

Reference Manual

# Solaira

# Alpha H1

(Single Emitter)

**CANADA & USA MODELS:**

**SALPHA15120 (120V)**

**SALPHA10240 (208/240V)**

**SALPHA15240 (208/240V)**

**SALPHA20240 (208/240V)**



**WEATHERPROOF INFRARED HEATERS  
SUITABLE FOR OUTDOOR AND INDOOR USE -  
RESIDENTIAL, COMMERCIAL AND INDUSTRIAL**



**INFORESIGHT**

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## Introduction

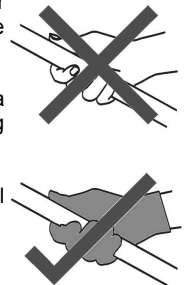
The Alpha heater produces radiant heat like the sun, warming people and objects rather than the air in between. It is mounted on an adjustable bracket that allows the heat to be directed exactly where it is required. The Alpha can also be used in a modular system in that more than one heater can be joined together - see 'Configurations' later in the manual. The Alpha weatherproof heater is designed for indoor and outdoor use.

**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 it is recommended that they are retained for future reference.**

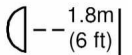
## Caution

Before using this appliance:

1. Check that the voltage indicated on the units rating label corresponds to the mains supply voltage.
2. Do not install the heaters less than the minimum height from the floor as specified below in the specification - Table. 1.
3. Ensure that the heater has been securely fastened in its final mounting position.
4. Warning - this appliance must be grounded! 
5. Keep the mains cable away from the body of the heater which will get hot during use.
6. If a socket outlet is used do not position the outlet immediately behind the heater.
7. Avoid the use of an extension cable with this product.
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 guard is not present.
11. When replacing the emitter or cleaning the unit, ensure that the 3-pin plug is removed from its socket outlet or if hard wired circuit is disconnected from the mains supply. Note: always ensure that the emitter is cool before handling.
12. Do not handle the halogen emitter with bare hands. If it is inadvertently touched, remove finger marks with a soft cloth and methylated spirit or rubbing alcohol. Otherwise, the marks will burn into the quartz emitter during use causing premature heater failure.
13. The heater is not intended for use by young children and must be supervised by a responsible person at all times.
14. Always unplug the heater if it is not being used.



## WARNING: RISK OF FIRE

Keep combustible material such as furniture, papers, clothes and curtains at least 6 feet (1.8m) from the front of the  heater and away from the sides and rear.

## Specification

Table 1. Canada and USA Heaters

No. of Units x Model Type	Voltage (Volts)	No. of Emitters x Power (Watts)	Total Power Of Unit (Watts)	Current (Amps) per emitter	Total Current (Amps) of unit	Min. mounting height from floor	Min. distance from ceiling	Min. distance from side wall	Dimensions (inc. bracket & bars max. pos.) Width x Height x Depth	Weight (lb)
1 x SALPHA15120	120	1 x 1500	1500	12.5	12.5	6' 7"	11 <sup>3</sup> / <sub>4</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> "	17" x 9" x 12 <sup>3</sup> / <sub>4</sub> "	7.5
1 x SALPHA10240	208/240	1 x 750/1000	750/1000	3.6/4.2	3.6/4.2	6' 7"	11 <sup>3</sup> / <sub>4</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> "	17" x 9" x 12 <sup>3</sup> / <sub>4</sub> "	7.5
1 x SALPHA15240	208/240	1 x 1125/1500	1125/1500	5.4/6.3	5.4/6.3	6' 7"	11 <sup>3</sup> / <sub>4</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> "	17" x 9" x 12 <sup>3</sup> / <sub>4</sub> "	7.5
1 x SALPHA20240	208/240	1 x 1500/2000	1500/2000	7.2/8.3	7.2/8.3	6' 7" / 8' 2 <sup>1</sup> / <sub>4</sub> "	1' 7 <sup>1</sup> / <sub>2</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> "	17" x 9" x 12 <sup>3</sup> / <sub>4</sub> "	7.5
2 x SALPHA10240	208/240	2 x 750/1000	1500/2000	3.6/4.2	7.2/8.3	6' 7" / 8' 2 <sup>1</sup> / <sub>4</sub> "	1' 7 <sup>1</sup> / <sub>2</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> "	17" x 18 <sup>1</sup> / <sub>4</sub> " x 16"	15.0
2 x SALPHA15240	208/240	2 x 1125/1500	2250/3000	5.4/6.3	10.8/12.5	8' 2 <sup>1</sup> / <sub>4</sub> " / 9' 10"	1' 7 <sup>1</sup> / <sub>2</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> "	17" x 18 <sup>1</sup> / <sub>4</sub> " x 16"	15.0
2 x SALPHA20240	208/240	2 x 1500/2000	3000/4000	7.2/8.3	14.4/16.7	9' 10" / 11' 5 <sup>1</sup> / <sub>2</sub> "	1' 7 <sup>1</sup> / <sub>2</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> "	17" x 18 <sup>1</sup> / <sub>4</sub> " x 16"	15.0
3 x SALPHA10240	208/240	3 x 750/1000	2250/3000	3.6/4.2	10.8/12.5	8' 2 <sup>1</sup> / <sub>4</sub> " / 9' 10"	1' 7 <sup>1</sup> / <sub>2</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> "	17" x 27 <sup>1</sup> / <sub>4</sub> " x 17 <sup>1</sup> / <sub>4</sub> "	22.5
3 x SALPHA15240	208/240	3 x 1125/1500	3375/4500	5.4/6.3	16.2/18.8	10' 8" / 11' 5 <sup>1</sup> / <sub>2</sub> "	1' 7 <sup>1</sup> / <sub>2</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> "	17" x 27 <sup>1</sup> / <sub>4</sub> " x 17 <sup>1</sup> / <sub>4</sub> "	22.5
3 x SALPHA20240	208/240	3 x 1500/2000	4500/6000	7.2/8.3	21.6/25.0	11' 5 <sup>1</sup> / <sub>2</sub> " / 14' 9"	1' 7 <sup>1</sup> / <sub>2</sub> "	4' 11"	17" x 27 <sup>1</sup> / <sub>4</sub> " x 17 <sup>1</sup> / <sub>4</sub> "	22.5

