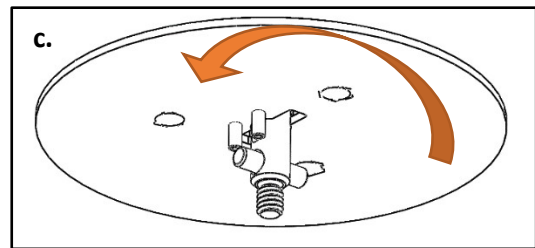
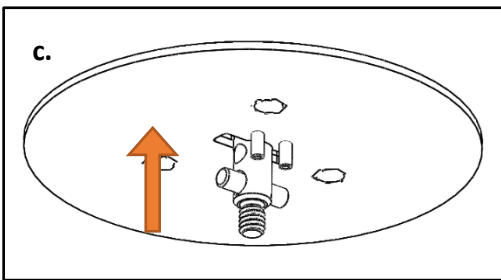
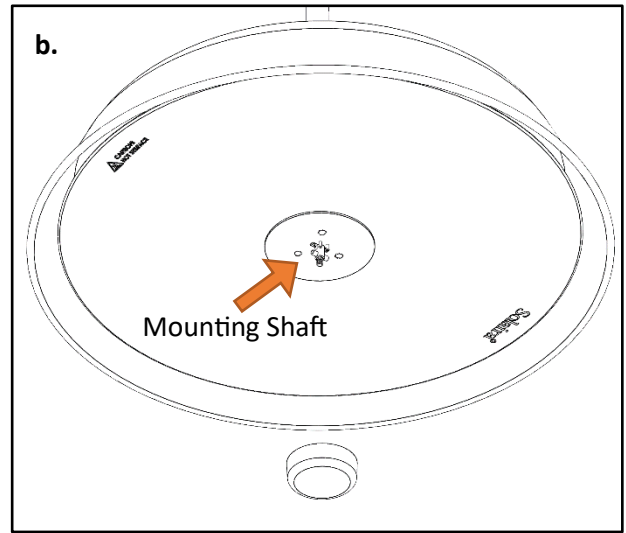
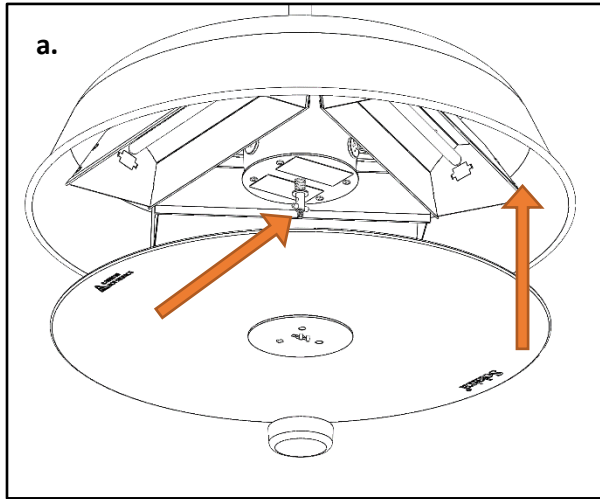


2. Install the suspension ball
 - a. Slide the suspension ball down onto suspension tube.
 - b. Insert the steel pin through the hole on the suspension tube. Slide the suspension ball up so the pin sits in the groove on the ball.
 - c. Tighten the two screws to clamp the hanger ball to the suspension tube, retaining the pin.
3. Install the safety pin.
 - a. Insert the safety pin to lock the heater and suspension tube together.
 - b. Install the retaining cotter pin to prevent the safety pin from sliding out of position

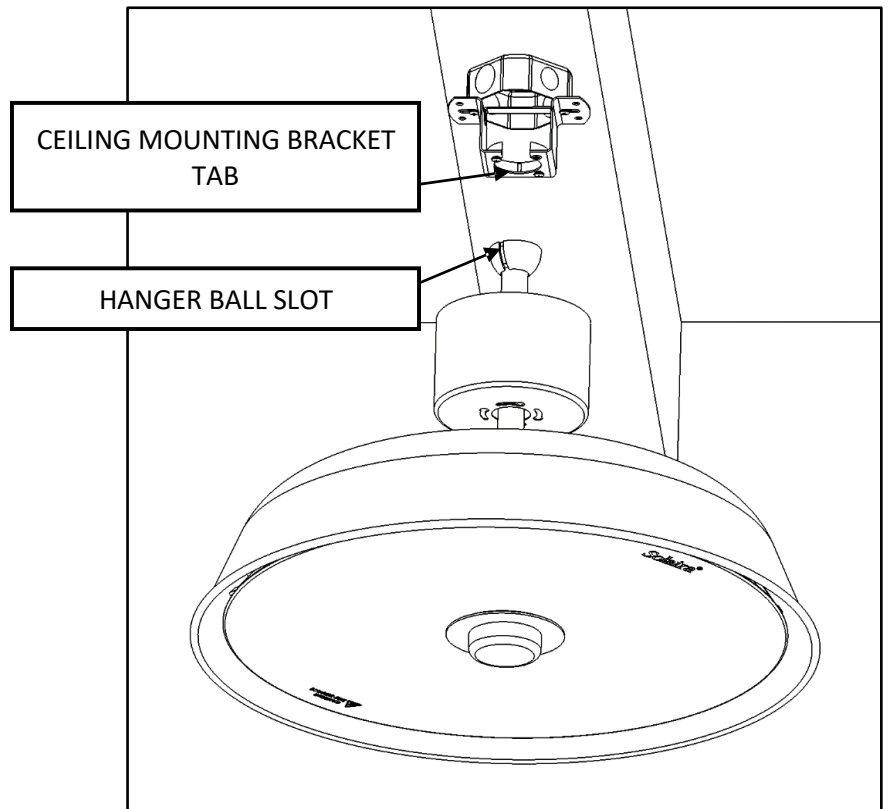


4. Install the protective front grille depending on which model you purchased – either the ceramic glass grille or the wire cage grille.
 - a. Feed the stainless steel safety cable through the hole on the top of the heater. Fasten the eyelet of the cable to the top of the heater on one of the three screws. (Image on following page)
 - b. Install the grille, slide the center hole of the grille onto the mounting shaft. The horizontal mounting pin should slide freely through the slot in the grille assembly.
 - c. Apply pressure to compress the spring on the mounting shaft. When the front face of the grille passes the locking pin, turn the grille until the locking pin is positioned between the two vertical cylinders on the grille. On the cage model, the locking pin should rest in the recessed area of the hub. **Ensure the locking pin has passed the entire grille assembly.**
 - d. Gently release pressure on the grille, allowing the spring to apply force to the back of the grille.
 - e. Fully release the grille until the grille rests on the horizontal locking pin. Install the mounting pin cover.
 - f. Pull the excess safety cable through the top of the heater. Fasten the excess to the top of the heater using the key ring and carabiner. The carabiner must be released to service the heater.
 - g. **WARNING! Install the grille safety cable! Failure to install the stainless steel safety cable could result in the grille accidentally dropping from the heater!**





