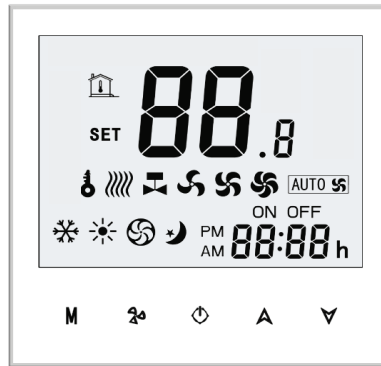# orlight® orcomm

FROM SOURCE TO SITE

Fan Coil Room Thermostat User Guide

ORC-HC2-24D-RS485-WHF

Your thermostat

ORC-HC2-24D series Modern Touch Screen room thermostat are designed to on/off control the fans and valves in air conditioner applications.
These units are designed for use in commercial,industrial, civil and domestic properties.

Features

Simple installation
Acrylic face plate
Large, backlit display
Sleek, contemporary design
Elegant chrome frame
Feather touch control panel
5+2 six period per day programming
Simple, one-touch temperature control over-ride
Pre-set temperatures maintained within +/- 1°C
Internal and external sensors allow control of both air and/or floor temperatures
Suitable for installation in a standard single pattress box or European 60mm round box
RS485/MODBUS communication optional

Technical Data

Sensor：NTC
Temp. Range：5 -35℃
Timing error ：<1％
Current Load： 5A for fan and 3A for valve
Accuracy：±0.5 ℃
Power Consumption : <1.5W
Power Supply: 24 V, 50 ~60Hz
Shell Material PC （Fireproof）
Dimension：86x86x13.3mm
Installation box：86*86mm or European 60mm
Ambient Temp.: 0 ~ 45℃ , 5 ~ 95％ RH(Non condensing）
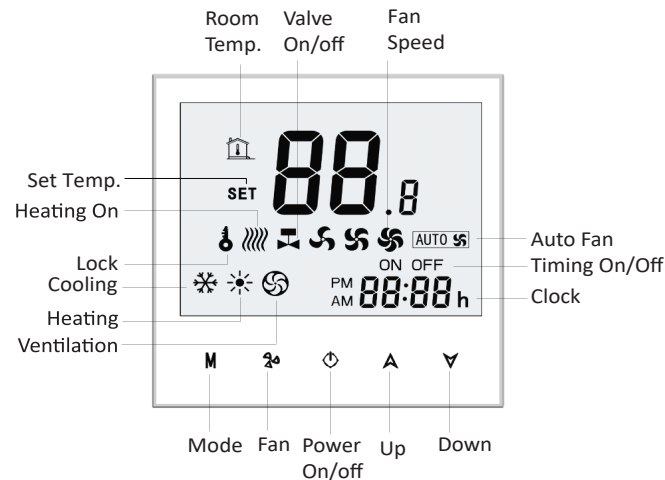StorageTemp: -5~55℃

Welcome

Thank you for your purchase.
Your new thermostat will provide uniform and comfortable temperature control throughout every room in your property. We bring together technology, craftsmanship and the highest quality materials to provide you with a safe, reliable product combined with sleek, contemporary design. Please read this installation/programming manual for comprehensive instructions on installing and operating your thermostat. Please ensure a suitably qualified person installs your thermostat and complies with all local regulations.

Contents

Thermostat	1pc
Screws	1pc
Installation/programming manual	1pc
Wall plate	1pc

Home screen quick reference:

Room Temp.   Valve On/off   Fan Speed

Set Temp.
Heating On

Lock
Cooling

Heating
Ventilation

Auto Fan
Timing On/Off
Clock

Mode   Fan   Power On/off   Up   Down

Operation/programming

1. Setting Lock (optional function)

Press and hold ∧ ∀ for 3 sec. to lock the screen.
The icon 🔒 will display on the screen.
Press and hold ∧ ∀ again for 3 sec. to unlock the screen.

