

MODEL  
CNTRLDRCI86TW



## Wired Remote Controller

Operation and Installation Manual

**Rinnai**

This manual covers the use of this controller on the following models of Airconditioner:

**DRCi 1:1**

DINLR20Z1SA

DINLR24Z1SA

**Mini VRF**

HINRMVRF15

HINRMVRF22

HINRMVRF28

HINRMVRF36

HINRMVRF45

HINRMVRF56

HINRMVRF71

HINRMVRF80

- This manual gives detailed description of the precautions that should be brought to your attention during operation.
- In order to ensure correct service of the wired controller please read this manual carefully before using the unit.
- Keep this manual in a safe place for future reference.

**This appliance must be installed in accordance with:**

- **Manufacturer's Installation Instructions**
- **Current AS/NZS 3000**
- **Local regulations, including local OH&S requirements, and Municipal Building Codes, including the National Construction Code (NCC).**

**This appliance must be installed, maintained and removed only by an Authorised Person. Rinnai recommends that this appliance be serviced every 2 years.**

**For continued safety of this appliance it must be installed and maintained in accordance with the manufacturer's instructions.**

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# GENERAL SAFETY PRECAUTIONS

## About the documentation

- The precautions described in this document cover important topics. Follow them carefully.
- All activities described in the installation manual must be performed by an authorised installer.

## Meaning of warnings and symbols

### **DANGER**

Indicates a situation that may result in death or serious injury.

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### **DANGER: RISK OF ELECTROCUTION**

Indicates a situation that could result in electrocution.

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### **DANGER: RISK OF BURNING**

Indicates a situation that could result in burning because of extreme hot or cold temperatures.

 **WARNING**

Indicates a situation that could result in death or serious injury.

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 **CAUTION**

Indicates a situation that could result in minor or moderate injury.

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 **NOTE**

Indicates a situation that could result in equipment or property damage.

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 **INFORMATION**

Indicates useful tips or additional information.

## For the user

- If unsure how to operate the unit, contact the installer.
- The appliance is not intended for use by persons, including children, with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children must be supervised to ensure that they do not play with the product.

### CAUTION

Do NOT rinse the unit. This may cause electric shocks or fire.

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### NOTE

- Do NOT place any objects or equipment on top of the unit.
- Do NOT sit, climb or stand on the unit.

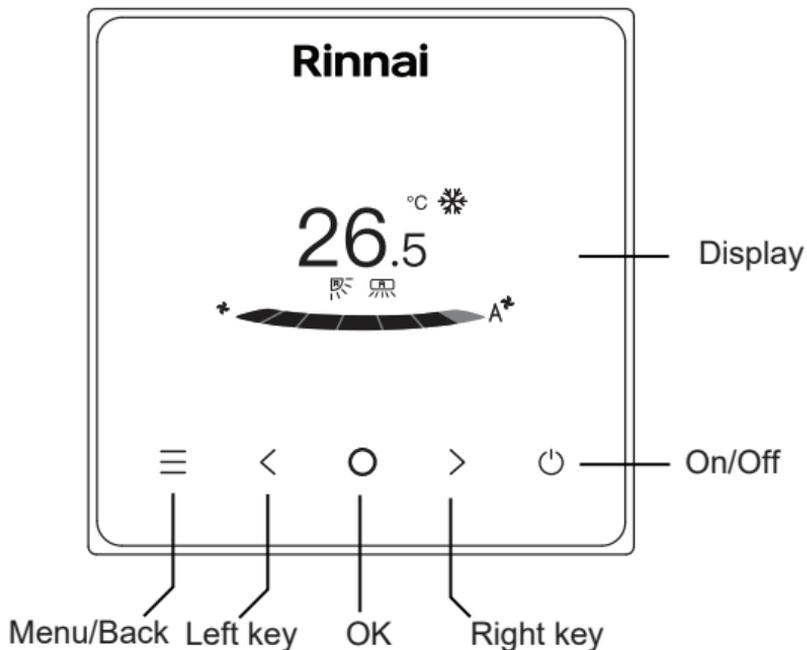
Units are marked with the following symbol:



This means that electrical and electronic products may not be mixed with unsorted household waste. Do not try to dismantle the system yourself: the dismantling of the system, treatment of the refrigerant, of oil and of other parts must be done by an authorised installer and must comply with applicable legislation. Units must be treated at a specialised treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. For more information, contact your installer or local authority.

# OPERATION

## Wired controller: Overview



# Operation

## 1. On/Off

Press "⏻". The screen button will light up and the device will start. In one-to-many individual control, the screen will remain active when the device is turned off. Press "⏻" again. The screen and button will turn off, and the device will shut down.

## 2. Menu/Back

Press "☰" to enter the menu selection screen.  
Press "☰" again to return to the main interface.

## 3. Left/Right key

Press " < " " > " to adjust the temperature and humidity.