5. Carefully lift the heater assembly up to the ceiling mounting bracket. Seat the hanger ball in the mounting bracket socket. The slot in the hanging ball must rest in the tab on the heater mounting bracket. **Failure to seat the tab in the slot on the hanger ball could cause twisting of the heater and result in damage to heater wiring.**



MAKING THE ELECTRICAL CONNECTIONS

⚠️ WARNING: USE SUPPLY WIRES RATED FOR AT LEAST 194°F / 90 °C

Heater must be installed to wires rated for at least 194°F / 90°C. Failure to use appropriately rated wire could result in fire, loss of property or death.

⚠️ WARNING: USE CONDUIT RATED FOR AT LEAST 194°F / 90 °C

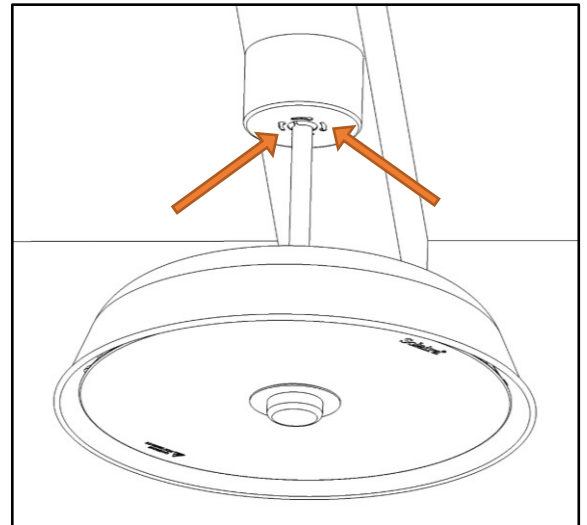
If using conduit, use conduit rated for at least 194°F / 90°C. Failure to use appropriately rated conduit could result in fire, loss of property or death.

⚠️ WARNING: USE STEEL OUTLET BOX RATED FOR AT LEAST 194°F / 90°C

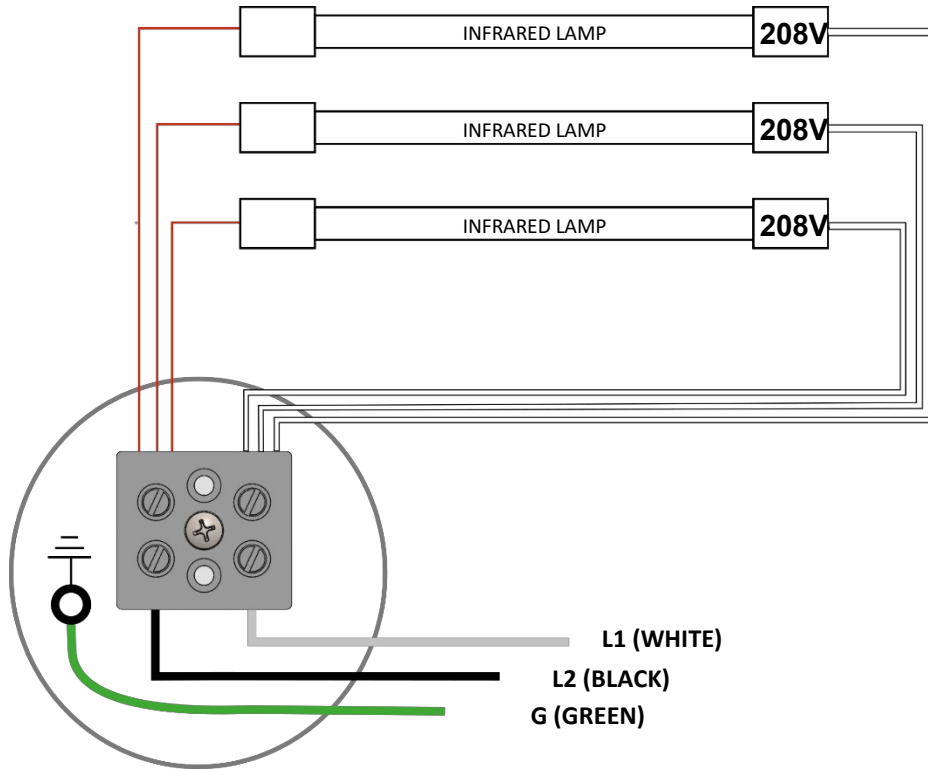
Installer must use a 4 x 4 x 1.5" surface mounted steel octagon ceiling box rated for at least 90°C. Failure to use appropriately rated outlet box could result in fire, loss of property or death.