WARNING - RISK OF FIRE: Heaters rated at 240 Volt, 2 Kilowatt and above are not intended for use as indoor residential or as a household heater but maybe used for commercial/industrial use.

## IMPORTANT INSTRUCTIONS

When using electrical INFRARED HEATERS, 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 using this heater.**
2. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. If provided, use handles when moving this heater. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, and curtains at least 6 feet (1.8m) from the front of the heater and keep them away from the sides and rear.
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. Always unplug heater when not in use.
5. Do not operate any heater with a damaged cord or plug or after the heater malfunctions, has been dropped or damaged in any manner. Return heater to authorized service facility for examination, electrical or mechanical adjustment, or repair.
6. This heater is not intended for use in bathrooms, laundry areas and similar locations. Never locate heater where it may fall into a bathtub or other water container.
7. Do not run cord under carpeting. Do not cover cord with throw rugs, runners, or the like. Arrange cord away from traffic area and where it will not be tripped over.
8. To disconnect heater, turn controls to off, remove plug from outlet.
9. Connect to properly grounded outlets only.
10. Do not insert or allow foreign objects to enter any opening as this may cause an electric shock or fire, or damage the heater.
11. To prevent a possible fire, do not block openings in any manner.
12. A heater has hot parts inside. Do not use it in areas where gasoline, paint, or flammable liquids are used or stored.
13. 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.
14. Avoid the use of an extension cord because the extension cord may overheat and cause a risk of fire.






## SAVE THESE INSTRUCTIONS

### Grounding Instructions

For 120 volt heaters. The cord has a plug that connects to power outlets shown below in Table 2.

For 240 (or 208) volt heaters. The cord must be hardwired or connected to a plug that is suitable for connection to the power outlets shown below in Table 2.

Table 2.

CONFIGURATION OF TYPICAL CANADIAN & USA SOCKET OUTLETS					
RATED VOLTS	125 ~ 60Hz		250 ~ 60Hz		
AMPS	15	20	15	20	30
POWER OUTLET					
FUZE SIZE	15	20	15	20	30
TIME DELAY FUSE/ CIRCUIT BREAKER	Plug	Plug	Plug		

## Configurations

The Alpha heater is a single emitter unit - it has one only. It can be installed on its own or joined to one or two more of the same units. It is supplied with joining bars that connect the heaters together to increase the size and output of the installation. The maximum number of single units that can be joined together is three. Please read the section 'assembling' for information on how this should be done.

## Installation

The 120V Alpha heater is fitted with 15 feet (5.0 meters) of supply cable and a molded 3 - pin 15 amp plug.  
The 208/240V Alpha heaters are fitted with 6 feet, 7 inches (2 meters) of supply cable for hard wiring.