2. Setting the fan

Press 🌀 to select the fan speed AUTO, HIGH, MED, LOW, No Show Fan.

3.Selecting the clock

Press and hold M , minutes will flash,
Press M to set minutes of the time;
Press M to set hours of the time;
Press ∧ ∀ to set the relatve values.

4. Setting functions and options

During power off, press and hold **M** 🌀 at the same time for 5 sec. to system functions. Then press M to change the different items.
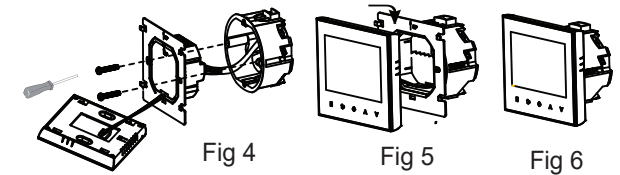Press ⋏ or ⋎ to set the relative values.
All the settings will confirm automatically when power is on.

No.	Function	Settings & Options	Default
1	Temp. Calibration	-9 to 9 °C	-2
		No available	00
3	Lock	00: All the buttons are locked except POWER 01: All the buttons are locked	01
4		No available	01
5	Min. Set Temp.	5-15°C	18
6	Max. Set Temp.	5-35°C	32
7	12/24 Hour clock	00:12h 01:24h	01
8	Display Mode	00: Display both set temp. and room temp. 01: Display set temp. only	00
9		No available	1
10	Modbus IP address	0X00-0XFF	01
11	Baudrate	1:9600;2:19200;3:38400;4:56000;5:115200	1
12	External sensor Temp. Calibration	-9 to 9 °C	0

Step 3. Connect power supply, load and external (floor) sensor into the appropriate terminals if there is external sensor.
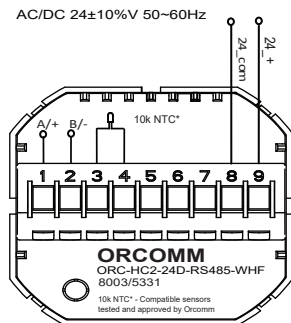(see "Wiring your thermostat" for details and Fig 3).

Step 4. Fix the mounting plate into the wall with screws in the box. See Fig 4

Fig 4   Fig 5   Fig 6

Step 5. Fasten body of thermostat and the mounting plate through the groove. See Fig 5.

Step 6. Installation complete. See Fig 6.

Wiring your thermostat

AC/DC 24±10%V 50~60Hz

The room temperature is provided by the built-in sensor on the thermostat. An external 10k NTC sensor can be connected to the thermostat to provide additional temperature input. Externally sensed temperature is only readable on the Modbus.
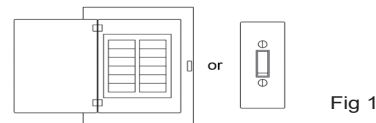
Please note:
Do not over-tighten the terminals in your thermostat as damage may occur.
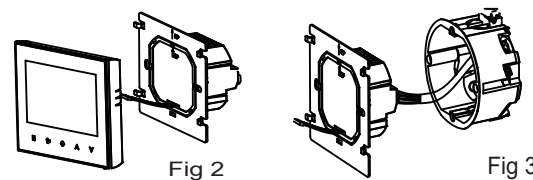10K NTC* - Compatible sensors tested and approved by Orcomm

Installing your thermostat

Your thermostat is suitable for installation within a standard 86mm pattress box or European 60mm round pattress box.

Step 1. Keep power off. See Fig 1.

or

Fig 1

Step 2. Remove the mounting Plate. See Fig 2.

Fig 2   Fig 3

RISK OF ELECTRICAL SHOCK. Disconnect/isolate power supply prior to making electrical connections. Contact with high voltage components can cause electrical shock, severe injury or death.

Warranty

Your thermostat carries an 24 months warranty from date of purchase. Service outwith the warranty period may incur a charge.