

Reference Manual

Solaira Malibu

Post Kit with Alpha H1 Heaters

MAL45240-C	208V - 3375W / 240V - 4500W	(3 × 1125 / 1500W)
MAL60240-C	208V - 4500W / 240V - 6000W	(3 × 1500 / 2000W)

C = COLOR CODE



**SHORTWAVE INFRARED HEATERS WITH POST & INCOMING TERMINAL BOX KIT
FOR: INDOOR USE - COMMERCIAL AND INDUSTRIAL ONLY
OUTDOOR USE - RESIDENTIAL, COMMERCIAL AND INDUSTRIAL**

⚠ FOR USE IN NON-HAZARDOUS AREAS ONLY ⚠ ⚠

Post and weatherproof terminal box rain tested to:
UL 2021 4th Edition by CSA Montréal Lab.

Alpha H1 Heaters fitted are approved to:
CAN.CSA-C22.2 No. 46-13 & UL 2021 3rd Edition.



INFORESIGHT CONSUMER PRODUCTS INC.

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⚠ IMPORTANT - SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE



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. 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.
3. 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.
4. Extreme caution is necessary when any heater is used by or near children or invalids and whenever the heater is left operating and unattended.
5. Do not operate any heater with a damaged cord 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 must not be used in bathrooms, laundry areas and similar locations.
7. Do not run supply cables under carpeting. Do not cover supply cables 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, if hard wired switch off breaker. Connect to grounded CFI outlets only.
9. **WARNING** - Connect to properly grounded supply.
10. Check that the voltage indicated on the units rating label corresponds to the mains supply voltage.



IMPORTANT INSTRUCTIONS



11. Do not insert or allow foreign objects to enter any opening as this may cause an electric shock or fire, or damage the heater.
12. To prevent a possible fire, do not block openings in any manner.
13. A heater has hot parts inside. Do not use it in areas where gasoline, paint, or flammable liquids are used or stored.
14. Do not cover or otherwise obstruct the heater.
15. Do not use if guard is not present.
16. **WARNING** - Keep the mains cables away from the body of the heater and heater heads which will get hot during use.
17. Do not touch the heater during operation as the body becomes hot and could cause burns. Particular attention has been given where children and vulnerable people are present. 
18. The heater should be fixed to solid and firm ground such as concrete and the heater heads fixed in their final downward position.
19. The heater is not intended for use by young children and must be supervised by a responsible person at all times.



SAVE THESE INSTRUCTIONS



GROUNDING INSTRUCTIONS

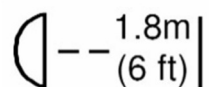
For 240 (or 208) volt heaters. The cable from the terminal box must be hard wired.



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.



INTRODUCTION

The Malibu outdoor heater produces radiant heat like the sun, warming people and objects and not the air in between, providing the only form of heat that will not blow away with wind or drafts. The Malibu is primarily designed for outdoor use and indoor - commercial and industrial use.

Please read the enclosed instructions carefully before use. The safety of this heater is guaranteed only by the correct usage in accordance with these instructions, therefore it is recommended that they are retained for future reference.

SPECIFICATION

**Table 1. Canada and USA Heaters Fitted
(approved to CAN/CSA-C22.2 No. 46-13 UL 2021 3rd Edition)**

Model	Voltage	Total Power	No. of Heaters × Power	Total Current	Min. Distance to Ceiling	Min. Distance to Side Wall	Dimensions (H × W × D) & Weight
MAL 45240	208 / 240V	3375 / 4500W	3 × 1125 / 1500W	16.2 / 18.8A	19½in (50cm)	59in (150cm)	8ft × 3ft 4in × 2ft 11in (244 × 102 × 88cm)
MAL 60240	208 / 240V	4500 / 6000W	3 × 1500 / 2000W	21.6 / 25.0A			91lb 8oz (41.5kg)

⚠ WARNING - RISK OF FIRE: Do not use as an indoor residential or household heater.

INSTALLATION

Use a waterproof supply cable to connect to the heater terminal box. The installation should be to the local/national electrical code. See the specification table above for the appropriate supply cable current rating.

⚠ WARNING: Wiring procedures and connections should be in accordance with the National Electric Code (NEC) and local codes.

⚠ WARNING: If the supply cable becomes damaged, it must be immediately replaced by a qualified person.

⚠ CAUTION: Disconnect electric power supply before working on circuit wiring to prevent electric shock.

⚠ CAUTION: Please observe the minimum safe distance between the heater body and any inflammable surfaces.

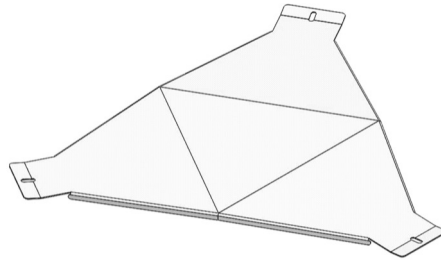
⚠ CAUTION: When the electrical connection is outside a weatherproof socket must be used having ground fault protection (GFCI or GFI).

! NOTE: IF IN DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

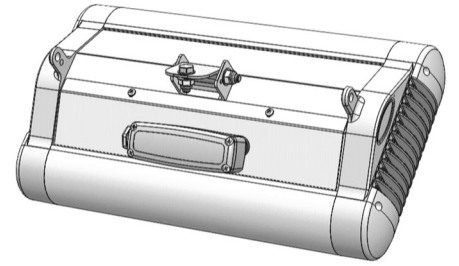
KIT CONTENTS



INFILL PIECE
3 - OFF



DEBRIS PROTECTION
COVER
1 - OFF



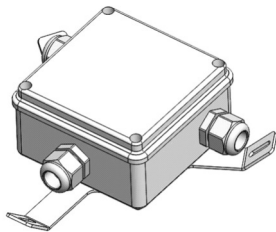
ALPHA H1 WEATHER-
PROOF CSA APPROVED
HEATER
3 - OFF



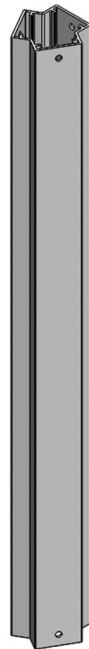
INFILL & COVER FIXING KIT
1 - OFF



HEATER FIXING KIT
1 - OFF



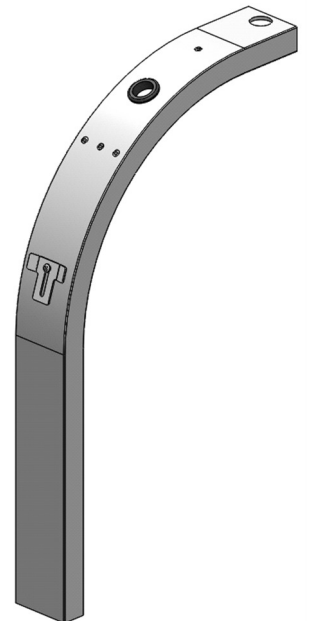
APPROVED WEATHERPROOF
TERMINAL BOX ASSEMBLY
INCLUDING CERAMIC
BLOCKS & STRAIN RELIEF
GLANDS
1 - OFF



BODY POLE
2 - OFF



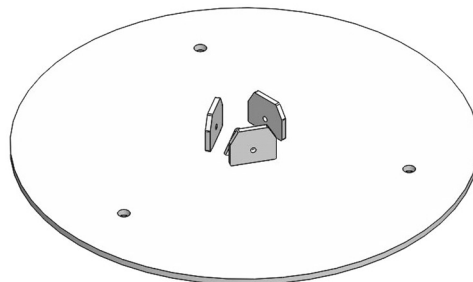
JOINING INSERT
6 - OFF



CURVED ARM (TUBE)
3 - OFF



POLE & ARM FIXING KIT
1 - OFF



BASE PLATE
1 - OFF



WIRING CONNECTOR KIT
1 - OFF

ASSEMBLY

CAUTION

The following procedure should be carried out by a qualified person only in accordance with the National Electric Code (NEC) and local codes. Ensure the mains power supply is disconnected throughout this assembly procedure.