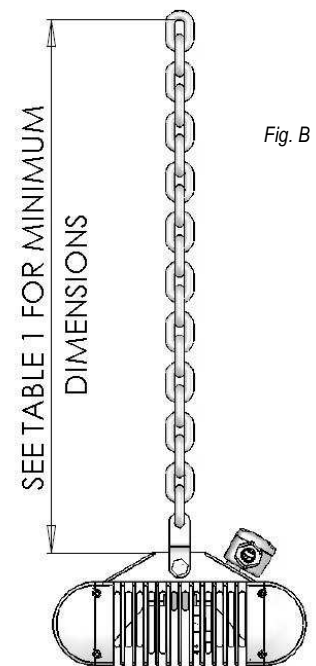
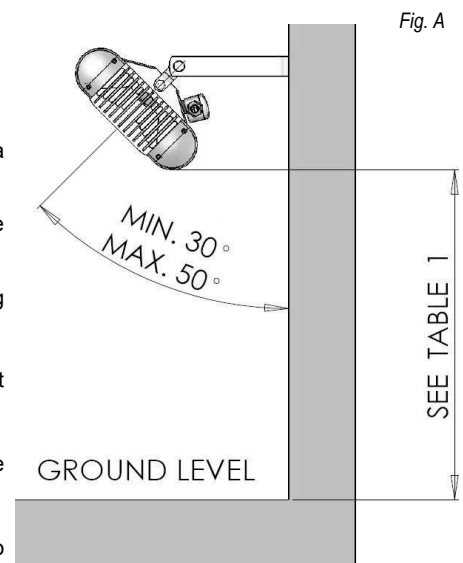
- Please observe the minimum safe distance between the heater body and any inflammable surfaces.
- If the supply cable becomes damaged, it must be immediately replaced by a qualified person in order to avoid a hazard.
- When the electrical connection is outside a weatherproof socket must be used having ground fault protection.
- If in any doubt, please contact a qualified electrician.

## Mounting - Single Unit (Wall Mounted or Chain Hanging)

- The Alpha heater should only be wall mounted in a horizontal manner or hung from a ceiling from chains (not supplied).
- When wall mounting the Alpha heater in a horizontal manner, do not position the heater at an angle more than 50° and less than 30° as shown in Fig. A.
- When ceiling hanging the Alpha heater, ensure the minimum distance from the ceiling is adhered to as shown in Fig. B.
- Always allow the heater to cool before attempting to reposition/move. Never attempt to move the heater while it is switched on!
- Observe the minimum safe distance between the heater body and inflammable surfaces and objects when mounting.
- Please refer to Table 1 for the recommended positioning of the heater with regards to minimum distances. Do not install the heater in a corner!
- Keep out of the reach of children.

1. When wall mounting, securely fasten the L-shaped wall brackets to the mounting surface using both of the fixing holes in the short part of the bracket (see Fig. D on the next page for mounting hole centres). Please refer to Table 1 for recommended positioning of the heater. Please note. wall fixings are not supplied. They should be selected to substantially support the weight of the installation. If in doubt contact a professional for advice! When hanging from a ceiling two equal length and gauge chains are required and should be selected with fixings that are adequate to hold the weight of the heater. Again, if in doubt contact a professional for advice!
2. The heater should be mounted with the terminal box at the bottom of the heater when being wall mounted.
3. When wall mounting, fix in the required angular position by tightening the fixing bolts on the brackets at the rear of the heater as shown in Fig. C on the next page. The heater should face directly down when hanging.
4. Secure the supply cable so it is not resting on the body or obstructing the air-vents.

**Always isolate the heater from the mains supply when adjusting the position.**



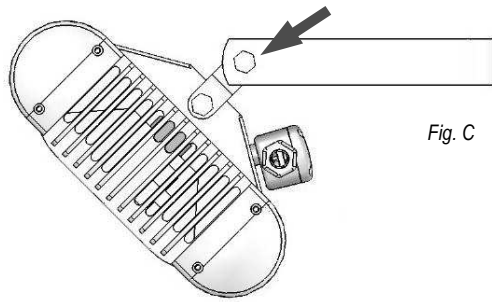


Fig. C

**DRILLING HOLE TEMPLATE DIMENSIONS  
FOR WALL MOUNTED BRACKETS**

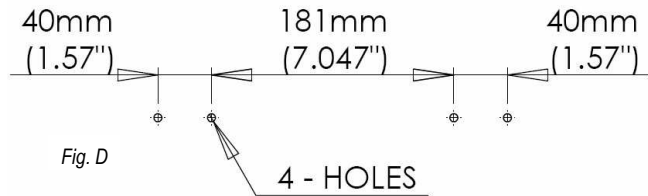


Fig. D

**Assembling - Two Single Heaters Joined (Wall Mounted or Chain Hanging)**

1. Take the first heater and place it face down on a flat surface.
2. Take the second heater and place it face down and positioned parallel to the first heater.
3. Push the bolts used to hold the wall brackets through the hole in the brackets on the rear heaters and slide a shake-proof washer on all the threads from the protruding side.
4. Slide the joining bars on each bolt and fit a washer and nut – do not fully tighten at this point.
5. Ensure the second heater is still parallel to the first and sitting flat.
6. Slide the joining bars on each protruding bolt of the other heater to connect them together and fit the washers and nuts.
7. Again, ensuring the heaters remain flat, fully tighten all four nuts to secure the joining bars in place.

**Wall Mounting - Two Single Heaters Joined**

- When two Alpha heaters are joined together they can be mounted in a horizontal or vertical manner as the emitter is a universal burning type.
- When wall mounting two Alpha heaters joined together in a horizontal manner, do not position the heater at an angle more than 50° and less than 30° as shown in Fig. F.
- Always allow the heater to cool before attempting to reposition/move. Never attempt to move the heater while it is switched on!
- Observe the minimum safe distance between the heater body and inflammable surfaces and objects when mounting.
- Please refer to Table 1 for the recommended positioning of the heater with regards to minimum distances. Do not install the heater in a corner!
- Keep out of the reach of children.