⚠️ WARNING: ELECTRIC SHOCK HAZARD

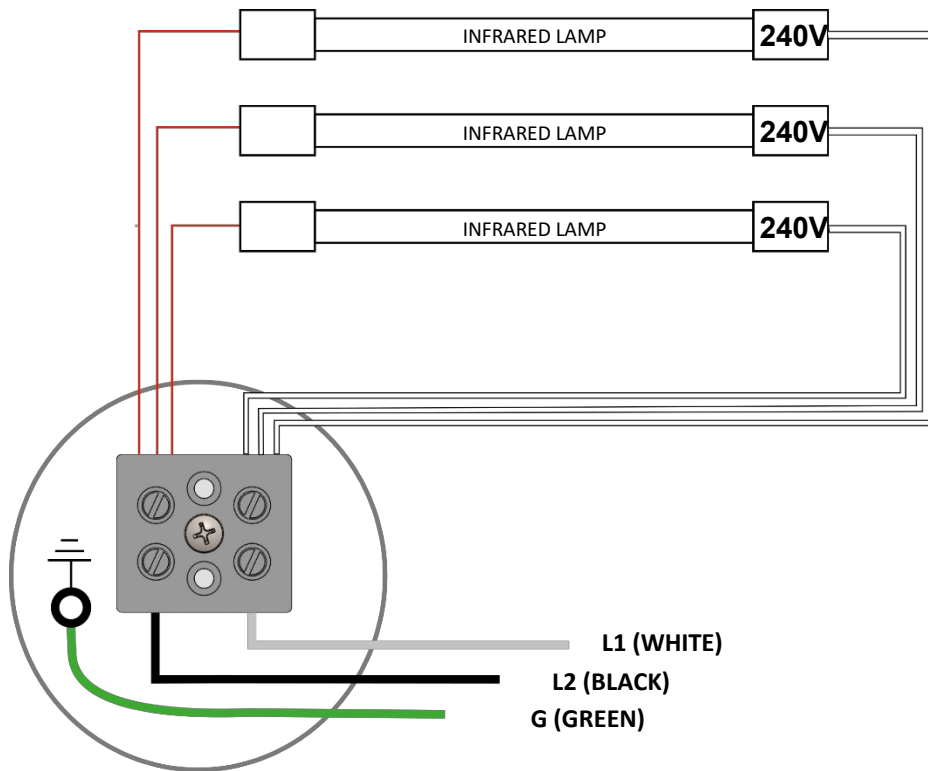
- Disconnect the power supply to the heater at the breaker before connecting the heater
 - Electrical connections must be made by a licensed electrician per local / National Electric Code (NEC)
 - The appliance **MUST** be connected to a properly grounded electric source.
 - Failure to disconnect the power supply before connecting the heater could result in death or electric shock.
1. Make the correct supply connections in an appropriate electrical junction box. Electrical connections must be made by a licensed electrician and must be made per local / NEC requirements. The appliance must be properly grounded.
 2. Knockouts are available in the ceiling canopy cover allowing conduit to pass into the ceiling outlet box.
 3. Raise the ceiling canopy and secure it to the ceiling mounting bracket using the screws provided.