1. Take the Malibu base plate and place on a work surface to begin mounting the tubes on.

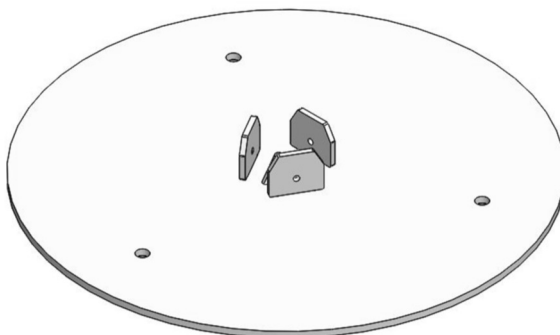


Fig. 1

2. Take a curved tube (arm) and slide over a mounting tab. Secure with an M8 screw, spring washer and plain washer but don't fully tighten yet.

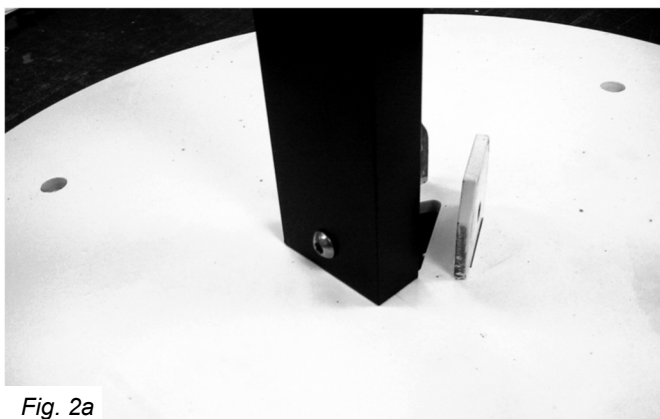


Fig. 2a

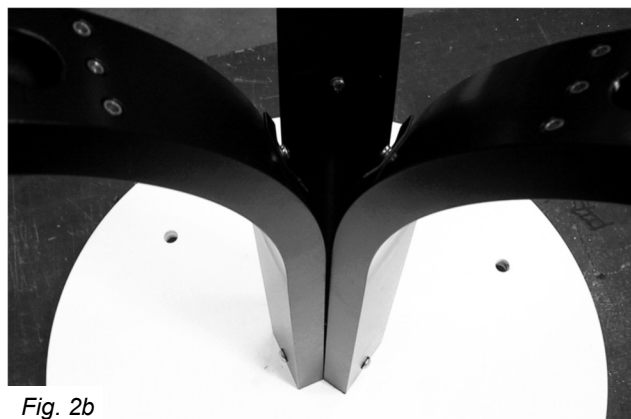
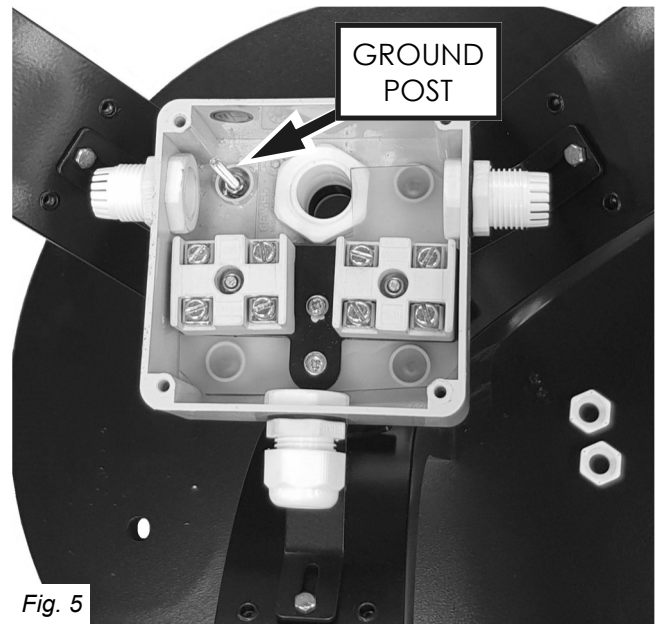
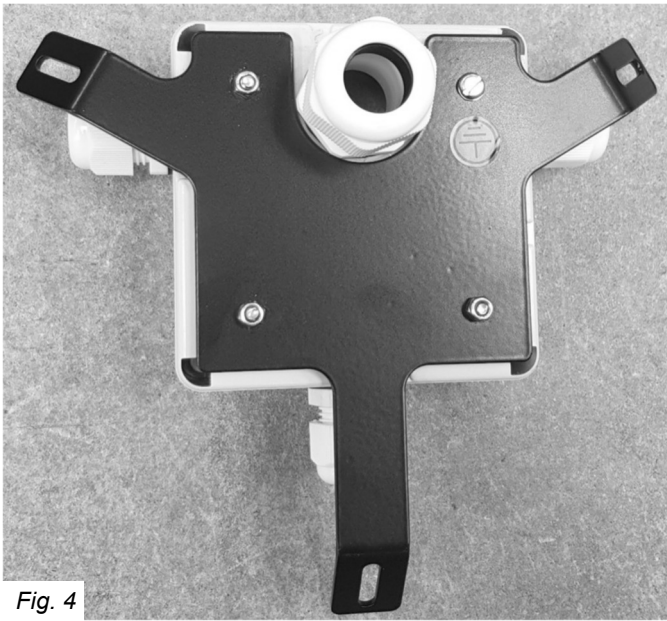


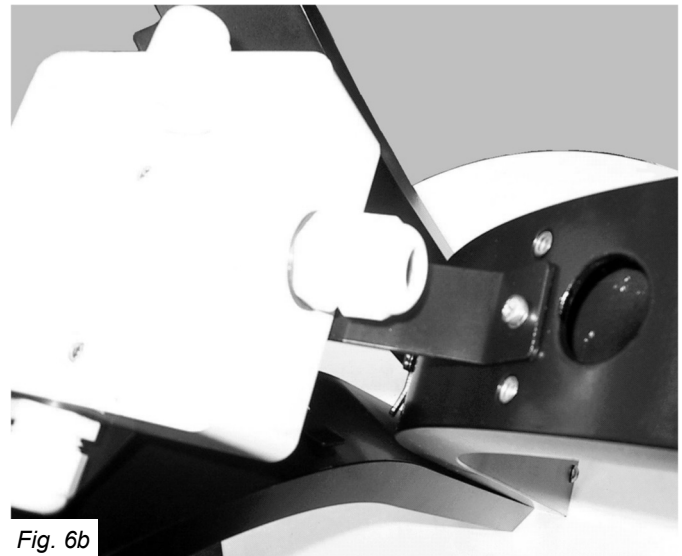
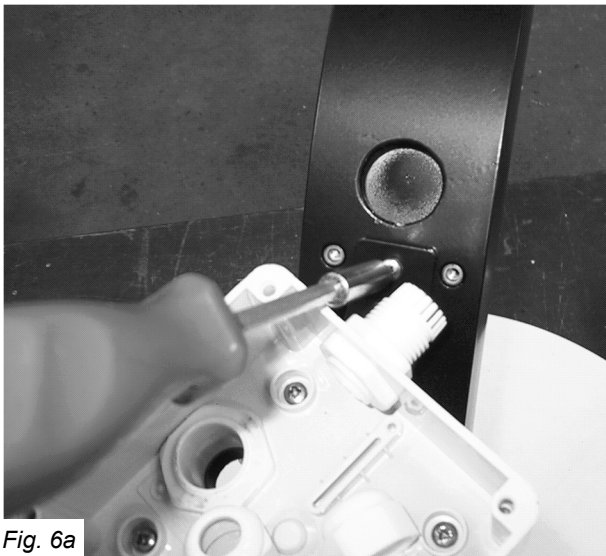
Fig. 2b

3. Fit the other two curved tubes (arms) and once in place fully tighten the screws further.

4. Take the terminal box/bracket assembly (Fig. 4) and place in the space where the 3 × curved tubes (arms) come together as shown in Fig. 5 with the lid on the top. *Note. The nuts on the two side strain relief glands can be removed to provide better access to the screw slots.*



5. Using an M4 screw and shake-proof washer fit the bracket to the arm as shown in Fig. 6. Repeat with the other two legs.