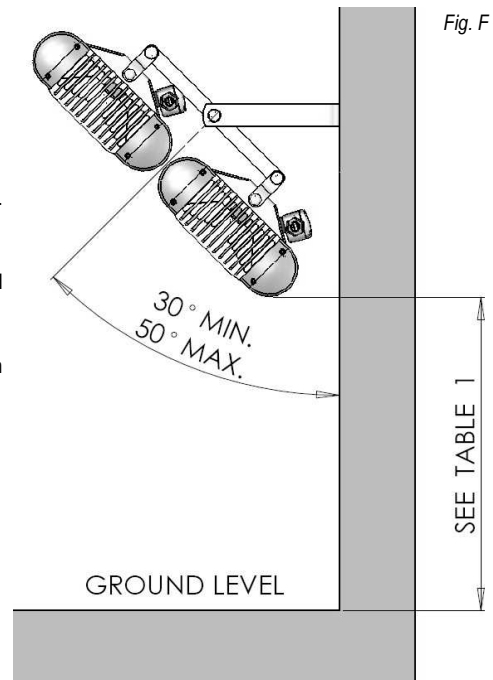
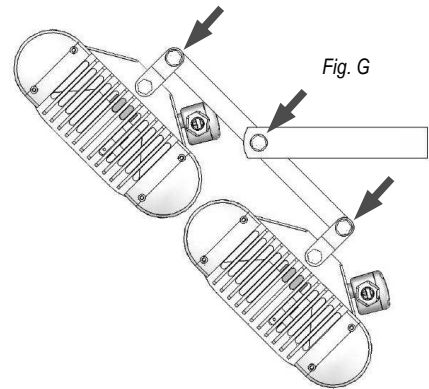


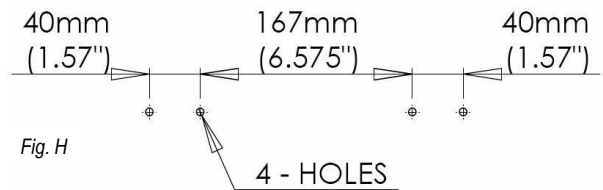
Fig. F

1. Securely fasten the L-shaped wall brackets to the mounting surface using both of the fixing holes in the short part of the bracket (see Fig. H for mounting hole template centres). Please refer to Table 1 for recommended positioning of the heater. Please note. wall fixings are not supplied. They should be selected to substantially support the weight of the installation. If in doubt contact a professional for advice!
2. Fix the heater assembly to the brackets via the hole in the centre of the joining bar. The joining bars should slide inside the gap of the two wall brackets.
3. Place a bolt and washer in the hole of the wall bracket and put a serrated washer on the opposite side between the bracket and joining bar. Repeat on opposite side.
4. Fit the heater assembly to the brackets and place a washer and nut on the bolts protruding through the joining bars.
5. Fully tighten the nut and bolts (Fig. G) with the heaters set as shown in Fig. F.
6. Secure the supply cables so they do not rest on the body or obstruct air-vents.



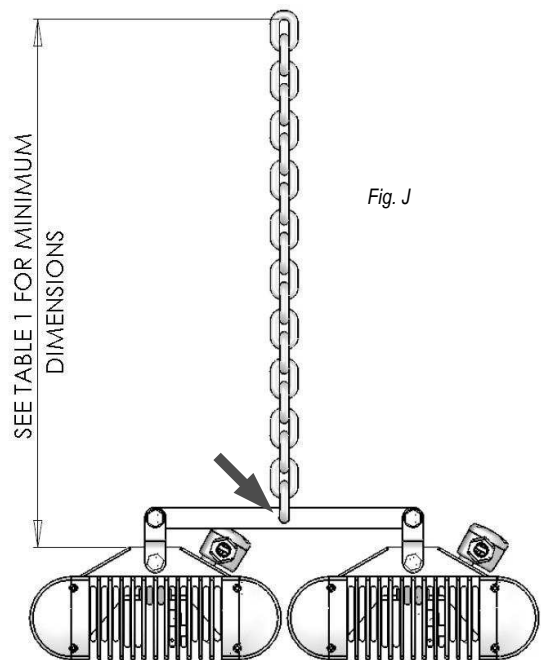
**Always isolate the heater from the mains supply when adjusting the angular position.**

#### **DRILLING HOLE TEMPLATE DIMENSIONS FOR WALL MOUNTED BRACKETS**



### **Chain Hanging - Two Single Heaters Joined**

- When two Alpha heaters are joined they can also be chain hung from a ceiling (Fig. J).
  - Please refer to Table 1 for the recommended positioning of the heater with regards to minimum distances. Do not install the heater in a corner!
  - Always allow the heater to cool before attempting to reposition/ move. Never attempt to move the heater while it is switched on!
  - Observe the minimum safe distance between the heater body and inflammable surfaces and objects when mounting.
  - Keep out of the reach of children.
1. Please refer to Table 1 for recommended positioning of the heater. When hanging from a ceiling two chains of equal length and gauge are required and should be selected with fixings that are adequate to hold the weight of the heater. If in doubt contact a professional for advice!
  2. Attach the heater assembly to the chains via the hole in the centre of the joining bar as shown in Fig. J. and ensure the heater faces directly down when hanging.
  3. Secure the supply cable so they do not rest on the body or obstruct the air-vents.