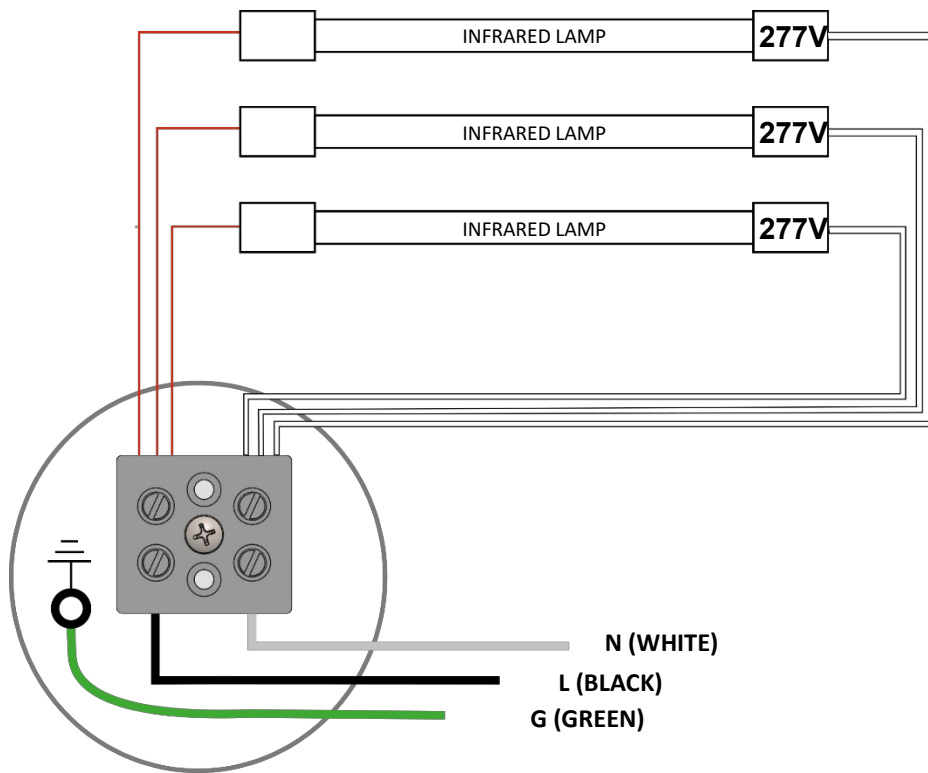
208V CIRCUIT DIAGRAM

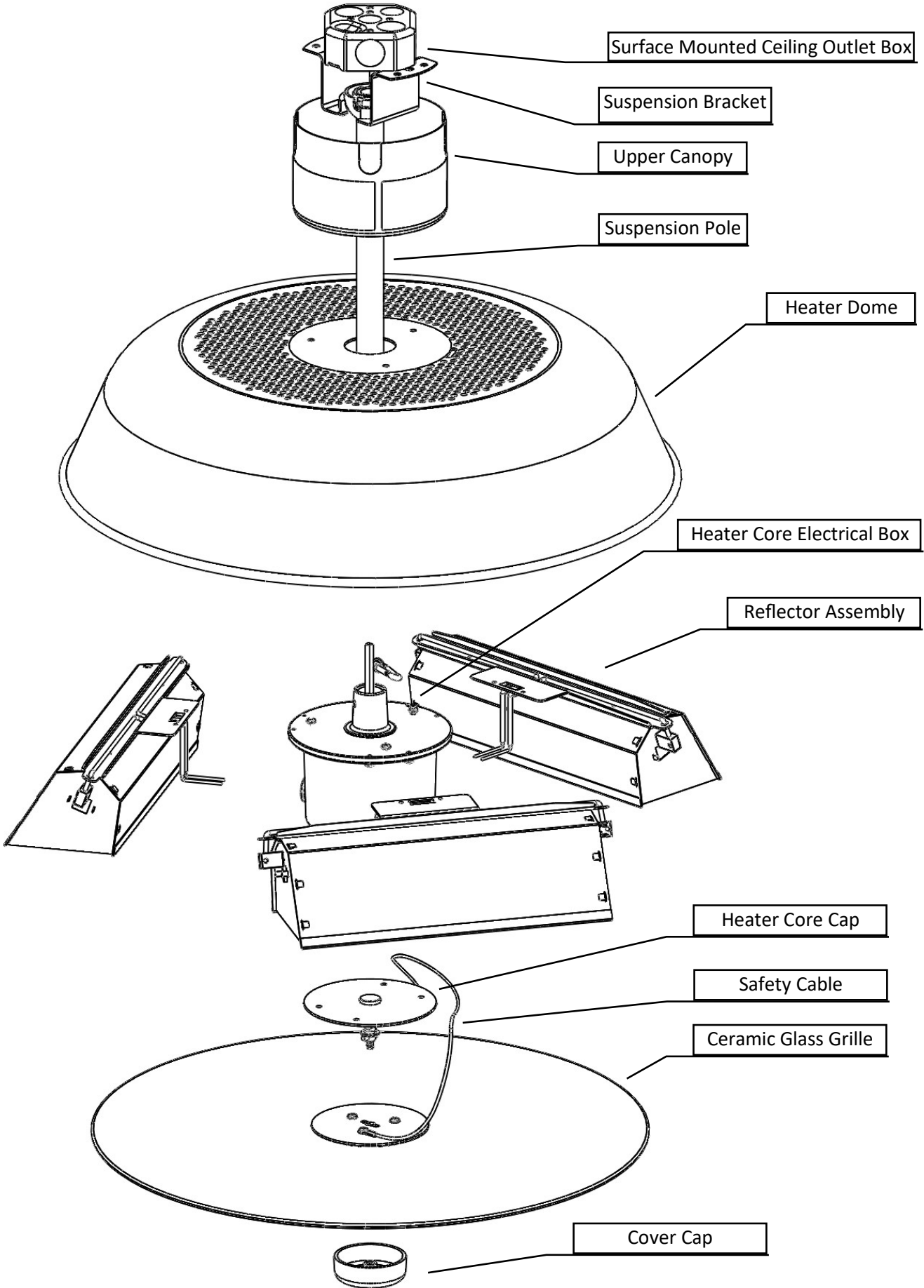


240V CIRCUIT DIAGRAM



277V CIRCUIT DIAGRAM





1. This heater must be properly installed before it is used.
2. This heater is not provided with onboard controls. If additional controls are required, please contact Solaira.

To maintain the appearance and performance of this heater it should be serviced when required. Cleaning can be performed by the product owner and should be performed several times per season. Servicing, replacing emitters **MUST** be carried out by an authorized and licenced person only.

⚠️ WARNING: BURN HAZARD

- **WARNING!** Do not perform maintenance until the heater has been turned off and the ceramic glass and heating elements are cool! Failure to wait until the heater is cool could result in severe burns!

⚠️ WARNING: ELECTRIC SHOCK HAZARD

- **WARNING!** Disconnect the power supply to the heater at the breaker before performing any maintenance.
- Failure to disconnect the power supply before changing emitters could result in death or severe electric shock!

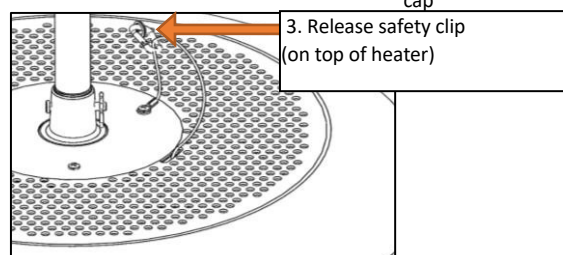
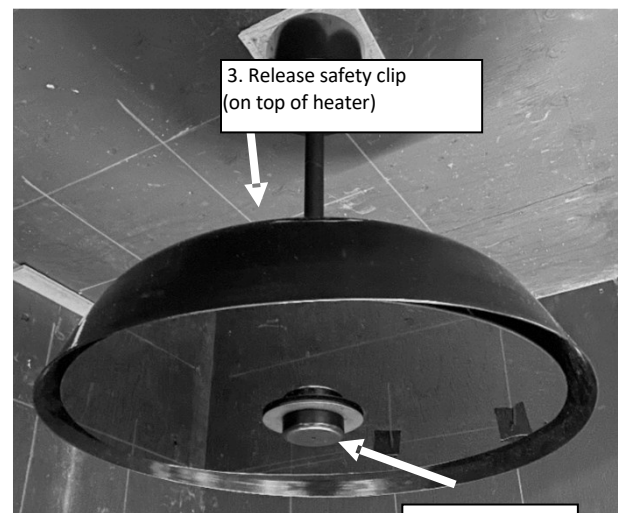
⚠️ IMPORTANT

To keep the heater running at peak performance and to prevent premature emitter failure, the ceramic glass grille, emitters and reflector surfaces should be cleaned several times per season. Cleaning the ceramic glass grille and reflector surfaces regularly will extend the life of the emitters. Failure to regularly clean the ceramic glass grille could lead to premature failure of the emitters if pollen or dust is allowed to build up on the ceramic glass or reflector surfaces. **In seaside environments it is recommended to clean these surfaces monthly or as required, as salt spray could collect on the reflector. Salt could corrode the reflector surfaces over time if it is not removed.**

