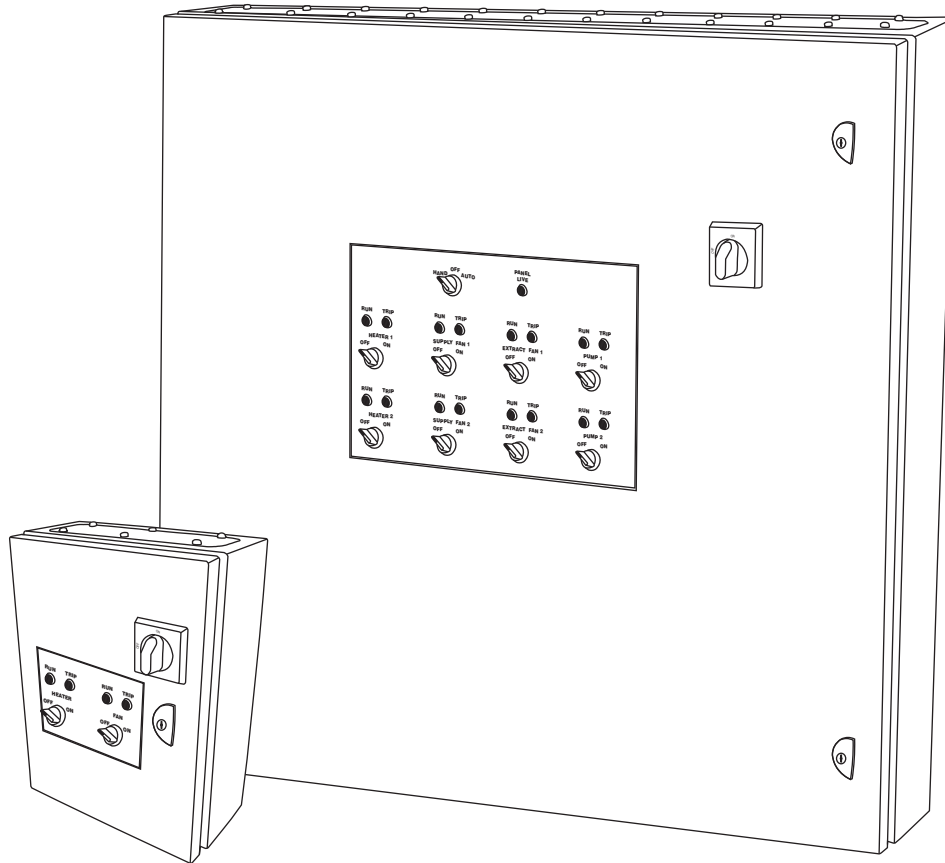


RBC-AC2

TWO UNIT RUN AND ONE STANDBY WITH HIGH TEMPERATURE ALARM DRAWING NUMBER R4409



IMAGES REPRESENTATIVE OF DIFFERENT CONTROL PANELS

IMPORTANT
PLEASE LEAVE THIS BOOK WITH THE CONTROL PANEL
IF YOU WOULD LIKE AN EXTRA COPY CONTACT YOUR SUPPLIER
WITH THE DRAWING NUMBER AND THEY WILL
EMAIL A PDF VERSION TO YOU

Features

- Door interlocking isolator.
- Indication for Panel Live, Alarm, Fire Alarm Operated and individual Duty and Fault indicators for each unit.
- Fire alarm contacts for shutdown in fire situation.
- Volt free common fault output.
- Change over on unit fault.
- Duty share every 100 hours.
- Digital thermostat to show room temperature.
- Audible alarm for unit fault and high temperature, with mute switch.

