



SIMPLE BMS INTERFACE FOR CH HEATERS (MCBMS)

Introduction

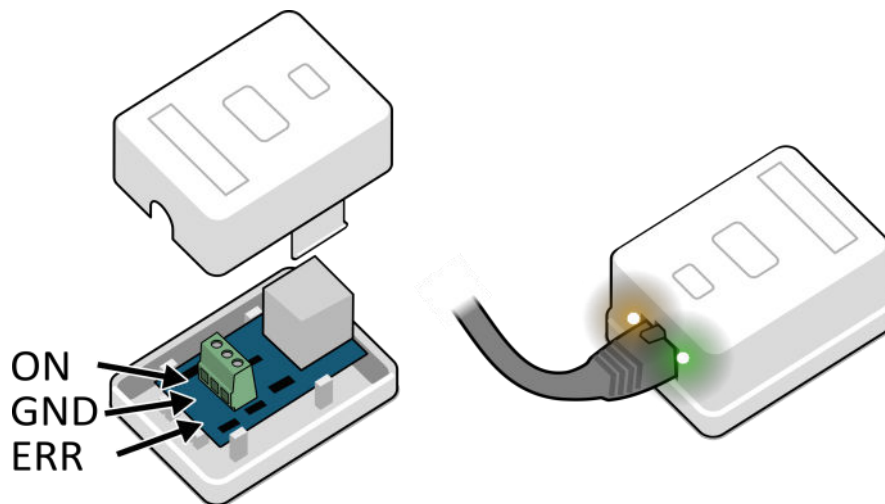
The MCBMS offers 2 functions; BMS error reporting and an external remote or boost switch connection. When used as a switch, the MCBMS must be used in conjunction with a CHMC controller and CH heaters. Each system can have a maximum of 8 heaters. Please see page 6 of CHMC instructions for further details. BMS Error reporting works on all Consort heaters as long as they have an RJ45 connector.

Installing the MCBMC

The MCBMS must be connected to the heating system using the RJ45 cable. It will be installed at the end of the daisy chained heaters. The MCBMS case can be opened by squeezing at the sides to allow access to the terminals.

The BMS error reporting connection should be made between ERR and GND terminals.

The remote switch connection should be made between ON and ERR terminals. Alternatively, an external ground and voltage can be brought to the unit (3.3-12V DC) and connected to GND and ON terminals to activate the switch.



The green LED beside the RJ45 socket lights to show that the unit is powered.

The orange LED lights when a fault is detected in one of the heaters in the system.

Remote or Boost Switch

The MCBMS can be connected to any remote switch via the volt free external input. This can be configured as either a boost function or an Off control switch using the CHMC. The boost function simply boosts the temperature for a set duration. If using this feature a push button style switch must be used.