**4. Confirmation** Press "○" to wake up the screen.

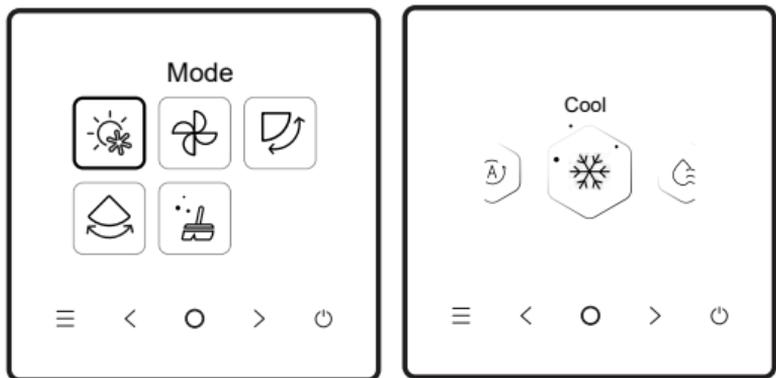
## Icon Description DRCi and Mini VRF Features

 Set temperature display	
 Timer off	 Timer on
 Cooling	 Heating
 Auto	 Indoor temp.
 Fan	 Sleep
 Mute IDU	 ECO
 Fault prompt	 Comfort
 Lock	 Lock child lock
 Dry	 Unlock child lock

### Mini VRF Only Features

 3D air	 Up / Down Swing
 Left / Right Swing	

## Mode

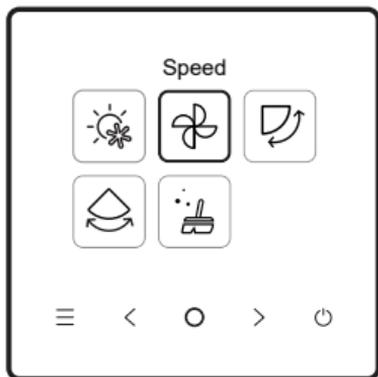


Select the mode on the menu and press "○" for confirmation. After entering the mode, press "<" or ">" to select the operating mode, and press "○" for confirmation. Or press "≡" to exit.

### CAUTION

Mode conflict: When the system detects any mode conflict, the main screen of the wired controller will display a message indicating that no heating or cooling option is available.

## Fan speed

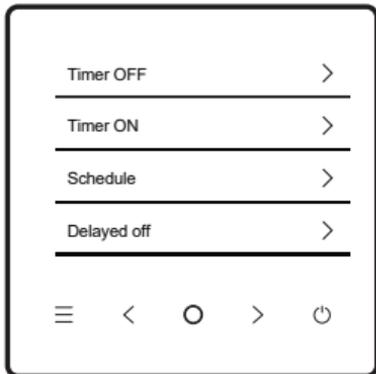


Select the fan speed on the menu, and press "○" for confirmation. After entering the fan speed interface, press "<" or ">" to select the operating speed, or press "≡" to return to the menu.

### CAUTION

- Seven fan speeds are available.
- The air conditioner may adjust fan speed based on indoor temperature, causing a normal variance from the set speed.
- A normal delay may occur between setting the fan speed and the air conditioner's response.

## Timer and schedule



Select the timer function on the menu, and press "○" to confirm. Press "<" or ">" to select the corresponding timer, and press "○" to start function setting.

**Timer off:** Enter the timer off interface, press "<" or ">" to set the power-off time, and press "○" to confirm and return to the home page to display the timer period.

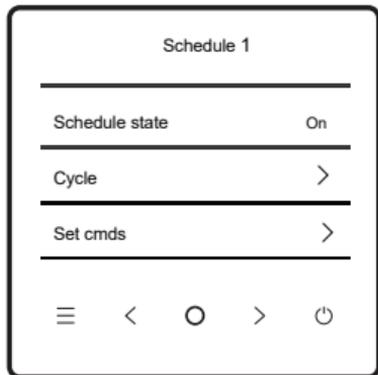
**Timer on:** Access the timer on interface, press "<" or ">" to set the power-on time, and press "○" to confirm and return to the home page, displaying the timer period.

**Schedule:** Access the schedule interface to enable multiple schedules, allowing the unit to operate at specified on/off times with configurable parameters and cycles.

## Schedule

When a schedule is enabled, the air conditioner will go on and off at the specific times. Schedule include regular schedule and simple schedule, among which regular timers are provided with three schedule templates.

The Schedule enables you to set the power-on/off time, the cycle of operation, and the schedule command. Press "<" or ">" to switch the set object, and press "○" to switch the settings.



### CAUTION

- There should not be more than one schedule command at the same time. Otherwise, a conflict may occur.
- Complete the date setting before the first schedule timer setting.



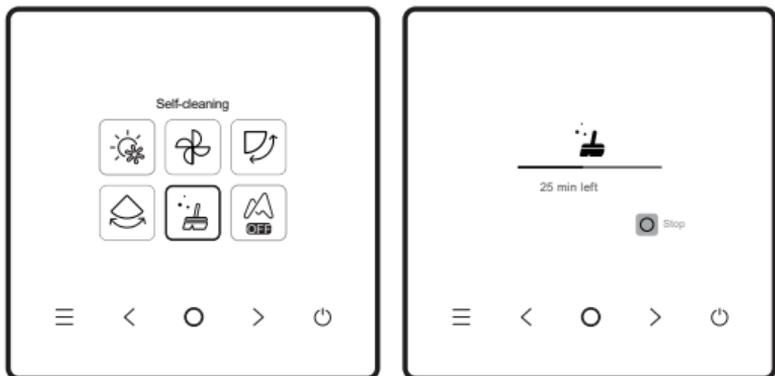
## Delayed off

This function is only effective after the schedule is enabled. After delayed off is set, the air conditioner will delay its shutdown in accordance with the set delay based on the original weekly timed power-off time.

### CAUTION

- Delayed off is one-off. After executing a delayed-off command, you have to set another delayed-off command to execute such function again.

## Self-cleaning



Select the self-cleaning function on the menu.

The self-cleaning process takes approximately 50 minutes and falls into four steps:

Pretreatment ➡ Icing ➡ De-icing and Rinsing ➡ Drying

### CAUTION

- You can quit self-cleaning by pressing "○" to stop self-cleaning or pressing "⏻" to stop directly.
- Only for IDU models with self-cleaning function.
- During the process of self-cleaning, the IDUs may blow out cold or hot air.

