

SMARTCOM³ CONTROL PANEL & UNITARY RADIANT / HERRINGBONE.



Section

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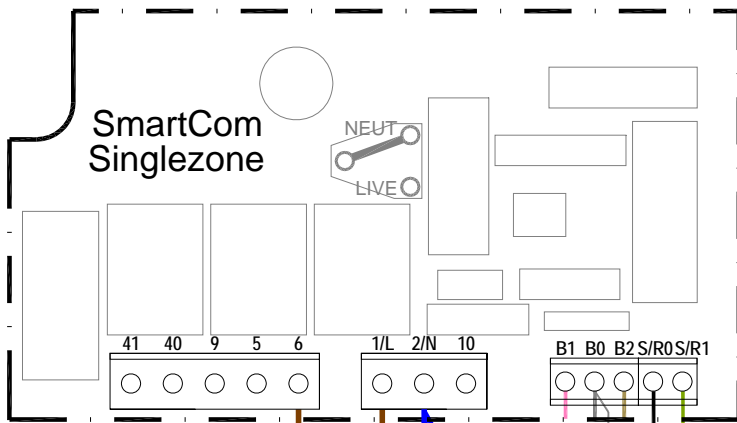
Warnings

All external wiring MUST comply with the current IEE wiring regulations. These instruction MUST be used in conjunction with the SmartCom³ user manual and the appropriate heater manual.



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1 Single Zone Standard Radiant Systems.

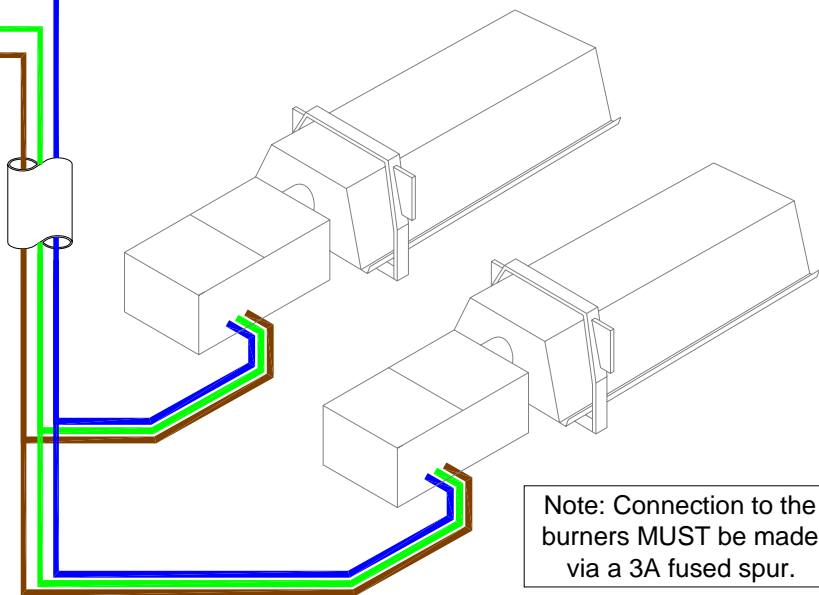


NOTES:

REMOTE SENSOR(s) may be placed at a max distance of 100m from the control unit, using screened 6A mains* cable. Wiring should be kept separate from mains wiring to minimise noise pick up. Set within Engineers functions for remote sensor.
 *The power supply is non-isolated, therefore all wiring to the control must be mains rated.

