



INSTALLATION, OPERATION AND MAINTENANCE  
INSTRUCTIONS FOR

# Claudgen Screen-Zone

## 9kW & 12kW Warm Air Curtain Heaters

Catalogue Numbers: HE8333-21  
HE8350-21



These units are 1300 mm 9 or 12 kW air curtain heaters designed for mounting above entrances. The discharge width of the air curtain is one metre. It is supplied complete with a remote mounting control box. These Screen-Zones may also be used as a space heater for commercial and industrial interiors. The appliance may be supported/mounted in a variety of ways.

**PLEASE RETAIN THIS LEAFLET FOR FUTURE MAINTENANCE**

### CONSORT EQUIPMENT PRODUCTS LTD

REGISTERED OFFICE: THORNTON INDUSTRIAL ESTATE  
MILFORD HAVEN, PEMBROKESHIRE, SA73 2RT  
TEL: 01646 692172 FAX: 01646 695195

WEB: [www.consortepl.com](http://www.consortepl.com) EMAIL: [enquiries@consortepl.com](mailto:enquiries@consortepl.com)

## Claudgen SCREEN ZONE

9kW  
Model HE8333-21  
12kW  
Model HE8530-21

A 'live' current is fed to the switch, via the 2A fuse and heating element TOCs, from terminal rail position-1. This powers the fan motor and operates the relays. The 'Fan' switch selects the fan speed, as 'normal' or 'boost'. Each 'Heat' switch closes a relay and powers-up half of the heating element.