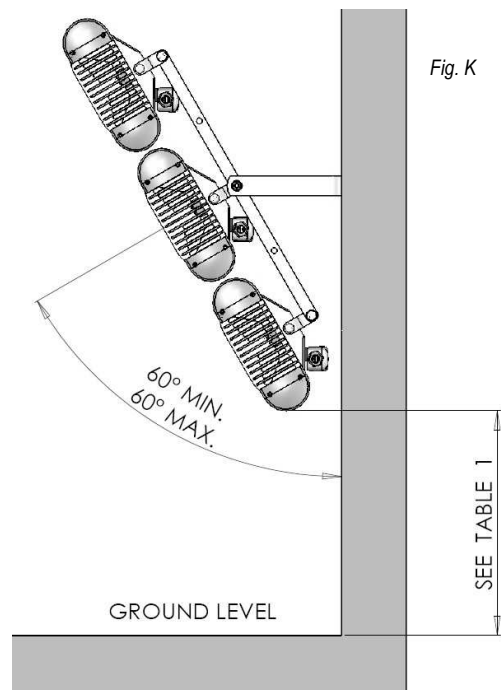
**Always isolate the heater from the mains supply when adjusting the position.**

## Assembling - Three Single Heaters Joined

1. Take the first heater and lie it face down on a flat surface.
2. Take the second and third heaters and position them face down and parallel to the first.
3. Push the bolts used to hold the wall brackets through the hole in the brackets on the rear heaters and slide a shake-proof washer on all the threads from the protruding side.
4. Slide the joining bars on each bolt and fit a washer and nut – do not fully tighten at this point.
5. Position the second heater so it's parallel to the first and sitting flat.
6. Take the third heater and a joining bar. Push a bolt and washer through the end hole and place a serrated washer on the other side. Push the bolt through the bracket hole on heater. Repeat on opposite side and secure with a washer and nut – do not fully tighten at this point.
7. Position the third heater so it's parallel to the second.
8. Line-up the bars of the first heater with the brackets of the second heater – they should go on the inside faces like heater one.
9. Line-up the bars of the third heater with the brackets of the second heater – these should go on the outside faces like heater three.
10. Push a bolt from the back of the joining bars through the holes putting a serrated washer on each side of the heater bracket.
11. Fit a washer and nut to both sides and providing the assembly is sitting flat, fully tighten both sides and also the nuts of the first and third heaters to the joining bars.
12. The heater is now ready for mounting or hanging.

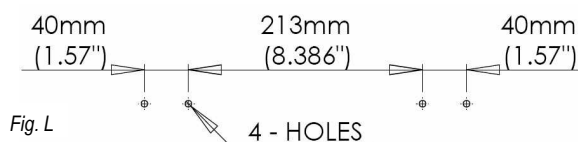
## Wall Mounting - Three Single Heaters Joined

- When wall mounting three Alpha heaters joined together in a vertically stacked manner, position the assembly downward as shown in Fig. K.
- Always allow the heaters to cool before attempting to reposition/move. Never attempt to move the heaters while they are switched on!
- Observe the minimum safe distance between the heater body and objects when mounting.
- Please refer to Table 1 for the recommended positioning of the heater with regards to minimum distances. Do not install the heater in a corner!
- Keep out of the reach of children.



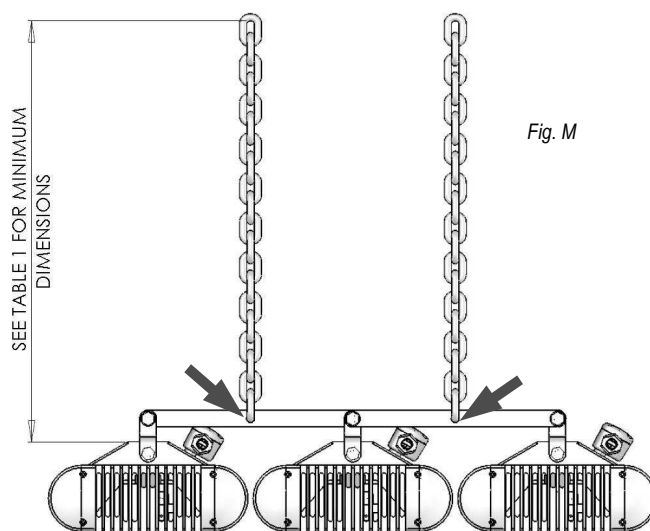
1. Securely fasten the L-shaped wall brackets to the mounting surface using both of the fixing holes in the short part of the bracket (see Fig. L for mounting hole centres). Please refer to Table 1 for recommended positioning of the heater. Please note, wall fixings are not supplied. They should be selected to substantially support the weight of the heater assembly. If in doubt contact a professional for advice!
2. The heater assembly should be mounted with the terminal boxes positioned at the bottom of the heaters.
3. Fix the heater assembly to the brackets via the bolt threads on the middle heater. A serrated washer should be placed on the threads first and the wall brackets should prise apart in order to fit the threads in place.
4. Place a washer and a nut on the thread on the outside of the wall brackets – both sides.
5. Securely tighten the nut and bolts with heaters in line with each other (as assembled on flat surface).
6. Secure the supply cables so they do not rest on the body or obstruct air-vents.