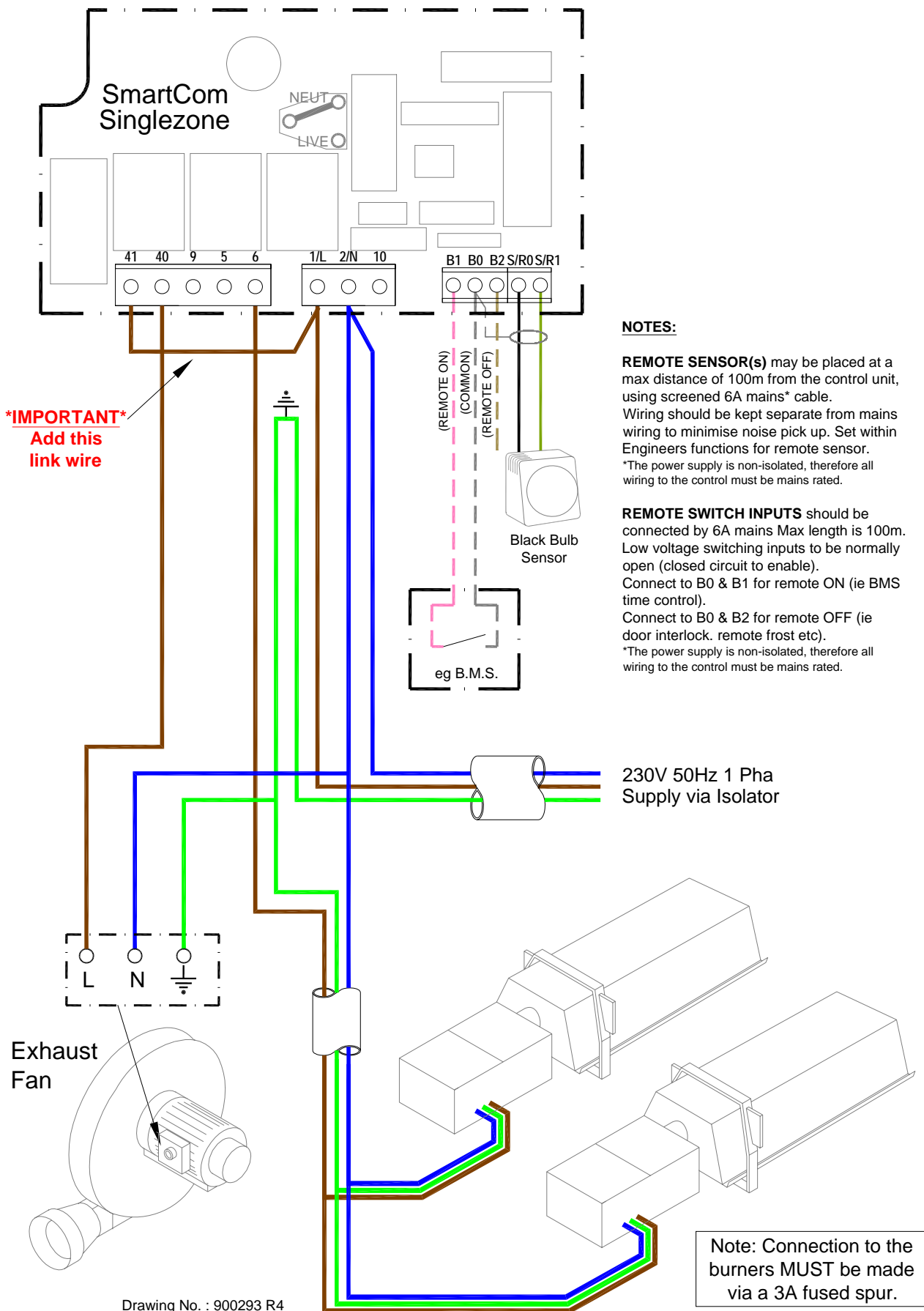
REMOTE SWITCH INPUTS should be connected by 6A mains Max length is 100m. Low voltage switching inputs to be normally open (closed circuit to enable).
 Connect to B0 & B1 for remote ON (ie BMS time control).
 Connect to B0 & B2 for remote OFF (ie door interlock, remote frost etc).
 *The power supply is non-isolated, therefore all wiring to the control must be mains rated.

