

ELECTRIC INFRARED HEATERS



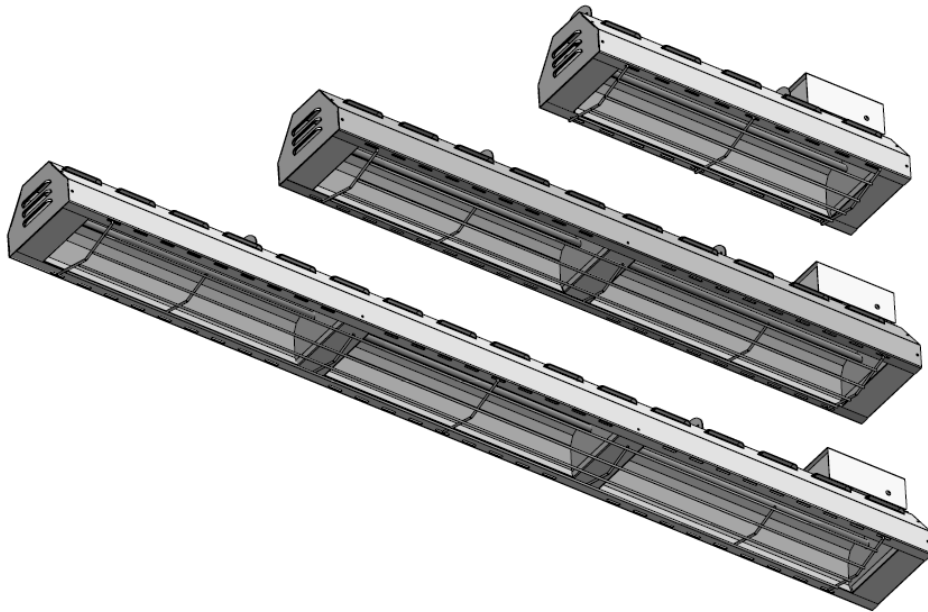
SUPERIOR
RADIANT PRODUCTS

SERIES sWAVE™ Medium Wave Infrared Heater

MODELS



SW18M12, SW36M12,
SW25M20, SW50M20, SW75M20
SW25M24, SW50M24, SW75M24
SW25M48, SW50M48, SW75M48
SW25M60, SW50M60, SW75M60



WARNING

The manufacturer's instructions, the layout drawing, national and local codes and ordinances, and all applicable standards which apply to electrical wiring comprise the basic information needed to complete the installation. These criteria must be thoroughly understood before proceeding.

Only personnel who have been trained and understand all applicable codes should undertake the installation. Manufacturer representatives are Factory Certified in the service and application of this equipment and can be called on for helpful suggestions about installation.

Canada: 563 Barton Street, Stoney Creek, Ontario L8E 5S1

USA: 315 N Madison Street, Fortville, IN 46040

www.superiorradiant.com

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Applicable Codes and Standards

Installation of this heater shall be in accordance with local codes, or in the absence of local codes, the National Electrical Code, NFPA 70, or the Canadian Electrical Code, Part 1, C22.1.

The sWAVE heater is designed and manufactured for residential / commercial heating applications for indoor use, according to the Standard for Fixed and Location-Dedicated Electric Room Heaters, UL 2021, and the Canadian Standard for Electric Air Heaters, CSA C22.2 No. 46.

Technical Specifications

Model	Wattage	Voltage	Phase	Amp	Voltage / Connection	Dimensions L x W x H	Weight AL (SS)
Residential / Commercial Models							
SW18M12	1800 W	120 Vac	1	15.0 A	1Φ2W, 120Vac	23.5" x 6.5" x 7"	4.0 (6.5) lbs
SW25M20	2500 W	208 Vac	1	12.0 A	1Φ2W, 208Vac	23.5" x 6.5" x 7"	4.0 (6.5) lbs
SW25M24	2500 W	240 Vac	1	10.4 A	1Φ2W, 240Vac	23.5" x 6.5" x 7"	4.0 (6.5) lbs
SW36M12	3600 W	120 Vac	1	30.0 A	1Φ2W, 120Vac	43.5" x 6.5" x 7"	7.0 (11.0) lbs
SW50M20	5000 W	208 Vac	1	24.0 A	1Φ2W, 208Vac	43.5" x 6.5" x 7"	7.0 (11.0) lbs
SW50M24	5000 W	240 Vac	1	20.8 A	1Φ2W, 240Vac	43.5" x 6.5" x 7"	7.0 (11.0) lbs
Commercial / Industrial Models							
SW75M20	7500 W	208 Vac	1	36.1 A	1Φ2W, 208Vac	64.5" x 6.5" x 7"	9.0 (14.5) lbs
	7500 W	208 Vac	3*	20.8 A	3Φ3W, 208Vac D	64.5" x 6.5" x 7"	9.0 (14.5) lbs
SW75M24	7500 W	240 Vac	1	31.3 A	1Φ2W, 240Vac	64.5" x 6.5" x 7"	9.0 (14.5) lbs
SW25M48	2500 W	480 Vac	1	5.2 A	1Φ2W, 480Vac	23.5" x 6.5" x 7"	4.0 (6.5) lbs
SW50M48	5000 W	480 Vac	1	10.4 A	1Φ2W, 480Vac	43.5" x 6.5" x 7"	7.0 (11.0) lbs
SW75M48	7500 W	480 Vac	1	15.6 A	1Φ2W, 480Vac	64.5" x 6.5" x 7"	9.0 (14.5) lbs
	7500 W	480 Vac	3	9.0 A	3Φ3W, 480Vac D	64.5" x 6.5" x 7"	9.0 (14.5) lbs
SW25M60	2500 W	600 Vac	1	4.2 A	1Φ2W, 600Vac	23.5" x 6.5" x 7"	4.0 (6.5) lbs
SW50M60	5000 W	600 Vac	1	8.3 A	1Φ2W, 600Vac	43.5" x 6.5" x 7"	7.0 (11.0) lbs
SW75M60	7500 W	600 Vac	1	12.5 A	1Φ2W, 600Vac	64.5" x 6.5" x 7"	9.0 (14.5) lbs
	7500 W	600 Vac	3	7.2 A	3Φ3W, 600Vac D	64.5" x 6.5" x 7"	9.0 (14.5) lbs

Note*: Only SW75M20 3 Phase Configuration are Field Converted from 1 Phase Configuration.

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, etc. and curtains at least 3 feet (0.9m) from the front of the heater.
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 qualified electrician before reusing.
5. To disconnect the heater, turn controls off, and turn off power to heater circuit at main disconnect panel.
6. This heater has hot parts. Do not use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
7. 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 people.

SAVE THESE INSTRUCTIONS

SAFETY INSTRUCTIONS



CAUTION – 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 and rear.

1. This heater is intended solely for use as an infrared heater and should not be used for other purposes. The manufacturer is not responsible for any damage that could happen for improper use.
2. After unpacking make sure that the heater is complete and shows no signs of visible damage or tampering.
3. To reduce the risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.
4. The heater is not intended for use in bathrooms, laundry areas or similar indoor areas. Never locate heater where it may fall into water.
5. Some fundamental rules which apply to all electrical devices must be observed when using the heater:
 - a. Do not touch the heater with wet hands.
 - b. Do not handle with barefoot.
 - c. Do not let children play with the electrical appliance.
6. Do not apply any modification to the product.
7. Keep connections dry.
8. If the heater will not be used for a long period, turn off the power at the circuit breaker panel.



The heating space where the heater is located shall have a temperature control device.
The heater does not feature a device to control ambient temperature.

CALIFORNIA PROPOSITION 65

This appliance can expose you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

ELECTRICAL AND OPERATING INSTRUCTIONS

General Requirements



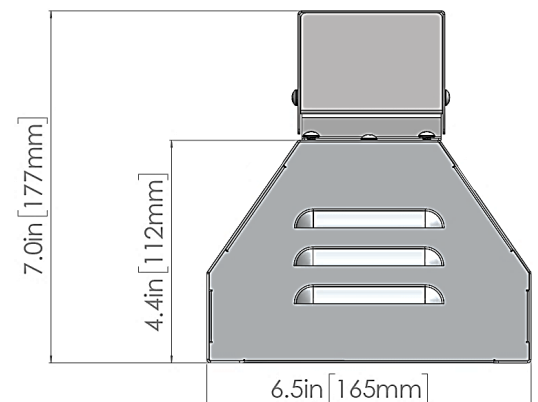
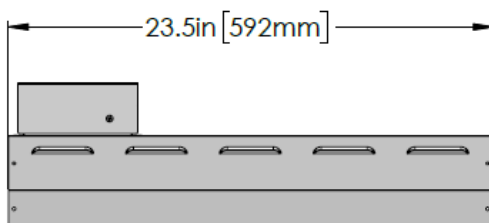
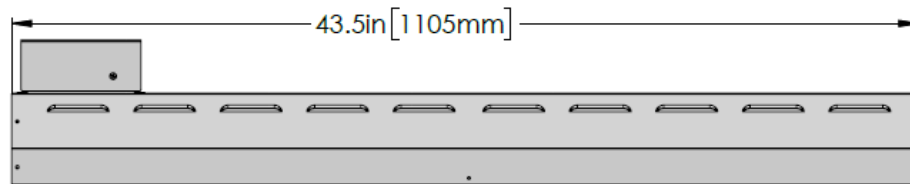
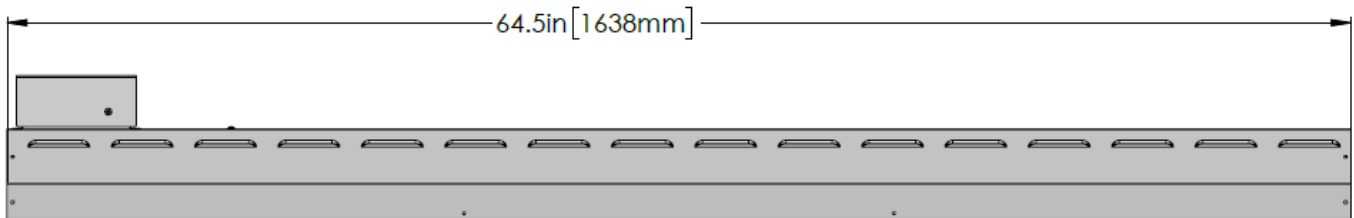
Turn the heater on only when you need heat and avoid any misuse.
Do not use the heater if the ambient temperature exceeds 80°F (25°C).
Before connecting the heater make sure that the supply voltage is the same as indicated on the rating plate.