## One-to-more

One wired controller can control more than one IDU (up to 16 IDUs). One-to-more control includes group control and separate control. Under group control, the device sends commands to all IDUs in a unified manner. Under separate control, the device sends commands to any IDU in the system.

### (1) Group one-to-more control

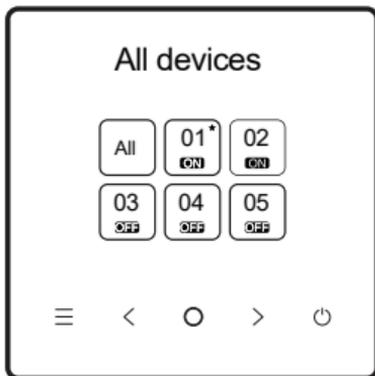
Enable the one-to-more function by entering the Engineering menu > IDU Settings > Site Configs. Once this function is enabled, the system enters the group one-to-more control by default. Under group control, the device sends commands to all IDUs and all IDUs execute the same commands. The main interface of the device under group one-to-more control is the same as that under one-to-one control. The function in the list should be subjected to the IDU.

### (2) Separate one-to-more control

Under group one-to-more control, you can switch to separate control through the separate one-to-more control in the list. Under separate control, the main interface of the device switches to the main interface of separate control.



Separate one-to-more control

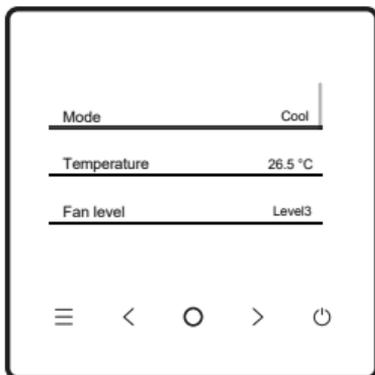


Main interface of separate control

On the main interface of separate one-to-more control, press "≡" to quit from the control. Press "<" or ">" to switch the control object. The control object can be all IDUs or any IDU. Upon selection, press "⏻" to enable rapid power on/off. Press "○" to set the parameters.



Fast startup



Setting

## Settings



**ECO:** After eco is enabled, the home page will show an icon "*eco*".

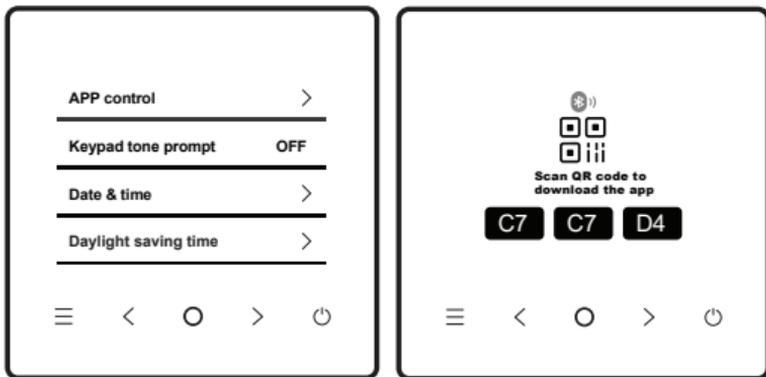
Select the setting on the menu, and press "○" for confirmation. After entering the function setting interface, press "<" or ">" to switch the function, and press "○" to enable the selected function.

**Sleep:** After sleep is enabled, the home page will show a sleep icon. 

The sleep function is only applicable to cooling and heating modes and unavailable for auto, dry and fan modes.

It will be cancelled after manual power-off or mode switching. You have to re-enable this function.

## APP control



When smart networking is enabled, a QR code will appear. You can scan the QR code to download APP, and control your smart devices with this APP.

## Smart home appliances networking guidelines

### 1 Download MSmartHome App

Scan the QR code below, or search for "MSmartHome" in Google play(Android) or App Store (iOS devices) to download the app;



This app will allow Wi-Fi control only. It is **NOT** compatible with remote or cloud access.

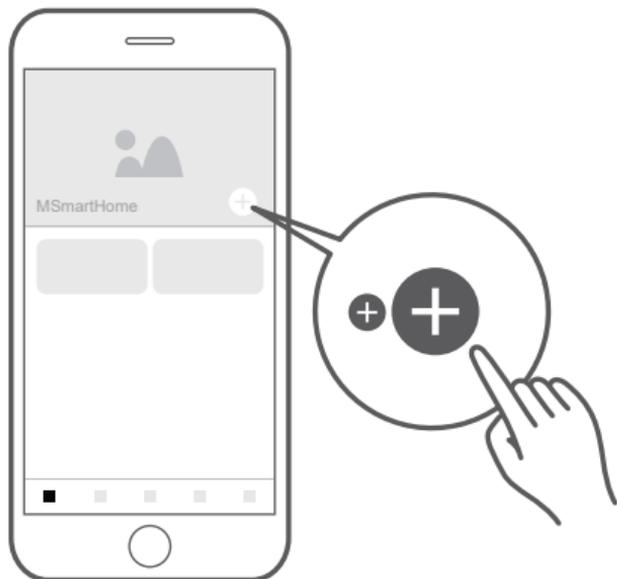
**2 Register or Login account**

Open the app and create a user account, if you already have one, just log in.



