daitsu

REMOTE CONTROL RHR-SCO2

Serie
HEAT RECOVERY FRESHOME RHR

Edition
03/21

Models
RHR 150
RHR 200

DAITSU
RHR-S WIRELESS CO$_2$ PROBE

$C\,E$

Country: EN

CONTENT

A LED status
B LED mode
C Touch button

1 ABOUT THIS MANUAL

1.1 ABOUT THE DEVICE

The wireless CO$_2$ probe is a user control and a CO$_2$ sensor for the ventilation system. The device communicates information on the ventilation speed request and the system status via wireless communications with the central control device.

1.2 HOW TO USE THIS MANUAL

This manual is designed as a reference book for qualified installers to be able to install the **wireless CO$_2$ probe** (hereinafter "device") and for users to be able to use the device for its intended purpose. Make sure you have read and understood the manual before installing and/or using the device.

1.3 ORIGINAL INSTRUCTIONS

The original instructions for this manual were written in Spanish. Versions of this manual in other languages are a translation of the original instructions.

1.4 WARNINGS

NOTE
It is used to highlight additional information.

DANGER
It identifies a danger that could cause personal injury, including death.

2 SAFETY

2.1 DIRECTIVES

The device complies with the following EC directives:

- ☑ EMC Directive: 2004/108/EC
- ☑ Low Voltage Directive: 2006/95/EC
- ☑ RTTE Directive: 1999/5/EC
- ☑ RoHS Directive: 2002/95/EC
- ☑ WEEE Directive: 2002/96/EC

2.2 SIGNS ON THE UNIT

⚠ Warning: Check the instructions for use as a precaution.

⚡ Danger: Risk of electric shock.

▢ IEC 61140 Protection Class II (double insulation).

CE CE mark compliance.

⚠ Use of the device may not be legal in all member states.

🗑 Dispose of in accordance with European Community Directive 2002/96/EC (WEEE).

2.3 GENERAL SAFETY INSTRUCTIONS

- ☑ This product was designed and manufactured to ensure maximum safety during installation, operation and service.
- ☑ Always read the safety instructions before installing, maintaining or repairing the product and strictly observe these instructions.
- ☑ Parts of the device carry mains power, which is a potentially lethal voltage.
- ☑ Disconnect the power supply to the supply line, circuit breaker or fuse before installing, repairing or removing the device.
- ☑ The device is designed for indoor use only. Do not expose the device to rain or moisture in order to prevent short circuits.
- ☑ A short circuit can cause fire or electric shock.
- ☑ Operate the device between 0°C and 40°C.
- ☑ Only use a soft, damp cloth to clean the unit.
- ☑ Never use abrasive or chemical products. Do not paint the device.

3 DESCRIPTION

3.1 INTENDED USE

The device is designed for the following purposes:
1. To set the ventilation level via the fan speed, according to the user input or the measured level of CO_2.
2. Configure the parameters for controlling the ventilation. Any other use or additional use is not in compliance with the intended use.

3.2 OPERATING PRINCIPLE

The device communicates with the control device via wireless communications for controlling the ventilation. Via the button and the LEDs, you can read and configure the control mode that the ventilation system is currently in. When it is in Eco mode or Comfort mode, the device requests the ventilation level according to the amount of CO_2 in the air.

3.2.1 VENTILATION SPEEDS AND MODES.

The ventilation system operates in one of the following modes. In each of these modes, the control device adjusts the ventilation system to a configured ventilation level.
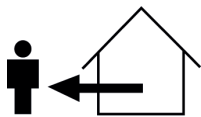
ABSENCE MODE:

It represents periods of non-occupancy, when the heat recovery unit will operate at the lowest capacity.

AT HOME MODE:

It represents occupancy of the home or a room. By selecting this button, the heat recovery system knows that there is one person (or more) in the room or home. It will set the speed to the default level.

MAXIMUM TIMER:

High fan speed, for a limited time. When the button is pressed, the heat recovery unit will reach maximum speed for 30 minutes.

Eco

ECO MODE:

Sensor-based automatic ventilation. In ECO, the system will begin at a higher CO$_2$ level to ventilate like in **COMFORT mode.**

Comfort

COMFORT MODE:

Sensor-based automatic ventilation. The system will accelerate the CO$_2$-based ventilation after a certain default activation value is exceeded.

The control device drives the fan according to the highest values sent by the linked wireless sensors. When you start the timer mode from this device, the ventilation will be active for 30 minutes.

3.2.2 CO$_2$ SETPOINT

The device measures the level of CO$_2$ in the air continuously and compares the measured value to a configured setpoint. The device controls the ventilation accordingly to keep the measured level of CO$_2$ below the requested level. When it is in Comfort mode, the requested level is the same as the configured value. In Eco mode, the requested level is 250 ppm above the configured value.

NOTE

The device stores the fan speed values configured on the control device and requests them from there. The device stores the CO$_2$ setpoint itself and does not communicate it to any other device.

3.3 VISUAL SIGNALS

	LED STATUS	LED MODES				
	💡	🚶⬅🏠	🏠🧍	🕐	Eco	Comfort
Start-up						
	STEADY WHITE	ON	ON	ON	ON	ON
System status						
STEADY GREEN	<800 PPM					
STEADY YELLOW	800-1900 ppm					
STEADY — RED	>1900 ppm					
STEADY — 1 flash	Communication error					
STEADY — 2 flashes	Dirty filter					
STEADY — 3 flashes	Fan error					
STEADY — 4 flashes	CO_2 sensor error					
STEADY — 5 flashes	Low battery					
Selection						
ABSENCE MODE	OFF	•				
AT HOME MODE	OFF		•			
MAXIMUM TIMER	OFF			•		
ECO MODE	OFF				•	
COMFORT MODE	OFF					•

4 OPERATION

4.1 SHOW STATUS

1. Tap the button.
The LED status and the LED modes show the system status.

4.2 SETTING MODE

From the status screen:
1. Tap the button. The mode LEDs show the following selection.
2. If necessary, tap the button within 2 seconds, repeat until the selection shows the required mode.
3. Wait 2 seconds. The device applies the requested mode.