230V 50Hz 1 Pha
 Supply via Isolator

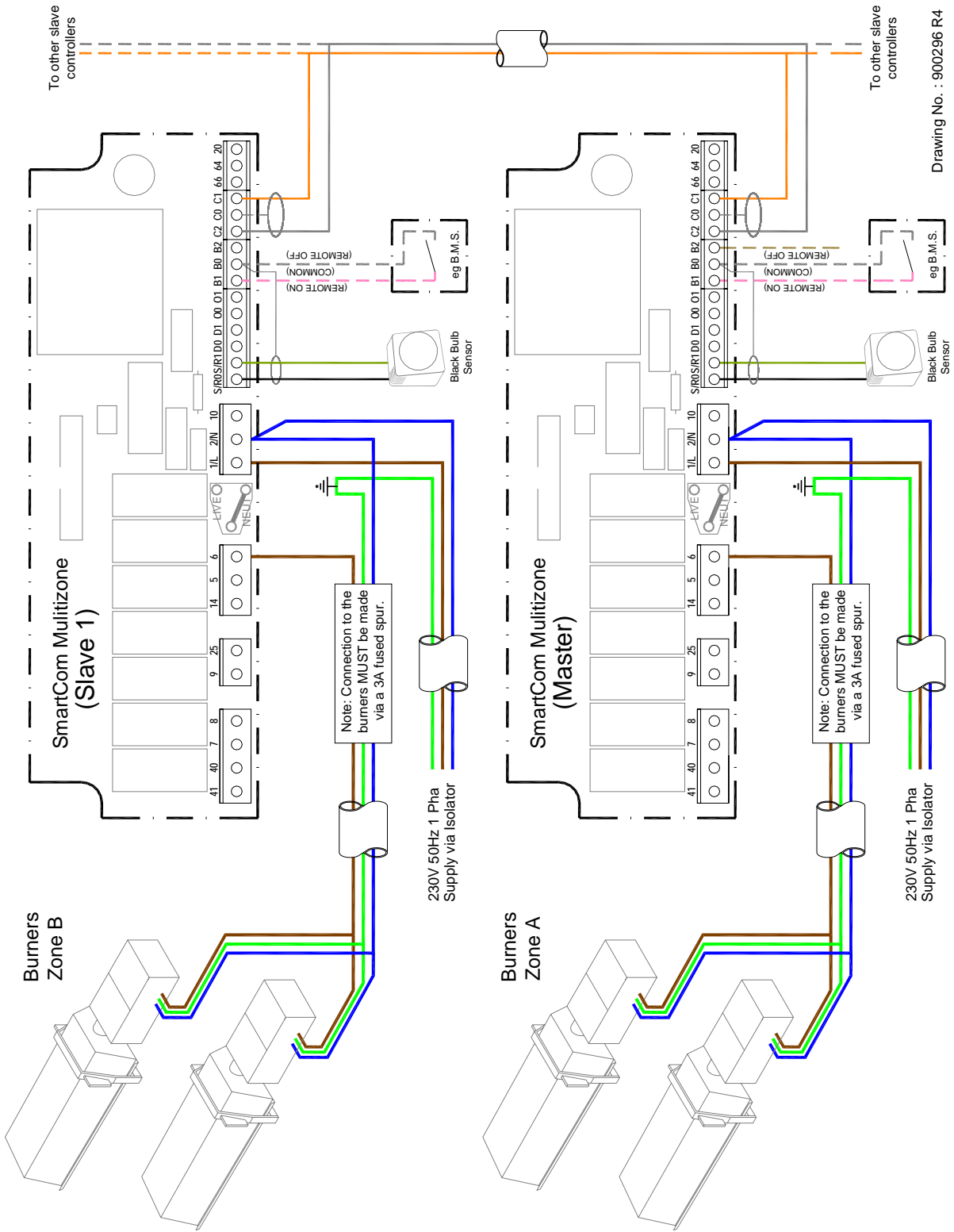


Note: Connection to the burners MUST be made via a 3A fused spur.

2 Single Zone Herringbone Fan Systems.



3 Multizone Standard Radiant Systems.



Drawing No. : 900296 R4

NOTES:

NETWORK. Master-slave (Network) communication is by screened twisted pair cable, RS485 compatible such as Belden 9841. Maximum overall system length of 500m. Connect screen to CO.
NOTE: Diagram shows a master and ONE slave configuration**. Wire further slaves in parallel.

