SARUM ELECTRONICS LIMITED

1 STEP HEATER CONTROL

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1 STEP HEATER CONTROL PANEL

INTRODUCTION

The control panel is designed to give a fast and easy installation.

External wiring is kept to a minimum.

On site a main supply is connected to the control, then outputs to the fan, heater, safety circuits (heater over temperature, airflow switch) are wired in.

The sensor supplied with the panel can be mounted into the extract or return air duct or, if ordered as a room sensor, in the room itself. It should never be positioned near the heater.

Switches on the panel then allow control of the fan and heater. The heater is interlocked with the fan circuit and can only run with the fan switched on.

All outputs to the fan and each heater element are protected by MCB's.

The whole panel can be controlled via a 7 day time clock to turn on or off in a controlled manner.

INSTALLATION INSTRUCTIONS

The panel is designed for wall mounting in a clean, dry environment where the ambient temperature does not exceed 30°C.

A space of approximately 50mm should be left around the enclosure to allow for heat dissipation.

Fix enclosure to the wall using proprietary fixings.

Wire panel in accordance with the wiring diagram.

All wiring must comply with current regulations and be in compliance with the Health and Safety at Work Act.

When cables are connected to the heater elements special high temperature cable or high temperature sleeving must be used. Temperatures in heater terminal boxes may exceed the safe limits of even high temperature p.v.c. (105°C).

The sensor should be positioned in the return or extract air duct or if a room sensor is used it should be mounted out of direct sunlight or other heat sources approximately ⅔ of the way up the wall.

SWITCH ON AND TEST PROCEDURE

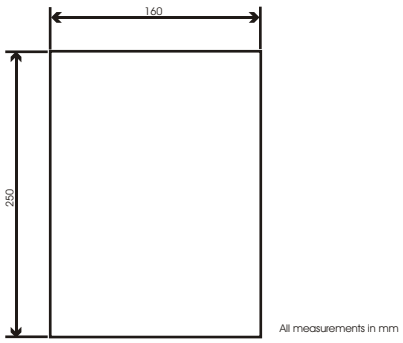
1. Ensure panel is securely fixed in a safe position.
2. Check all wiring especially cable sizes and in heater terminal box (High Temperature Sleeved).
3. Carry out electrical safety tests including earth loop impedance and insulation resistance and record results.
4. Check all safety switches and interlocks are correctly set.
5. Check sensor is correctly positioned.
6. Switch fan on. 'Fan Run' indicator will illuminate.
7. Check fan rotation and airflow.
8. Switch fan off. Fan will stop.
9. Switch fan on then switch heater on. Fan and heater run indicators will illuminate. Check heater is giving correct output.
10. Select temperature required.
11. Switch fan off. Heater and fan should turn off.
12. Ensure end user is familiar with controls.

THE INFORMATION PROVIDED IN THE LITERATURE IS BELIEVED TO BE ACCURATE (SUBJECT TO CHANGE WITHOUT NOTICE), HOWEVER, USE OF SUCH INFORMATION SHALL BE ENTIRELY AT USER'S OWN RISK

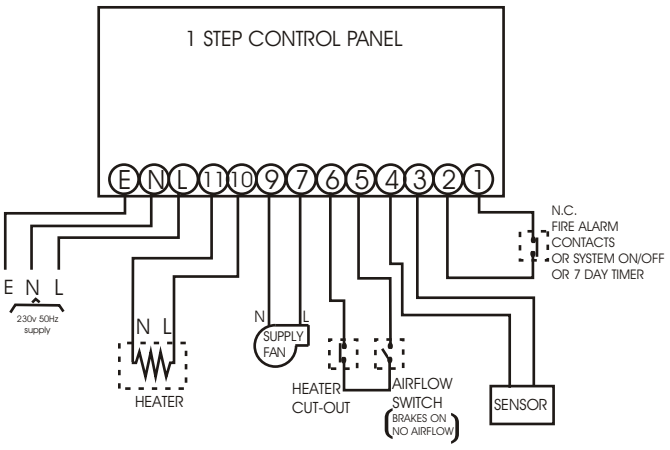
PROBLEM SOLVING

PROBLEM	SOLUTION
No Fan Run indicator illuminated	Check: power supply and fan MCB
No Heater Run indicator illuminated	Check: fan is running - check heater switch is in 'on' position Check heater MCB. Airflow pressure switch not operated or heater high temperature cut-out operated. Switch off and reset heater high temperature cut-out and investigate reason for failure

ENCLOSURE DETAILS



WIRING DIAGRAM



SPECIFICATION

Epoxy painted steel enclosure - dimensions 160 x 250 x 125mm

Individual switches for fan and heater

Individual indicators for fan and heater

Individual MCB'S for fan and each heater element

Mains input:	230v 50Hz 1 phase
Maximum output:	Heater 1 x 3Kw 1 phase elements Fan 1 x 1 phase 2A MCB fitted as standard.
Number of steps of heater control:	1
Sensor	P.T.C. Thermistor type with 10 metres of cable suitable for duct mounting

CAUTION

Always ensure panel is electrically isolated before carrying out any adjustments or maintenance.

The addition of a speed control for the fan is not recommended as it may allow the airflow to be reduced below a safe limit or the fan to be switched off without switching the heater off.

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