

Schwank
Installation Manual & Operation Manual
eSchwank Titan Series Indoor/Outdoor Heater

→ Warnings



WARNINGS



THIS ELECTRIC APPLIANCE PRODUCES INFRARED HEAT, FAILURE TO FOLLOW WARNINGS AND INSTRUCTIONS CAN CAUSE FIRE, ELECTRIC SHOCK, OR INJURY.



Heater must be installed by certified electrician and installation must adhere to all local, state and national electric codes.



FIRE/EXPLOSION HAZARD WARNING

NOT FOR USE IN HAZARDOUS OR EXPLOSIVE ATMOSPHERES



During the operation, always ensure combustible material are kept at a safe distance from the heater body and from the emitted radiant energy. This heater is not intended for use in hazardous areas where flammable vapours, gases, liquids or other combustibles are present. Failure to do so can result in personal injury/or

Warning

California Proposition 65:

This product may expose you to chemicals including carbon monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

IMPORTANT INSTRUCTIONS

When using this heater, basic precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following.

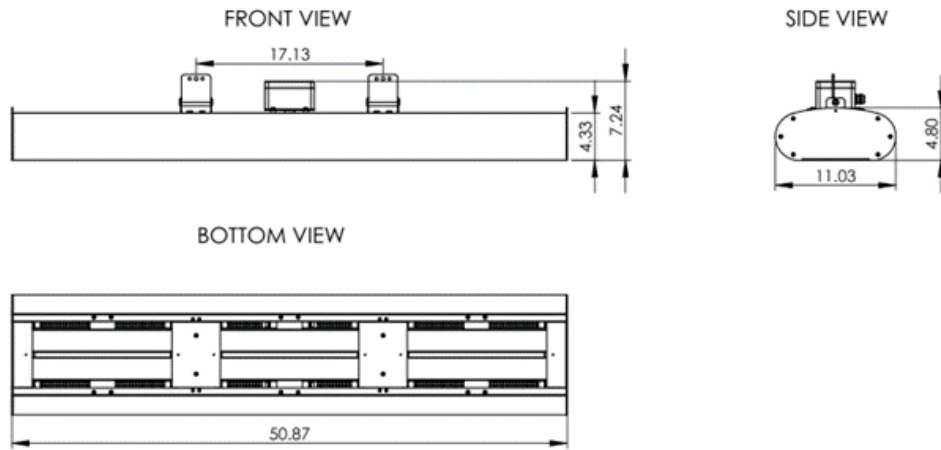
- **READ ALL INSTRUCTIONS BEFORE INSTALLING OR USING THIS HEATER.**
- **This heater is for commercial indoor/ outdoor use. This heater is NOT for indoor residential use.**
- This heater is hot when in use. To avoid burns, do NOT let bare skin touch hot surfaces. Keep combustible materials, such as furniture, pillows, bedding, paper, clothes, etc. and curtains at least 6 feet (1.8 m) from the front of this heater and keep them away from the sides and rear.
- Extreme caution is necessary when this heater is used by or near children or invalids, and whenever this heater is left operating and unattended.
- Do NOT operate this heater after it malfunctions. Disconnect power at service panel and have this heater inspected by a reputable electrician before reuse.
- To disconnect heater, turn controls off, and turn off power to heater circuit at main disconnect panel (or operate internal disconnect switch if provided).
- 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 this heater.
- To prevent a possible fire, do NOT block air intake or exhaust in any manner.
- This heater may have hot and arcing or sparking parts inside. Do NOT use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
- Use this heater only as described in this manual. Any other operations NOT recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- Do NOT stare directly at the heating elements during operation.