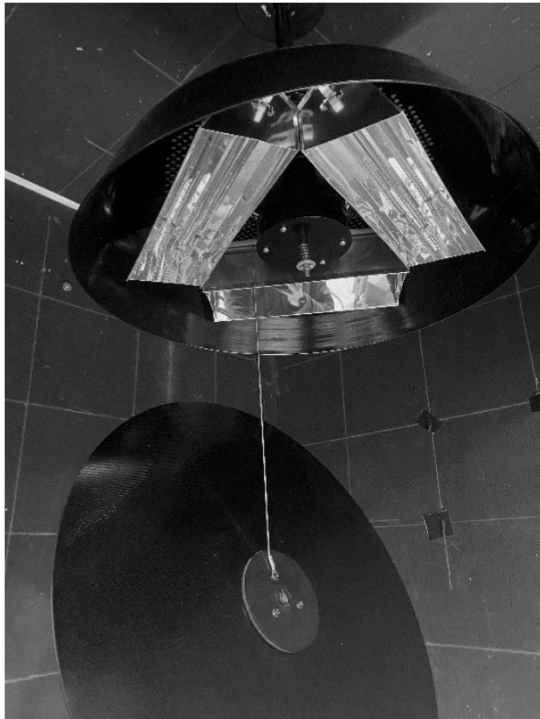
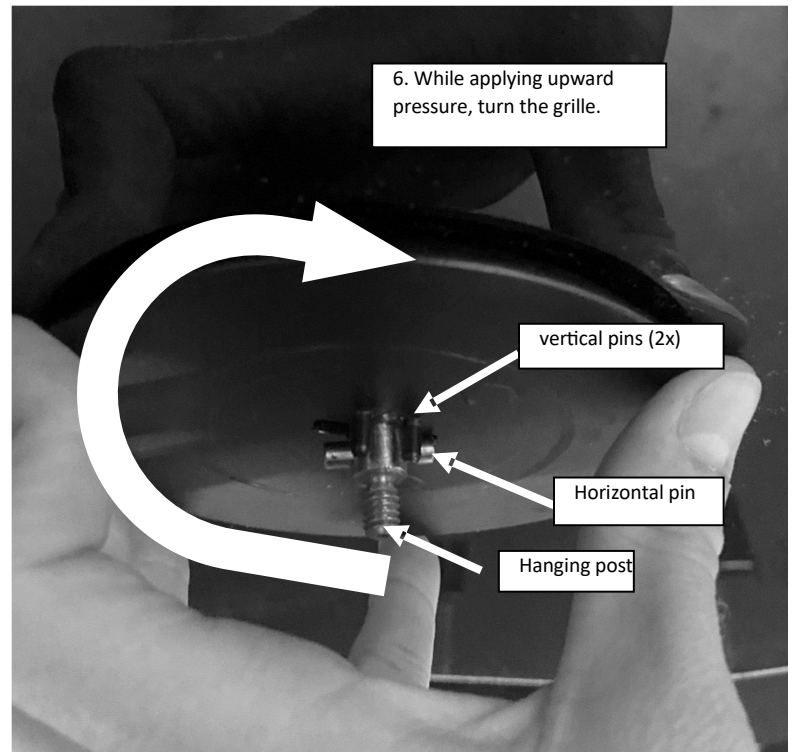
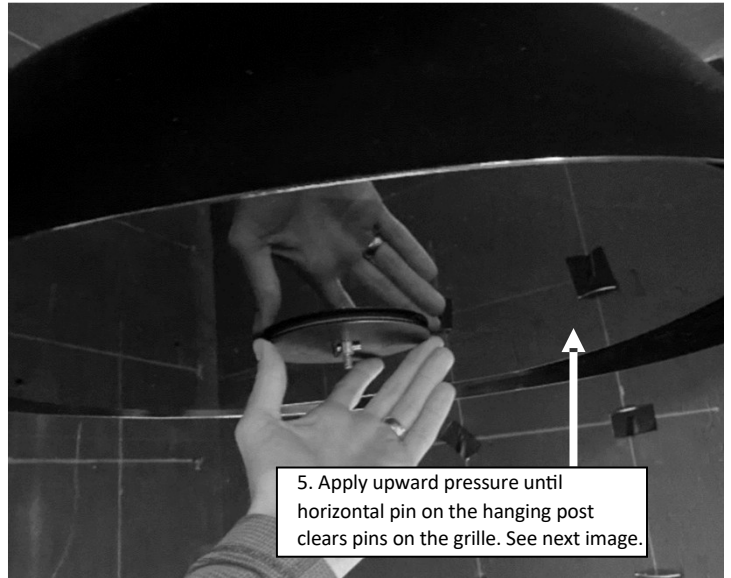
Heaters including the wireframe cage grille should also be cleaned regularly. Only the reflector surfaces must be cleaned on cage grille models.

MAINTENANCE INSTRUCTIONS

1. Disconnect heater from the power supply at the breaker.
2. Prepare to remove the heater grille. **After performing the next steps, the grille will be loose and could fall if it is not securely held.**
3. Release the safety cable. Using a ladder, stand at eye level with the top of the heater. A clip connects the steel safety cable to the top of the heater. The steel safety cable is attached to the heater grille. Remove the clip from the split ring to free the steel cable. **Do not unscrew the screw connecting the cable to the heater!**
4. Unscrew the cover cap to release tension from the grille. This will expose the steel hanging post where the grille is resting.

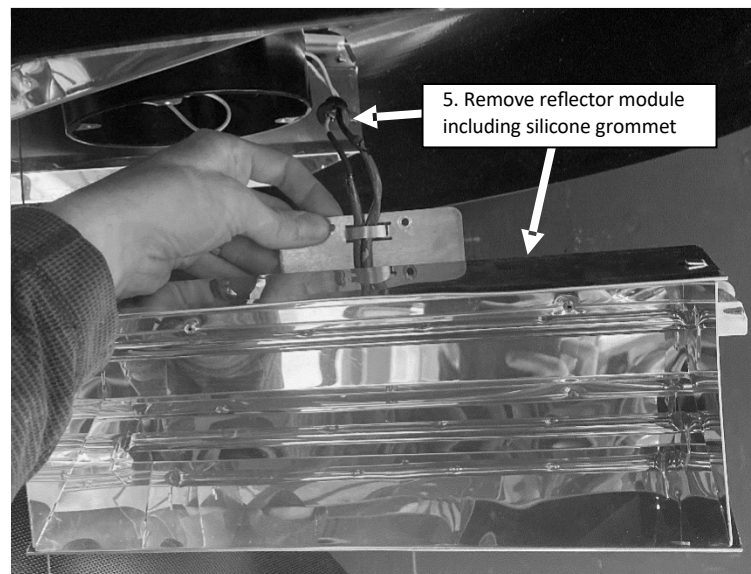
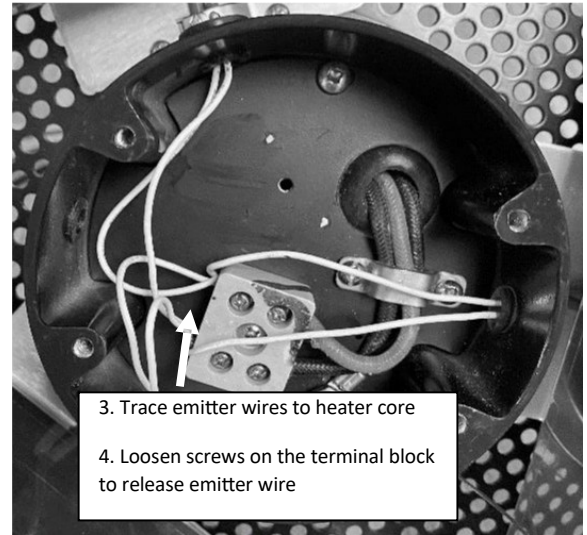