The LED status and the LED modes show the system status.

5 INSTALLATION

5.1 PREPARATION

DANGER
Disconnect the power supply to the supply line, circuit breaker or fuse before installing the device.
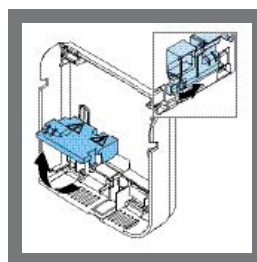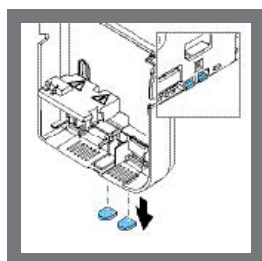
NOTE
Do not place the device in a metal housing.

1. Press the clip and pull the upper section of the lower section.

2. Open the safety cover. Use a small flat-head screwdriver to loosen the clip.
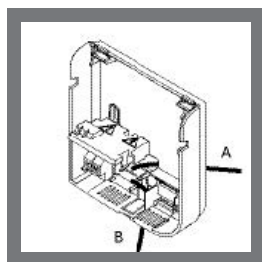
When the device is not placed in a recessed wall box:
1. Prepare the wall, if necessary. Use the mounting plate as a template.
2. Remove the detachable plastic from the cable entry on the housing.

5.2 INSTALLATION PROCEDURE

DANGER
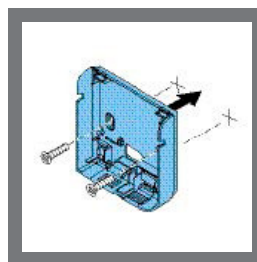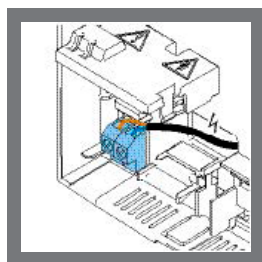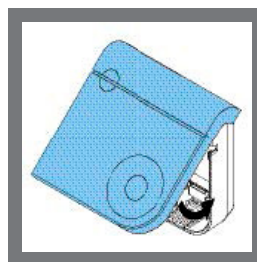Make sure that the power supply is turned off.

1. Pass the power cable through the rear hole (A) or the cable entry (B).

2. Position the lower section of the device.
3. Secure the lower section with the bolts.

4. Connect the power cable to the bolt terminals.

5. Position the upper section of the device on the lower section.
   a. Position the clips.
   b. Close and press until it clicks.

5.3 START-UP

1. Enable the 230 V power supply.
All of the LEDs will light up for 3 seconds.

2. Wait until the status LED displays link mode.
If the device shows another indication, the device is already linked. See 6.2 on how to link the device again.

3. Make sure that the fan box is in link mode.

4. Tap the button. The device tries to link to the control device.

It displays the result in the LED status.
When the communication fails, make sure that the control device is in link mode and try again.

6 CONFIGURATION

	LED STATUS	LED MODES				
					Eco	Comfort
Configuration						
LOW SPEED		•				
MEDIUM SPEED	OFF		•			
HIGH SPEED				•		
CO$_2$ SETPOINT					•	
LINKING						•
VALUE	**Blue/red**	Low speed	Off	10%	20%	30%	40%
	Blue/green	Medium speed	30%	40%	50%	60%	70%
	Red/green/blue	High speed	60%	70%	80%	90%	100%
	Blue (flashing)	CO$_2$ setpoint	700 ppm	800 ppm	900 ppm	1000 ppm	1100 ppm
	Red/green	Linking					

6.1 CONFIGURING SETTINGS

From the status screen (see 4.1):
1. Tap the button. The mode LEDs show the following selection.
2. If necessary, tap the button within 2 seconds, until the selection shows the element to be configured.
3. Keep the button pressed until the status LED starts flashing white.
4. Release the button. The status LED shows the selected element, and the LED flashing modes show its current value.
5. If necessary, tap the button within 10 seconds, until the mode LEDs show the value to be set.

 NOTE
When configuring the fan speeds, make sure that the average fan speed is between the low fan speed and the high fan speed.

6. Wait 10 seconds and the device will apply the configured value. The LED status and the LED modes show the system status.

7 TECHNICAL DATA

DAITSU WIRELESS CO$_2$ PROBE			
TOTAL DIMENSIONS			100 x 100 x 25 mm (height x width x depth)
WEIGHT			± 125g
ENVIRONMENTAL CONDITIONS	**Temperature**	Operating	0 to 40°C
		Transport and storage	-20 to 55°
	Relative humidity		0 - 90%, without condensation
	Electrical protection (IEC60529)		IP30
ELECTRICAL SPECIFICATIONS	Main power supply		195 - 253 VAC, 50 Hz.
	Maximum energy consumption		4 VA
	Cable diameter		0.25 to 2.5 mm^2
CO$_2$ MEASUREMENT SPECIFICATIONS	Optimal measuring range		**Measurement accuracy (within the optimal range, >10 min after start-up):** 400 to 2000 PPM.
	Stabilization period after start-up		40 PPM + 2% of reading at 20°C 2 minutes

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