1. The installation should always be carried out by a qualified electrician in accordance with the latest revision of electrical code: in USA, National Electrical Code, NFPA 70; in Canada, Canadian Electrical Code, Part 1, C22.1.
2. The power supply to the heater must always be properly grounded.
3. The heater is equipped with a junction box.
4. For the correct installation of the heater, it's necessary to set the unit with a fused switch or circuit breaker.
5. When required by the installation code, to prevent serious harm from an ongoing electric shock, a Ground Fault Circuit Interrupter (GFCI) with rated earth leakage operation not exceeding 30mA must be fitted upstream on the supply line. Additionally, for ensuring a total disconnection of the unit with a full interruption of the contacts in all poles, it's necessary to install a category III combined circuit breaker with contact opening distance of at least 3 mm.

Additional Information

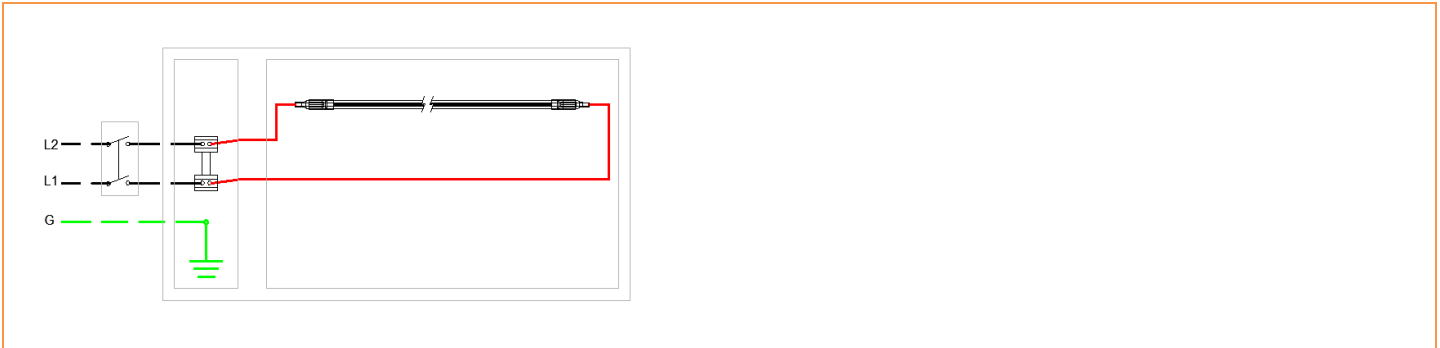
1. Do not turn the heater on if it's placed or lying down on any surface.
2. The heater is not equipped with a power cord.
3. Keep the combustible material away from the heater.

DIMENSIONS

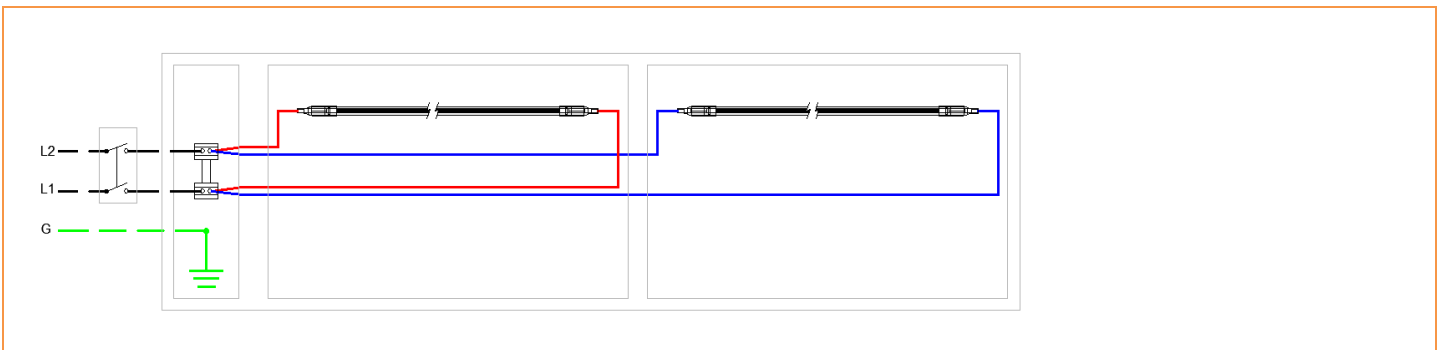


WIRING DIAGRAMS

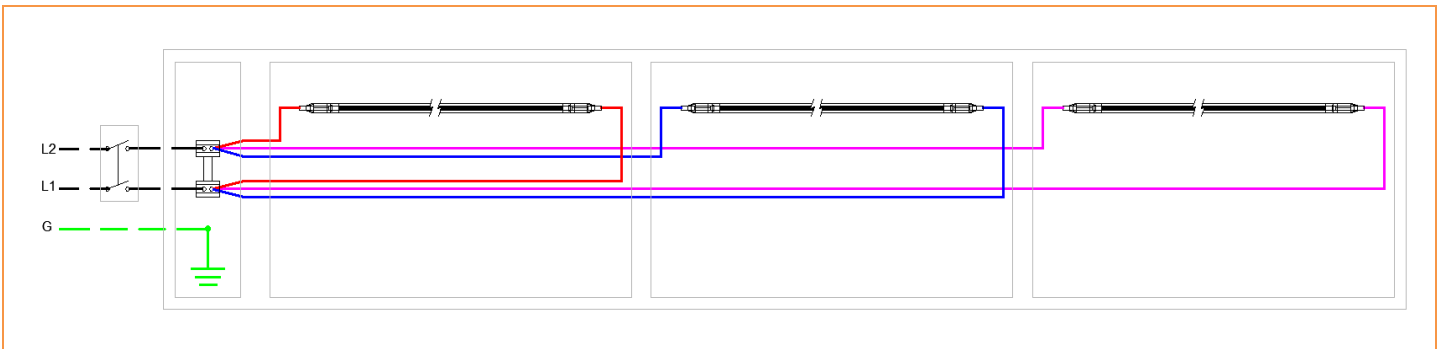
Note: Replace L2 with Neutral for 120 VAC model.



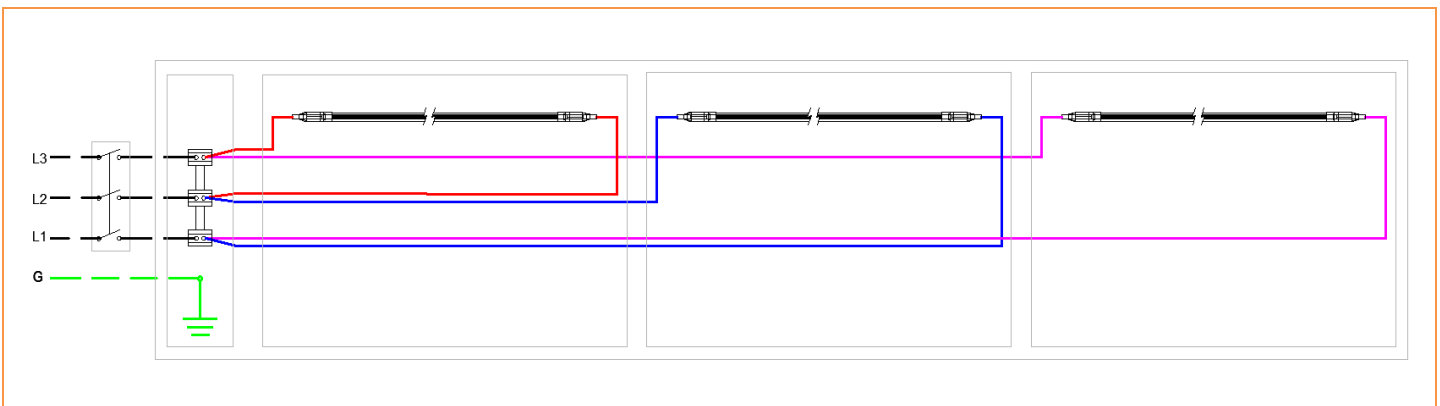
Unit with one heating element (1.8kW and 2.5kW)



Unit with two heating elements (3.6kW and 5.0kW)



Unit with three heating elements – single phase (7.5kW)