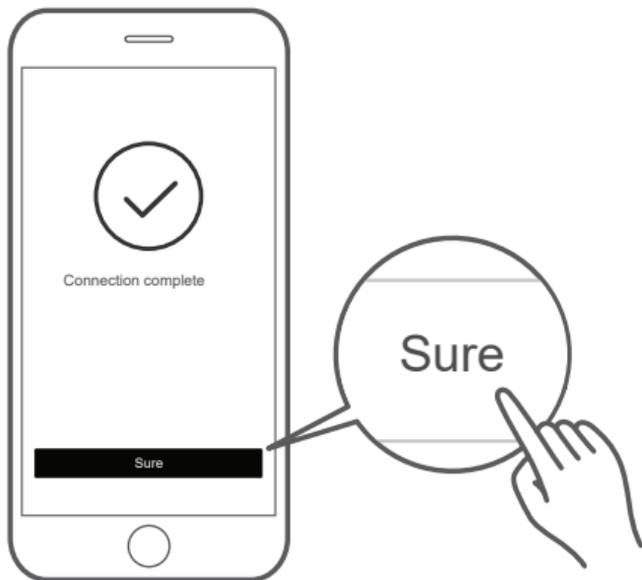
10

- 3** Add your appliance  
Tap the "+" icon to add home appliance to your MSmartHome account.



4 Connected to the network

Follow the instructions in the app to set up the WiFi connection. If the network connection fails, please refer to the App tips for operation.

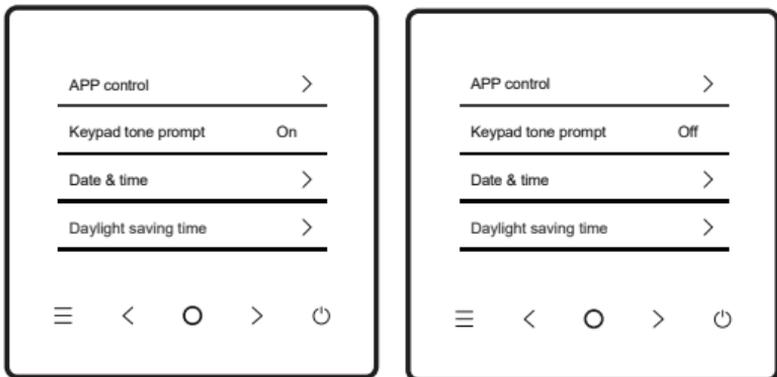


 **NOTE**

- When the unit is connected to the network, ensure the mobile phone is as close as possible.
- The product only supports 2.4GHZ WiFi communication. Ensure that a 2.4GHz network is selected for connection.
- WiFi router SSID names containing alphanumeric values are recommended. Special characters, punctuation marks or spaces may prevent SSID name from showing as available networks. If SSID is visible then it may be used, otherwise log into the router and change the SSID name.
- A large number of devices on the WiFi router may affect network stability. The manufacturer cannot advise specific limitations. This depends on router quality and other factors.
- If the router or WiFi name and WiFi password change, repeat the above process to reconnect.
- As product technology is updated, App content may change, and the actual display in App shall prevail.

WiFi transmit frequency range:2.400~2.4835 GHz  
EIRP not more than 20dbm

## Keypad tone prompt



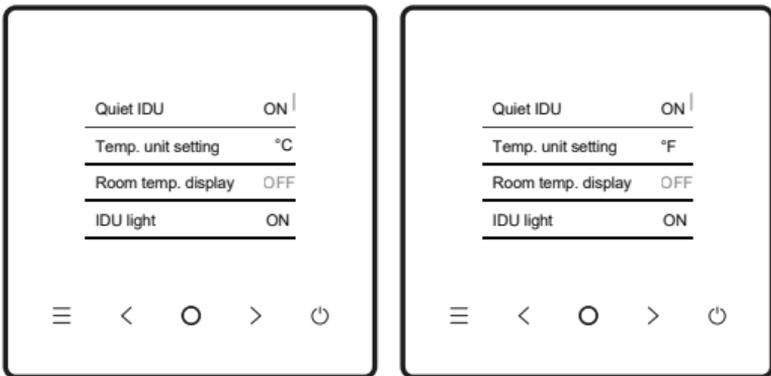
After "Keypad tone prompt" is enabled, the wired controller will operate in silence.

You can press "○" to enable or disable the function.

## Quiet IDU

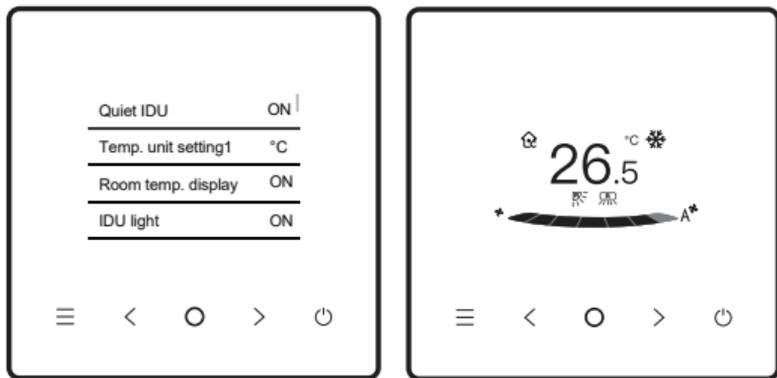
Refer to DRCi Installation Manual. This must be configured at the outdoor unit PCB.

## Temperature unit setting



The temperature unit is Celsius by default. You can manually switch the unit between Celsius and Fahrenheit. You can press "○" to enable or disable the temperature unit.

