

## INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS FOR SLIMLINE QUARTZ-ZONE RADIANT HEATER

Catalogue Number QZSL15

PLEASE RETAIN THIS LEAFLET FOR FUTURE MAINTENANCE

### 1. GENERAL

Quartz heaters are high intensity radiant appliances, using tungsten-halogen lamps as the energy source. The lamps radiate their energy primarily in the short-wave infrared waveband with high energy conversion efficiency and good heat penetrating properties. The heater is supplied complete with an angular fixing bracket. Its robust construction makes it suitable for most types of industrial and commercial situations. The advanced optical design ensures an even pattern of radiant energy from elevated mounting heights. An outline drawing of the units, together with their overall dimensions is shown in Figure 1.

### 2. SAFETY NOTES

- The heater should not be operated in ambient temperatures greater than 30°C (86°F), otherwise the life of the Quartz unit could be shortened.
- The heater should not be operated in areas subject to continuously high humidity, or excessive dust.
- The heaters must be mounted with the Quartz element in the horizontal position.
- This radiant heater is capable of projecting a significant amount of radiant energy for a considerable distance in front of the reflector. Great care should be taken with its mounting if there are flammable materials in the vicinity. This heater must not be used in areas subject to flammable vapours such as paint solvents or petrol fumes.

### 3. INSTALLATION

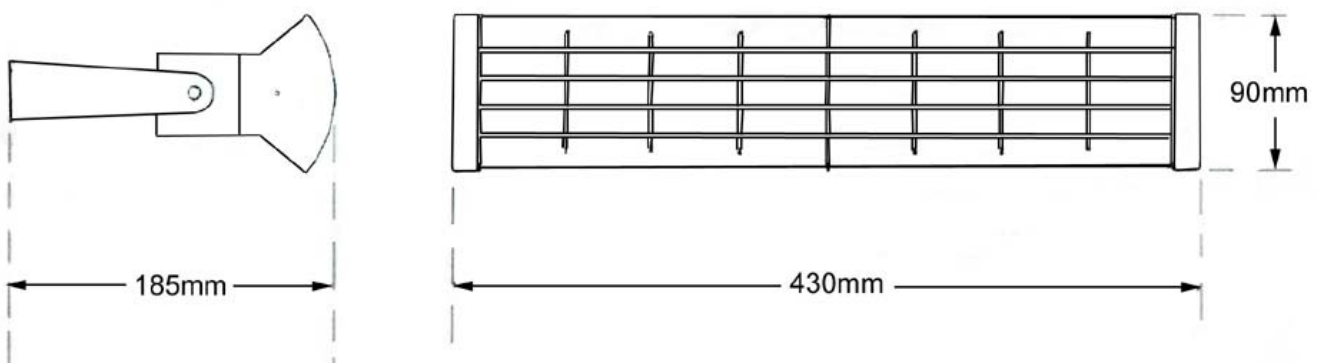
Prior to installation, remove the guard by extracting the two end screws. Remove packaging from around the lamp TAKING CARE NOT TO FINGER THE LAMP. Replace the guard.

The mounting position and spacing of this unit will depend on the mounting height and reference should be made to the technical data to determine the optimum position. The minimum recommended mounting height is 2.5 metres

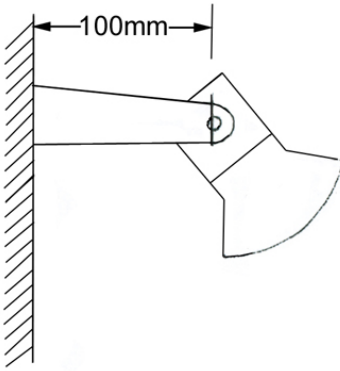
For wall mounting, a bracket arrangement is supplied as standard and this is shown in Figure 2. With the unit wall mounted, it is essential that the radiant energy is directed away from the wall. The minimum clearance from the ceiling or the adjacent walls is shown in Figure 3. For maximum heating effect on the occupants of the room, the angle of the front face of the unit to the horizontal should be about 45°.

As well as an efficient conversion of electrical energy into radiant heat energy, the effectiveness of radiant heaters depends on efficient absorption of this energy by the people in the building. Heaters mounted overhead, with their beams directed straight down, will tend to warm only shoulders and tops of heads. More efficient absorption is obtained if the radiant heat is directed from one or both sides of the person. In any situation, the optimum angle for the heaters will be with the plane of the reflector at about 45° to the horizontal. Heating schemes should be designed such that the area to be heated is effectively covered by units which are mounted close to this angle.