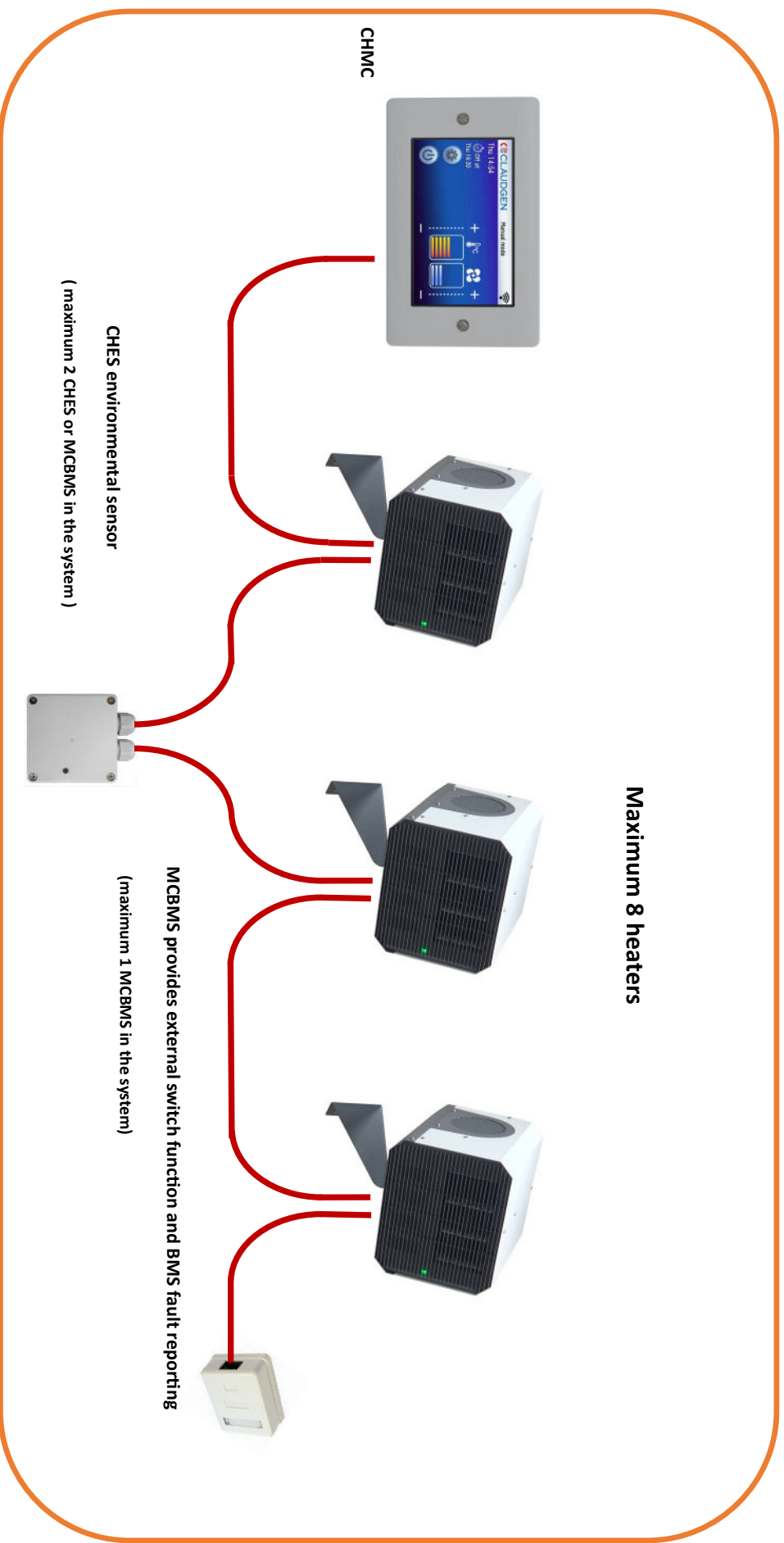
The Off control will deactivate the heating completely. A common use for this would be a key switch to lock off the heating. The connection is volt free and is normally open.

When an error is triggered, the voltage on the ERR terminal goes to 0V, and this automatically opens the switch. If set as an external switch, this will switch the heater off. To avoid this behaviour, the switch can be controlled by an external DC voltage, such as from a BMS. The voltage range is 3.3V - 12V DC.

BMS error reporting

The MCBMS can provide error reporting to a BMS system. When no error is detected, there will be 3.3V between GND and ERR ports. When an error in any of the connected heaters is detected, there will be 0V.

Typical Installation Diagram.



Declaration Of Conformity

In accordance with UK Government Guidance.

WE HEREBY CERTIFY THAT THE APPLIANCES DETAILED HEREON HAVE BEEN INSPECTED AND TESTED, AND CONFORM TO THE REQUIREMENTS OF THE FOLLOWING UK STATUTORY INSTRUMENTS WHERE APPLICABLE:

Electrical Equipment (Safety) Regulations 2016 SI. 2016 1101

Electromagnetic Compatibility Regulations 2016 SI. 2016 No. 1091

Radio Equipment Regulations 2017 SI. 2017 No. 1206

The Ecodesign for Energy Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019. SI. 2010 2617

The Restriction of use of Certain Hazardous Substances. SI. 2012 No. 3032

Transposed standards used:

- **BSEN55014 (2006)**
- **BSEN301 489.1 & .3**
- **BSEN300 220.1 & .2**
- **BSEN60 730.2.9**
- **BSEN 60335.1 (2012)**
- **BS EN 60335.2.30 (2009)**

PART NUMBER OF APPLIANCE

NAME OF RESPONSIBLE PERSON:

POSITION:

DATE:

MCBMS

DAVID O'SULLIVAN

OPERATIONS MANAGER

24/06/24



FM 12671

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