**NB: 'Heat 1' switch must operate 'Relay 2' which in turn powers-up the front row of heating elements**

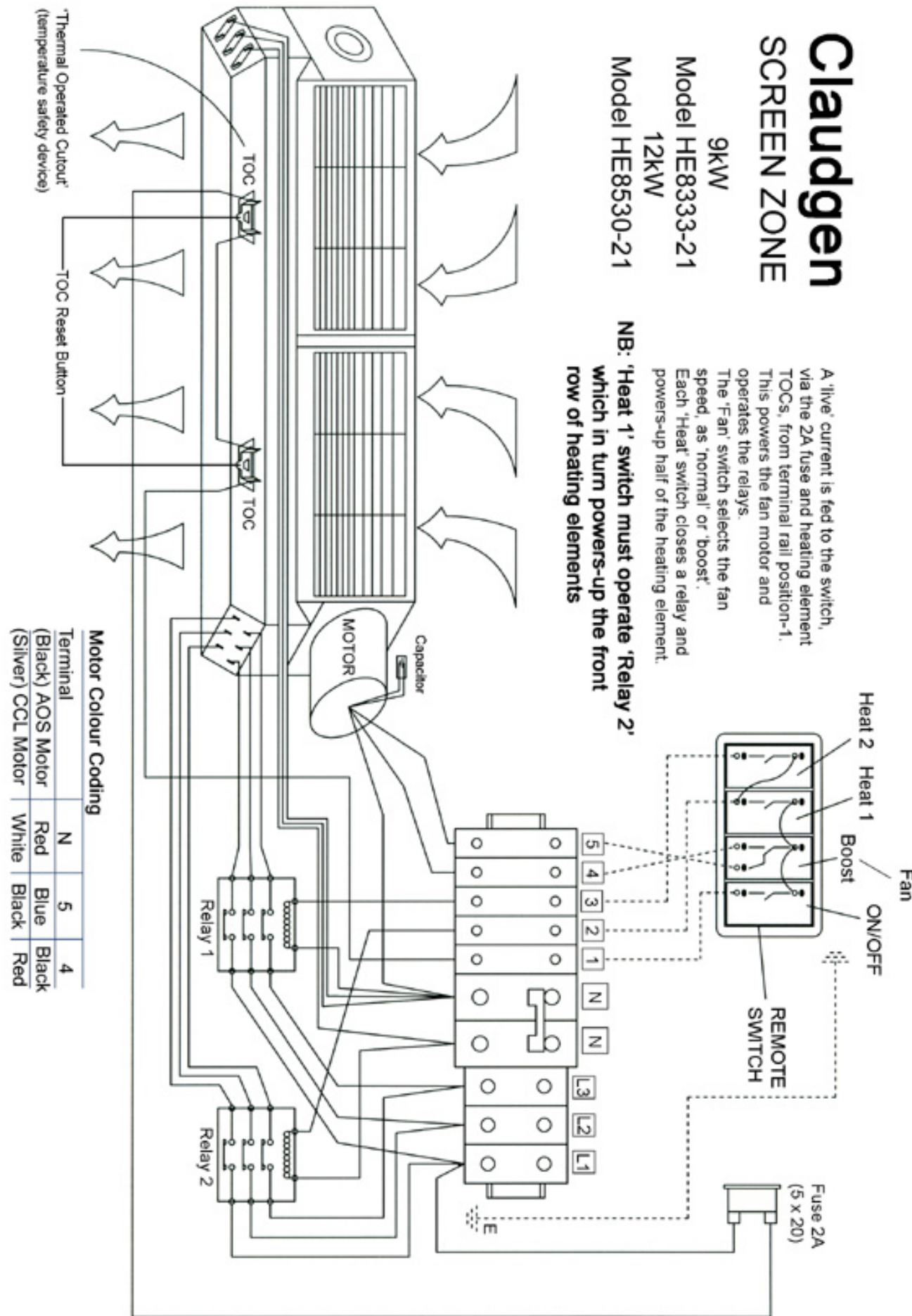


Fig 8 - WIRING DIAGRAM

## ELECTRICAL CONNECTIONS

The heater is suitable for connection to a 415 volt 3 phase 50Hz supply. With modification the unit can also be on a 240 volt 50Hz supply by linking terminals L1, L2 and L3 on the main input terminal block and connecting to the supply LIVE.

On full heat setting the load is 9 kW (HE8333) & 12 kW (HE8350).

The connections between the unit and remote switch box are shown on the rear of this instruction sheet, Fig 8.

For safety reasons a good earth connection must ALWAYS be made to the unit and the control box. On the heater the earth terminal is adjacent to the terminal block and is clearly marked with the symbol  $\star$ .

The unit should be wired in accordance with BS7671 latest edition requirements for electrical installations. The installer should ensure that a suitable fused isolating switch is connected in the mains supply.

Electrical Data		HE8333	HE8350	HE8333	HE8350
Supply voltage		230V single phase 50Hz		415V three phase 50Hz	
Total load	kW	9	12	9	12
	A/pha	37.5	50.1	12.5	16.7
Motor power	W	184			
Max Running current	Amps	0.8			
Internal fuse size amps	Amps	2			
External fuse size amps	A/pha	40	63	16	20
Cable terminal size		10mm <sup>2</sup> Max			
Mains terminal block position		Bottom of base unit Terminals L1; N & E		Bottom of base unit. Terminals N; L1; L2 & L3	
Control terminal block cable size		4mm <sup>2</sup> Max			
Control terminal block position		Bottom of base unit Terminals 1-5		Bottom of base unit. Terminals 1-5	
Control terminal block current	Amps	0.8			

## FUSES

The motor and switch circuits are protected by a fuse which has a 2 amp rating. Ensure that any replacement is of the correct size (5 mm x 20 mm) and rating.

## MAINTENANCE

ALWAYS ENSURE THAT THE MAIN EXTERNAL ELECTRICITY SUPPLY IS SWITCHED OFF BEFORE SERVICING OF THIS SCREEN-ZONE HEATER.

To obtain the best results from the heater it is essential to avoid the accumulation of dust and dirt within the unit and on the inlet and discharge grilles. Regular cleaning is necessary with particular attention to the fronts and backs of the fan motor blades. Cleaning of the fan is best carried out with a soft brush.

## CONTROLS

The units are designed to provide 2 levels of heat ie half heat and full heat, together with 2 fan speeds, normal and boost. The remote control box houses 4 switches. The switch plate is marked as shown below. The functions of the switches are as follows:-

SWITCH 1 (left-hand)	ON/OFF
SWITCH 2	FAN SPEED CONTROL
SWITCH 3	½ HEAT ON/OFF
SWITCH 4	½ HEAT ON/OFF



## TO REPLACE A SWITCH IN THE CONTROL BOX

- Switch off the mains supply
- Remove the switch box cover.
- Disconnect the wiring to the switch.
- Release the spring clips and push out the switch.
- Fit the replacement switch, reconnect the wiring and replace the cover.