Connections

- Indoor unit x 3
- Fire alarm circuit
- Room sensor
- Volt free fault contacts

Loose supply items

- Room sensor
- CN61 Lead x 3

Description of controls

Panel is designed to control three indoor units on a duty share basis, two units running and one on standby. A pair of units will run for 100 hours, then change over to a different pair of units, and then again to the third pair. If a unit sends a fault signal to the panel, the fault indicator lamp will illuminate and the panel will switch on the standby unit, the volt free fault contacts will make, the audible alarm will sound. The control panel is also designed to monitor the room temperature, if the room temperature rises above the set point (adjustable (see separate page)) all three units will run, the volt free fault contacts will make, the audible alarm will sound, when the temperature drops below the set point the panel will go back to normal operation. The audible alarm can be turned off using the mute switch on the panel facia. The control panel is designed to be wired into the buildings fire alarm circuit, this will shut the units down in the case of a fire.

Installation instructions

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

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

Fix the enclosure to the wall using proprietary fixings. Remove the gland plate then drill and gland for necessary cable entry and exits.

Replace the gland plate and 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.

Ratings

Required supply: 2Amps 230V 50Hz

Enclosure details

Dimensions: 400(w) x 500(h) x 150(d)mm

Finish: RAL 7035 textured

Cable entry: Top

Weatherproof: No

The information provided in the literature is believed to be accurate (subject to change without notice). However, use of the information shall be entirely at the user's own risk.

FAULT FINDING

CONTROL PANEL NOT WORKING?

THE FOLLOWING SHOULD ONLY BE CARRIED OUT BY A SKILLED PERSON AS DEFINED IN BS7671 - WIRING REGULATIONS

ARE THERE ANY LIGHTS ILLUMINATED ON THE CONTROL PANEL?

NO	CHECK ELECTRICAL SUPPLY TO PANEL AND ENSURE ISOLATOR AND SWITCHES ARE ON. ENSURE ALL M.C.B.S ARE ON AND ANY FUSES ARE NOT BLOWN.
YES, ONLY PANEL LIVE / CONTROL CIRCUIT LIVE	CHECK SWITCHES ARE ON AND FIRE ALARM CIRCUIT IS HEALTHY. NOTE: IF NO FIRE ALARM CIRCUIT FITTED, A WRITTEN FIRE ASSESSMENT FROM THE RESPONSIBLE PERSON MUST BE OBTAINED AND KEPT WITH THE PANEL ALLOWING THE CIRCUIT TO BE LINKED OUT. THE FIRE ALARM CIRCUIT ALLOWS THE PANEL TO WORK AND SHUTDOWN IN A CONTROLLED MANNER.
	IF THERE IS STILL NO LIGHTS ON THE PANEL CHECK THE TIME CLOCK, BMS OR EXTERNAL SWITCHES ARE ALL ON.

WHERE SHOULD THE SENSOR BE POSITIONED?

CHECK WITH THE SYSTEM DESIGNER

FOR SUPPLY AIR TEMP	THE SENSOR SHOULD BE MOUNTED IN THE DUCT AT LEAST 2 METRES FROM THE HEATER AND AS CLOSE TO THE SUPPLY GRILLE INTO THE SUPPLIED AREA AS POSSIBLE.
FOR SPACE TEMP	THE SENSOR SHOULD BE FITTED IN A RETURN AIR DUCT OR USE A ROOM SENSOR
FOR HEAT RECOVERY	I.E. FACE & BYPASS DAMPER, HEAT WHEEL, RECOVERY DAMPER THE SENSOR SHOULD BE MOUNTED IN THE INCOMING FRESH AIR SUPPLY DUCT.
FOR FROST HEATER	THE MOUNTING IS OFTEN LIMITED TO THE SPACE BETWEEN THE FROST AND MAIN HEATER. THIS SENSOR MAY NEED A COVER TO PROTECT IT FROM RADIATED HEAT AND SO PREVENT RAPID CHANGES IN RESPONSE.