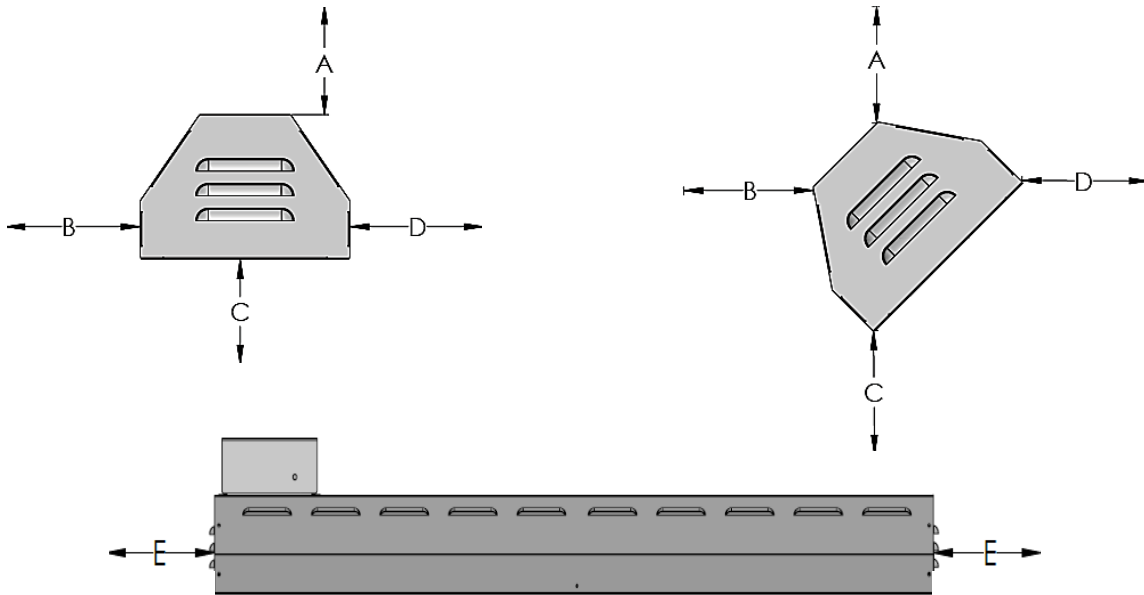


Unit with three heating elements – three phase (7.5kW)

CLEARANCE TO COMBUSTIBLES

1. The minimum installation height from the floor to the heater shall be 8ft (244cm).
2. The minimum clearances from the ceiling, walls and other objects are shown in the pictures below.
3. The stated clearance to combustibles represents a surface temperature of 117°F (65°C) above room temperature.
4. Building materials with low heat tolerance (i.e. plastics, vinyl siding, canvas, tri-ply, etc.) may be subject to degradation at lower temperatures. It is the installer's responsibility to ensure that adjacent materials are protected from deterioration.
5. Heaters installed between 0° and 45° shall maintain clearances for 0° or 45°, whichever is greater.

Model	Mounting Angle	A Inch (cm)	B Inch (cm)	C Inch (cm)	D Inch (cm)	Ends Inch (cm)
SW18M12	Horizontal	3 (8)	12 (30)	36 (92)	12 (30)	12 (30)
	45°	3 (8)	5 (13)	32 (81)	24 (61)	12 (30)
SW36M12	Horizontal	3 (8)	12 (30)	36 (92)	12 (30)	12 (30)
	45°	3 (8)	5 (13)	32 (81)	24 (61)	12 (30)
SW25M20 SW25M24 SW25M48 SW25M60	Horizontal	4 (10)	18 (46)	60 (152)	18 (46)	18 (46)
	45°	5 (13)	5 (13)	57 (145)	45 (114)	18 (48)
SW50M20 SW50M24 SW50M48 SW50M60	Horizontal	4 (10)	18 (46)	60 (152)	18 (46)	18 (46)
	45°	5 (13)	5 (13)	57 (145)	45 (114)	18 (48)
SW75M20 SW75M24 SW75M48 SW75M60	Horizontal	4 (10)	18 (46)	60 (152)	18 (46)	18 (46)
	45°	5 (13)	5 (13)	57 (145)	45 (114)	18 (48)



CAUTION - High temperature, risk of fire, keep minimum clearances from the ceiling, walls and other combustible objects.

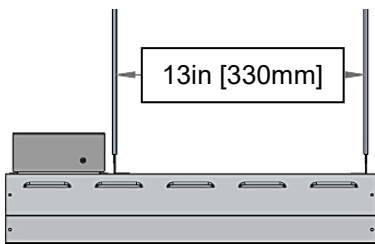
INSTALLATION INSTRUCTIONS



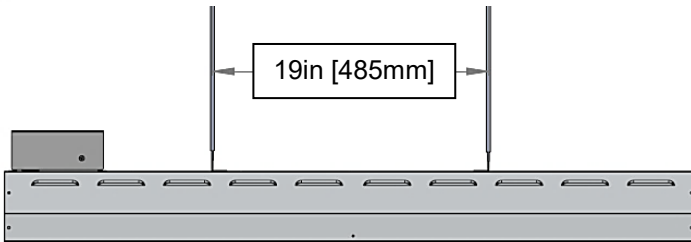
The heater can be suspended with chains, or rigid threaded rod.
Consult all local codes before installation.
Maintain the clearances to combustibles all time.



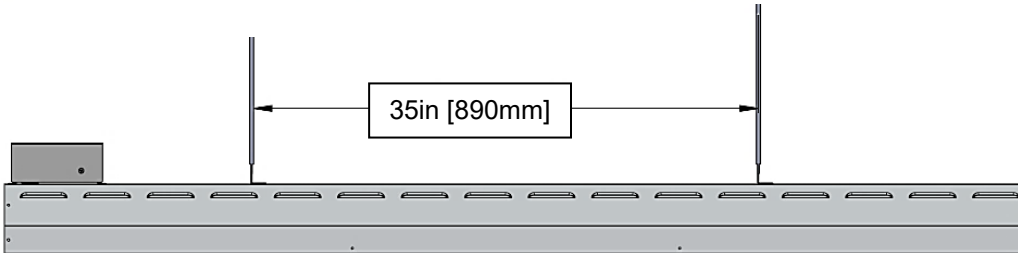
Ensure wire guard is installed before hanging the heater



13in [330mm]



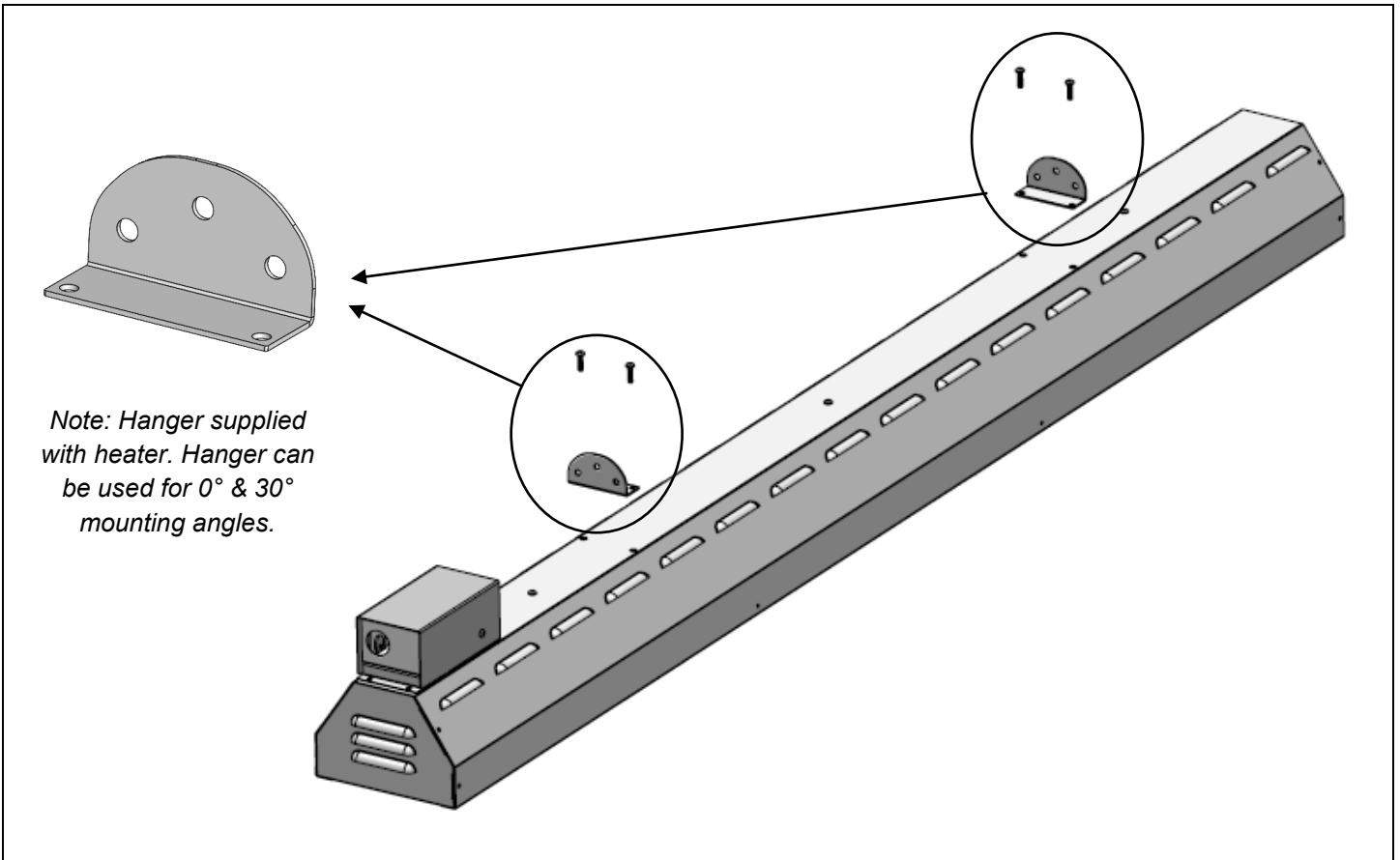
19in [485mm]



