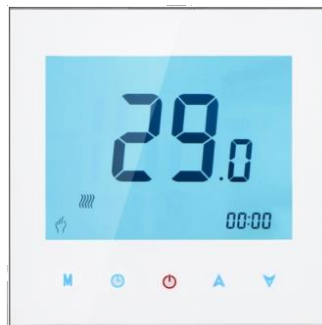


Manual for Local Room Controller Thermostat

ORC-HC2-16A-RS485



86 x 86 x 15mm

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Introduction

The ORC-HC2-16A-RS485 Local Room Controller (LRC) is available in multiple versions.

Designed to work with Modbus addressed controllers or Gateways. The ORC-HC2-16A can work stand alone. The LRC is designed to allow the User to see what state the climate controller is in. For example Local Ambient temperature, desired temperature “set point” and Heat mode.

Installation of the LRC uses a standard UK single electrical box 45mm deep supplied separately.

Versions

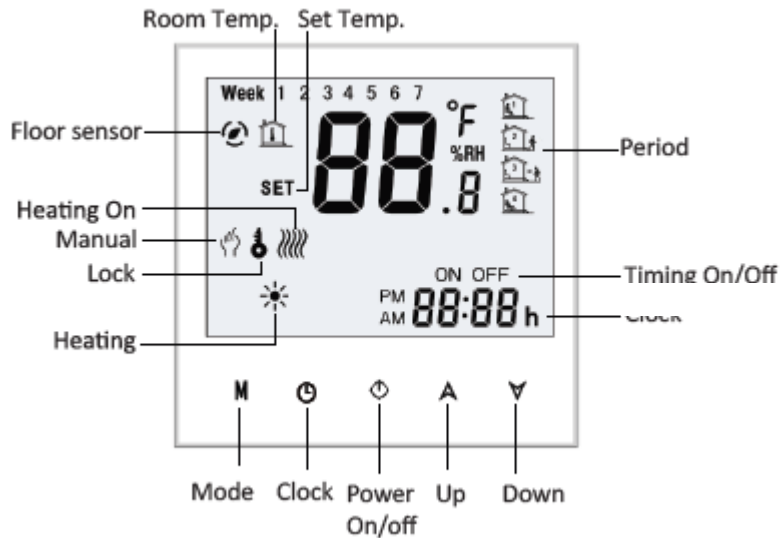
Part code →

ORC – HC2 – 16A – RS485 – WH



	ORC-HC2-16A-RS485-WH	ORC-HC2-16A-WIFI-WH	ORC-HC2-16A-SA-WH	
Screen	LCD	LCD	LCD	
Power	240V AC (up to 16A)	240V AC (up to 16A)	240V AC (up to 16A)	
Data	RS485/Modbus	WiFi (2.4GhZ)	None	
LRC Ver	HC2	HC2	HC2	
Bus filter	12v p-p	12v p-p	12v p-p	
Sensors	Internal / External	Internal / External	Internal / External	
External Sensor	10K NTC	10K NTC	10K NTC	
UFH Control	YES	YES	YES	
Local Control	NO	NO	NO	
Cabling	240V AC Electrical Cables and Belden 9842 communication	240V AC Electrical Cables and Belden 9842 communication	240V AC Electrical Cables and Belden 9842 communication	
Colour	White / Silver Frame	White / Silver Frame	White / Silver Frame	
FCU control	NO	NO	NO	
Baud Rate	9600,19200,38400	9600,19200,38400	9600,19200,38400	

Home Screen



Adjusting LRC

Desired Room temperature

When you select **▲ ▼** on the Home screen will now show the desired SET point. Adjust using **▲ ▼** until the correct temperature is displayed (SET point).

After 3 seconds the Home display will show the Ambient room temperature.

Depending on configuration of the controls equipment the system will start to operate the controls. The change may take up to 3 minutes before operation starts.

Lock Mode (optional)

Enter Lock mode

Press and hold **🕒 ▲** for 3 Seconds to lock the screen.

The icon **🔒** will display on the Home Screen

Exit Lock Mode

Press and hold **🕒 ▲** for 3 Seconds to lock the screen.

Installer Mode

Installer Options

	Function	Setting / Option	Default
1	Offset / calibration	Internal Sensor	-2
2	Dead Zone Temperature	1 – 5 degrees	01
3	Lock	00 = All the buttons are locked except power 01 = All the buttons are locked	01
4	Sensor Type	IN (internal), OU (external) AL (Internal and limit)	AL
5	Min set Temp	5 – 15°C	05
6	Max set Temp	5 – 35°C	35
7	Display Mode	00 = Set and Room Temperature 01 = only Set Temperature	00
8	High Temp protection	25 – 70°C	45
9	Address	Modbus address (HEX)	01
A	Version	Firmware Version	40 2

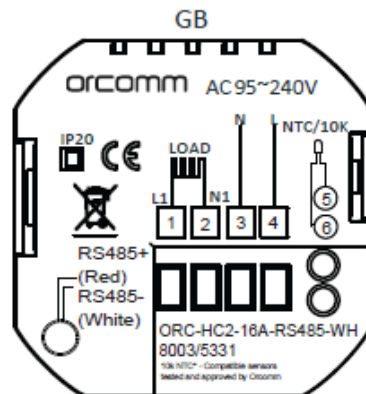
Enter Installer Menu

To Enter installer menu

1. Turn off the LRC (Home screen blank)
2. Press and hold **M** and then  until display changes (3 seconds)
3. Now choose option to change by using **M** to toggle through options (note 3 sec time out)
4. Change the Default value using **▲ ▼**
5. Then move to next option using **M**
6. Setting will auto save when timed out

Best practice when finished setting up the LRC, turn all power OFF and ON again to allow controls to reset.

Cabling



Additional notes

Long cable runs on Modbus will require termination resistor.

BIAS Resistors can be used at the beginning of the bus to help control higher than normal voltages.

Example 120 ohm across A & B, 1K across A and 12VDC, 1K across B and GND – NOTE turn off before installing resistors.