SAVE THESE INSTRUCTIONS

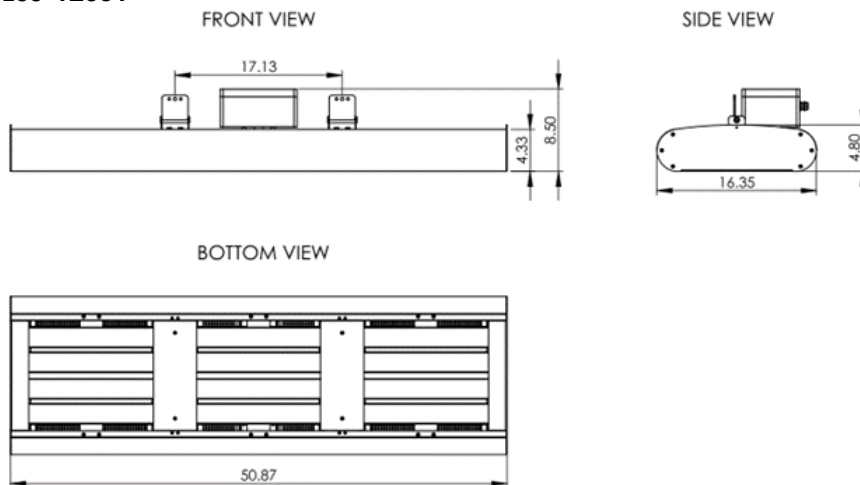
→ Technical specifications and Dimensions

Model	IP Rating	Phase	Voltage /V	Wattage /W	Total Line Current/A	Net Weight	Gross Weight
ESS-6051-20	IP65	3P	208	6,000	16.65		
ESS-6051-48	IP65	3P	480	6,000	7.22	19.0 lbs/ 8.6kg	25.8 lbs/ 11.7 kg
ESS-6051-60	IP65	3P	600	6,000	5.77		
ESS-12051-48	IP65	3P	480	12,000	14.43	27.6 lbs/ 12.5 kg	35.7 lbs/ 16.2 kg
ESS-12051-60	IP65	3P	600	12,000	11.55		

ESS-6051

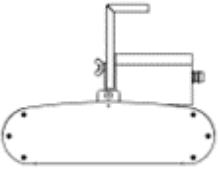
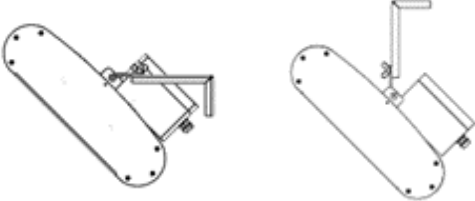


ESS-12051

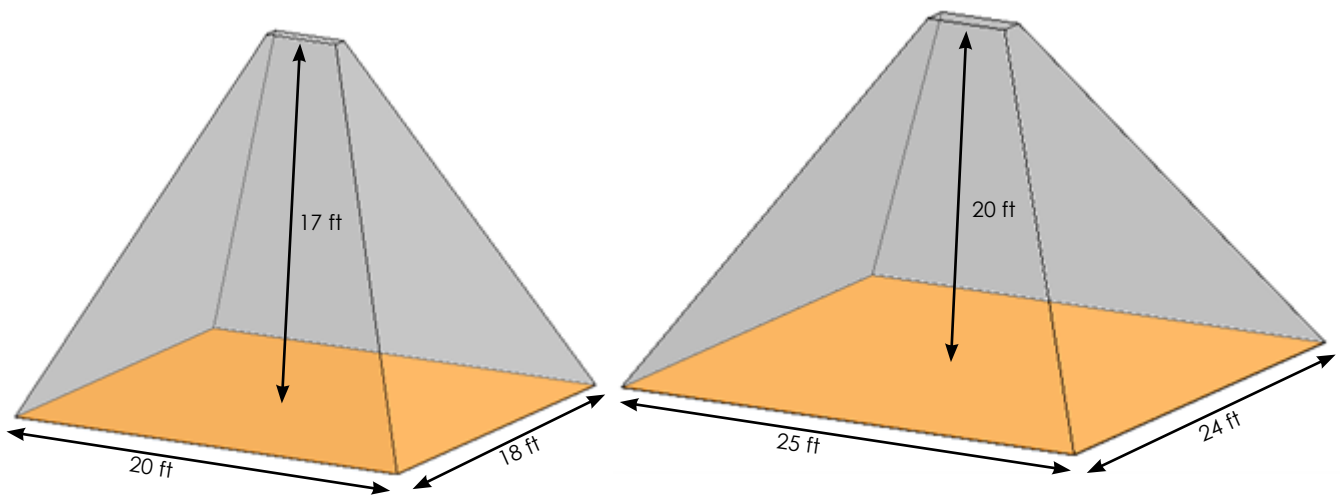


Model	L/ in	W/ in	H/ in
ESS-6051-20/48/60	50.87	11.03	7.24
ESS-12051-48/60	50.87	16.35	8.50