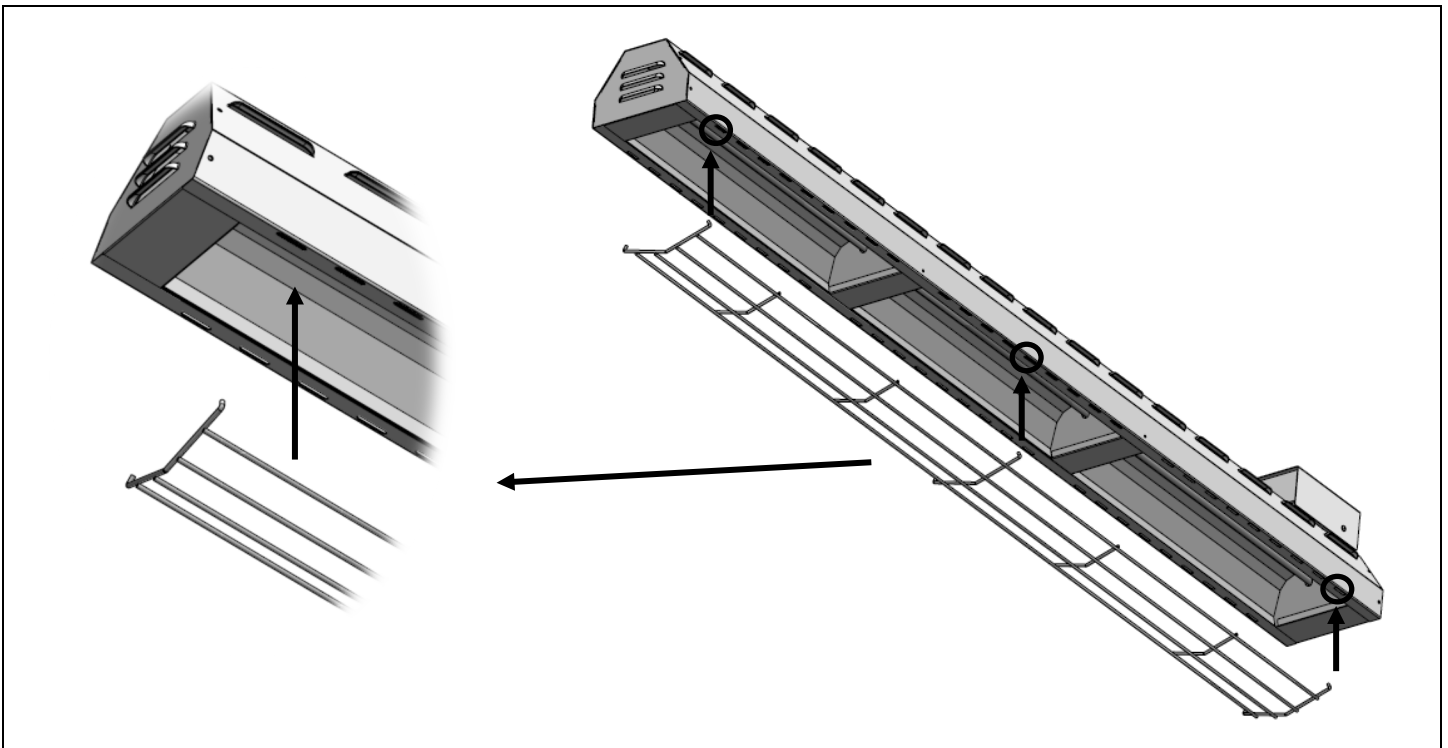
35in [890mm]

Note:
The mounting distances vary when utilizing
the hanging kit!

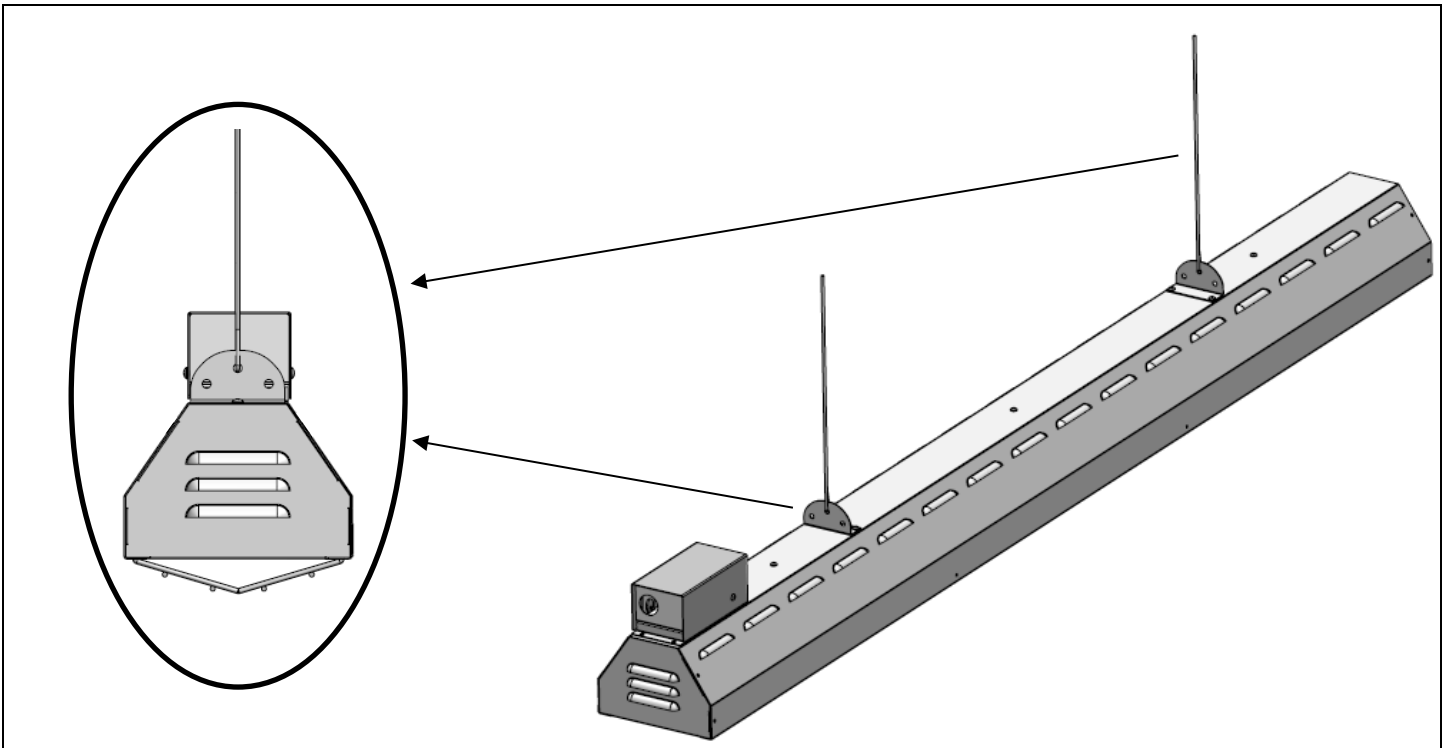
1. The above shows the mounting distance of each heater (without hanging kits).



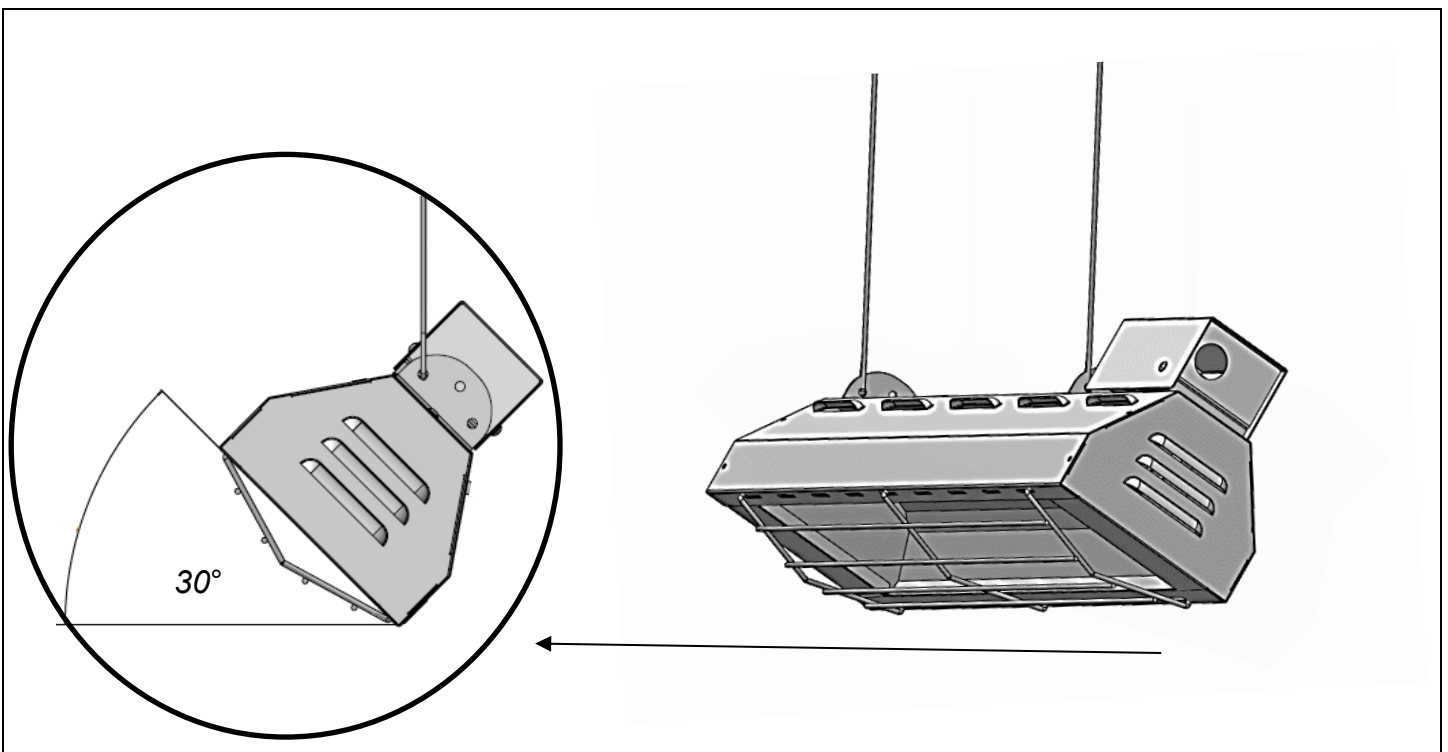
2. Use #8 Phillips Screw (supplied) to secure Hanger Bracket Base unto heater as shown.