5. Apply light upward pressure with one hand on the center metal cap on the ceramic glass or metal cage grille assembly. Press upwards so the horizontal pin in the hanging post exits the vertical pins which prevent the grille from spinning when it is installed.
6. Turn the grille so the horizontal pin lines up with the slot in the grille assembly. **Turning the grille at this point fully releases the grille!**
7. Slowly let the grille down.
8. Carefully clean the front and back of the grille using Isopropyl Alcohol or glass cleaner and a clean, lint free cloth to remove debris and residue on the glass grille. Residue may accumulate over time as airborne dust or tree pollen lands on the glass. Removing this debris or residue will increase the lifespan of the emitters and improve the heater performance as more of the infrared rays will pass through the glass rather than being blocked by the debris.

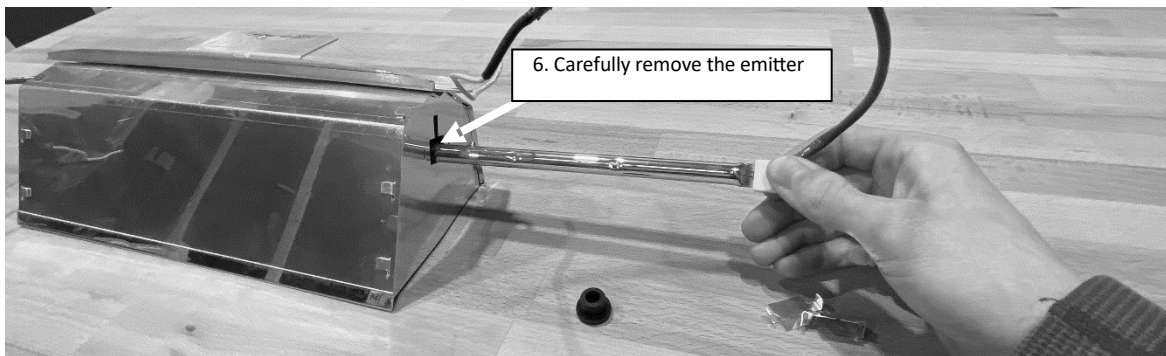
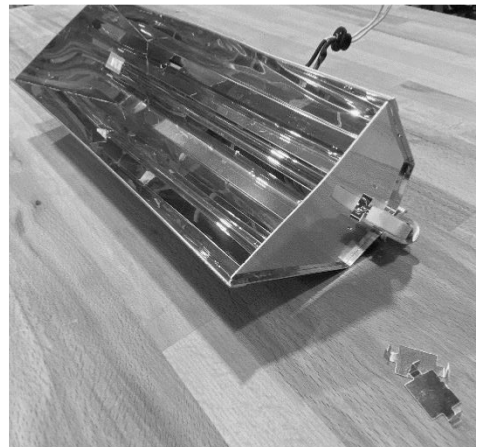
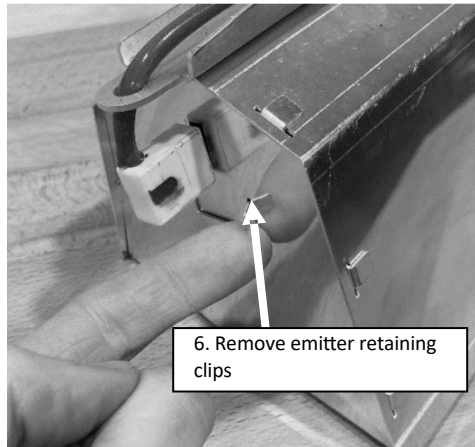
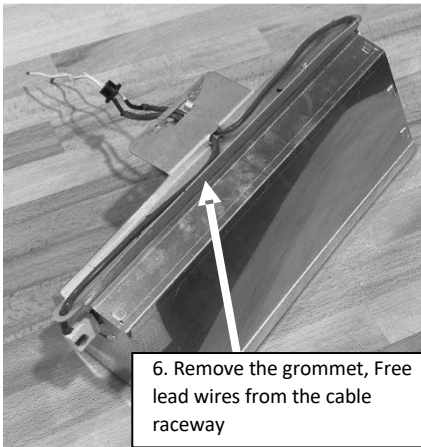


EMITTER REPLACEMENT INSTRUCTIONS

1. Follow steps 1-8 in **MAINTENANCE INSTRUCTIONS.**
2. Remove the 4 screws in junction box cover. Remove the cover and place the screws and cover in a safe location.
3. Locate the emitter to be replaced. Trace the emitter lead wires into the heater core.
4. Loosen the screws on the terminal block to release the lead wires connected to the emitters.
5. Remove the two screws holding the reflector module to the heater core, carefully remove the entire module from the heater including the grommet.