## Room temperature display



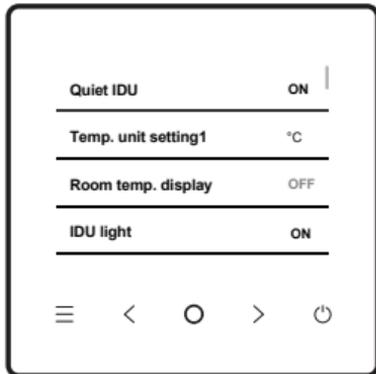
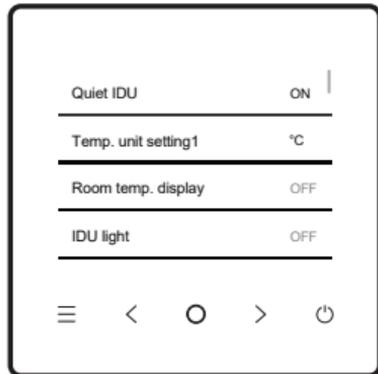
After the room temperature display is enabled, if you return to the home page and does not operate the device, the device will automatically display the room temperature and presents a room temperature icon.

You can press "  " to enable or disable the function.

### CAUTION

- In auto mode, the room temperature is displayed forcibly.

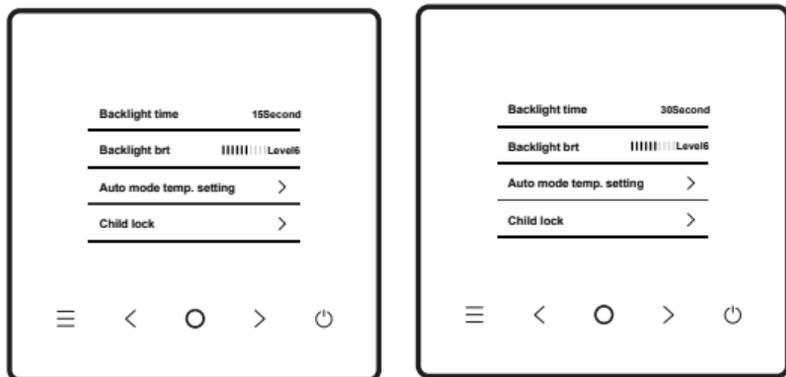
## IDU light



After the IDU light is enabled, the IDU display LED will light up. After the IDU light is disabled, the IDU display LED will turn off.

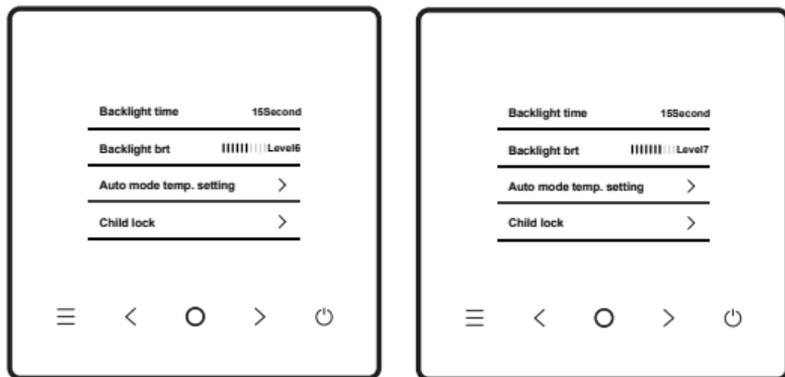
Press "○" to turn on or off the IDU light.

## Backlight time



The backlight time can be set to 15s, 30s, or 60s. After the setting, if the device fails to receive any command within the set backlight time, it will enter the standby interface. You can press "  " to adjust the backlight time.

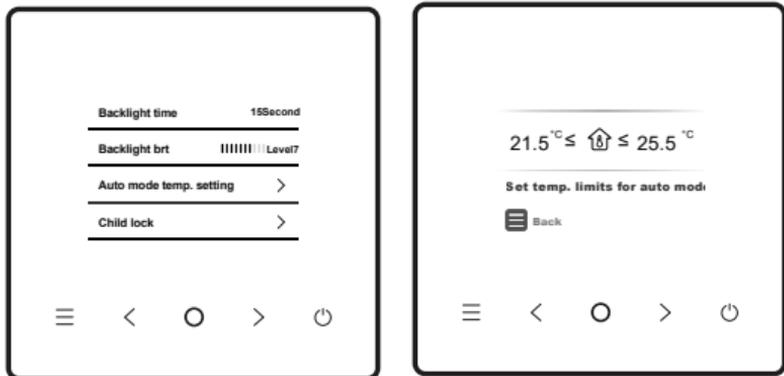
## Backlight brightness



The backlight brightness has 10 levels, used to set the display brightness of the device.

The brightness increases from level 1 to 10. Press "○" to adjust the backlight brightness.

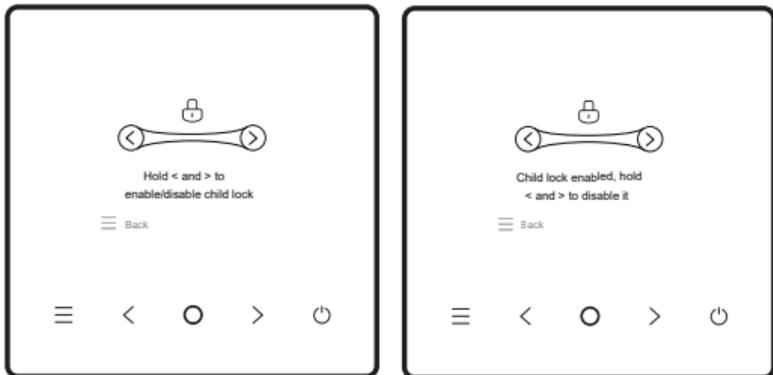
## Temperature setting in auto mode



The temperature setting in auto mode enables you to set the temperature in auto cooling/heating mode, and maintain the indoor temperature within the set range.