3. Insert the safety guard into the slots, starting from the side of the heater marked with dots.



4. Horizontal Mounting: Attach chain to Center hole at the correct distance as shown in Step 1.

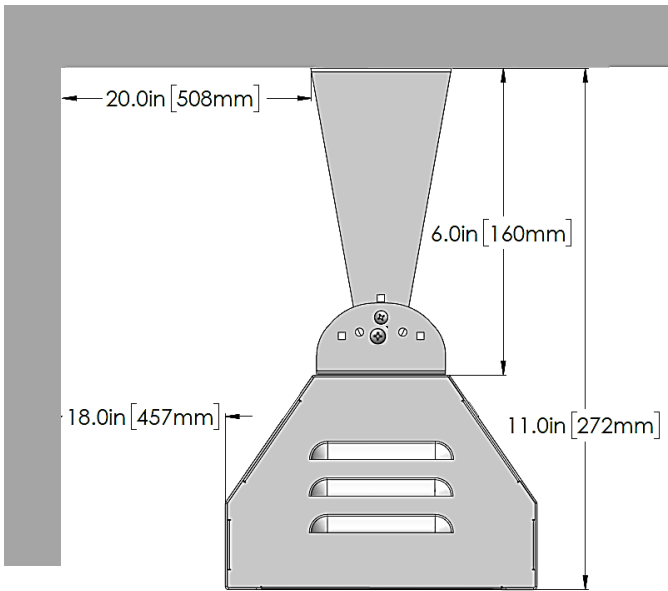


5. 30 Degree Mounting: Attach Chain at one of the other holes at the correct distance as shown in Step 1.

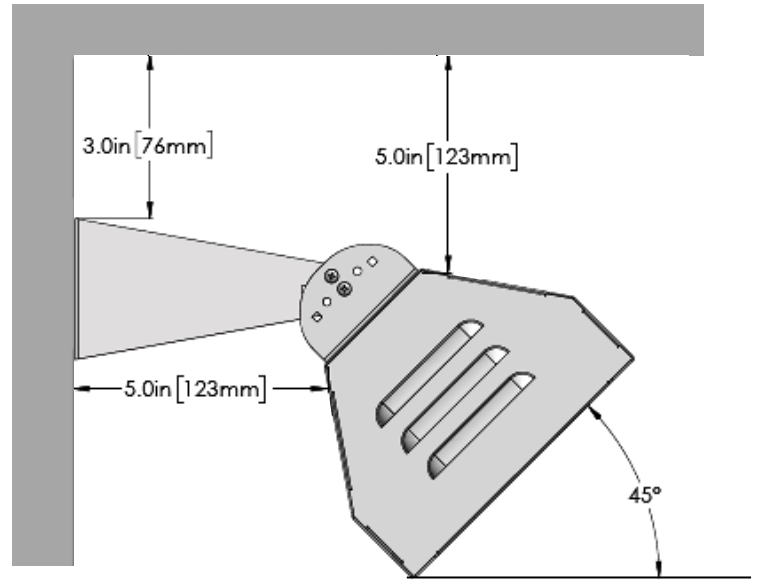


Heaters installed between 0° and 45° shall maintain clearances for 0° or 45°, whichever is greater.

OPTIONAL WALL/CEILING HANGING KIT #SS071



Ceiling Hanging Orientation
(* Refer to Clearances Table)

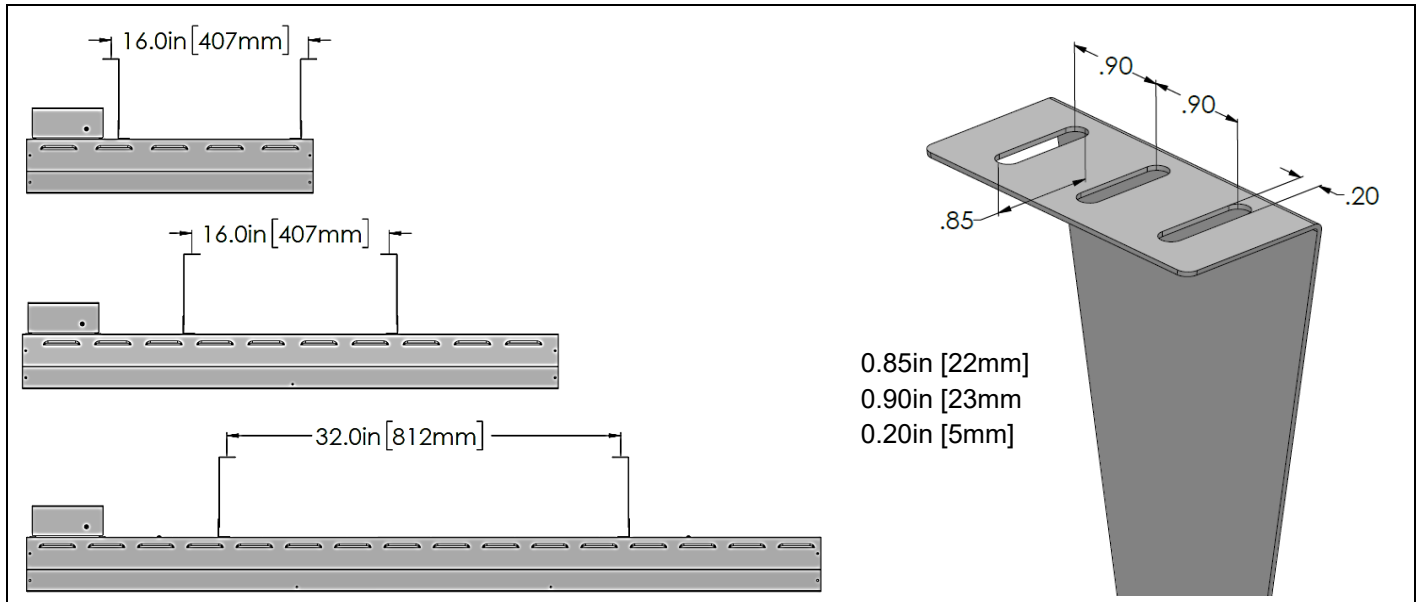


Wall Hanging Orientation



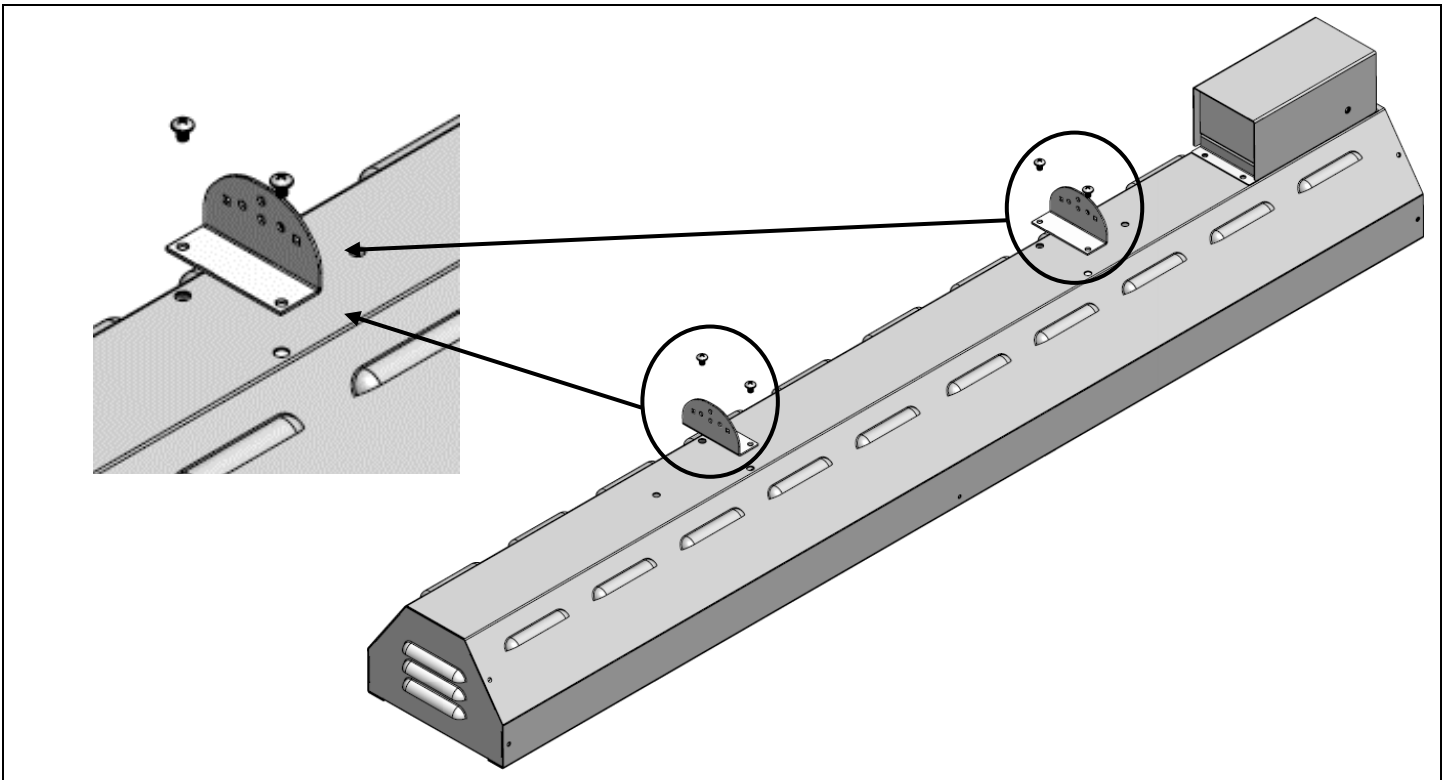
Ensure that the wall where you intend to install the heater is solid and that no electrical cables or water pipes pass behind it. Maintain the clearances to combustibles all time.