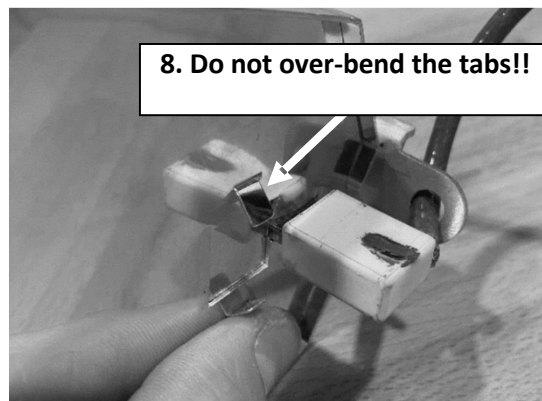
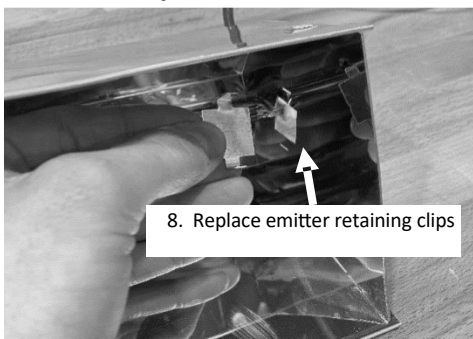
6. Remove the grommet and free the lead wires from the cable raceway to allow removal of the emitter. Remove the emitter retaining clips in the reflector. Carefully remove the emitter by sliding it out one end of the reflector. Properly dispose of the emitter at your local recycling center. The emitter contains important metals such as copper and tungsten which are easily recycled.



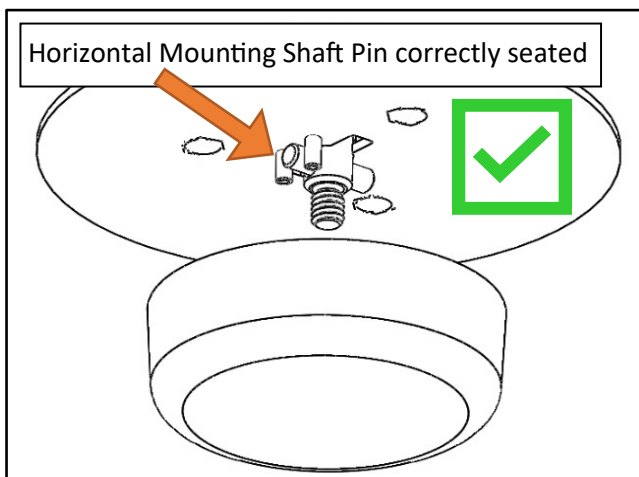
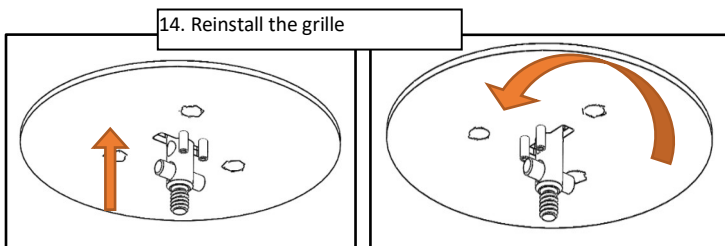
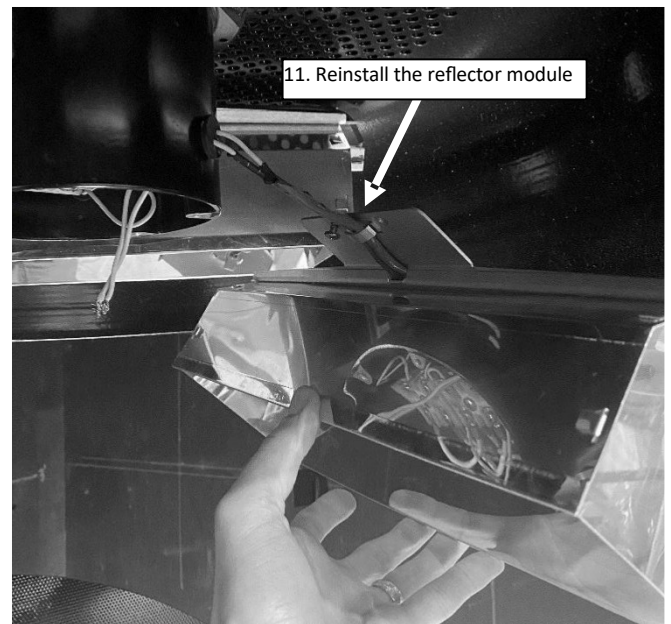
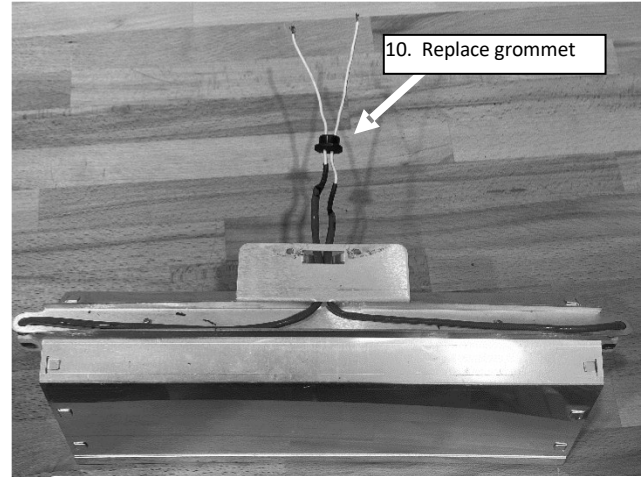
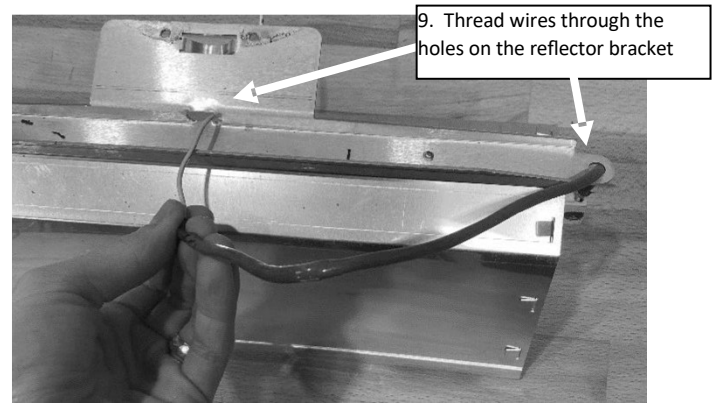
7. Prepare the replacement emitter. Do not touch the glass emitter tube, finger prints on the glass may reduce the lifespan of the emitter. If the emitter glass surface is accidentally touched, it can be easily cleaned using isopropyl alcohol and a lint free cloth.



