



INSTALLATION USE & CARE MANUAL

ALL WEATHER SL-SERIES QUARTZ TUBE
ELECTRIC INFRARED RADIANT HEATER

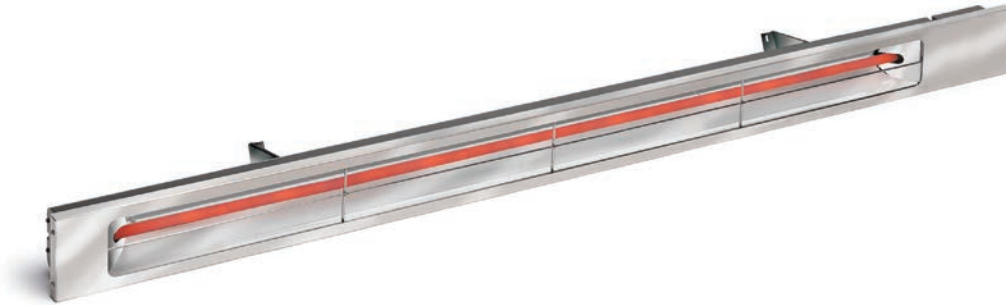


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SAVE THIS MANUAL FOR FUTURE REFERENCE

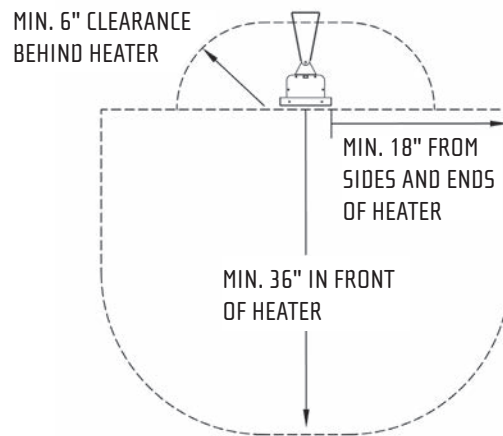


WARNINGS**READ ALL INSTRUCTIONS BEFORE USING HEATER**

Unit may be a source of possible shock. **NEVER** attempt to service heater without disconnecting its power source. Source of possible ignition.

CAUTION

High Temperature, risk of fire, keep electrical cords, drapery, furnishings and other combustibles at least 3 feet (0.9m) from the front of heater and away from sides and rear.

MOUNTING HEIGHT/CLEARANCES**CLEARANCE FROM COMBUSTIBLES:**

- For Wall-Mounting, do not install heater closer than 18" (45.7cm) from adjacent walls and 6" (15.2cm) from ceiling and do not install less than 6' (1.8 m) if the heater is labeled as UL Listed and 8' (2.4m) if the heater is labeled as UL/CUL Listed from floor, while heater is set at a downward angle of 30 to 60 degrees.
- For Ceiling-Mounting, do not install heater closer than 18" (45.7cm) from adjacent walls and 6" (15.2cm) from ceiling and do not install less than 6' (1.8 m) if the heater is labeled as UL Listed and 8' (2.4m) if the heater is labeled as UL/CUL Listed from floor, while heater is at a maximum 30 degrees.
- Adjacent Heaters to be installed no less than 3' (0.9 m) apart.
- Do NOT operate within 25 feet of flammable/explosive material.
- Never block heater.
- Heaters greater than 240 Volts are for "Commercial Use Only. Risk of fire. Do not use as a residential or household heater."
- A means for disconnection of the appliance must be incorporated in accordance with the local wiring codes.
- Do not use if the heating element is damaged or cracked.

"IMPORTANT INSTRUCTIONS"
"SAVE THESE INSTRUCTIONS"

INSTALLATION INSTRUCTIONS

This heater must be permanently installed and hard wired by a licensed electrician in accordance with local electrical codes. Assembly procedure must be performed with no electrical power to unit.

Step 1: Check UL/CE label on heater for proper voltage.

Step 2: Follow supplied wiring instructions

WIRING INSTRUCTIONS

The heater is drilled and threaded for standard 1/2" conduit fittings. The installing electrician will need to provide the appropriate rigid metallic, flexible or liquid tight conduit for the installation location.

Use only copper wire suitable for 90°C.

Observe local electrical code regulations.

OUTDOOR INSTALLATION

Step 1: Heater must be mounted with reflector angled down.

Step 2: All electrical connections must be in compliance with the National Electric Code and local codes for outdoor wiring.

Step 3: Use only wiring components UL/CE listed for outdoor use with IP X 4 minimum rating.

MAINTENANCE INSTRUCTIONS

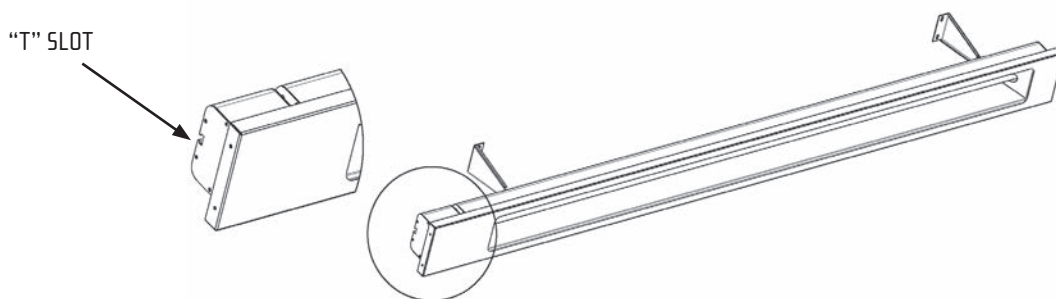
Before performing any maintenance, power must be disconnected and the heater cool to touch.

Heater housing, reflector and heating element can be rinsed with a hose or wiped down with isopropyl alcohol, acetone, or glass cleaner, using a clean, scratch-free rag or paper towel. Any oxidation, surface rust or discoloration can be removed with stainless steel cleaner or metal polish on the bare metal surface.

Make sure all water, solvents or cleaners are removed and the heater is dry before reconnecting power.

MOUNTING INSTRUCTIONS

These models may be chain or bracket mounted to any ceiling or horizontal surface. Installation must be such that 18" minimum clearance is maintained around the heater on 4 sides and 36" directly in front. 6" of clearance provided by mounting brackets is required behind the plane of the face.



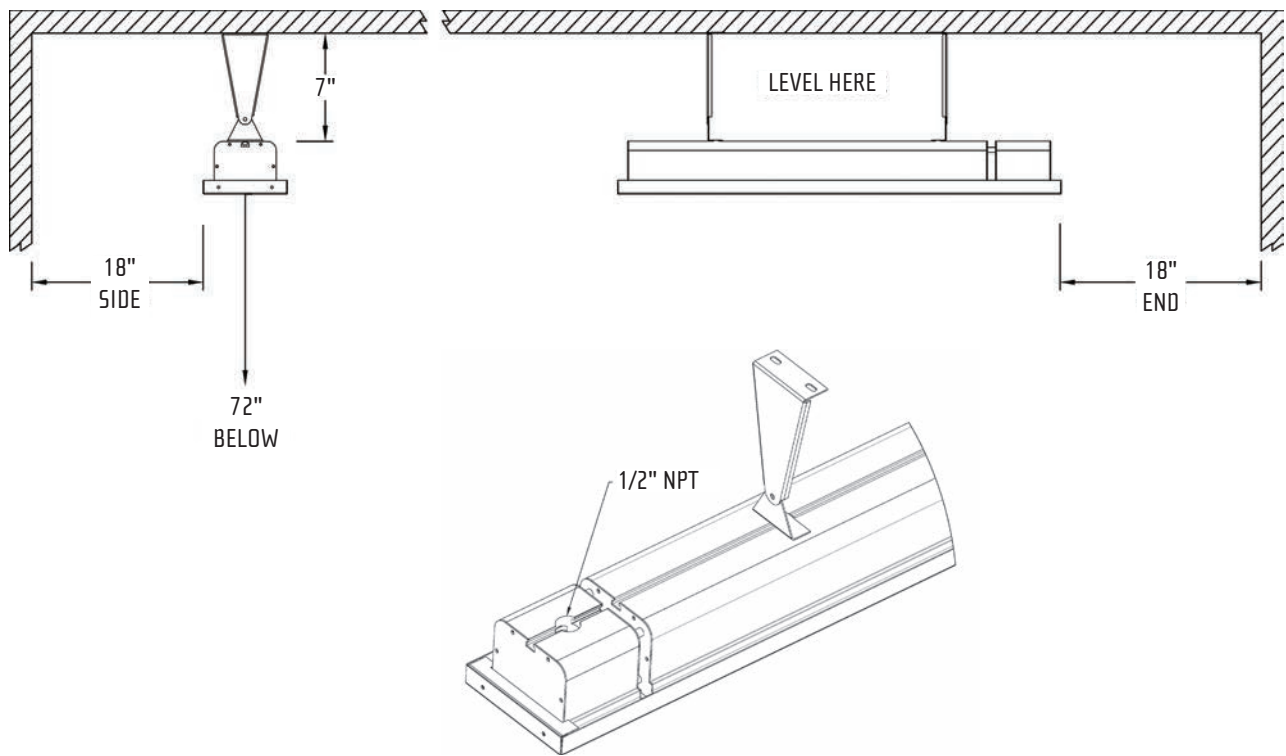
Adjustable wall/ceiling brackets are furnished with all SL-series heaters. Brackets have positive stops at 30° and 60°. When used, they allow heater to be fastened to wall and then tipped down to 60°; for ceiling mount, tilted to 30° max. Brackets are positioned along a "T" slot on back of unit. You must maintain a minimum distance between the mounting brackets to ensure a stable installation.

BRACKET SPACING

MODEL	MINIMUM SPACING BETWEEN BRACKETS
SL 16XX	12"
SL 24XX	20"
SL 30XX	30"
SL 40XX	30"

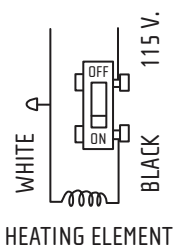
Heater can also be hung in a horizontal position using chains or custom brackets. Heater must be level, but can be rotated around its horizontal axle.

NOTE: DO NOT mount the heater on a vertical axis. Such installation will reduce the life of the element and will automatically void the product's warranty. Heater must be installed with the quartz tube horizontally level. For maximum tube life, use a level to find the optimum position for the heater's body. Always maintain the minimum clearances from the heater body to any combustible materials.

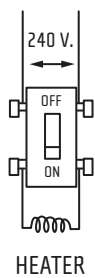


TYPICAL WIRING OPTIONS

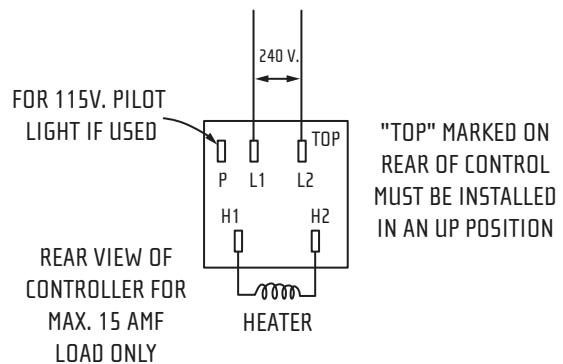
TYPICAL 120V WIRING FOR A SINGLE POLE SWITCH



TYPICAL 240V WIRING FOR A TWO POLE SWITCH



WIRING FOR OPTIONAL 120V/240V CONTROLS

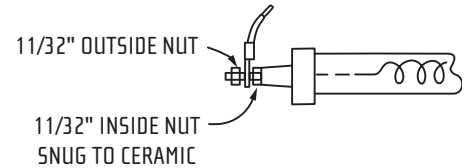


REPLACEMENT ELEMENT INSTALLATION

Remove two screws from one end of trim and slide trim off opposite end to remove. Remove end reflectors. Open element clips at each end of the heater and carefully install the quartz tube. Remove one nut from end of element. Install wire by sliding high temperature ring terminal on to element screw and replace nut.

NOTE: Hold ceramic element firmly while tightening nut to prevent damage to element. Nut should be tightened snug. A loose connection can cause the element to short or fail prematurely. Connect other side of element in like manner. Close element clips over tube. Replace end reflectors.

Connect the High Temperature Stainless Ring Terminal on the wire ends to the element studs located on both ends of the tube. Use a thin 11/32" wrench to hold inside nut. Nuts must make a tight connection.



GENERAL NOTES

1. INFRATECH QUARTZ TUBE ELECTRIC HEATERS are furnished with wall/ ceiling mount swivel brackets. These brackets may be discarded when the heater is hung with chains or other special bracketing.
2. See sales literature and price list for full listing of models, descriptions, amperages, and voltages. At times, especially when the mounting height must be quite low, an increased number of smaller heaters can help prevent overheating.
3. Heaters up to 15 AMPS can be used with a simple INF controller. This low cost controller, which is actually an infinite switch, gently pulses the heat on and off.
4. For comfort heating, the best solution is to heat from two sides rather than from just one side. However, there are times when this is not practical.
5. Areas covered are approximate dimensions and will vary depending on prevailing conditions and personal comfort levels.

SINGLE ELEMENT AREAS COVERED

MODEL	WATTS	MOUNTING HEIGHT	AVERAGE	COLD	PROTECTED
SL 1612	1,600	6' – 8'	6' x 6'	4' x 4'	8' x 8'
SL 2424	2,400	7' – 9'	7' x 7'	5' x 5'	9' x 9'
SL 3024	3,000	7' – 9'	8' x 8'	6' x 6'	10' x 10'
SL 4024	4,000	8' – 11'	10' x 10'	8' x 8'	12' x 12'

NOTE: Mounting height should not be less than 6' (1.8 m) if the heater is labeled as UL Listed and 8' (2.4 m) if the heater is labeled as UL/CUL Listed. Indoor or well-protected environments will generally exceed average. Heaters can provide less than average coverage in extremely cold/windy conditions.

REPLACEMENT PARTS

PART NUMBER	PART DESCRIPTION	QUANTITY
13-7004, 13-7002, 13-7000	Body Reflector Set (SL 16/24/30/40)	1
13-7008	End Reflector	2
13-7034, 13-7032, 13-7030	Lead Wire Set (SL 16/24/30/40)	1
13-7020, 13-7022	Bracket Set (Stainless Steel, Bronze)	1
13-7014, 13-7012, 13-7010	Grill (SL 16/24/30/40)	1
13-7028, 13-7026, 13-7024	Stainless Steel Trim (SL 16/24/30/40)	1

Need help? To order replacement elements for your Infratech heating system, please contact us via phone or visit the automotive section of our website.

Consult back of heater for proper watts and voltage.

REPLACEMENT ELEMENTS

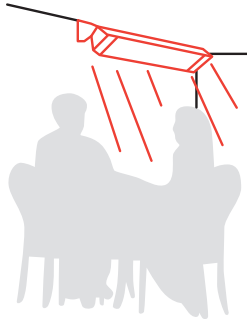
PART NUMBER	MODEL	LENGTH	WATTS	VOLTS	FITS
10-7025	E-1612-SL	22-3/8"	1600	120	SL-1612
10-7030	E-1624-SL	22-3/8"	1600	240	SL-1624
10-7035	E-2424-SL	35-3/8"	2400	240	SL-2424
10-7040	E-2428-SL	35-3/8"	2400	208	SL-2428
10-7055	E-3024-SL	56-3/8"	3000	240	SL-3024
10-7060	E-3028-SL	56-3/8"	3000	208	SL-3028
10-7075	E-4024-SL	56-3/8"	4000	240	SL-4024
10-7080	E-4028-SL	56-3/8"	4000	208	SL-4028

TROUBLESHOOTING

PROBLEM	WHAT TO DO
Heater does not glow	Check supply voltage to confirm it matches voltage of heating element.
Low heat output	<p>A 240 V element connected to 110 V or 208 V will warm, but not glow orange, or generate sufficient heat for typical applications. (Matching your Voltage is extremely important).</p> <p>If element is visibly orange, but there is insufficient heat, refer to the areas covered, with respect to conditions and mounting heights.</p> <p>Replace or clean dirty or non reflective reflectors.</p>
Heater does not work	<p>Disconnect power and check element with Ohm meter for continuity. If there is any continuity across the bulb, the problem is in the wiring/controls.</p> <p>Check that there is proper voltage to the heater.</p> <p>Check that the control/switch is working.</p> <p>Check main power circuit breaker.</p> <p>Check wiring for a loose connection or burned wire.</p>

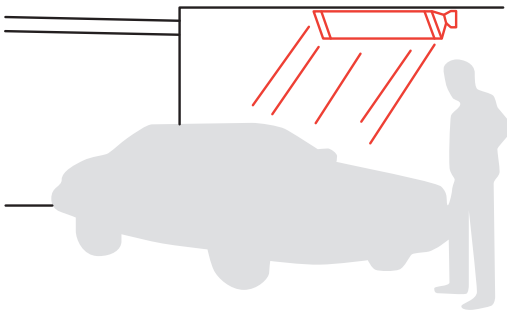
LOCATION SUGGESTIONS

Unless heaters are installed over 12 ft. high, it is generally recommended that all radiant heaters be mounted on an angle to assure that radiant warmth is distributed from the sides rather than straight down on the heads and shoulders of the people being warmed.



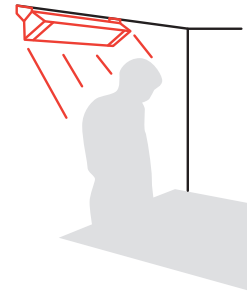
RECOMMENDED POSITIONING

- Angle fixture 30° to 60° from horizontal face down.
- Best angle is approximately 45°.



OUTDOORS

- When outdoors, hang heater under protective roof or weather cover whenever possible.
- Even though heater is all-weather construction, it will last longer and look better if it is protected from rain and snow.



INSTALLATION DIRECTION

- Install fixture to heat the area from the “cold side” if possible. This helps compensate for increased body heat losses due to exposure.
- Warm floors reradiate heat. Warmer air rises from floor. Some heat reflects from floor. Mounting a heater directly over a table or other obstruction will block the energy, primarily heating the object. It is best to move heater to the side, allowing complete body and floor coverage.

LIMITED PRODUCT WARRANTY

Model #: _____ Serial #: _____

Date of Purchase: _____ Purchased From: _____

Thank you very much for purchasing a INFRATECH Quartz Tube Electric Heater.

We have designed this heater to provide you and your family with many years of great outdoor experiences. Please fill in the Model and Serial number as well as date of purchase in the areas indicated above. Please save this information for future reference. To get the full and safe enjoyment of your electric heater please read your Owner's Manual carefully and review the proper operating and safety instructions with any family members that may be using the heater.

Manufacturer Warranty:

INFRATECH warrants that this electric heater is designed and manufactured to be free from defects in materials and workmanship for a period of one year from original date of purchase.

Extent of Warranty:

This warranty extends to the selling dealers to the original purchaser at the original site of installation: This warranty becomes valid at the time of purchase and ends either by specified time frame listed above, owner transfer or relocation. In order to activate the warranty we require that you send in the attached warranty registration form. This registration is for our internal use only and will only be used in the event we need to send you important safety related product information. The information will not be sold or used for any marketing related purposes.

Warranty Limitations and Exclusions:

This warranty does not apply to damages resulting from negligence, alteration, misuse, abuse, accident, natural disaster, improper installation or improper operation, unauthorized adjustments or calibrations, dings, dents, scratches, nor damages due to harsh chemicals (i.e. cleaning products improperly applied). Warrantor is not responsible for consequential or incidental damages. Under no circumstances shall INFRATECH or any of its representatives be held liable for injury to any person or damage to any property, however arising.

Important: Please retain original proof of purchase to establish warranty period.

Any implied warranties of merchantability and fitness applicable to the equipment are limited in duration to the period of coverage of this express written warranty. This warranty grants specific legal rights to the purchaser. Other rights, which may vary from state to state, may also apply. Title to the merchandise passes to the consignee upon acceptance by the carrier. After acceptance by the carrier, the merchandise travels at the risk of the purchaser. In the event of freight damage, do not refuse shipment. Advise both the freight agent and the shipper of the damage. Note the details of that damage on the freight bill before any freight charges are paid and file a claim for damages with the freight agent.

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----- CUT HERE -----

INFRATECH WARRANTY REGISTRATION

Customer Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

Model #: _____ Serial #: _____

Dealer's Name: _____ Date Purchased: _____

Dealer's Address: _____

This Warranty Registration Card must be returned within thirty days of purchase to properly activate your warranty. This information is for our internal use only.