Installation Instructions

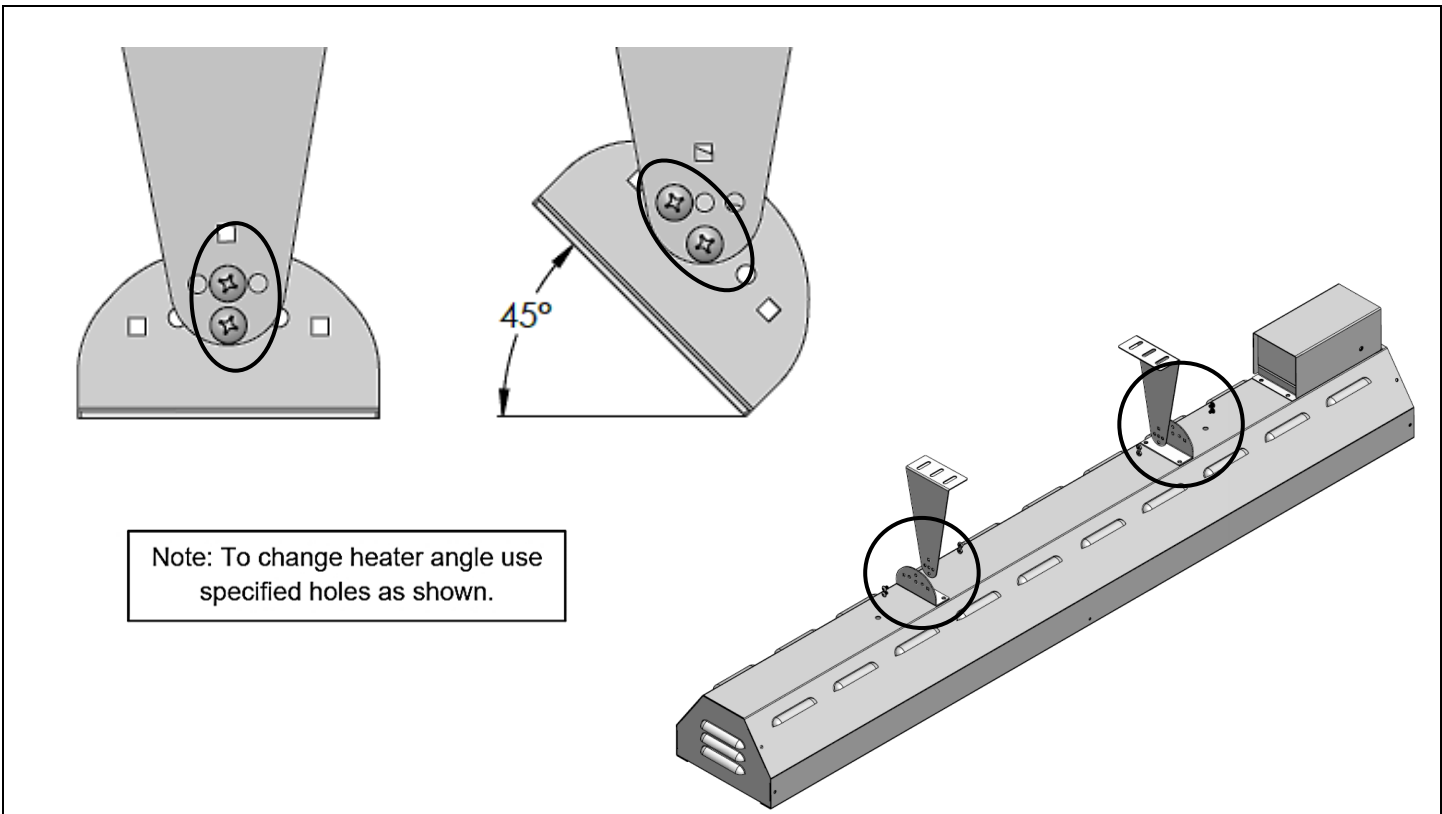


1. Above shows the mounting distance of each heater.

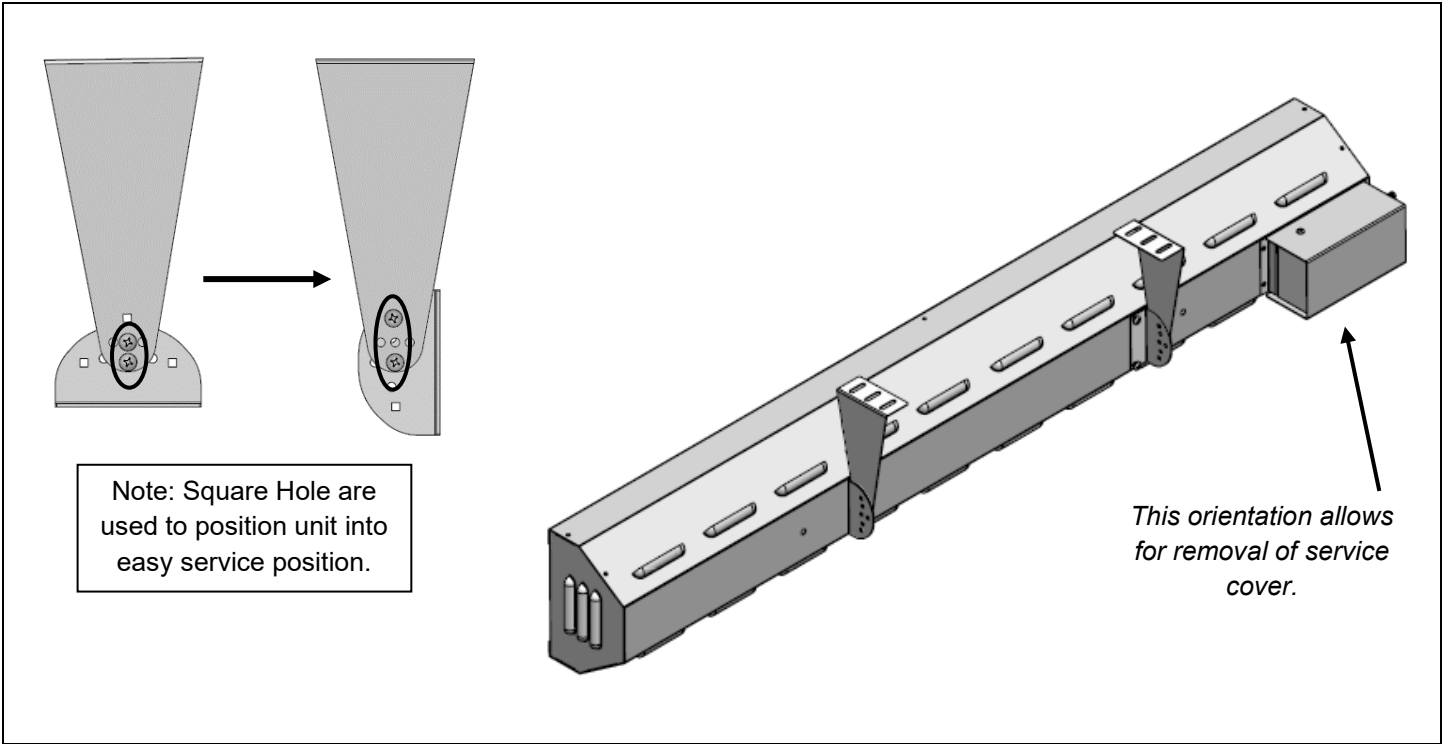
2. Fix two supports on the wall using the proper mounting hardware (not included).



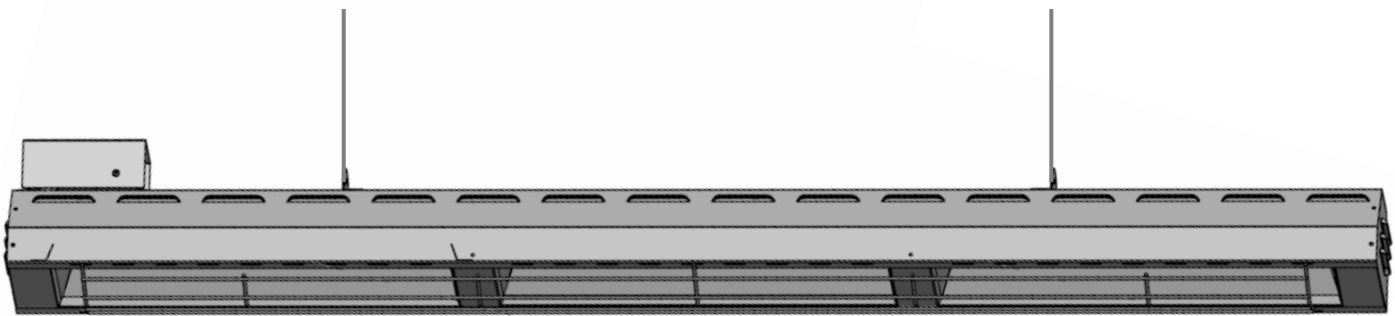
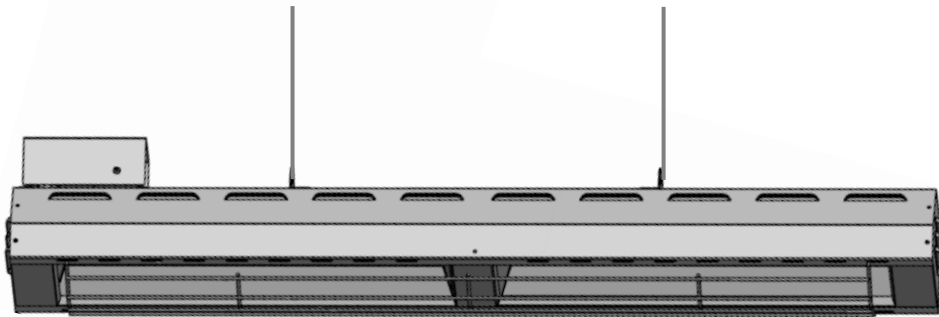
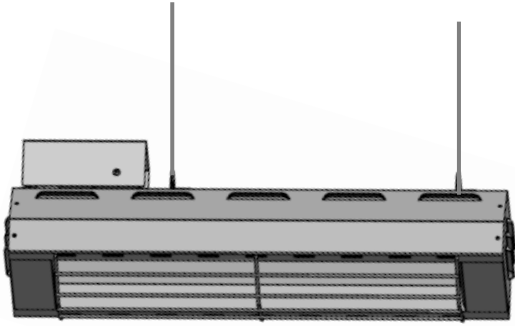
3. Use #8 Phillips Screw (supplied with kit) to secure Hanger Bracket Base unto heater as shown.