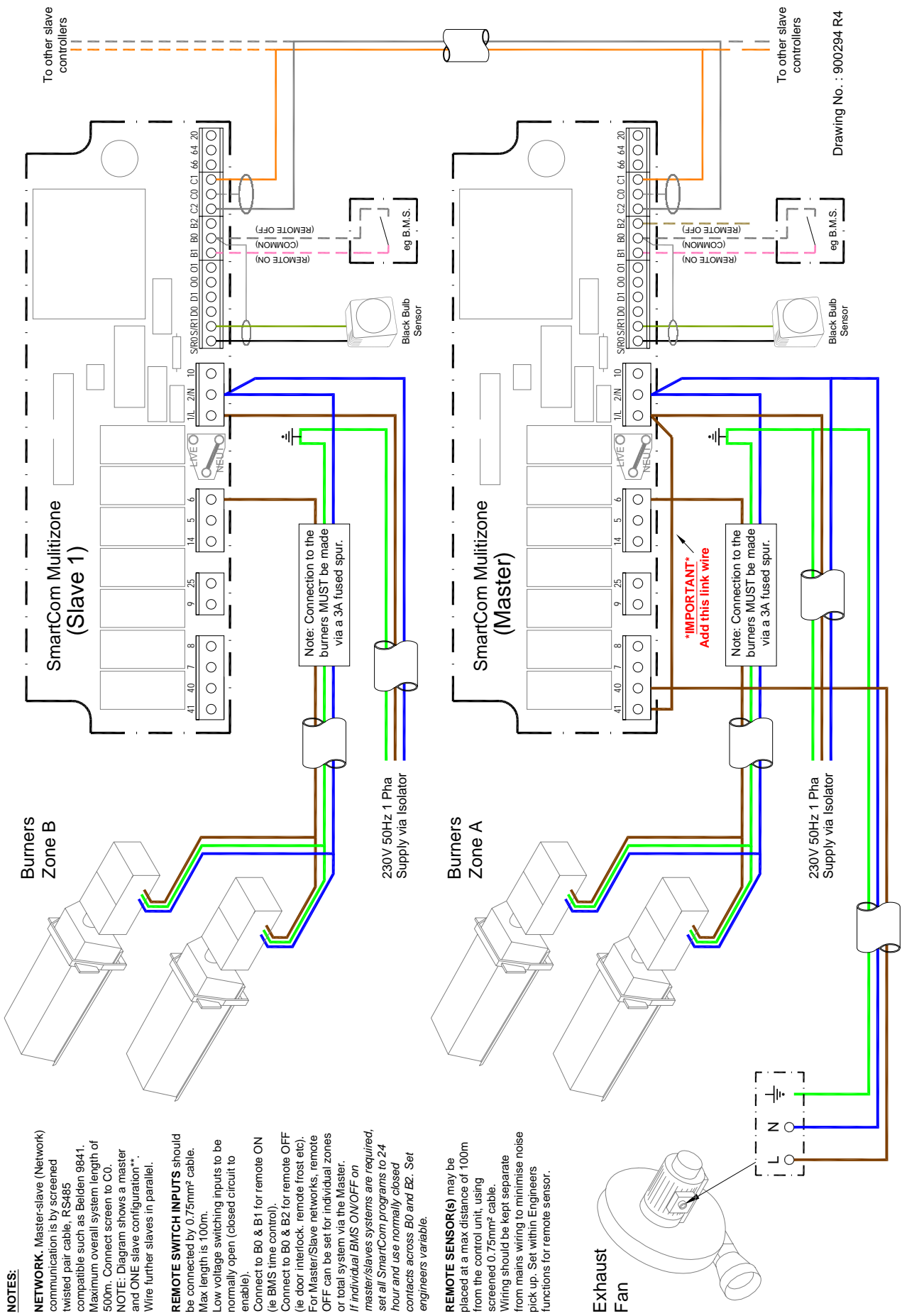
REMOTE SWITCH INPUTS should be connected by 0.75mm² cable. Max length is 100m. Low voltage switching inputs to be normally open (closed circuit to enable).