6. Fit a Alpha H1 heater to a curved tube by placing the middle bracket of the heater into the tube opening and push an M8 screw through the underside of the tube. Place a washer and an M8 Nyloc nut on the end of the screw (Fig. 7a) taking care not to drop the nut down the tube. Using a 13mm A/F socket, tighten the nut fully by gaining access through the hole in the top of the tube as shown in Fig. 7b. Repeat with the other two heaters.

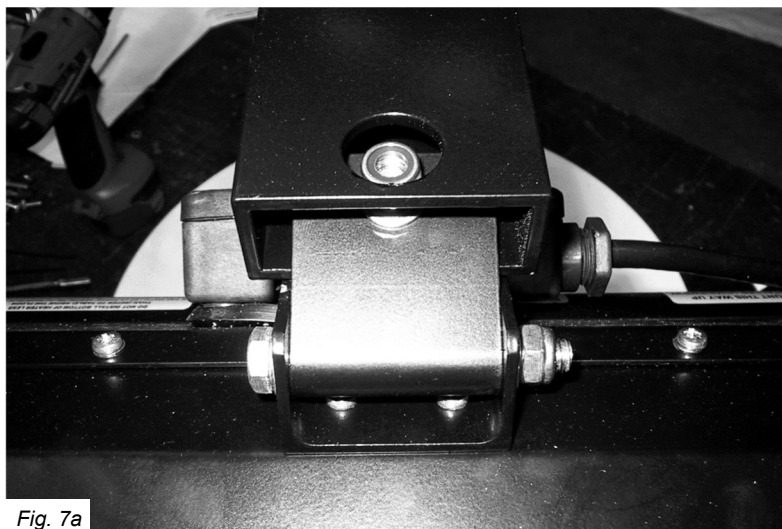


Fig. 7a

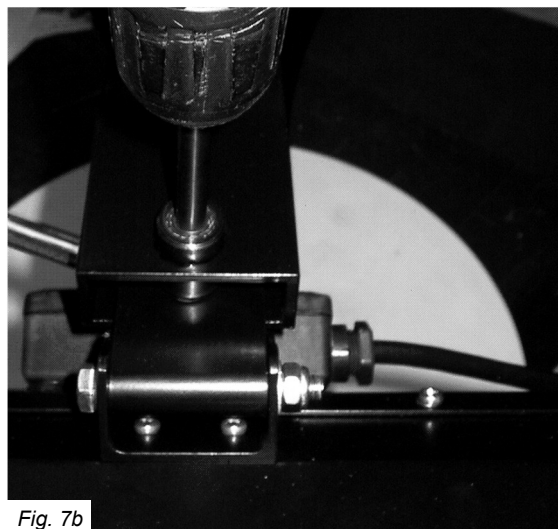


Fig. 7b

7. The heaters should now be mounted (Fig. 8a) so feed the heaters cords down the tube opening by the brackets so it exits through the large diameter cord hole by the strain relief glands (Fig. 8b). Ensure rubber grommets are fitted to cord holes in curved arms (tubes).

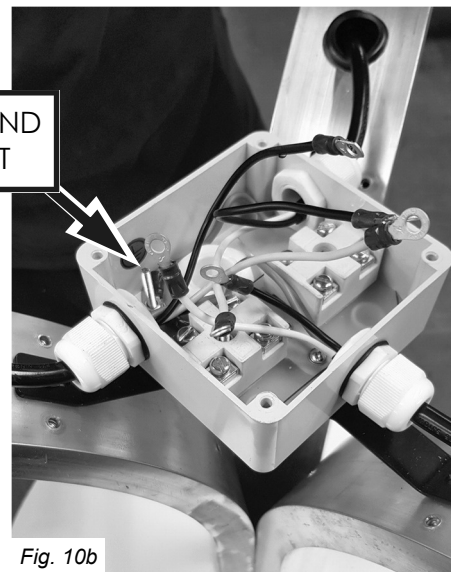
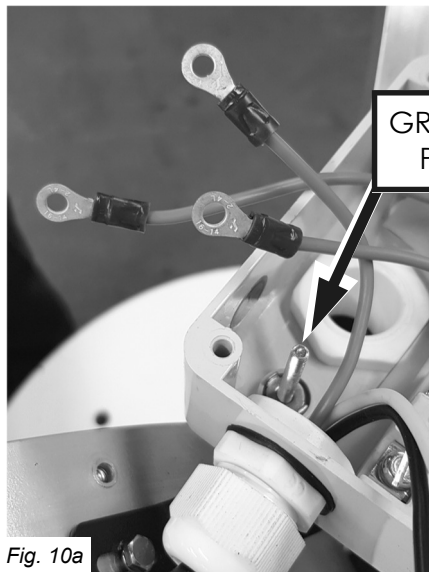
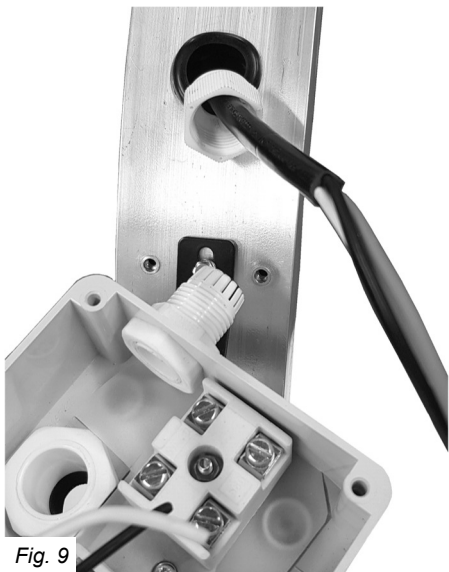