4. Secure the brackets in place by inserting and tightening the provided screws and nuts.

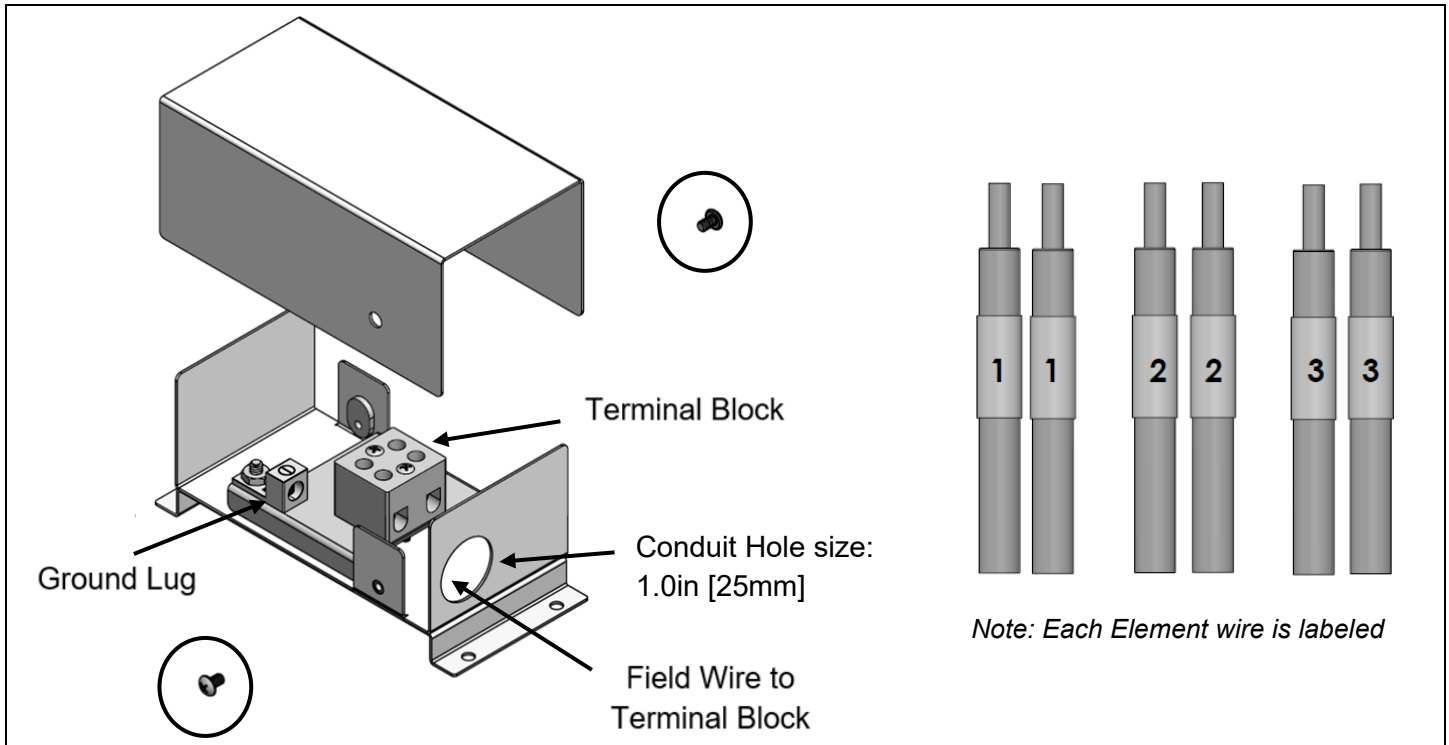


5. To access control box of Heater, undo the top screw and rotate heater as shown above.

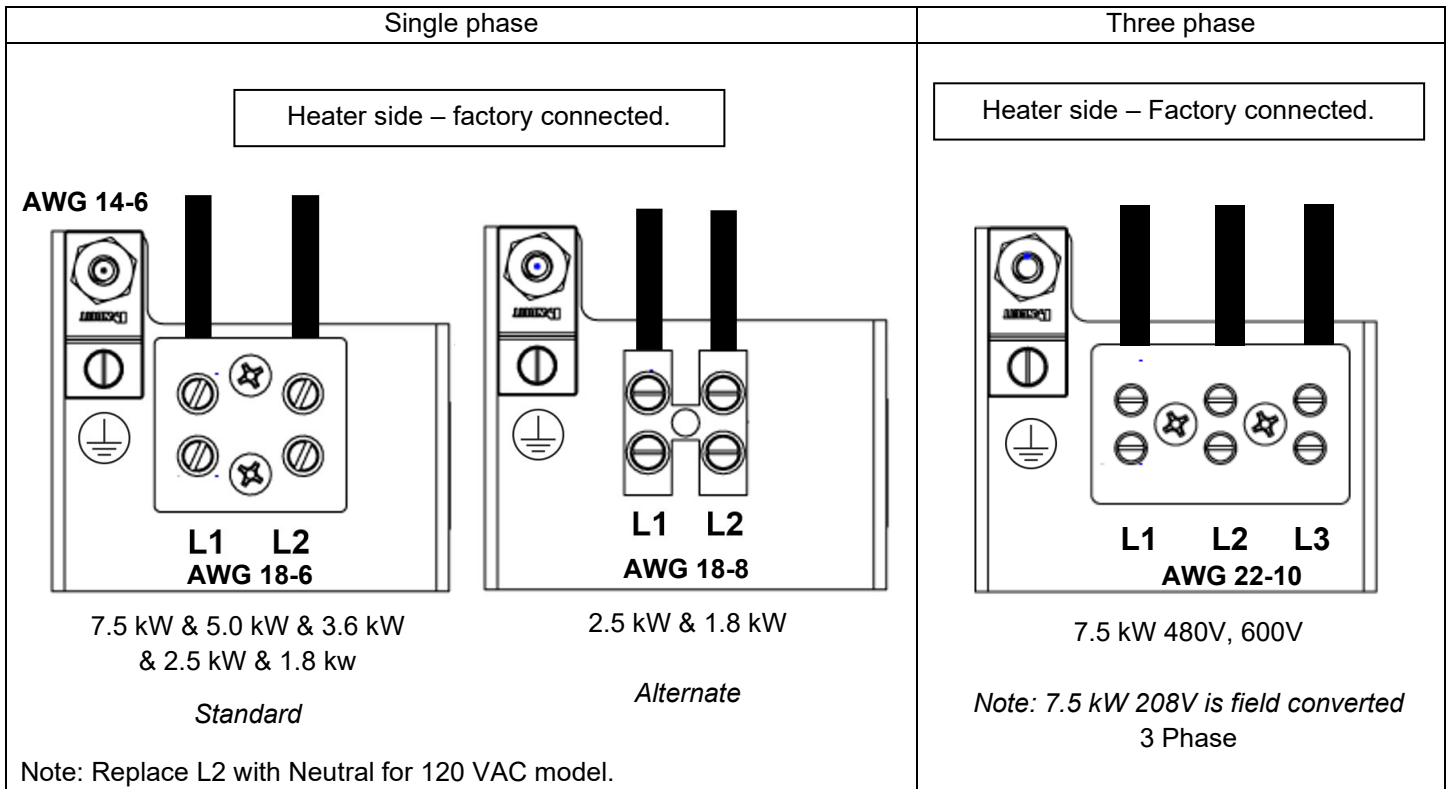


Heater Installation is complete.

JUNCTION BOX WIRING



1. Junction Box Outline as shown.



2. Connect wires to terminal according to corresponding picture shown above.
3. Once the wiring is completed, close the Junction box with the supplied screws.
4. Heater is now ready for Test.

MAINTENANCE INSTRUCTIONS



Before cleaning, make sure the power has been turned off at the circuit breaker panel.

Clean metal surfaces with a damp cloth.

1. It is important that heaters are regularly cleaned to ensure a long and efficient operating life.
2. To clean, use a soft damp cloth and then dry thoroughly.
3. Make sure all parts are dry before powering the heater.
4. Heaters should be cleaned and inspected every heating season.
5. Avoid the use of harsh detergents, solvents, and abrasive or aerosol cleaners as they may damage surfaces.
6. When cleaning the heater, always inspect the back of the heater for build-up of insects, bird droppings, dust, salt build-up, etc. and clean back thoroughly.

TECHNICAL SERVICE



Always disconnect the heater before doing any maintenance operation.

1. If the heater is removed from mounting brackets, it should be stored in an undercover dry location.
2. Always inspect the heater after earthquake, vandalism or any other unusual event that may have affected the heater.
3. Any maintenance service, excluding cleaning, must be carried out by qualified personnel.
4. If you have any questions about your heater, call the local authorized distributor.

REPLACEMENT OF HEATING ELEMENTS

The heaters are equipped with field replaceable heating elements infrared heating elements.



Do not change the heating elements when the heater is mounted!

1. Make sure the power has been turned off at the circuit breaker panel and that the heater is cool.
2. Disconnect the power in the junction box.
3. Remove the heater from the wall / ceiling.
4. Follow the instructions provided with the replacement heating elements.