Press "○" to enter the temperature setting in auto mode, press "○" to select an item, and press "<" and ">" to adjust the range.

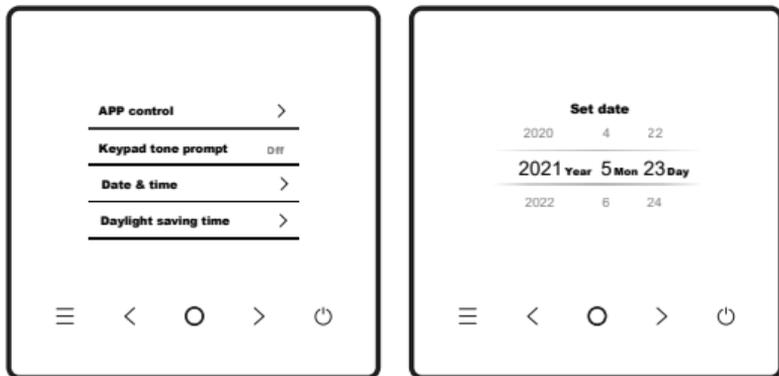
## Child lock



The child lock serves to prevent mis-operation of the device. After it is enabled, the buttons of the device will be locked and cannot be operated until the child lock is unlocked.

Press " < " and " > " at the same time to enable the child lock, and press " < " and " > " at the same time to disable the child lock.

## Date and time setting



You can select the network time (Internet connection required) or manually set the time.

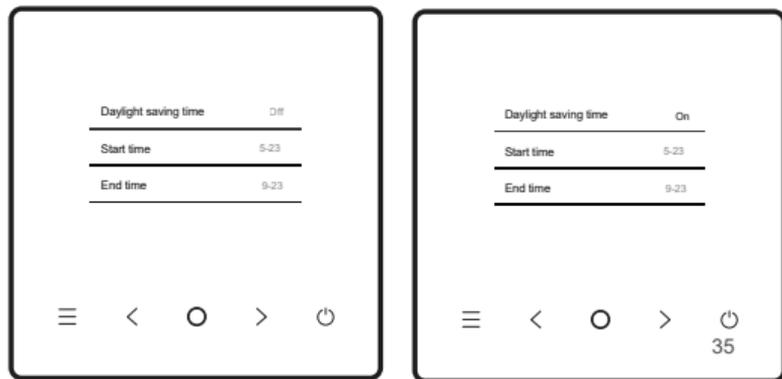
Find the date and time in the function setting interface, find the time display mode, and press "○" to enter the setting interface. Then, press "<" and ">" to set the date and time, and press "○" to switch. After the setting, press "≡" to return for settings to take effect.

## Time display



Time can be displayed in 12-hour or 24-hour format. Find the date and time in the function setting interface, find the time display mode, and press "  " to enter the setting interface.

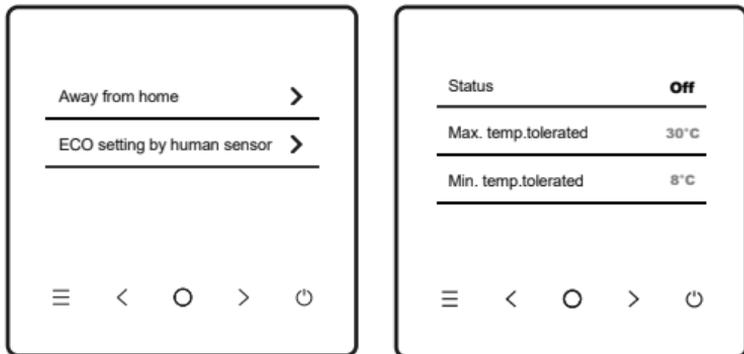
## Daylight saving time



You can enable or disable daylight saving time, and set the start time and end time.

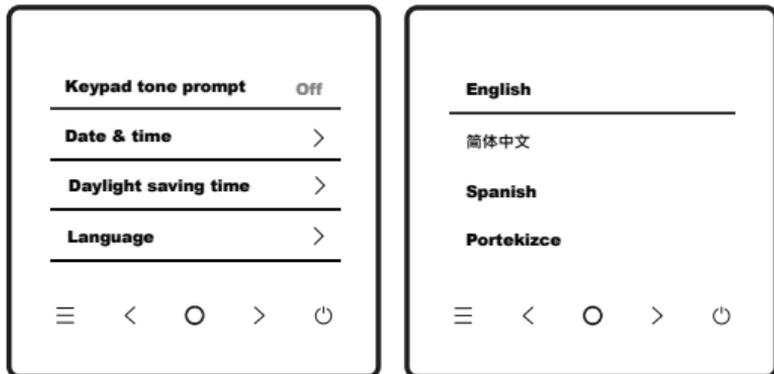
Find the date and time in the function setting interface, find daylight saving time, and press "○" to enter the setting interface. Then, press "<" or ">" to set the date and time, and press "○" to switch. After the setting, press "≡" to return for settings to take effect.

## Away from home



You can enable or disable Away from home, and set the Max. temp.tolerated and Min. temp.tolerated . Find the Eco options in the function setting interface, find Away from home, and press "○" to enter the setting interface. Then, press "<" or ">" to set the Status, Max. temp.tolerated and Min. temp.tolerated , and press "○" to switch. After the setting, press "≡" to return for settings to take effect.