TRIP OR FAULT LIGHT IS ON

FROST STAT OPERATED	CHECK WIRING OF FROST STAT IS CORRECT TO THE CIRCUIT DIAGRAM
HEATER TRIP	CHECK WIRING OF AIRFLOW SWITCH AND HEATER CUTOUPS CHECK FAN IS RUNNING CORRECTLY
AIRFLOW FAIL FILTER DIRTY	CHECK WIRING OF AIRFLOW SWITCH IS CORRECT TO THE CIRCUIT DIAGRAM CHECK DUCT IS FREE FROM OBSTRUCTIONS AND FAN IS RUNNING CORRECTLY CHECK FILTER IS CLEAR
FAN TRIP	CHECK FAN SIZE MATCHES OVERLOAD, THEN RESET OVERLOAD CHECK FAN WIRING
ALL FAULTS MUST BE CLEARED FOR THE CONTROLS TO FUNCTION CORRECTLY	
FANS INTERLOCKED WITH ELECTRIC HEATERS WILL RUN ON AFTER BEING SWITCHED OFF	

VALVE OR ACTUATOR NOT WORKING

- 1) CHECK CORRECT VOLTAGE ACTUATOR IS FITTED
- 2) DOUBLE CHECK WIRING FROM PANEL TO ACTUATOR
- 3) CHECK IF ACTUATOR OPERATES WITHOUT VALVE OR DAMPER CONNECTED
- 4) CHECK ANT VARIABLE 0-10V SIGNAL VARIES WHEN TEMPERATURE SET POINT ADJUSTED

NO CHANGE TO HEAT OR COOL OUTPUT WHEN SET POINT IS ADJUSTED

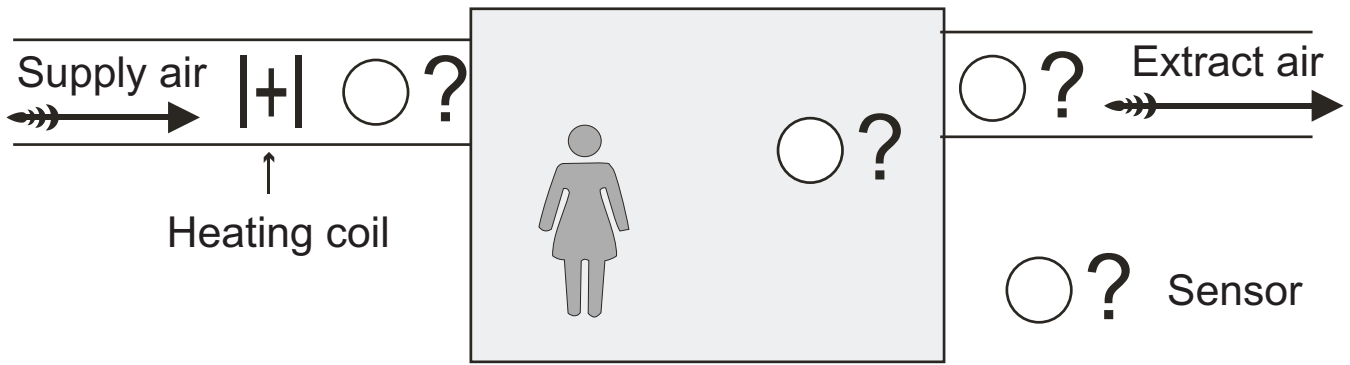
CHECK THAT THE CORRECT FACTORY SUPPLIED SENSORS ARE FITTED AND ARE NOT SHORTED OR OPEN

OTHER OR UNRESOLVED PROBLEMS

ENSURE ALL WIRING IS CORRECT AND COMPLIANT WITH WIRING REGULATIONS
ENSURE THAT THE PANEL WIRING DIAGRAM NUMBER IS NOTED AND CALL YOUR SUPPLIER
PLEASE NOTE THAT A SKILLED PERSON WITH A TEST METER MUST BE AVAILABLE WHEN CALLING