### **DRILLING HOLE TEMPLATE DIMENSIONS FOR WALL MOUNTED BRACKETS**



### **Chain Hanging - Three Single Heaters Joined**

1. Please refer to Table 1 for recommended positioning of the heater. When hanging four chains of equal length and gauge are required and should be selected with fixings that are adequate to hold the weight of the heater assembly. If in doubt contact a professional for advice!
2. Attach the heater assembly to the chains via the hole in the centre of the joining bars as shown in Fig. M. and ensure the heater assembly faces directly down when hanging.
3. Secure the supply cables so they do not rest on the body or obstruct the air-vents.



- Observe the minimum safe distance between the heater body and inflammable surfaces and objects when mounting.
- Please refer to Table 1 for the recommended positioning of the heater with regards to minimum distances. **Do not install the heater in a corner!**
- Keep out of the reach of children.

**Always isolate the heater from the mains supply when adjusting the position.**

## Maintenance

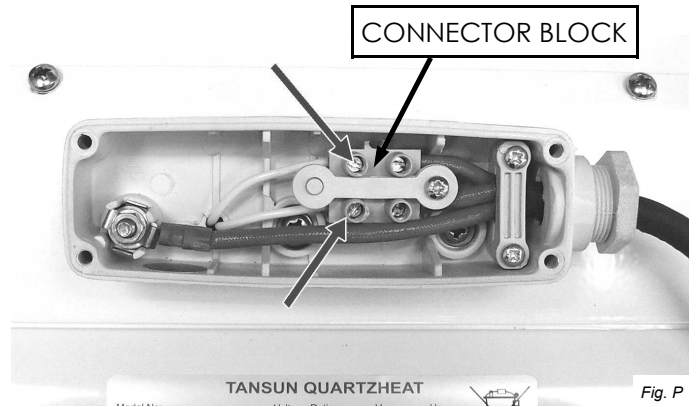
For replacement emitters or spare parts (see diagram on back page) please contact your local distributor quoting model type and rating from rating label. It is very important that your replacement emitter is exactly the same as the one it was supplied with. Failure to fit the exact same type can cause the heater to prematurely fail.

- Switch off/unplug heater or heater assembly from the mains supply before replacing any emitter or doing maintenance procedure or including cleaning.
- Should dust or dirt appear on the reflector, simply remove the wire guard and carefully wipe the reflector with a lint-free cloth avoiding touching the emitter. The emitter can separately and carefully be wiped using rubbing alcohol or methylated spirits if necessary.

## Replacing the Emitter

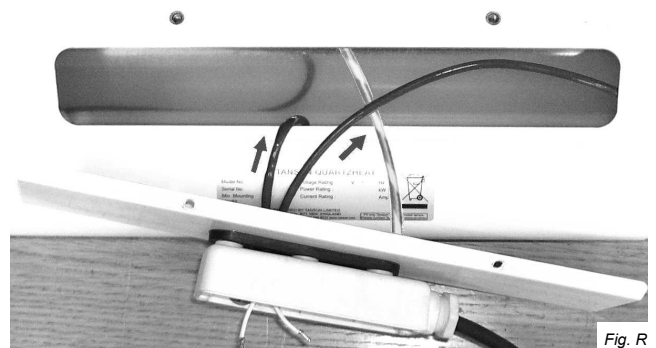
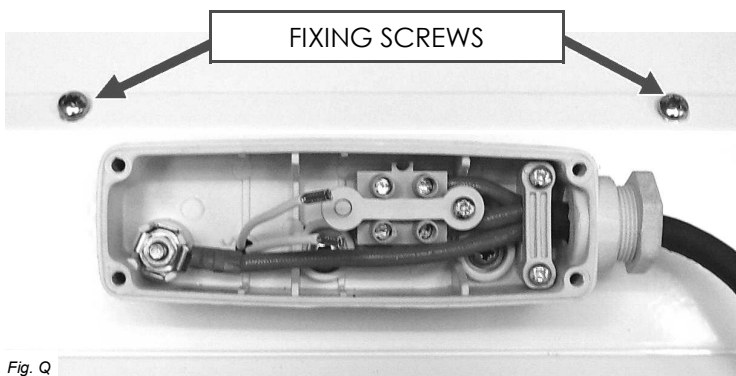
Unplug/switch off all mains power to the heater or heater assembly before any attempts are made to replace the emitter. Contact your distributor for the correct replacement emitter quoting model type and rating from rating label. It is important that you read through the emitter replacement procedure before commencing.