## Language



You can enter the language to select your preferred language.

## **i** INFORMATION

The following language selection page will appear when the wired controller is first powered on.



# Troubleshooting

## Error code

Menu	Error	Remarks
C51	Communication fault between wired controller and IDU	V8 / 3rd IDU

## Error display



Error code: C51

1. In case any IDU or ODU fails, the wired controller displays the fault code. In case a communication fault occurs between the wired controller and any of the IDUs, the wired controller reports "C51".
2. The wired controller can record up to 10 faults, each of which includes the address of the faulty device, the fault code, and the time when the fault occurs.

## FAQ

- **The air conditioner is not working, but prompts that neither cooling nor heating option can be set. What should I do?**
  - The set mode is inconsistent with the operating mode the outdoor unit (ODU). Please change the set mode to cooling/heating.
- **The word "Filter" is displayed on the operation panel. What should I do?**
  - Filters, supplied and fitted by your installer, are not included in the Rinnai system. Dirty filters may strain the compressor and fan motor, causing overheating, automatic shutdown, and potential component failure requiring replacement.
  - To avoid inefficient or failed operation of your unit, **CHECK THE FILTER AT LEAST EVERY 2 TO 4 WEEKS.**
  - Replace or clean filters as needed. Use new disposable filters of the same grade and size.

- detergent, rinse, and dry completely. THE FILTER MUST BE COMPLETELY DRY BEFORE BEING REPLACED.

- questions

- **Why does the ODU of air conditioner drip?**

- (IDU) produces condensation that drains through its designated pipe. If this pipe is near the ODU, the condensation may be mistaken for a leak from the ODU. The ODU does not discharge water during cooling.

- defrosted water to flow from the drainage outlet. This is normal, not a fault. Contact after-sales or your installer to install an ODU drainage pipe..

- **powering on?**

- to warm up. Please wait a few minutes.

- **Why does the air conditioner keep operating after it is powered off?**
  - After the air conditioner is powered off, it operates for a time to eliminate moisture, reducing the possibility of mould growth.
- **Why are the air conditioner functions non-adjustable?**
  - If the display panel presents a lock icon, the air conditioner is locked. In this case, please contact the air conditioner system administrator.

# INSTALLATION

## Precautions for Installation

- To ensure correct installation, please read these important safety instructions.



### WARNING

- Installation must be performed by a licenced and qualified technician. The user must not install the unit.
- Do not knock, throw, or indiscriminately disassemble the unit.
- The wiring must be compatible with the wired controller current.
- Use specified cables. Do not apply external force to wiring terminals.
- The wired controller line is a low-voltage circuit, which cannot come into direct contact with any high-voltage line or share the same wiring tube with any high-voltage line. The minimum spacing of wiring tubes should be 300 to 500 mm.
- Do not install the wired controller in a corrosive, flammable or explosive environment or any place with oil mist (eg kitchen).
- Do not install controller in damp areas and out of direct sunlight.
- Do not install the wired controller when it is powered on.
- Please install the wired controller after wall painting; otherwise, water, lime and sand may enter the wired controller.

## Accessories

Please check that you have all the following parts:

No.	Name	Quantity
1	Wired controller	1
2	Philips head screw, M4×25	2
3	Installation and Operation Manual	1
4	Plastic support bar	2
5	Bottom cap of the wired controller	1
6	Wood screw ST4X20	3
7	Wall plugs	3

Prepare the following parts in the field:

No.	Name	QTY	Remarks
1	Flush-mounted electrical box	1	Embedded into the wall
2*	2-core shielded cable*	1	RVVP-0.5 mm <sup>2</sup> ×2, embedded into the wall ( <b>DO NOT</b> earth the shield)
3	Wiring tubes (insulation suite)	1	Embedded into the wall; maximum wiring length: 200 m
4	Phillips screwdriver	1	To install recessed head screws
5	Slotted screwdriver	1	To remove rear casing of controller

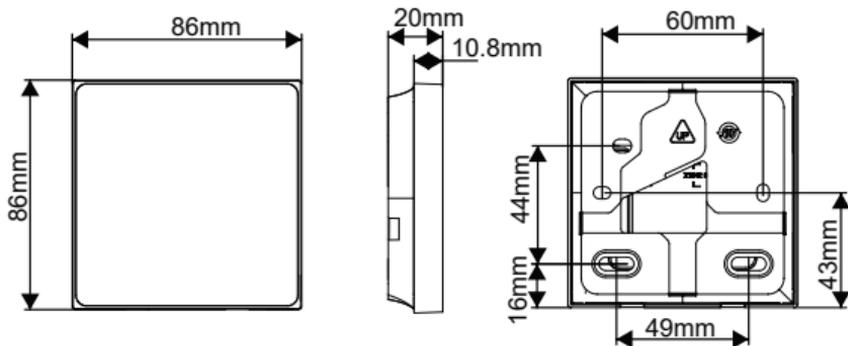
\* Part number CNTRLLLOOM2W18M may be used for installed lengths less than 18. **DO NOT** earth the shield.