SENSOR POSITIONING

Duct or Room Sensor



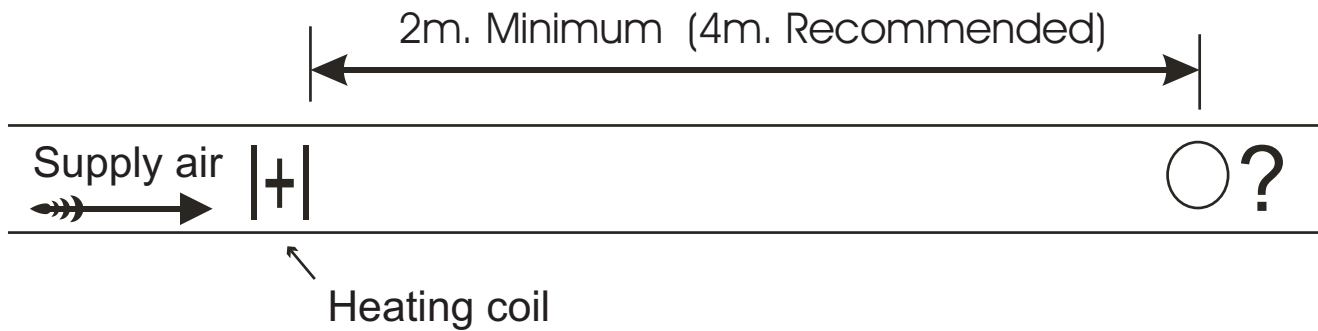
If the supply is for "make up" air, with background heating in the area being served, then a duct sensor should be used. The sensor must be mounted in the supply duct away from direct radiated heat.

The control panel will then maintain a constant duct air temperature by modulating the voltage feed to the heating valve.

If the supply is for total area heating then a room sensor should be used. In some installations a duct sensor mounted in the extract / recirculation air duct may also be needed.

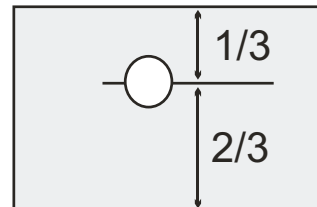
In this type of installation the system response time is very large and may cause the supply air to enter at very low or very high temperatures for some length of time. In some installations a duct sensor mounted in the extract or recirculation air may be used.

DUCT SENSOR



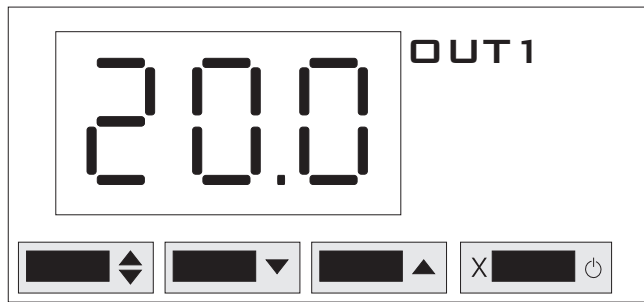
ROOM SENSOR

Position sensor away from direct sunlight, computers and other heat sources.







The information provided in the literature is believed to be accurate (subject to change without notice). However, use of the information shall be entirely at the user's own risk.