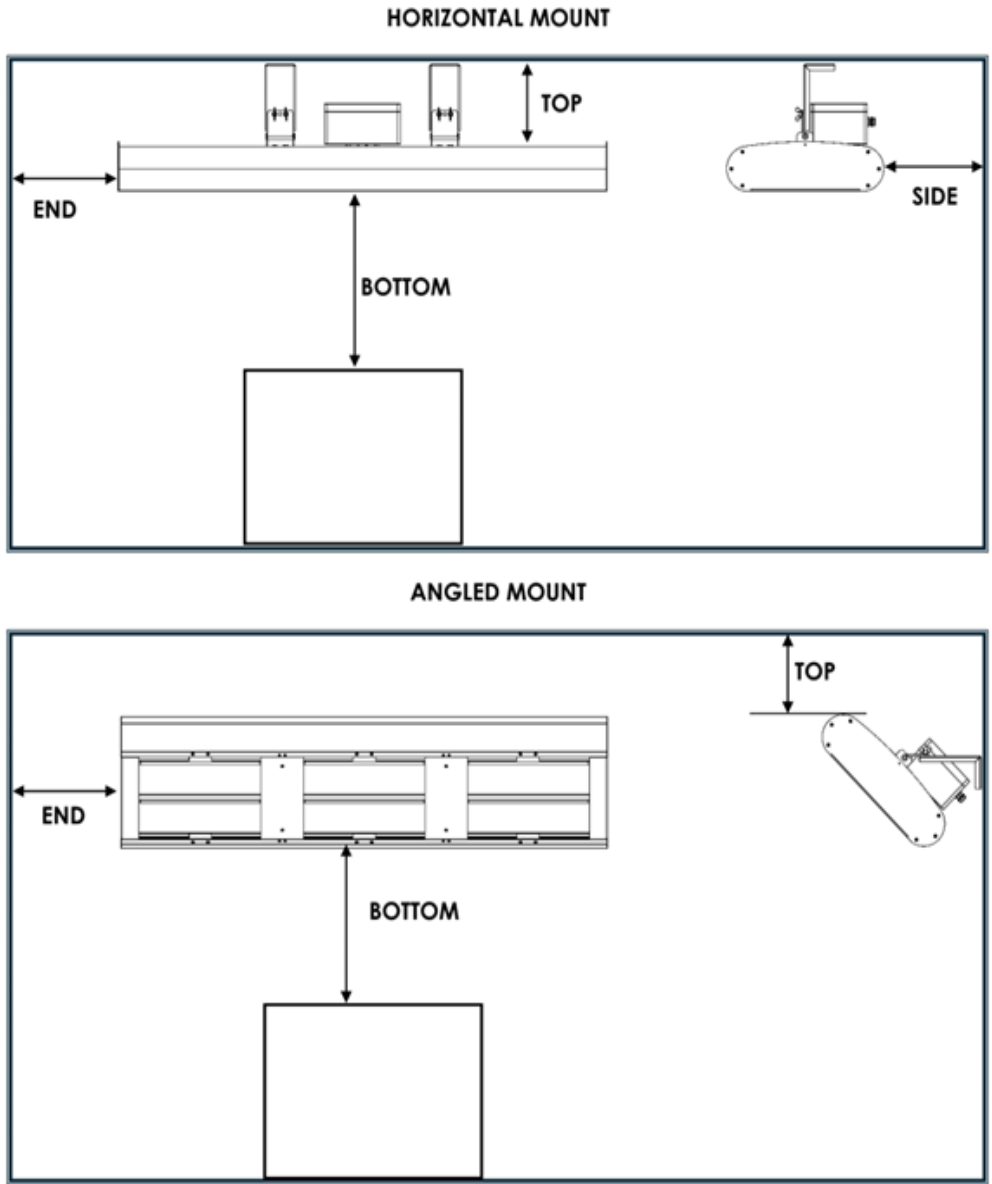
→ Mounting

Mounting Angle	Mounting Method	Demonstrations
Horizontal	Ceiling Mount	
Angled (Up to 45 degree)	Wall mount/ Ceiling mount	

Model	Recommended Mounting Height	Coverage Area (up to)
ESS-6051	10 – 17 ft	20 ft x 18 ft
ESS-12051	12 – 20 ft	25 ft x 24 ft



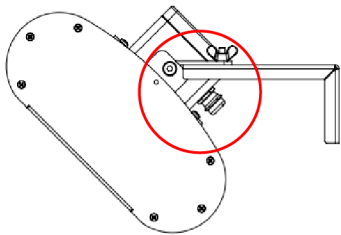