Fig. 8a



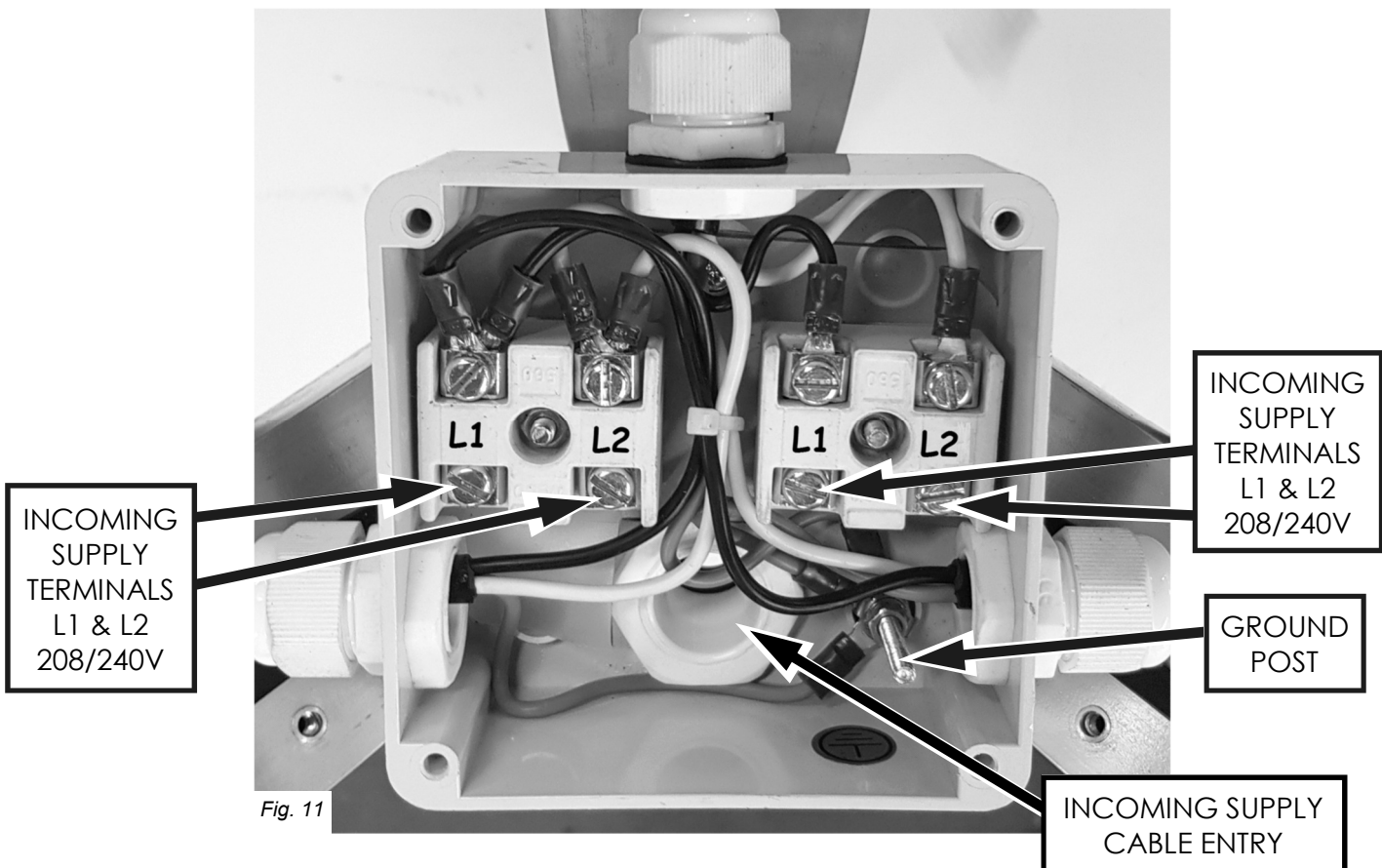
Fig. 8b

8. Cut the heater cords to the correct length for connecting into the terminal box. Then pass cords through respective strain relief glands into the box. Strip back cable to relevant length.



9. Crimp Ø4mm ring terminals (Fig. 10a) to the wires ready for connection (Fig. 10b).

10. Connect the ground wires to the ground post with copper clamps, serrated washers and M4 nut then wire the heaters to the terminal block as shown in Fig. 11.



11. Fully tighten the strain relief gland nuts and the terminal box lid can be fitted as shown in Fig. 12.



Fig. 12

12. Fit a zip tie around the curved arms at the base plate to keep them together when the assembly is moved in the installation stage (on the next page). It is recommended some cardboard is placed around the tubes before zip tying to protect the painted surface as shown in Fig. 13.

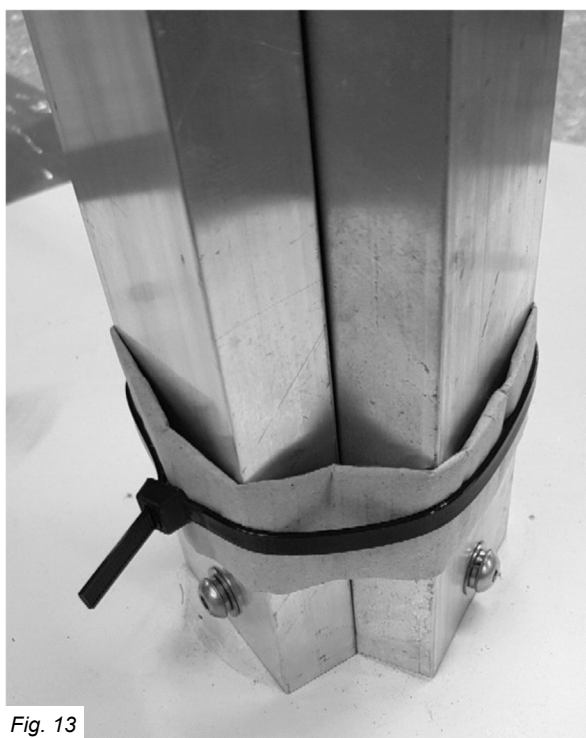
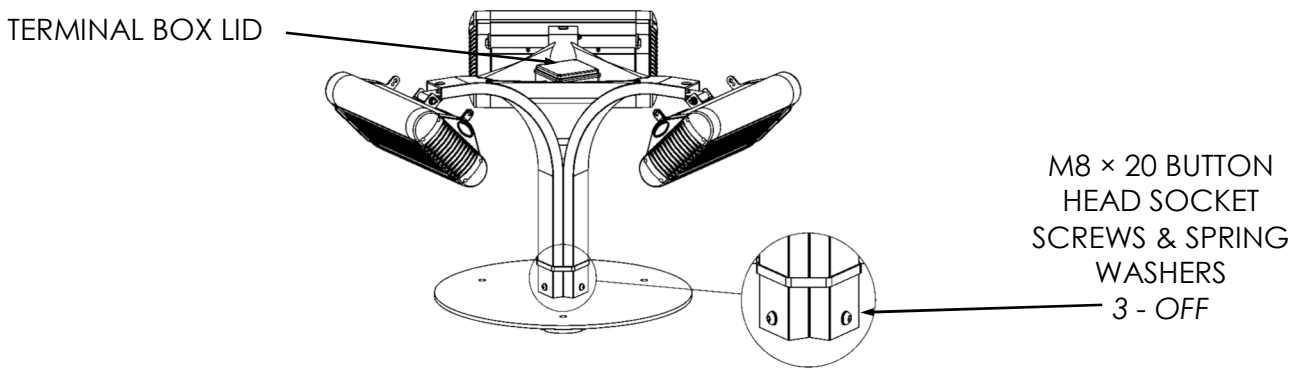


Fig. 13

INSTALLATION INSTRUCTIONS

- 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 the specification table 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.
- Refer to the page 15 for general sizes and dimensions of the base fixing holes.

1. The terminal box lid can be removed now for installation. The M8 × 20 button head socket screws and spring washers should be removed and retained while the zip tie should be left around the curved arms (tubes) until installation is complete. Take the heater assembly off the base plate and store safely.