## THERMAL CUT-OUTS

There are 2 thermal cut-outs protecting the heater, positioned along the heater box. These cut-outs are connected in series and each or both may operate in the event of fan failure or restriction to the free flow of air through the unit. The unit is protected by manual type cut-outs which may only be reset by hand when the heater is switched OFF and has cooled down. If the cut-outs trip, check the inlet and outlet grilles for airflow restrictions.

## TO RESET THE CUT-OUTS

- The cut-outs are reset by switching OFF mains power to the appliance and allowing the appliance to cool for 20 minutes.
- Remove the appliance lid and locate the 2 cut-outs. Ensure mains power is OFF. Reset each cut-out by pressing the white 5 mm square reset button located on each cut-out.
- Replace appliance lid. Switch ON the appliance. The cut-outs will be reset. If the cut-outs trip again a qualified electrician should be consulted.

## SPARES

It is essential when ordering spares or replacement parts to state the model number HE8333-21 or HE8350-21 and the serial number on the rating plate fixed to the top of the unit.

SH7126	REMOTE SWITCH ASSEMBLY
SH7118	MOTOR
SH7127	HEATER BOX
SH7087	RELAY
SH7128	MANUAL HOLD CUT-OUT

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

## MOUNTING

When mounted over a doorway, the unit should be mounted as low as possible and not more than 3.4 metres above the floor. A single unit will give adequate coverage for a 1.3 metre doorway. For wider doorways, units may be mounted end to end. The heater should be mounted so that the inlet or outlet air flow are not obstructed in any way. A clearance of at least 300 mm should be maintained around the inlet and outlet grilles, and at the sides of the heater.

## INSTALLATION

Having removed the appliance lid, to acquire these Instructions, also ensure that the Remote Control Switch Box, which is packed inside the appliance with these Instructions, is removed and retained.

The appliance 'air flow' and 'external dimensions' are shown in Fig 1.

The heater may be mounted in one of several ways ie:-

### 1. Wall Mounting

a. Using WALL BRACKETS supplied. Onto a suitable vertical wall or bearers, the 2 wall brackets are secured at the centres shown in Fig 2. The appliance, with 2 upper bolts threaded securely into each face, is then fitted onto/between the wall brackets as shown in Fig 3. The lower fixing bolts are then fitted through each wall bracket into each side of the appliance.

The upper 2 bolts allow the appliance to be slipped onto, and held by, the wall brackets. The fitting of the lower bolts in each side locks the appliance to the brackets.

Tighten-up securely all 3 bolts in each side.

b. DIRECTLY to a suitable vertical wall or bearers.

Using 4 x No.12 wood screws. Screw through the holes in the appliance case rear, at the centres shown in Fig 4. Keyhole slots are provided for the upper 2 fixing screws, allowing the appliance to be initially located. The lower 2 fixing screws pass through the appliance rear, supporting the appliance and preventing any movement up off the upper 2 screws.

The wall surface to which the appliance is to be mounted must be flat to avoid any distortion of the appliance casing.

### 2. Suspended/Hanging

a. Using Ø20mm CONDUIT.

The appliance may be suspended by Ø20mm conduit via two suitable holes provided in the top of the appliance, see Fig 5.

b. HANGING BRACKETS -- Studding.

Two hanging brackets are supplied with the appliance. Each bracket offers two holes of Ø10 mm through which threaded studding may pass and be secured. A bracket is bolted to each side face of the appliance casing as shown in Fig 6. The brackets offer 4 holes above the appliance at the centres shown in Fig 6, from which the appliance may be suspended.

c. HANGING BRACKETS -- Ceiling.

The 2 hanging brackets from 2b above may be secured to a suitable ceiling or joists at the centres shown in Fig 5. Note, and allow for, the large Ø10 mm size of the holes through which any fixing screws pass, to secure the brackets to the ceiling/joists. The appliance may now be offered-up between the hanging brackets and bolted to each bracket as shown in Fig 6.

**NB:** If hanging off a ceiling in this way, take into account the routing of mains power and switch control wiring into the appliance. When mounted there is only a 30 mm gap between the top of the appliance and the ceiling to allow for cable entry.

d. HANGING BRACKETS -- Chains.

The 2 hanging brackets from 2b above may alternatively be bolted to the appliance top surface, as shown in Fig 7. The brackets now offer 4 holes, 2 holes per bracket in a vertical orientation, to which chains may be attached as shown in Fig 7.