1. Ensure the heater and emitter are cool and the power supply is disconnected by removing the plugs from the socket outlet - both plugs must be removed even if only one emitter is to be replaced.
2. Remove the screws from the terminal box at the back of the emitter to be replaced and lift off the lid - see Fig. N.



3. Disconnect the emitter from the connector block by unscrewing the screws highlighted above in Fig. P and remove the white coloured emitter wires from the connector block.

4. At the back of the heater, remove the plate holding the terminal box by removing the two fixing screws as shown in Fig. Q.



5. Pull the emitter wires one at a time through the plate to remove as shown in Fig. R.

6. At the front of the heater, gently remove the wire guard by prizing it away from its locating holes at each end of the heater case (Fig. S).

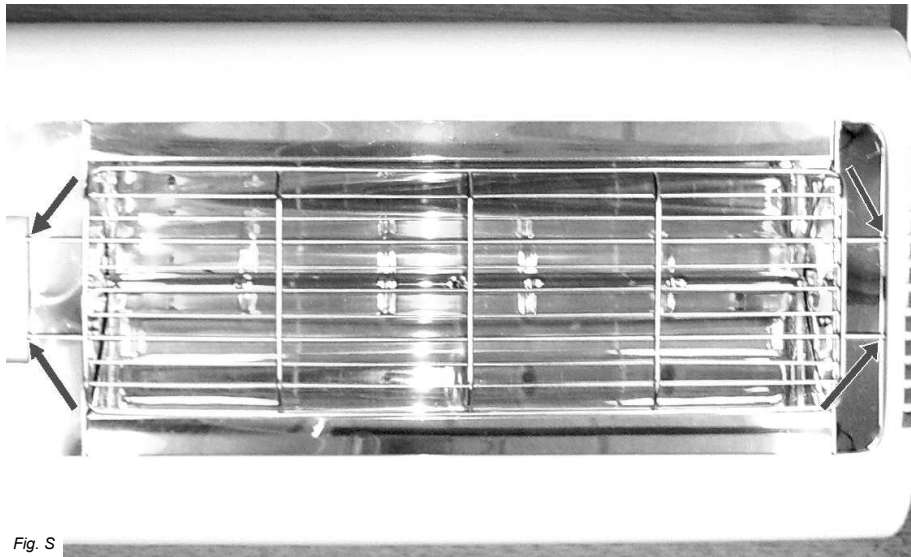


Fig. S

7. Remove the screw from the side reflector (Fig. T) and lift the side reflector up and away from the heater. Repeat at the opposite end to remove other side reflector.

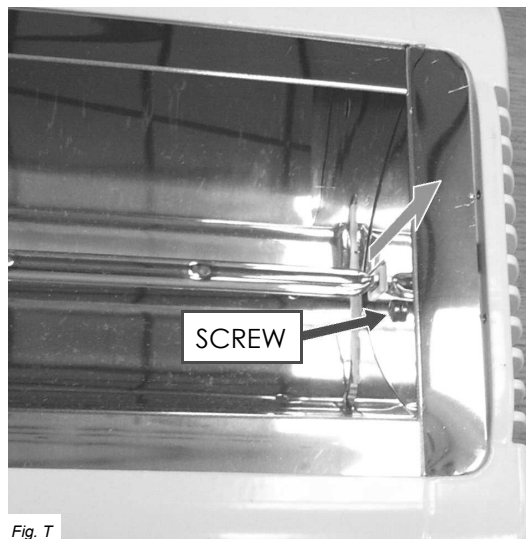


Fig. T

8. The emitter wires should be pulled out of the side slots (Fig. U) and the emitter can be lifted up completely. The wires can then be gently pulled forward so that they come out from behind the reflector.