8. Install the new emitter into the reflector module. Replace the emitter retaining clips into the side reflectors. **Do not over-bend the tabs or they could break.**



9. Thread the lead wires back through the hole on the end of the reflector bracket, along the raceway on the back of the bracket and through the opening where the bracket connects to the heater core.
10. Replace the grommet.
11. Reinstall the reflector module back onto the heater core. Push the grommet back into position.
12. Install the wires into the junction block.
13. Replace the heater core cover, mounting in place with the four screws.
14. Re- install the grille using the reverse steps above. Line up the slot on the grille with the horizontal pin in the hanging post. Apply upward pressure to compress the spring, turn the grille when the vertical pins in the grille clear the horizontal pin in the hanging post. Slowly release upward pressure on the grille so the two vertical pins sit on either side of the horizontal pin in the hanging post.
15. Re-connect the clip on the safety cable to the split ring on the back of the heater. This will remove slack cable from inside the heater. The cable should not be visible from the front of the heater when the heater is on. Some adjustment may be required to ensure the cable is not caught on the reflector modules.
16. Screw on the heater grille locking mechanism cover.



RESIDENTIAL INSTALLATION/USE: LIMITED THREE (3) YEAR PARTS WARRANTY Gas Outdoor Patio Heaters Consumer Products Inc. warrants all parts of the infrared heaters to be free from defects in workmanship and materials for normal residential use and maintenance for three (3) year from the date of purchase by the original consumer. **COMMERCIAL INSTALLATION USE: LIMITED THREE (3) YEAR PARTS WARRANTY, Ninety (90) DAY EMITTER (LAMP) WARRANTY** Gas Outdoor Patio Heaters Consumer Products Inc. warrants all parts (excluding the emitter lamp) of the infrared heater to be free from defects in workmanship and materials for normal commercial use and maintenance for three (3) year from the date of purchase. Gas Outdoor Patio Heaters Consumer Products Inc, warrants the emitter lamp of the infrared heater to be free from defects in workmanship and materials for normal commercial use and maintenance for ninety (90) days from the date of purchase. The Limited Warranties described above apply only when the Infrared Heater is installed and operated per Gas Outdoor Patio Heaters Consumer Products Inc. installation and operating instructions for normal use. **EXCEPTIONS** The Limited Warranty does not cover normal maintenance Gas Outdoor Patio Heaters Consumer Products recommends that regular inspection/maintenance be performed according to the Installation and Operation Manual Additionally, labor charges, diagnostic charges, transportation charges for replacement parts, replacement of the bulb, or any other service calls/repairs are not covered by this Limited Warranty. It also does not cover any portion or component of the system that is not supplied by Gas Outdoor Patio Heaters Consumer Products, regardless of the cause of failure of such portion or component. **CONDITIONS FOR WARRANTY COVERAGE** Unit must be operated according to Gas Outdoor Patio Heaters Consumer Prod. operating instructions included with the unit and cannot have been subjected to accident, alteration, improper repair, neglect or misuse, or an act of God (such as a flood) • Installation must be according to Gas Outdoor Patio Heaters Consumer Products Inc. Instructions • Rating plate has not been altered or removed • Unit is not operated in a corrosive environment • Performance cannot be impaired by use of any product not authorized by Gas Outdoor Patio Heaters Consumer Products Inc. or by any adjustment or adaptations to components • Damage has not been a result of inadequate wiring or voltage conditions, use during brown-out conditions, or circuit interruptions **DURATION OF WARRANTY & REGISTRATION** The warranty begins on the date of purchase by the original consumer. The consumer must register at info@solairaheater.com within 90 days of purchase. The consumer must retain a receipted bill of sale as proof of warranty

period. Without this proof, the express warranty begins on the date of shipment from the factory.

REMEDY PROVIDED BY THE LIMITED EXPRESS

WARRANTY The sole remedy under the Limited Warranty is replacement of the defective part. If replacement parts are required within the period of this warranty, Gas Outdoor Patio Heaters Consumer Products Inc. replacement parts shall be used; any warranty on the replacement part(s) shall not affect the applicable original unit warranty. Labor to diagnose and replace the defective part is not covered by this Limited Express Warranty. If for any reason the replacement part/product is no longer available during the warranty period, Gas Outdoor Patio Heaters Consumer Products Inc. shall have the right to allow a credit in the amount of the current suggested retail price of the part/product instead of providing repair or replacement.

LIMITATION OF LIABILITY

There are no other express or implied warranties. Gas Outdoor Patio Heaters Consumer Products Inc, makes no warranty of merchantability. We do not warrant that the unit is suitable for any particular purpose or can be used in buildings or rooms of any particular size or condition except as specifically provided in this Installation and Operation document. There are no other warranties, express or implied, which extend beyond the description in this document.

All warranties implied by law are limited in duration to the one-year term of the Parts Warranty. Your exclusive remedy is limited to the replacement of defective parts. We will not be liable for any consequential or incidental damages caused by any defect in this unit.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow limitation on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you, No warranties are made for units sold outside the continental United States and Canada. Your distributor or final seller may provide a warranty on units sold outside these areas.

Gas Outdoor Patio Heaters Consumer Products Inc. will not be liable for damages if our performance regarding warranty resolution is delayed by events beyond our control including accident, alteration, abuse, war, government restrictions, strikes, fire, flood, or other acts of God.

HOW TO OBTAIN WARRANTY SERVICE OR PARTS If you have a warranty claim or service question, contact Gas Outdoor Patio Heaters Consumer Products Inc, at 905-568-7655. Have the model number and date of purchase available for this call. Do not return your unit to the store where it was purchased. Owner responsibilities are set forth in the instruction manual - read it carefully.



Gas Outdoor Patio Heaters
216 Avenida Fabricante Suite 207 San Clemente, CA 92672
Tel: (760) 779-1352
Website: <https://www.gasoutdoorpatioheaters.com/>