Connect to B0 & B1 for remote ON (ie BMS time control). Connect to B0 & B2 for remote OFF (ie door interlock, remote frost etc). For Master/Slave networks, remote OFF can be set for individual zones or total system via the Master.

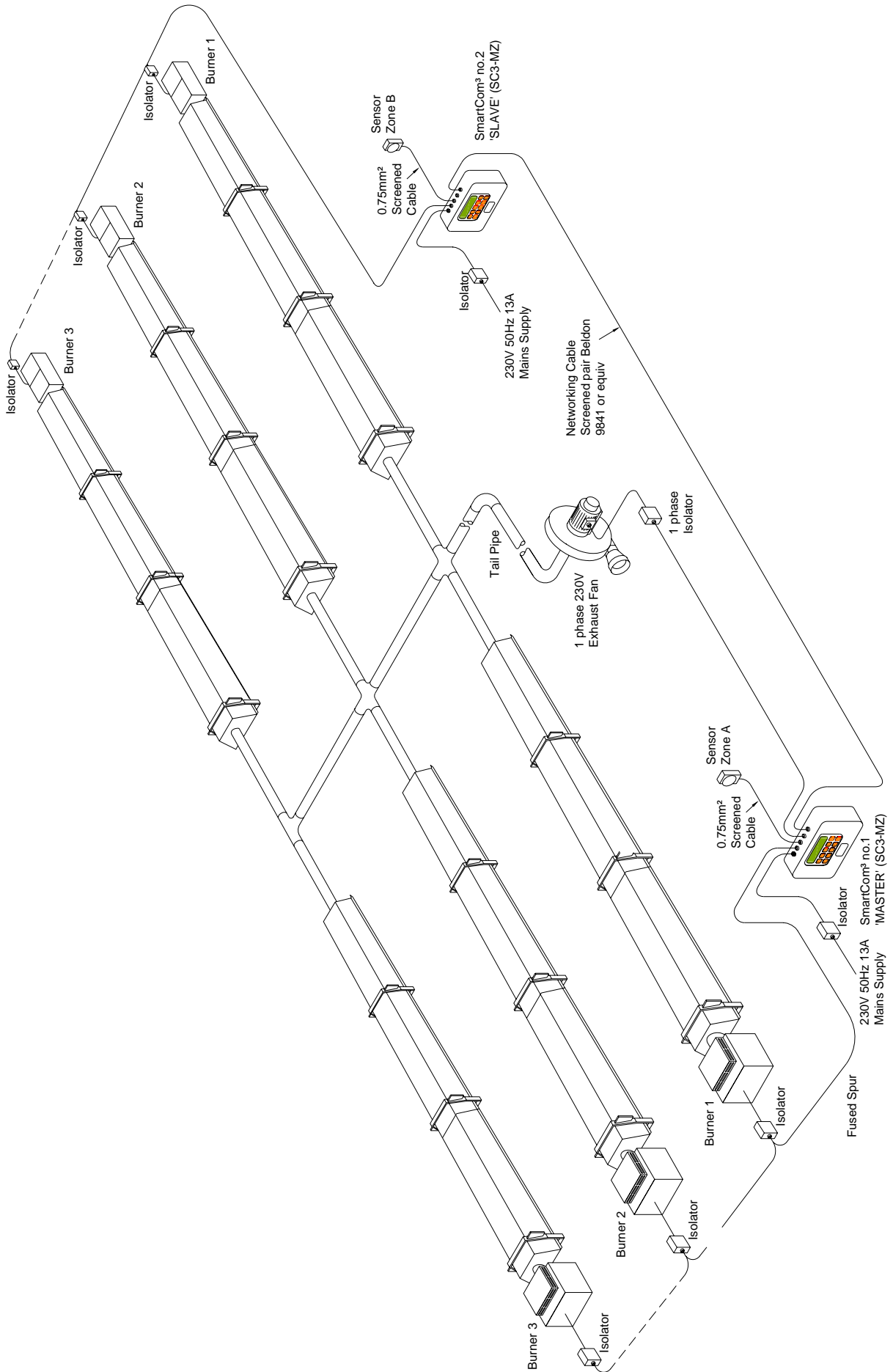
If individual BMS ON/OFF on master/slaves systems are required, set all SmartCom programs to 24 hour and use normally closed contacts across B0 and B2. Set engineers variable.