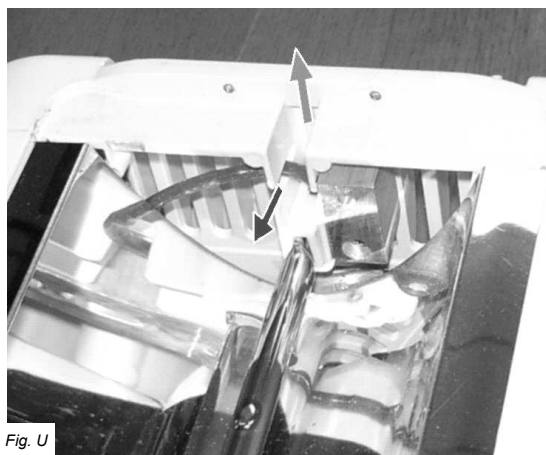


Fig. U

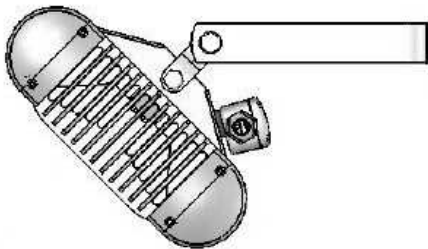


Fig. V

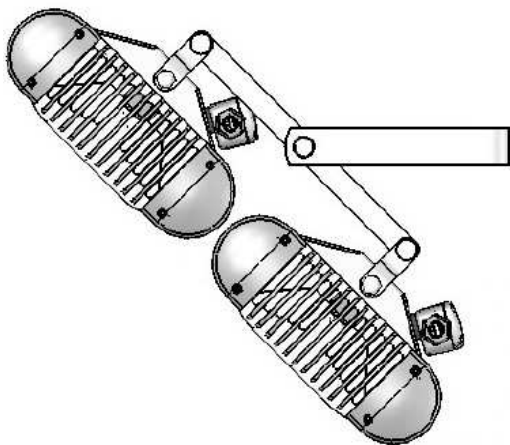
9. The emitter can now be removed away from the heater leaving it ready to have the new emitter fitted as shown in Fig. V.

10. Refit the new emitter in reverse order making sure that no wires can get trapped. Replace both ends side reflectors and their screws. Before any other parts are fitted to make sure emitter is held safely.

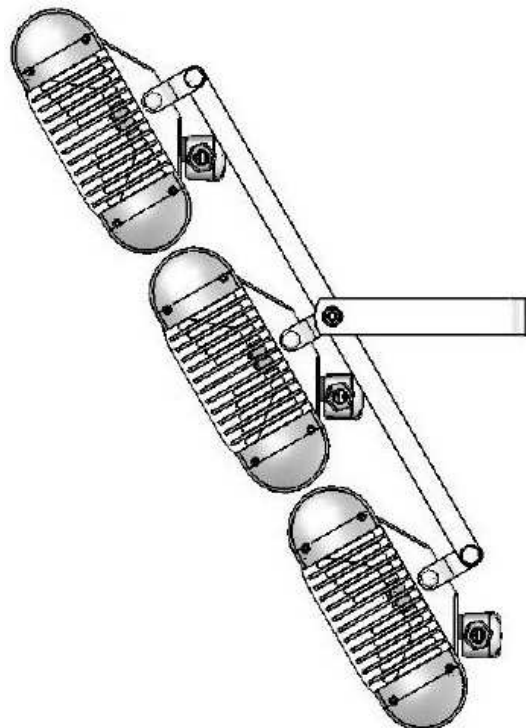
### Wall Mounted Configurations - At a Glance



1 x Alpha H1 Unit

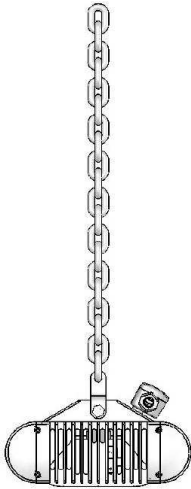


2 x Alpha H1 Units

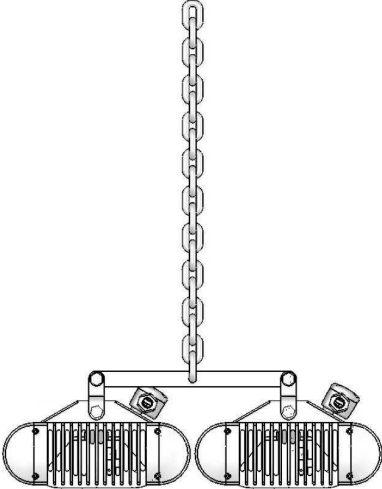


3 x Alpha H1 Units

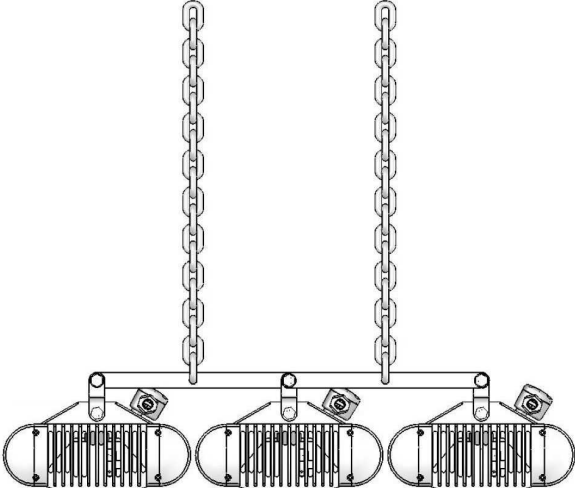
# Chain Hanging Configurations - At a Glance



1 x Alpha H1 Unit



2 x Alpha H1 Units



3 x Alpha H1 Units



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