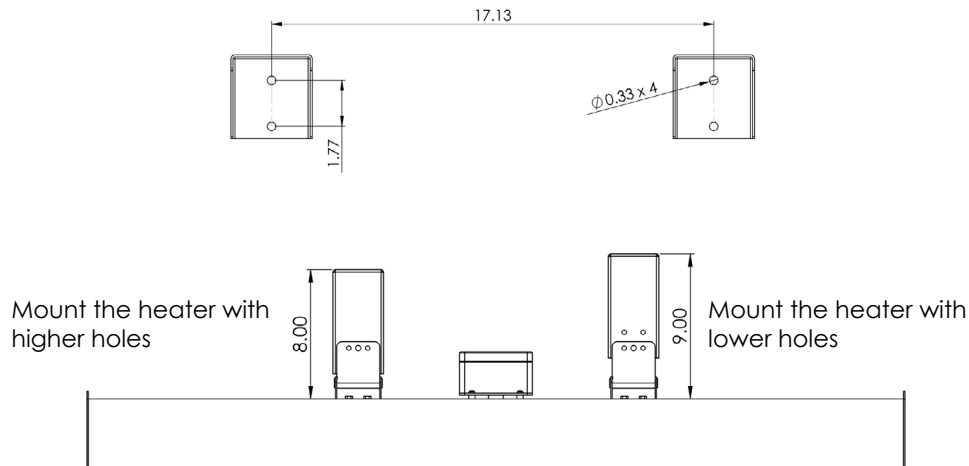
→ Clearance to combustibles



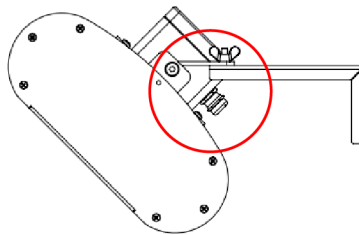
Model	Mounting	Top	Bottom	End	Side
ESS-6051	Horizontal	8"	60"	30"	24" (61 cm)
	Angle	(20 cm)	(152 cm)	(76 cm)	N/A
ESS-12051	Horizontal	8"	72"	30"	24" (61 cm)
	Angle	(20 cm)	(183 cm)	(76 cm)	N/A