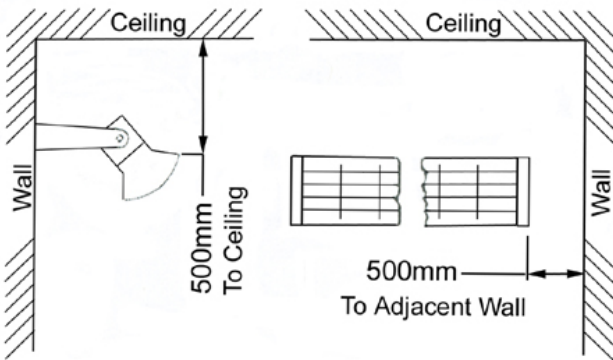
Figure 1 – Outline Dimensions of Quartz Heater



**Figure 2** – Wall Mounting of Quartz Heaters



**Figure 3** – Minimum Clearances to Adjacent Wall and Ceilings



**NB:** Fixing centres for wall mounting brackets 350 mm

#### 4. ASSEMBLY

Carefully unpack the heater. During heater assembly and installation DO NOT TOUCH the glass of the lamp, otherwise finger marks could lead to de-vitrification and cracking. Any finger marks should be carefully removed with methylated spirits (see also section 7 – ‘Maintenance’).

For all units, assemble the yoke onto the heater body, tightening the clamp bolts finger tight.

Secure the hanging bracket to the wall with suitable fixings. Ensure the position of this bracket will allow suitable clearances between the heater, when fitted, and adjacent walls, ceilings or objects. See Fig 3.

Mount the yoke/heater assembly to the hanging bracket using the bolt, washer and nut provided.

Finally adjust the direction of the heater to irradiate the desired area and tighten up all clamping nuts and bolts.

#### 5. ELECTRICAL CONNECTIONS

**WARNING:** Ensure that the electrical supply is isolated and made safe before making any electrical connections.

**WARNING:** The Quartz heater must be connected to a known good earth. The terminal block earth terminal is clearly marked with the standard earth symbol.

**NOTE:** If Quartz heaters are NOT being used in conjunction with a Quartz Softstart unit then, because of the high surge currents associated with tungsten loads, it is recommended that Type ‘B’ circuit breakers are used with a current rating of 2 x the heater load.

Mains wiring, supplying power to the appliance, must be in a suitable heat resisting cable (eg butyl rubber or high temperature PVC insulated). The installation should comply with the requirements of the IEE Wiring Regulations, BS7671 latest issue, and be connected via a suitable isolating switch.

#### 6. CONTROL

In control systems, heaters may be switched on and off, using suitable contactors, linked to the time switches or thermostats. Temperature control using either air thermostats or black bulb thermometers is possible, but the characteristics of radiant heating make it difficult to achieve comfort control without very careful choice of the thermostat and its position. Details of suitable circuits and advice on the correct siting may be obtained from Claudgen.

#### 7. MAINTENANCE

**WARNING:** Before opening the heater to carry out any maintenance, ensure that the mains supply is switched off and made safe. Also ensure that the unit has cooled and is not too hot to handle.

Because of the high heat output and the open nature of the construction, there is a substantial convected airflow through the unit. Any dust in the atmosphere will also be carried up through the heater and, in due course, deposits of dust may build up within the unit. It is essential that such deposits are removed at regular intervals, otherwise they could become a fire hazard. The reflector has a hard anodised coating and is very durable. Nevertheless, it will become dirty after a period of time. To maintain the efficiency of the unit, the reflector should be cleaned regularly. Before cleaning, the lamps must be removed using gloves, or similar means, to prevent the glass of the lamp from being touched by hand. Cleaning the reflector should require no more than a damp cloth. Avoid using any abrasive cleaners. If necessary, lamps may be cleaned using a clean cloth moistened with methylated spirits.

**CAUTION:** After cleaning, ensure that all solvents, such as methylated spirits, have evaporated and dispersed before the heater is switched on.

#### 8. SPARES

HE7902G – 1.5 kW Spare lamp suits

In the interest of progress the Company reserves the right to vary specification from time to time without notice. The material listed is offered subject to the Company’s General Conditions of Sale, a copy of which may be obtained on request.