1 STAGE ELECTRONIC CONTROLLER HIGH TEMPERATURE ALARM SET POINT



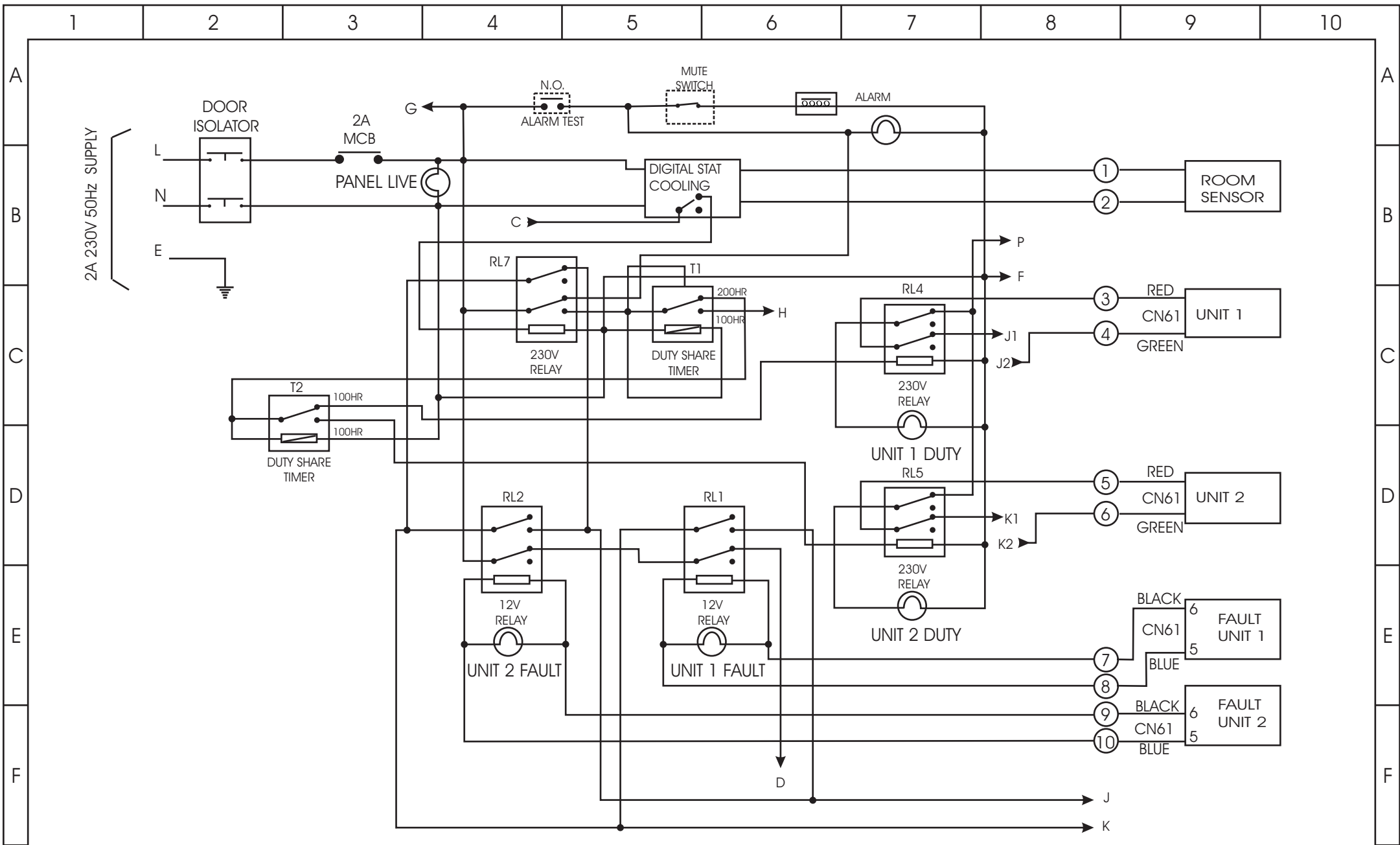
Changing the set point

To change the set point press and hold the  button to display the set point value.