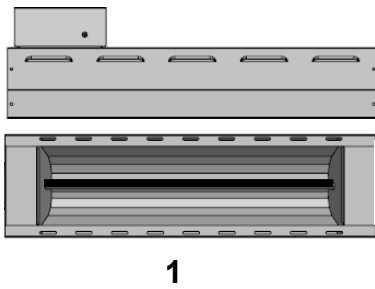
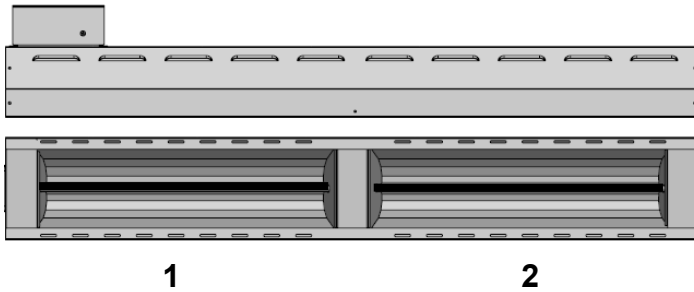
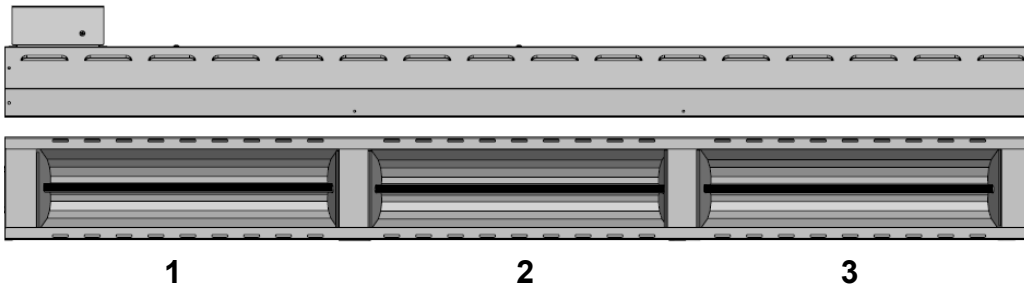


Replace the heating elements with parts from the manufacturer only!

REPLACEMENT PARTS

Heating elements

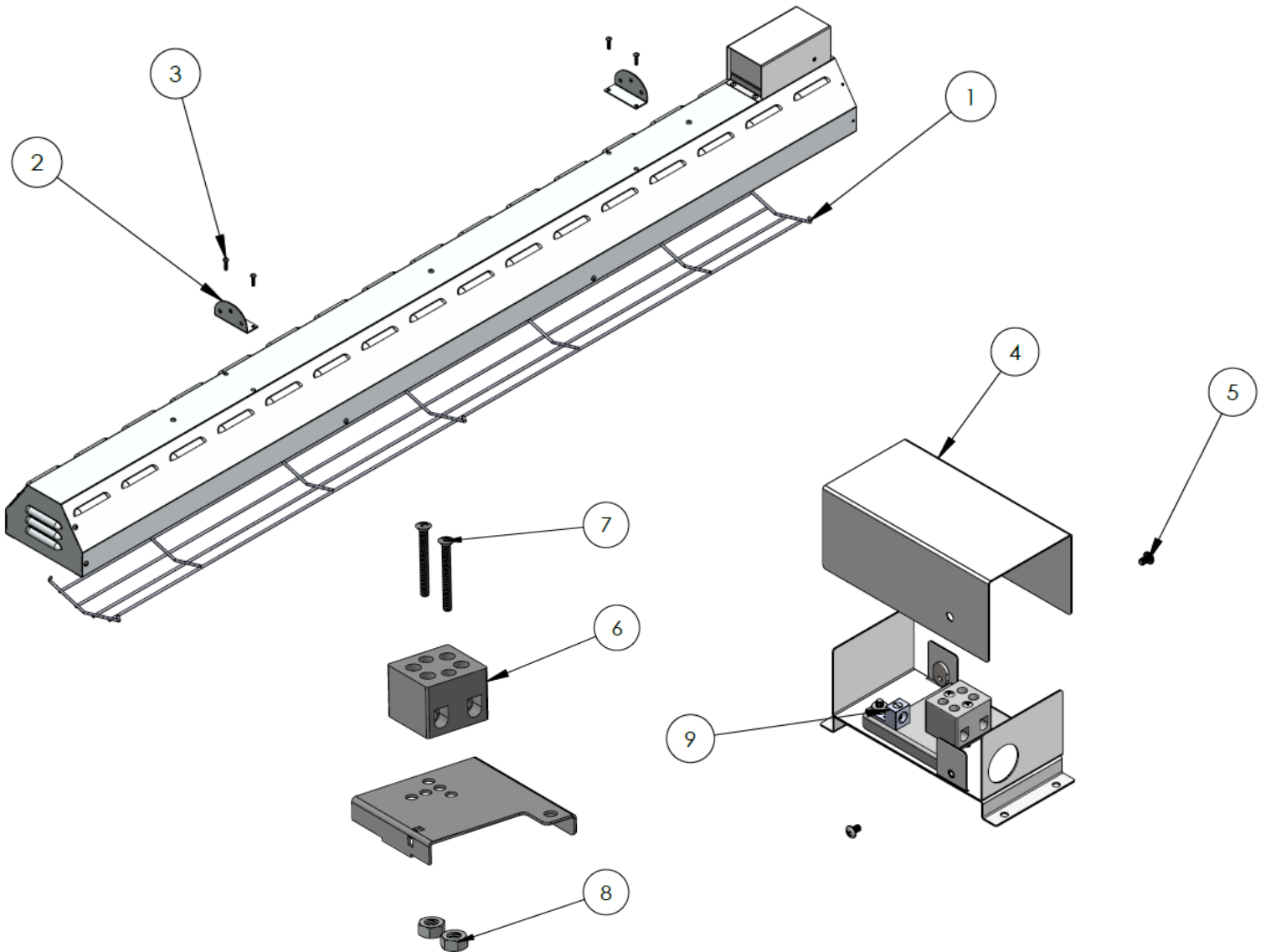
Watts/Volts	Element Position (from electrical box)		
	1st	2nd	3rd
1800W, 120V	RP-CE472-1	RP-CE472-2	-
2500W, 208V	RP-CE473-1	RP-CE473-2	RP-CE473-3
2500W, 240V	RP-CE474-1	RP-CE474-2	RP-CE474-3
2500W, 480V	RP-CE544-1	RP-CE544-2	RP-CE544-3
2500W, 600V	RP-CE501-1	RP-CE501-2	RP-CE501-3



Optional kits

- SS070 - Conversion kit single phase to three phase 300V.
- SS071B - Hanger Kit Black, Wall/Ceiling (sWAVE)
- SS071S - Hanger Kit S/S, Wall/Ceiling (sWAVE)

REPLACEMENT PARTS



#	Model	Part #	Description
1	1.8 kW/5.0 kW	RP-SS061	Safety Guard - One Element Heater
1	3.6 kW/5.0 kW	RP-SS062	Safety Guard - Two Element Heater
1	7.5 kW	RP-SS063	Safety Guard - Three Element Heater
2	All models	SS073S / SS073B	Hanger Bracket, Standard (sWave)
3	All models	CH157	Screw S/S #8-32x3/8" Truss Phillips
4	All models	SS059	Junction Box Cover
5	All models	CH157	Screw S/S #8-32x3/8" Truss Phillips
6	120V/208V/240V Single Phase Models	CE491	Terminal Block, 2CIR
6	480V/600V Single Phase Models	CE557	Terminal Block, 2CIR 600V
6	208V Three Phase model	CE493	Terminal Block, 3CIR, 300V
6	480V/600V Three Phase model	CE554	Terminal Block, 3CIR, 600V
7	All models	EH102	Screw 6-32x 1-1/4" Slotted Comb Drive
8	All models	CH156	NUT, #6-32 KEPS
9	All models	CE519	Ground Lug, 6-14awg #1/4

WARRANTY TERMS & CONDITIONS

sWAVE ELECTRIC INFRARED HEATERS WARRANTY TERMS & CONDITIONS

The manufacturer warrants to the original owner that the product will be free of defects in the material and workmanship. This warranty is limited to *24 months* from the date of purchase.

The Manufacturer's obligation under this warranty is limited to repair or replacement, F.O.B. the factory, of the defective part. In the case of replacement parts, the warranty period shall be the longer of the original warranty or a period of 12 months from the date of purchase. In no event shall the Manufacturer be liable for incidental expense or consequential damages of any kind.

This warranty does not cover any shipping, installation or other costs incurred in the repair or replacement of the product. No materials will be accepted for return without authorization.

This warranty will not apply if in the judgment of the Manufacturer, the equipment has been improperly installed, unreasonably used, damaged or modified. This warranty will not apply to damage to the product when used in corrosive atmospheres and in particular atmospheres containing halogenated hydrocarbons. No person is authorized to assume for the Manufacturer any other warranty, obligation or liability.

Provision of this warranty is subject to:

- The sWAVE product must be installed in accordance with the installation instructions and relevant electrical standards and codes.
- The sWAVE product must be maintained and cleaned according to instructions detailed in the installation manual.
- Discoloration of the surface may occur after a period of time; this does not constitute a warrantable event.

Should products be determined as damaged on arrival, immediately notify the transport company of the condition and have them noted on the freight documents. If damage is discovered after unpacking, demand immediate inspection by the transportation company and insist that a record of the damage is made on the freight documentation.

The customer warrants using the product in accordance with:

- Any instructions provided to it by Superior Radiant Products from time to time.
- All government and local regulations, including but not limited to all relevant electrical, environmental laws and regulations governing the installation, storage, use, handling and maintenance of the goods.
- All necessary and appropriate precautions and safety measures relating to the installation, storage, use, handling and maintenance of goods.

THE REMEDIES PROVIDED FOR IN THE ABOVE EXPRESS WARRANTIES ARE THE SOLE AND EXCLUSIVE REMEDIES. NO OTHER EXPRESS OR IMPLIED WARRANTIES ARE MADE INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE.