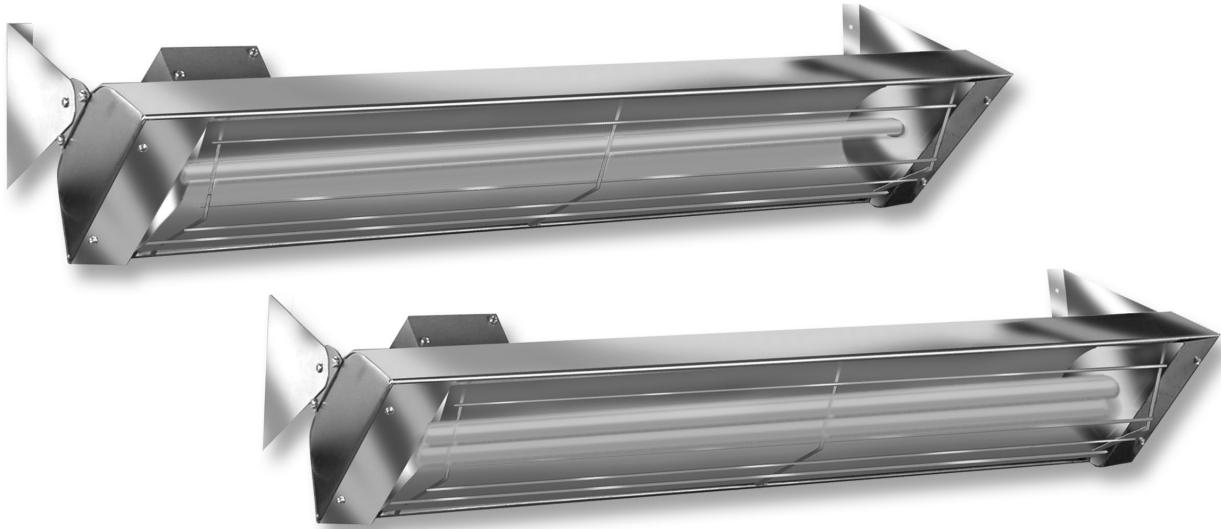


INFRATECH™

Innovative Infrared Technology

ALL WEATHER QUARTZ TUBE ELECTRIC HEATER



INSTALLATION USE & CARE MANUAL

TABLE OF CONTENTS:

IMPORTANT INFORMATION

Assembly Instructions	3
Wiring Instructions	3
Outdoor Installation	4
Electrical WARNING	5

APPLICATION INFORMATION

Application Information	4
Typical Wiring (Schematics)	5
General Notes	6
Areas Covered (Table)	6
Location Suggestions	7

PARTS LIST

Parts List	8
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TROUBLESHOOTING GUIDE	9
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WARRANTY	A
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WARRANTY REGISTRATION	
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SAVE THIS MANUAL FOR FUTURE REFERENCE

ASSEMBLY INSTRUCTIONS – ELECTRIC HEATER

NOTE: To prevent breakage, unit is shipped without the element installed.

1. Check UL/CE label on Heater for proper voltage
2. Remove end plates.
3. Open element clips at each end of the Heater and carefully install the quartz tube. Remove one nut from end of element. Slip on wire over element screw. Replace nut.
NOTE: Hold element ceramic firmly while tightening nut to prevent damage to element. Nut should be tightened snug, a loose connection can cause element to fail. Connect other side of element in like manner. Close element clips over tube.
4. Replace end plates.
5. Clean tube and reflector with alcohol or equivalent.
6. Snap on protective grill provided.

WIRING INSTRUCTIONS

1. Remove cover plate from junction box.
2. Attach conduit.
3. Use copper or aluminum wire suitable for 90°C.
4. Replace cover plate.
5. Observe local electrical code regulations.

OUTDOOR INSTALLATION

1. Heater must be mounted with reflector angled down.
2. All electrical connections must be in compliance with the National Electric Code and local codes for outdoor wiring.
3. Use only wiring components UL/CE listed for outdoor use with IP X4 minimum rating

WARNING

Unit may be a source of possible shock
Unit may be a source of possible ignition, maintain required clearances to all combustibles
Never block the front panel of the Heater

Do NOT operate within 25 feet of flammable/explosive material

NEVER attempt to service Heater without disconnecting its power source

This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely.

Young children should be supervised to ensure that they do not play with the appliance.

Do not use if the heating element is damaged.

The heater must be installed at least 7' (2.1 m) above the floor.

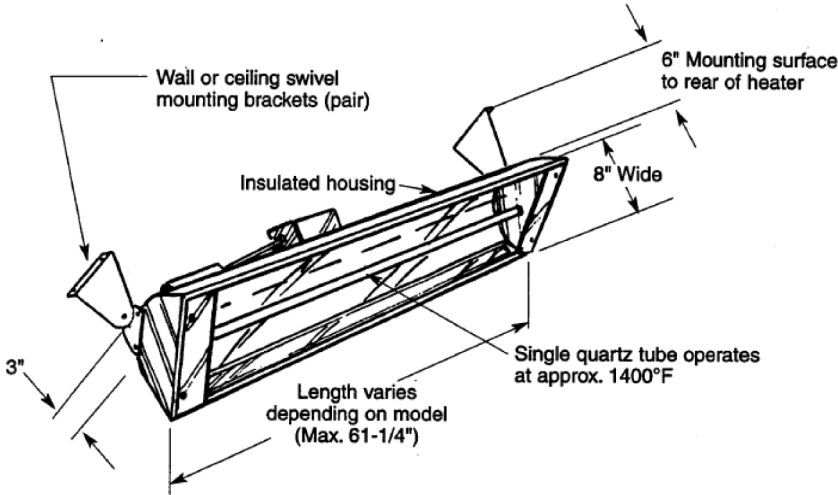
A means for disconnection of the appliance must be incorporated in accordance with the local wiring codes.

INSTALLATION INSTRUCTIONS – ELECTRIC HEATER

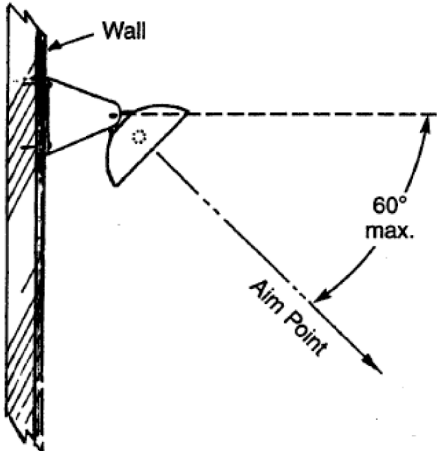
The following information is designed to help you apply and install INFRATECH QUARTZ TUBE ELECTRIC HEATERS in a variety of locations. INFRATECH heaters are one of the most economical of all radiant heaters to buy, and can be some of the least costly to operate. They may also be the most economical to install, depending on the location of electrical power adequate to operate the heater(s) properly.

MOUNTING INSTRUCTIONS

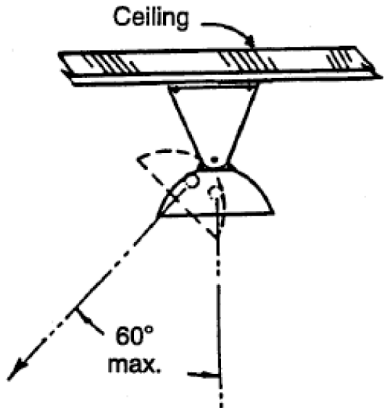
These models may be chain or bracket mounted to any ceiling or horizontal surface. Installation must be such that 18" minimum clearance is maintained around the heater in front of the plane of the face. 6" of clearance is required behind the plane of the face.



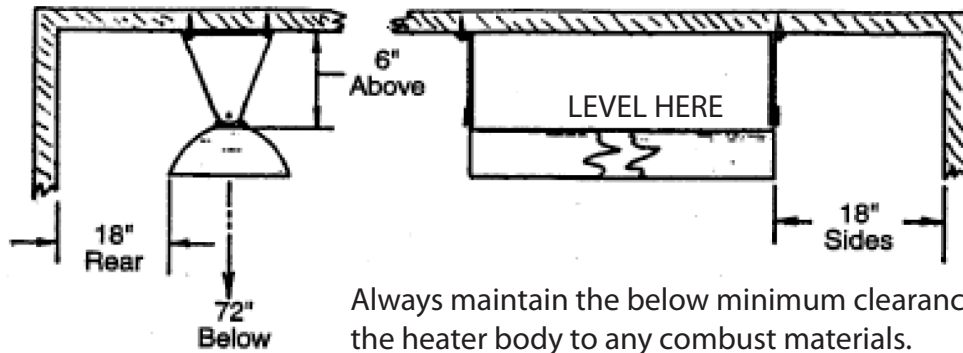
Wall/ ceiling brackets are furnished with all heaters. Their use is optional. When used, they allow heater to be fastened to wall or ceiling and then tipped up to 60°.



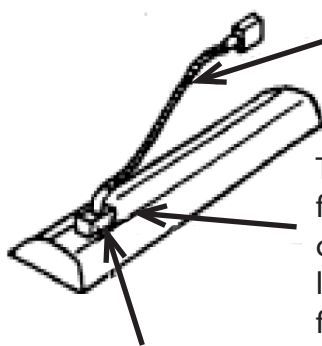
Heater can also be hung in a horizontal position using chains or custom brackets. Heater must be level, but can be rotated around its horizontal axis.



NOTE: Heater must be installed with the quartz tube horizontally level. For maximum tube life, use a "carpenters level tool" find the optimum level position for the heaters' body.

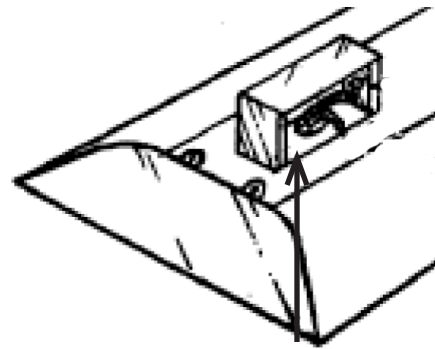


Always maintain the below minimum clearances from the heater body to any combust materials.



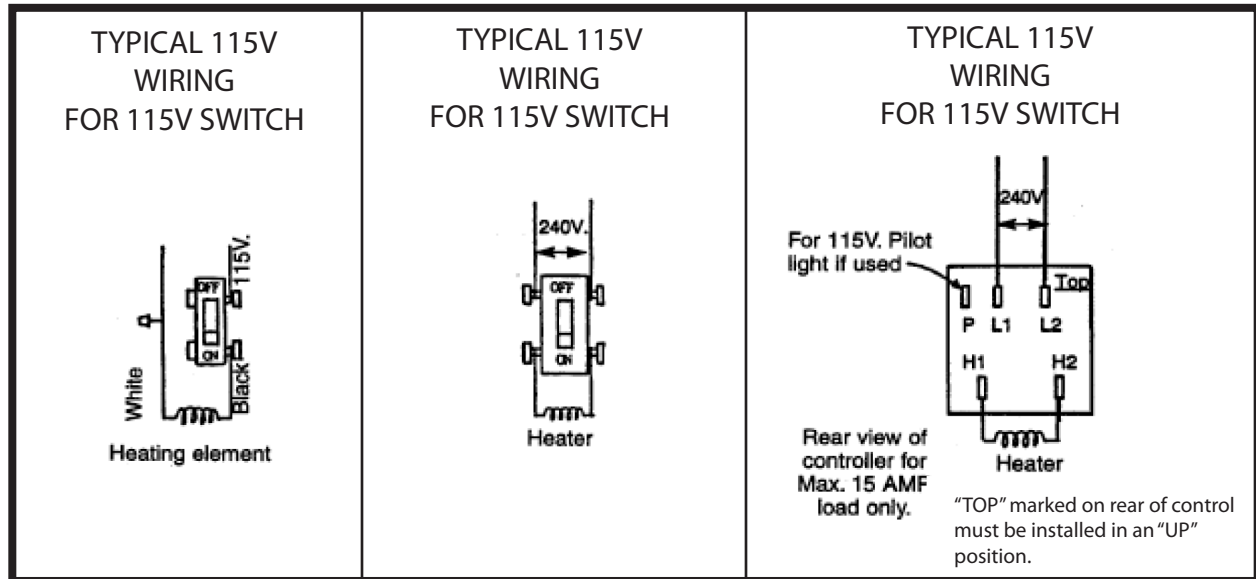
Connect power with flexible conduit or appropriate cord to allow heater to be swiveled.

The wiring box inlet hole is sized for a standard 1/2' weather tight conduit fitting and has a locknut located on the inside of the box for fastening.