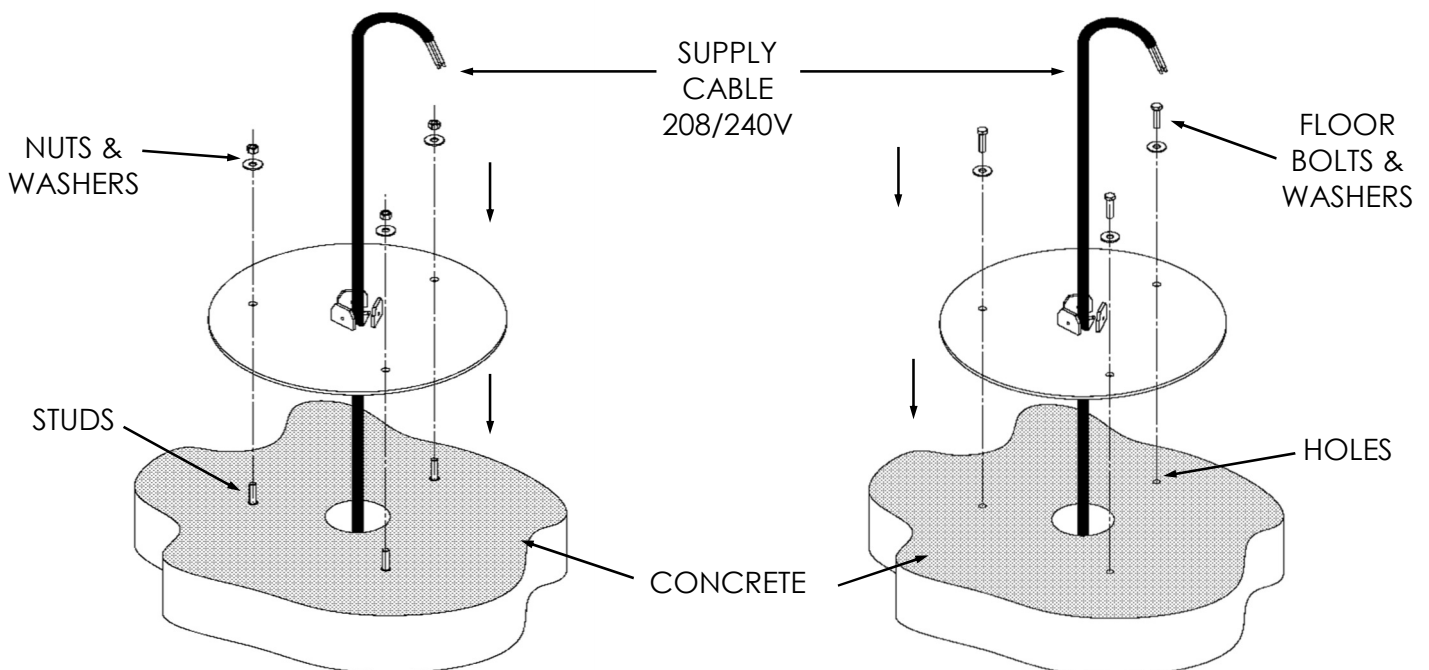


2. Having made provision for cabling use, consider one of the following options for fixing the base to a suitable floor:

Option 1: Preset 1/2" or 12mm bolts in concrete and fasten.

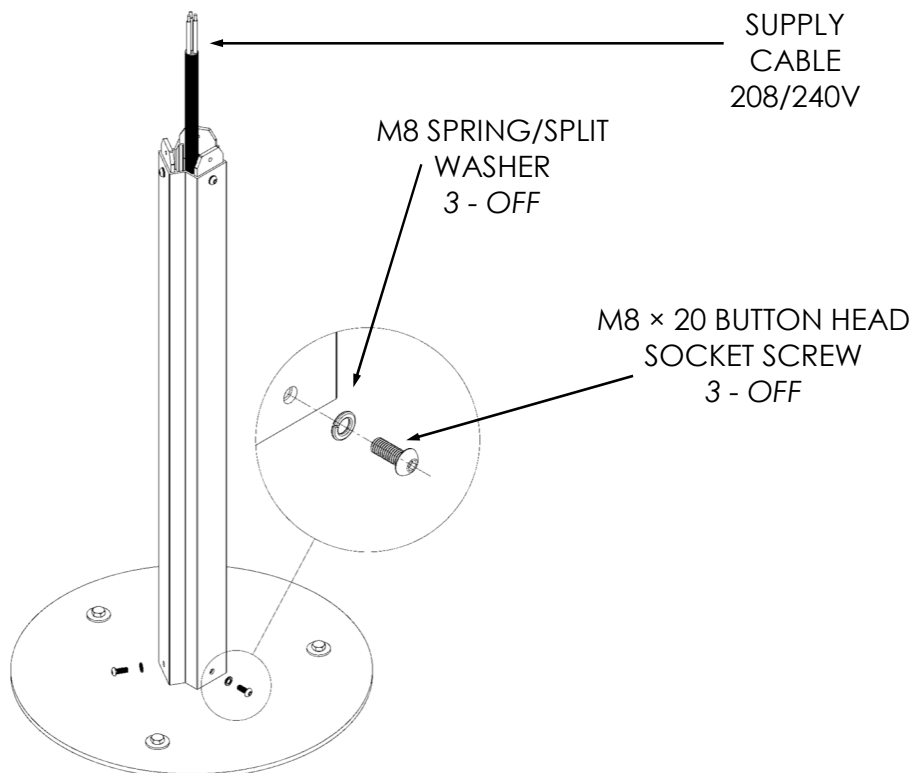
Option 2: Secure the base with nuts & washers into concrete or other similar material.

Note. Total weight of heater is 91lb 8oz (41.5kg)

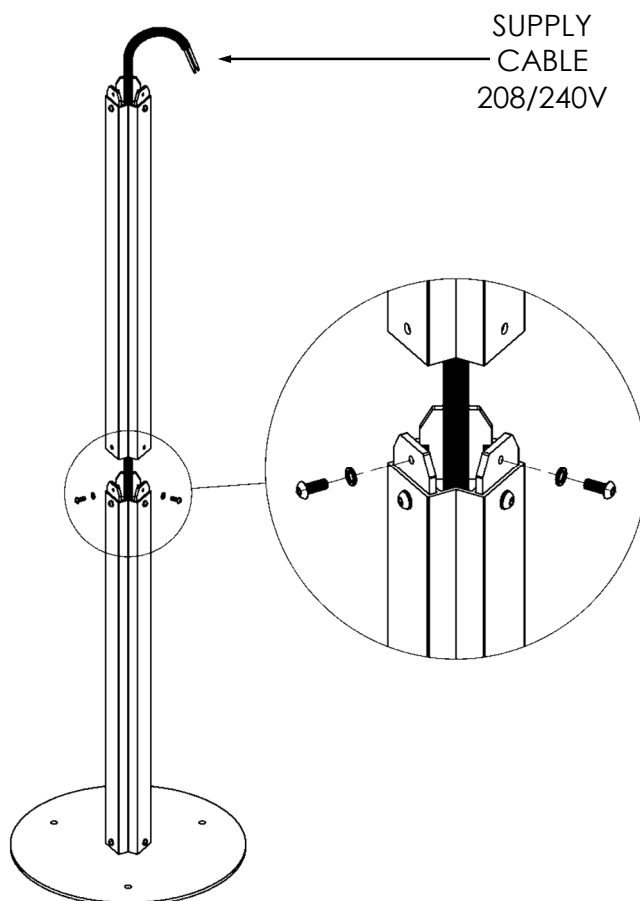


Note. Ensure the base is sitting level so the heater doesn't lean when assembled.

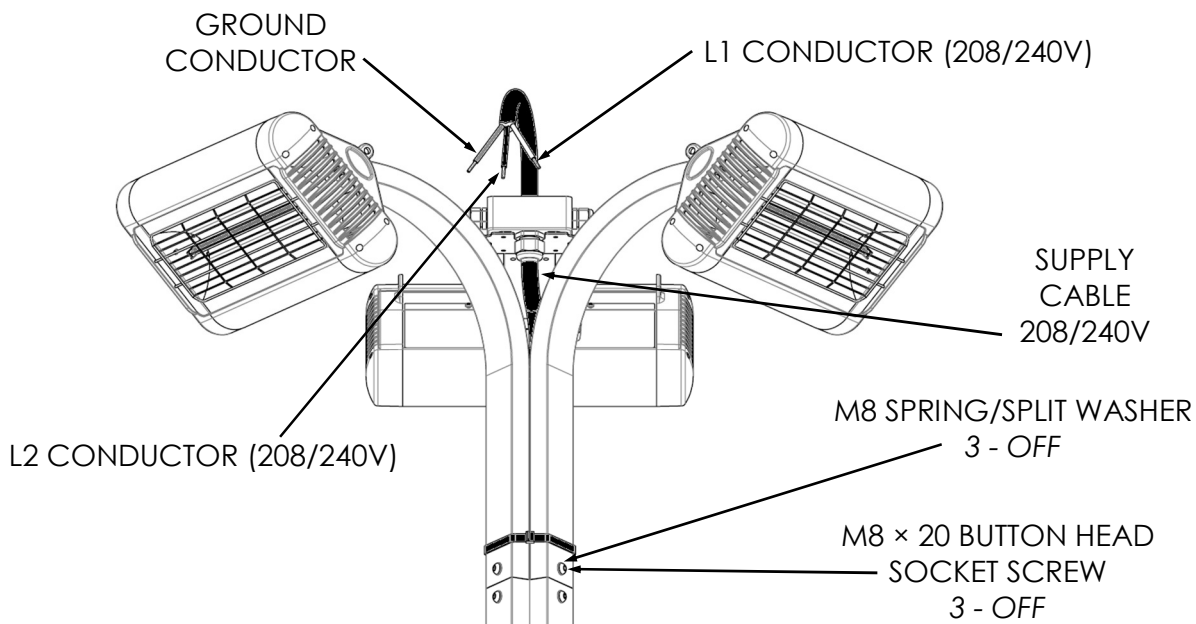
3. Slide a body pole (with joining pieces fitted) onto the three upright pieces on the base plate by matching the flat faces on the tube with the flat faces of the upright piece, feeding the supply cable through. Secure in place with 3 X M8 × 20 button head socket screws placing a M8 spring/split washer behind the head of the screw on all faces.



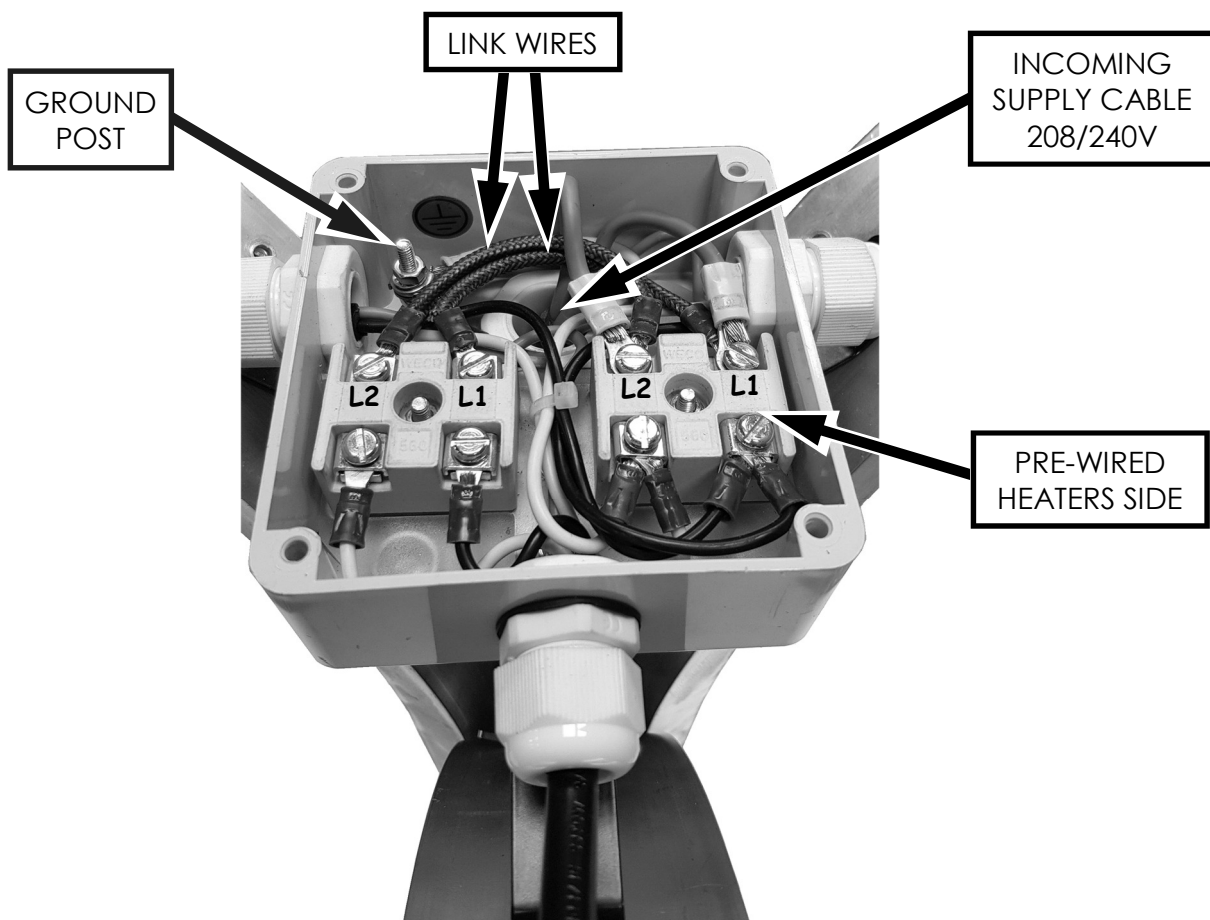
4. Slide a body pole (with joining pieces fitted) onto the three joining pieces of the previously mounted body pole by matching the flat faces on the tube with the flat faces of the joining pieces, feeding the cable through. Secure in place with 3 X M8 × 20 button head socket screws placing a M8 spring/split washer behind the head of the screw on each face.



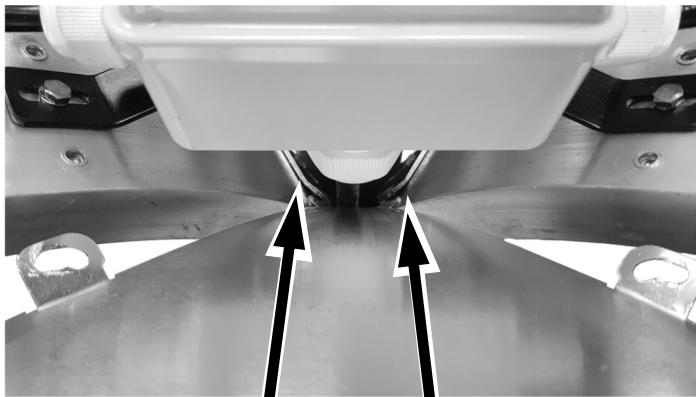
5. Feeding the supply cable through the heater assembly, pass the cable through the M25 cable gland and through the terminal box. Locate the heater assembly onto the joining pieces of the body pole assembly. Secure in place with 3 X M8 × 20mm button head socket screws, placing M8 spring/split washers behind the heads of the screws.



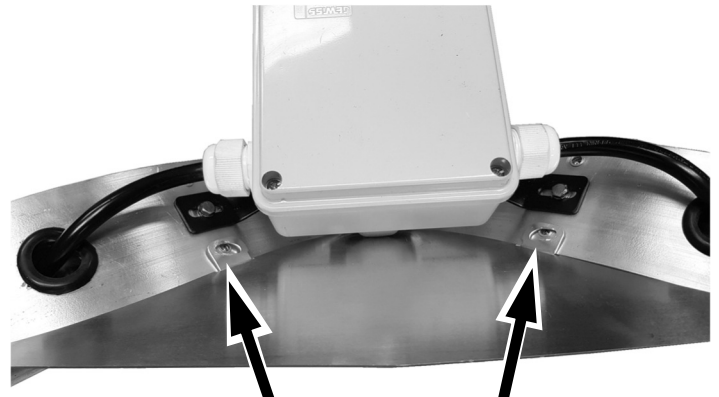
6. Connect the mains supply cable to the connector block and earth post as shown using ring terminals and keeping the link wires in place as shown. Tighten the strain relief gland nut fully and replace the terminal box lid and tighten the screws fully to prevent water ingress.



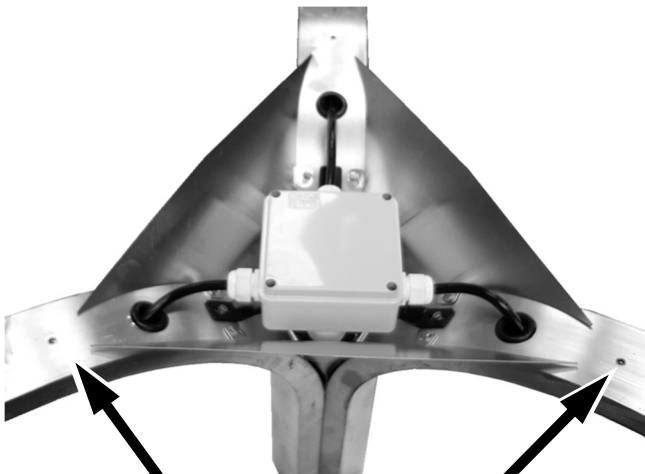
7. Replace the terminal box lid and fit the infill pieces by locating the lower tabs into the locating tabs on the curved arms. Once located the upper tabs can be screwed into position with M4 screws and shake-proof washers in the threaded holes. Repeat for the other sides (total of three).



LOWER TABS/
LOCATING TABS



UPPER TABS



THREADED HOLES
FOR
DEBRIS COVER (3)



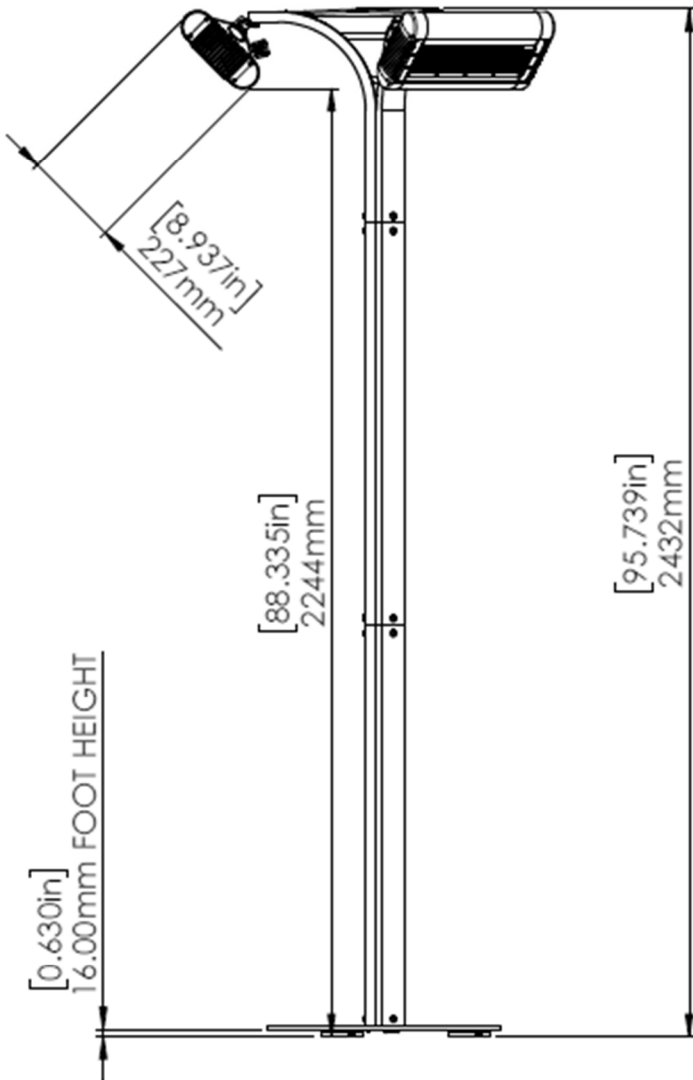
SCREWS FIXING
DEBRIS COVER (3)

8. The debris protection cover can now be fitted by ensuring the lip on the edges go over the infill pieces and lining the slots up with the holes in the curved arms. Fix in place with M4 screws and shake-proof washers.

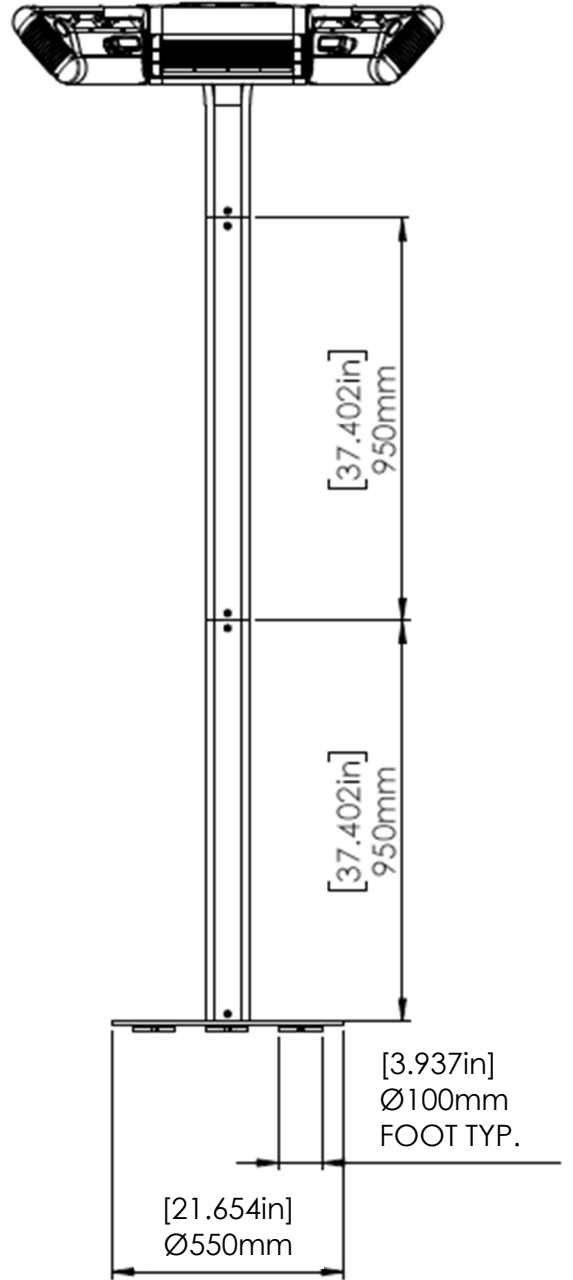
9. Remove the zip tie and check all screws in the individual post sections are fully tightened. Adjust the heaters to the desired downward positions. Conduct all necessary electrical safety checks including the ground continuity of the system.

GENERAL SIZES

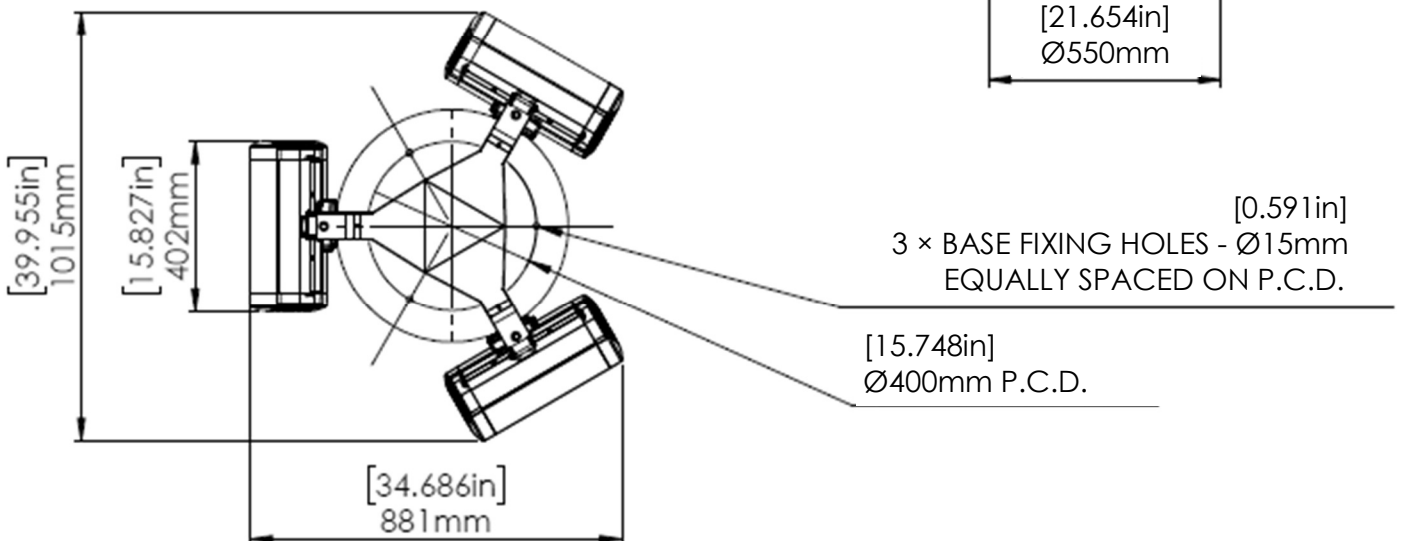
SIDE VIEW



FRONT VIEW



TOP VIEW



MAINTENANCE

! **NOTE:** For replacement lamp emitters or spare parts please contact your local distributor quoting model type and rating from rating label. It is very important that your replacement lamp 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.

⚠ CAUTION: Switch off unit from the mains supply by locking off the breaker before replacing a lamp emitter or any maintenance procedure including cleaning.

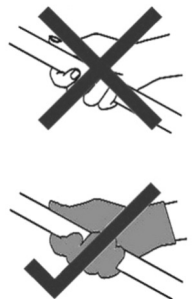
⚠ CAUTION: Should dust or dirt appear on the reflector, it is recommended that the guard and lamp emitter are removed and the reflector is wiped with a lint-free cloth before reassembling (see lamp emitter replacement instructions).

YOUR REPLACEMENT LAMP EMITTER

It is important that when ordering a replacement lamp emitter the heater model type is specified. Failure to fit the correct lamp emitter will cause the heater to fail and become dangerous in use. Please contact your service agent to purchase your replacement lamp emitter.

HANDLING THE REPLACEMENT LAMP EMITTER

Your new lamp emitter should be handled with care and without touching the quartz glass with bare hands. A cotton glove may be used for this purpose. Remove any finger marks with a soft cloth and methylated spirits or rubbing alcohol. Finger marks will burn into the lamp emitters quartz glass causing premature failure.



REPLACING A LAMP EMITTER



CAUTION



Switch off from the mains to the unit by locking off breaker before any attempts are made to replace a lamp emitter. Contact your distributor for the correct replacement lamp emitter quoting model type and rating from rating label. It is important that you read through the lamp emitter replacement procedure before commencing.

1. Ensure the heater and lamp emitter are cool and the power supply is disconnected from the mains supply.
2. Remove the screws from the terminal box at the back of the heater for the lamp emitter to be replaced and lift off the lid - see Fig. A.



Fig. A

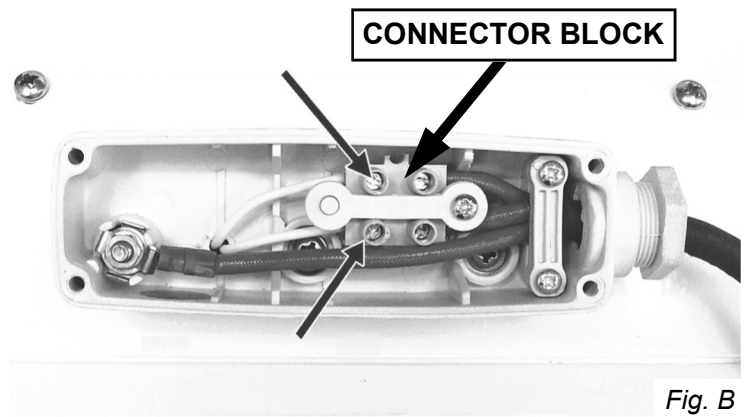


Fig. B

3. Disconnect the lamp emitter wires from the connector block by unscrewing the screws highlighted above in Fig. B and remove the lamp 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. C.
5. Pull the lamp emitter wires one at a time through the plate to remove as shown in Fig. D.

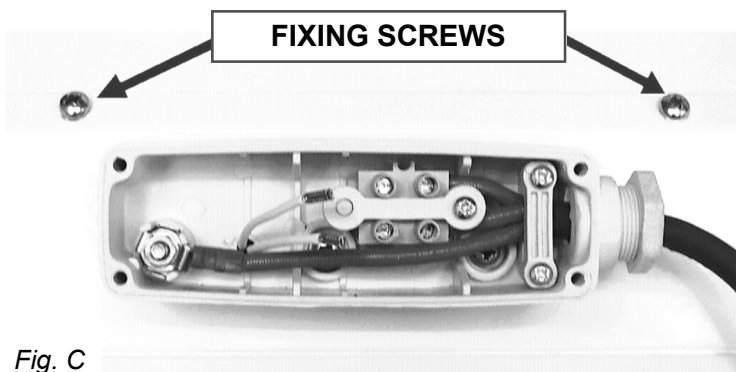


Fig. C

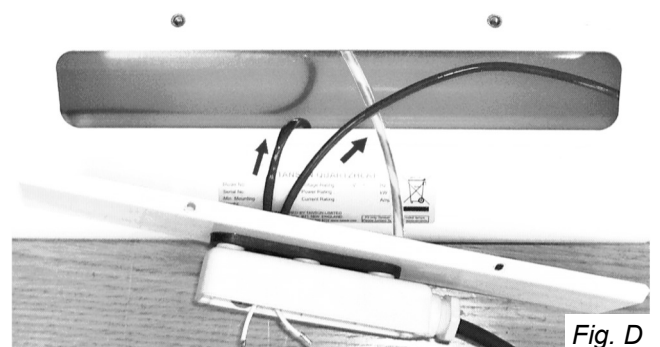


Fig. D

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. E).

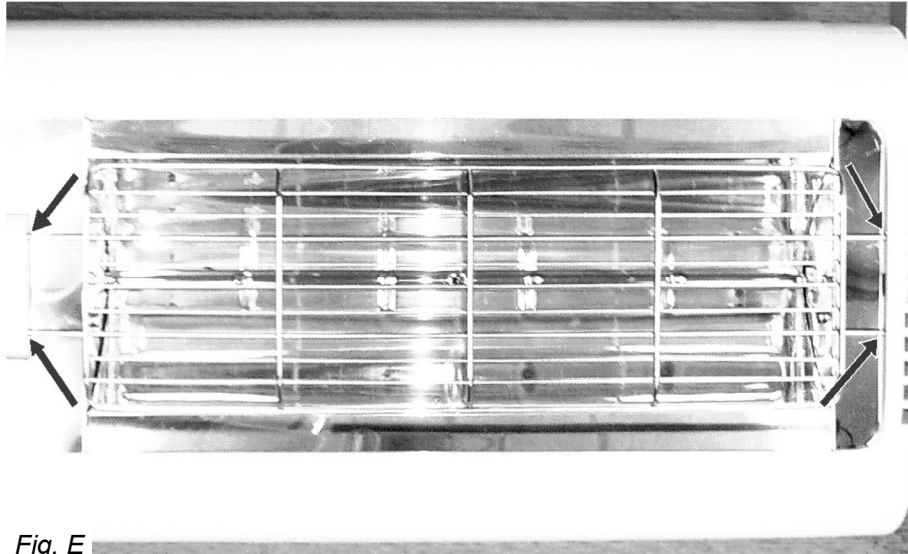


Fig. E

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

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

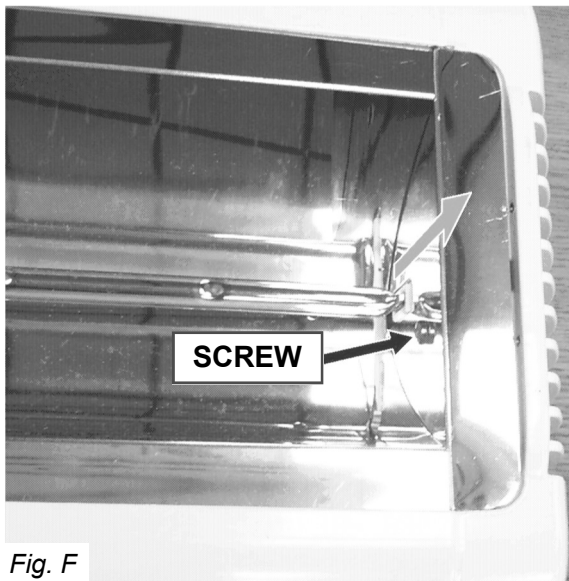


Fig. F



Fig. G

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



Fig. H

10. Refit the new lamp emitter in reverse order making sure that no wires can get trapped. Replace both ends side reflectors and their screws ensuring the lamp emitter is held firmly then fit any other parts.



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Due to our policy of ongoing improvement, we reserve the right to make changes without notice.

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