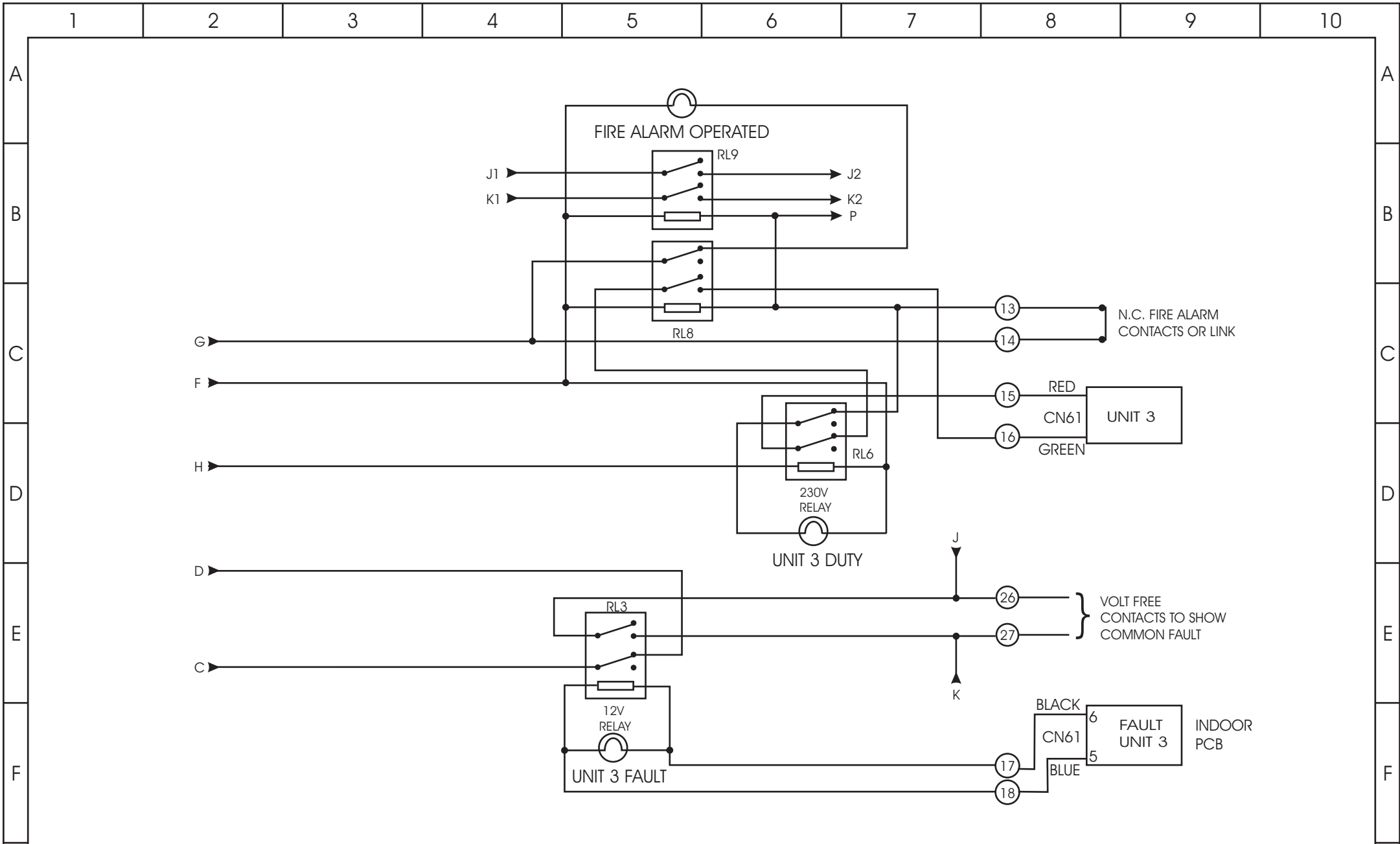
Press and hold the  button whilst pressing either the  or  button to increase or decrease the set point until the desired value is shown on the display.

Release the  button and the new value is stored.

The X button has no function.



DESCRIPTION			 Leading Innovation >>>	© Copyright 2014	TITLE	ORIGINAL DRAWN BY	CAD VERSION BY	DATE	DATE
				<small>No part of this document may be photocopied or otherwise reproduced without prior permission in writing of Sarum Electronics Ltd. Such written permission must also be obtained before any part of this document is stored in a retrieval system of whatever nature.</small>		S. BISHOPP	A. ADAMSKA	03.12.2013	1 OF 2
					JOB NUMBER	16375	DRAWING No.		R4409
1	2	3	4	5	6	7	8	9	10



DESCRIPTION			 TOSHIBA Leading Innovation >>>	© Copyright 2014 No part of this document may be photocopied or otherwise reproduced without prior permission in writing of Sarum Electronics Ltd. Such written permission must also be obtained before any part of this document is stored in a retrieval system of whatever nature.	TITLE	ORIGINAL DRAWN BY	CAD VERSION BY	DATE	DATE		
					S. BISHOPP	A. ADAMSKA	03.12.2013	2 OF 2			
					JOB NUMBER	DRAWING No. R4409 Issue 2					
					16375						
1	2	3	4	5	6	7	8	9	10		