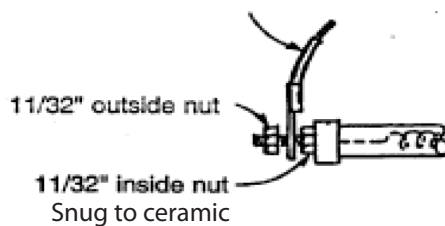


Ground Wire Screw

Wiring box on top of heater has a gasketed side access cover.



Connect the High Temperature Stainless Terminal Loops 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 be tight.

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 the simple INF 20 controller described on the price sheet. This 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. 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 (feet)

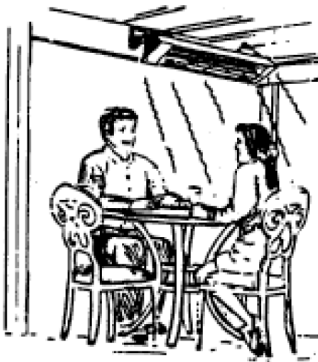
Model	Watts	Mounting Height	Average	Cold	Protected
W1512 SS	1500	7'	5' x 5'	3' x 3'	7' x 7'
W2024 SS	2000	7'- 9'	6' x 6'	4' x 4'	8' x 8'
W 2524 SS	2500	7'- 9'	7' x 7'	5' x 5'	9' x 9'
W 3024 SS	3000	8'	8' x 8'	6' x 6'	10' x 10'
W 4024 SS	4000	9'	10' x 10'	7' x 7'	12' x 12'

Dual Element AREAS COVERED (feet)

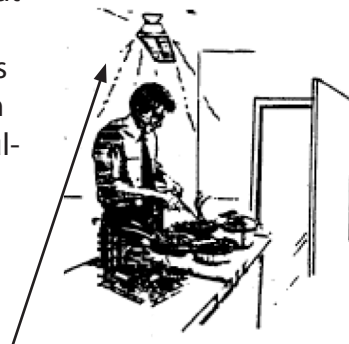
Model	Watts	Mounting Height	Average	Cold	Protected
WD 4024 SS	4000	8' - 12'	6 x 7'	5' x 6'	8' x 10'
WD 5024 SS	5000	8' - 12'	7' x 8'	6' x 7'	9' x 11'
WD 6024 SS	6000	10' - 14'	10' x 12'	8' x 10'	12' x 14'

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.



NOT RECOMMENDED



Head too close

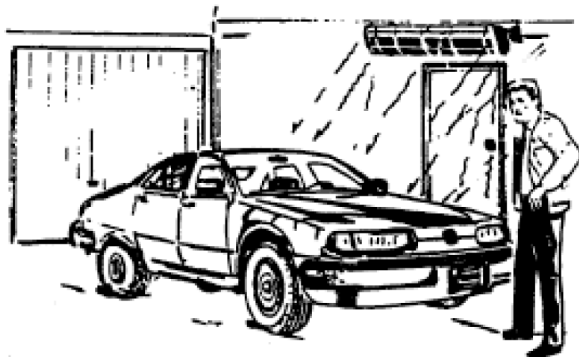
RECOMMENDED

30° to 60° from horizontal face down. Best angle approx. 45°.



Aim point should be at feet, or behind worker or user

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



Install fixture to heat the area from the "cold side" if possible. This helps compensate for increases body heat losses due to exposure

Feet too far away



Warm floor reradiates 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 coverage.

REPLACEMENT PARTS LIST – ELECTRIC HEATER

Part Number	Part Description	Qty
13-1210	End Reflector Set (2 pcs)	1
13-1202	W 10 Body Reflector	1
13-1200	W 20 Body Reflector	1
13-1205	W 30 Body Reflector set (2 pcs)	1
13-1242	W 10 safety grill	1
13-1240	W 20 safety grill	1
13-1245	W 30 safety grill	1
13-1230	Lead wire set 39" fixture (2 pcs)	1
13-1235	Lead wire set 61" fixture (2 pcs)	1
22-1150	S.S. Mounting bracket set (2 pcs)	1

TROUBLESHOOTING GUIDE – ELECTRIC HEATER

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.</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. Refer to above description of voltage issues.</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>

LIMITED PRODUCT WARRANTY

Model: _____

Serial No: _____

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 for 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.

INFRATECHTM

Innovative Infrared Technology

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CH 0000 MANUAL

One-Year Warranty • Made in U.S.A.

CUT HERE

INFRATECH Warranty Registration

Customer Name	Model #
Address	Serial #
City	Date Purchased
Zip	Dealer's Name
Phone #	Dealer's Address
e-mail:	

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