→ Installation instructions

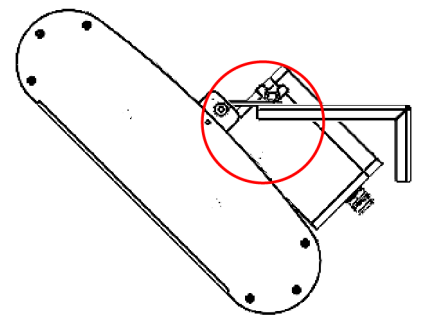
1. Install the provided L-shape mounting brackets to the ceiling or wall.
2. Ensure minimum clearances to combustibles will be met after installed at the intended location.
3. Complete the wiring (See detailed Wiring Diagram in next session).
4. Connect the heater with L-shape mounting bracket. There are two groups of holes on L-shape brackets, to provide some flexibility to adjust the distance between the heater and the ceiling or the wall. The heater can be mounted at 0, 23 or 45 degree. Maximum angle between the heater and horizontal surface should be no more than 45 degree.
5. When mounting in angle, use the hex key to loosen the screw, and rotate the bracket attached on the heater, to achieve desired angled. Then tighten the screw to secure the bracket. Ensure the heater is sitting on top of the L-shape brackets. Tighten the screws with thumb nuts. Note: For 12kW unit angled mounting, the lower holes from the L-shape bracket will need to be used, to keep enough space for the junction box.
6. The heater can be mounted at any angle between 0 and 45 degree. Maximum angle between the heater and horizontal surface should be no more than 45 degree.
7. Keep the distance between the adjacent heaters minimum 6 ft (1.8 m).



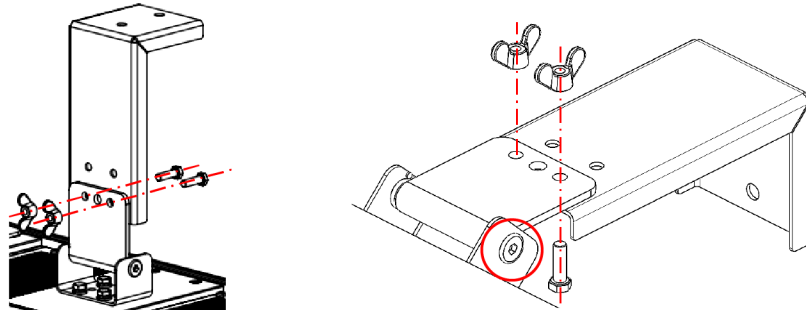
Mount the heater with higher holes of L-shape bracket



Mount the heater with lower holes of L-shape bracket



For 12kW unit, mount the heater with lower holes of L-shape bracket



Warning:

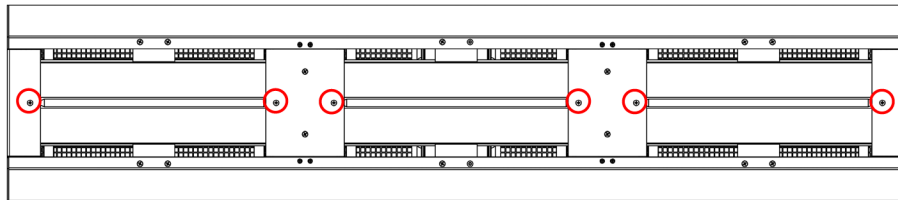
To reduce the risk of fire, do NOT store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.

Optional front grille installation:

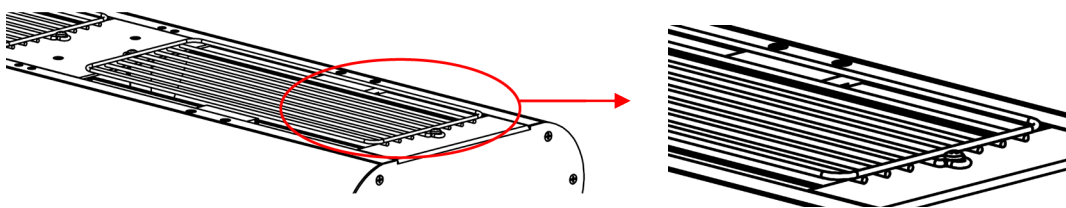
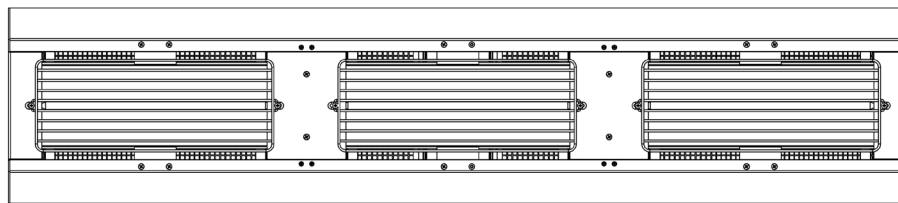
Optional front grilles are available to order separately.

To install the front grilles:

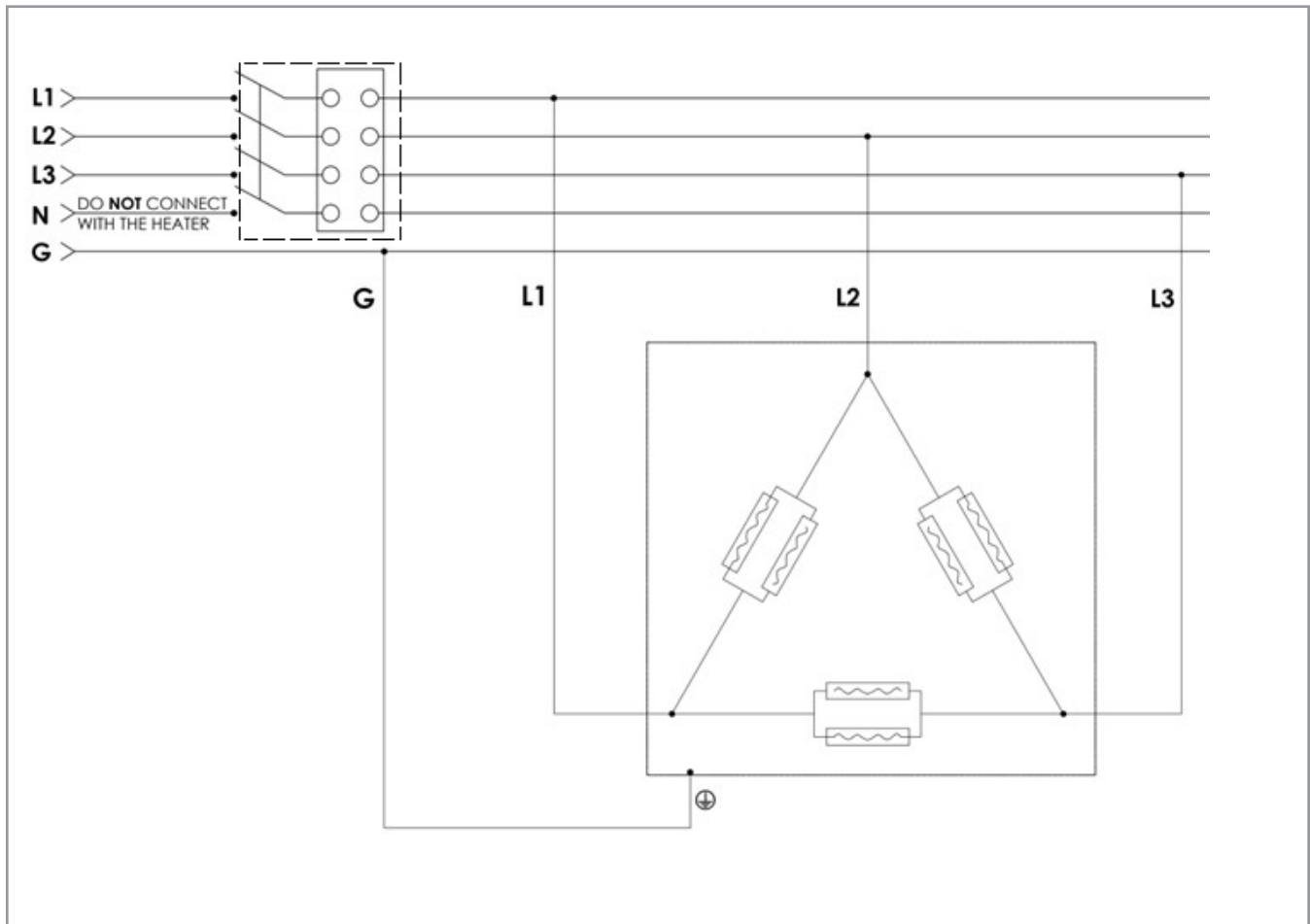
1. Remove the screws from the unit, as shown below. Keep them aside for later.



2. Install the front grilles with the unit, using the screws removed from last step. Ensure all horizontal bars facing toward the heater, as shown below, so that the screws can be properly tightened.



→ Wiring diagram



Notes:

External disconnect shown in the wiring diagram is not included in the heater.

When wiring, follow the labels on the terminal blocks inside junction box.

The heater **MUST** be wired in Delta configuration, i.e. Phase to Phase. Do **NOT** wire the heater in Star (3-phase Wye) configuration (Phase to Neutral). Do **NOT** connect the Neutral line from power supply to the heater.

→ Grounding instructions

This heater must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with the latest edition of the National Electrical Code ANSI/ NFPA 70 in the United States or Canadian Electrical Code CSA C22.1 in Canada.

Operating instructions

The heater must be properly installed before it is used. Ensure all important instructions are followed, to reduce the risk of fire, electric shock, or injury to persons.

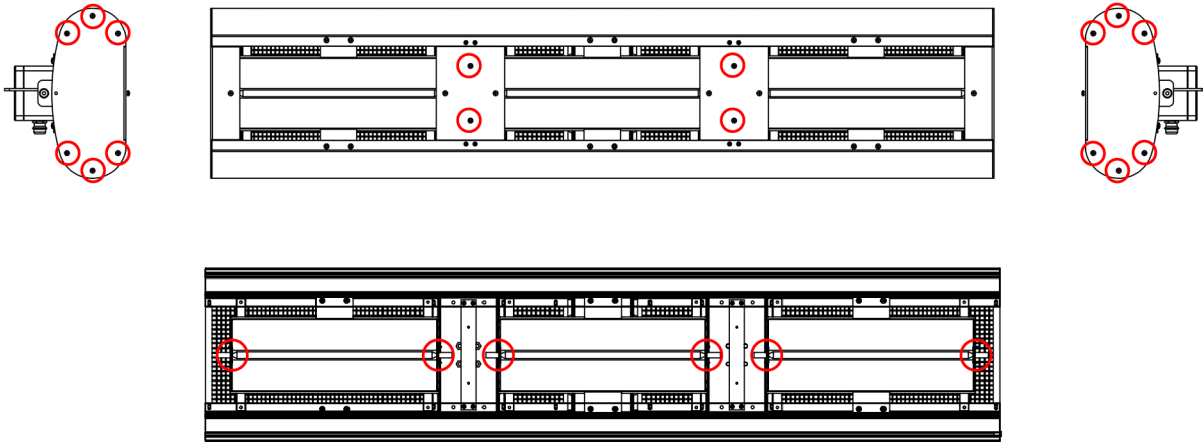
Do NOT stare directly at the heating elements during operation.

Maintenance and cleaning instructions

- This heater consists of a robust and maintenance-free aluminum casing. No user serviceable parts are inside.
- Before cleaning, remove the plug from the power outlet and wait until the heater is sufficiently cooled off.
- Wipe the heater only with clean and lint-free cloth or a soft brush.
- Never use abrasive cleaners, scrubbing brushes and chemical cleaners for cleaning! Alcohol can be used to clean the heater.
- To protect against electrical shock and danger of life, do not immerse cord, plug, or any part of the heater in water or other liquid.

Heating element replacement:

1. Turn off the heater and let it cool down to room temperature. Turn off power to heater circuit at main disconnect panel. If you are replacing the heating element from an elevated platform or ladder, operate with extra caution.
2. If you are replacing the heating element from an elevated platform or ladder, operate with extra caution. Remove the 4 screws from the side panel. Keep them aside for later.
3. It's recommended to wear soft cotton gloves to replace the heating elements. Now the heating elements will be accessible for replacement. Slide the protection sleeves separate from each other at both ends of heating elements, and disconnect the male and female wire connectors.
4. To replace the heating elements on either side, remove the 6 screws from side panel, and 2 screws from the heating element dividing panel installed in vertical direction. To replace the heating elements in the center, remove the 4 screws from the 2 heating element dividing panels. Carefully remove the heating element, and put the new one into the unit.
5. After removing proper panels, the heating elements will be accessible for replacement. Disconnect the protection sleeves from both ends of heating element and disconnect the male and female wire connectors. Connect the male and female connectors of wires from both ends of heating element, and slide the protection sleeves back together.
6. Unfold the tabs of retaining brackets, and remove them from both sides. Install the side panel back using the 4 screws removed in step 4. Do NOT fully tighten the screws until all 4 screws installed in place.
7. Carefully remove the heating element, and put the new one into the unit.
8. Put the retaining clips back and fold the tabs to keep them in position.
9. Connect the male and female connectors of wires from both ends of heating element, and connect the protection sleeves back together.
10. Install the side panels and dividing panels back using the screws previously removed. When reinstall the side panels, do NOT fully tighten the screws until all screws installed in place.



Notes:

Do NOT touch the heating elements with bare hands. Wearing soft cotton gloves is highly recommended. Fingerprints will burn into the heating element surface during use and cause premature heater failure. If the heating element is touched by finger, or if it needs to be cleaned, carefully wipe it using rubbing alcohol or methylated spirits.



LIMITED WARRANTY CERTIFICATE

Warranty Schwank Electric heater

The Manufacturer warrants that this product is free from defects in material or workmanship under normal use and service subject to the terms of this document.

Limited Warranty

Subject to the conditions and limitations stated herein, during the term of this limited warranty, we will supply any component part (at our option a new or repaired component part) of the electric heater as defined below, which the Manufacturer's examination determines to be defective in workmanship or material for a period of two (2) years from the from the date of shipment, unless otherwise specified below. This warranty applies to the electric heater's original owner, and subsequent transferees and only if the unit is installed, operated, and maintained in accordance with the printed instructions accompanying the unit and in compliance with all applicable installation codes and good trade practices.

What is not covered

The Manufacturer shall not be responsible for any expenses, including service, labor, diagnosis, analysis, material or transportation charges incurred during removal or reinstallation of this product, or any of its components or parts. All labor or service charges shall be paid by the owner. This warranty does not cover products improperly installed, misused, exposed to or damaged by negligence, accident, corrosive or contaminating atmosphere, water, excessive thermal shock, impact, abrasion, normal wear due to use, alteration or operation contrary to the owner's manual or if the serial number has been altered, defaced or removed. This warranty shall not apply if the electrical input to the product varies by more than $\pm 10\%$ of the rated input on the rating plate. The Manufacturer shall not be liable for any default or delay in performance by its warranty caused by any contingency beyond its control, including war, government restrictions, or restraints, strikes, fire, flood, acts of God, or short or reduced supply of raw materials or products.

Limitations and Exclusions

This document contains all warranties made by the Manufacturer and may not be varied, altered or extended by any person. There are no promises, or agreements extending from the Manufacture other than the statements contained herein. THIS WARRANTY IS IN LIEU OF ALL WARRANTIES EXPRESSED OR IMPLIED, TO THE EXTENT AUTHORIZED BY THE LAWS OF THE JURISDICTION, INCLUDING SPECIFICALLY THE WARRANTIES OR MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE.

It is understood and agreed that the Manufacturer's obligation hereunder is limited to repairing or replacing parts determined to be defective as stated above. In no event shall the Manufacturer be responsible for any alleged personal injuries or other special, incidental or consequential damages. As to property damages, contract, tort or other claim the Manufacturer's responsibility shall not exceed the purchase price paid for the product. All replacement parts will be warranted for the unused portion of the warranty coverage period remaining on the applicable unit.

Some Authorities do not allow certain warranty exclusions or limitations on duration of warranty or the exclusions or limitations of incidental or consequential damages. In such cases, the above limitations or exclusions may not apply to you and are not intended to do so where prohibited by law. This warranty gives you specific legal rights. You may also have other rights which vary by jurisdiction.

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Schwank Electric heater
WARRANTY
February 2023
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