REMOTE SENSOR(s) may be placed at a max distance of 100m from the control unit, using screened 0.75mm² cable. Wiring should be kept separate from mains wiring to minimise noise pick up. Set within Engineers functions for remote sensor.

4 Multizone Herringbone Fan Systems.



5 Schematic Two Zone Herringbone System





6 SmartCom³ Radiant Commissioning.










































For ease and swiftness of initial start-up, the SmartCom³ range of electronic controllers is supplied factory pre-set to default settings as described in the SmartCom³ Installation and User Manual ref GB/SCOM/120/0309.

The controllers will therefore operate immediately with standard **Warm Air Unit**

heaters or **Singular Radiant** heating systems without the need for on-site programming.

However, if either multi-zone Radiant, single or multi-zone Herringbone or single or multi-zone Nor-Ray-Vac systems are to be operated along with a Black Bulb Sensor, then the engineers' settings will have to be modified.

In order to access the engineer functions:
 Press and hold in the  button and at the same time, press the  button.

		CONTROL TYPE WARM AIR SET/OK	press 	to alter or press		to advance
press 	once.	CONTROL TYPE RADIANT SET/OK	press 	to accept. Press		to advance
		RAD/NRV/HB SPLIT OFF SET/OK	press 	to alter or press		to advance
press 	once for split zonal systems	RAD/NRV/HB SPLIT ON SET/OK	press 	to accept. Press		to advance
press 		INTERNAL SENSOR ON SET/OK	press 	to alter or press		to advance
press 	once to turn off internal	INTERNAL SENSOR OFF SET/OK	press 	to accept. Press		to advance
		EXTERNAL SENSOR OFF SET/OK	press 	to alter or press		to advance
press 	once to turn off external	EXTERNAL SENSOR ON SET/OK	press 	to accept. Press		to advance
		NETWORKING OFF SET/OK	press 	to alter or press		to advance
press 	once for master slave	NETWORKING ON SET/OK	press 	to accept. Press		to advance
		MASTER UNIT OFF SET/OK	press 	to alter or press		to advance
press 	once if master unit	MASTER UNIT ON SET/OK	press 	to accept. Press		to advance
		SLAVE UNIT 0 SET/OK	press 	to alter or press		to advance
press 	for unique slave number	SLAVE UNIT 3 SET/OK	press 	to accept. Press		to advance
		SLAVE TOTAL 0 SET/OK	press 	to alter or press		to advance
press 	for total no. of slaves	SLAVE TOTAL 6 SET/OK	press 	to accept. Press		to advance

Notes:

MASTER & SLAVE (NETWORK)

When setting up a SmartCom³ Master and Slave (Network) system, the master controller will display an error message during commissioning. This will clear once the commissioning is complete.



REMOTE SWITCHED INPUTS

SmartCom³ controllers can be operated remotely via a remote ON or a remote OFF signal in the following ways:

A. Building Management System Control (BMS).



SmartCom³ controllers can be operated via a BMS system, by applying a volt free connection (ie closed circuit to enable) across terminals B1 and B0 turns the system on. Making this connection on a master controller will turn the entire system on whereas making this connection on a slave unit will only bring on that zone.

1. BMS Controlling Time only.

Ensure all the programmed ON times in the SmartCom³ are turned off (i.e. They read "- :- -").

2. BMS Controlling Time and Temperature.

Ensure all the programmed ON times in the SmartCom² are turned off (i.e. They read "- :- -"). Set all the required day temperatures to 30°C.

B. Remote Door Interlock



SmartCom³ controllers can be connect to a door interlock, remote frost stat or permanent off switch via terminals B2 and B0. When a volt free connection is provided (ie closed circuit to enable) at these terminals, the controller reverts to a FROST ONLY mode.

Refer to the individual wiring diagrams for wiring configurations and type.



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