## Basic Parameters

Items	Description
Rated voltage	DC18V
Wiring size	RVVP-0.5mm <sup>2</sup> ×2
Operating environment	-5°C ~ 43°C
Humidity	≤ RH90%

## Dimensions

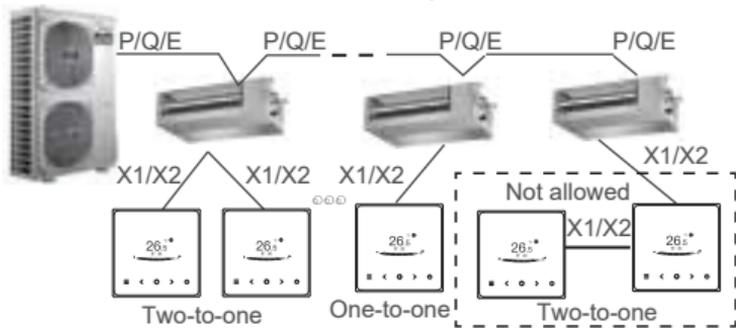
### Installation Dimensions



# Wiring

## One-to-one/two-to-one system

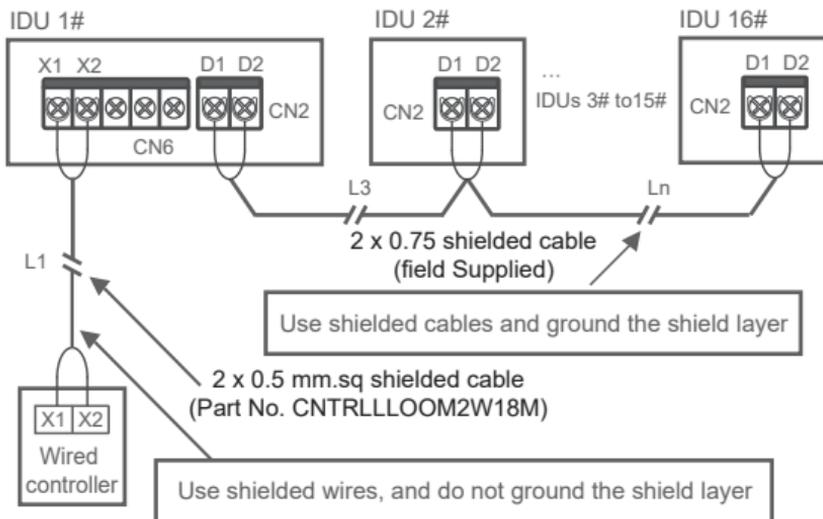
- Applicable to bi-directional communication between wired controller and IDU.
- One-to-one system: One wired controller controls one IDU.  
Two-to-one system: Two wired controllers control one IDU. Parameters displayed on the wired controller vary with the parameters of the IDU. Data is updated in real time.
- Communication cables between an IDU and a wired controller (X1, X2) may be connected in reverse order.
- For a two-to-one system, one controller will be the master controller while the other will be the secondary controller.



### **i** INFORMATION

For both a one-to-one system and a two-to-one system, the maximum accumulated wiring length is 200 m.

## One-to-more system (only available for V8 IDU)



### **i** INFORMATION

Set one wired controller to control more than one IDU. After the communication between the wired controller and IDUs lasts for about 3 minutes and 30 seconds, then the controller can be used normally and control commands can be implement.

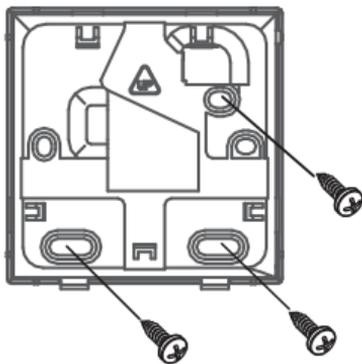
## Rear Case Installation

- 1 Take the screws and plugs from the accessory bag.
- 2 Mount the rear casing to a flat surface.



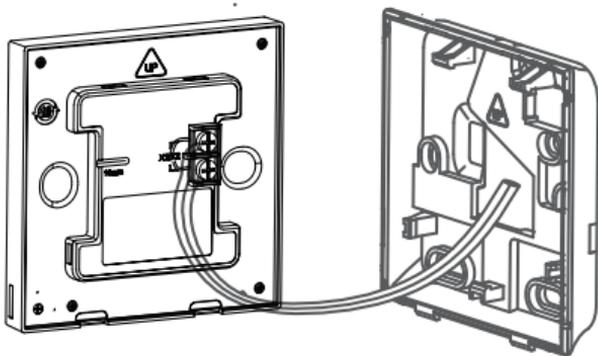
3x

ST4X20 wood  
screws and wall plugs



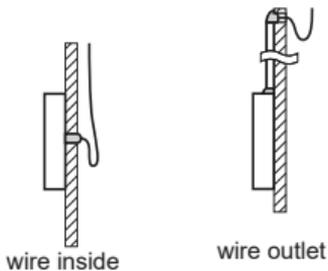
### **i** INFORMATION

Be careful not to distort the rear casing by overtightening the mounting screws.



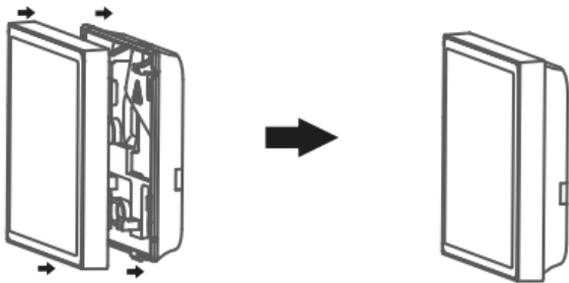
 **NOTE**

- Do not perform wiring operations on energised parts. Make sure that you remove the wired controller before proceeding. Otherwise, the wired controller may be damaged.
- Do not overtighten the pan head screws; otherwise, the bottom cap of the wired controller may deform and cannot be levelled on the wall surface, which makes it difficult to install or not securely installed.

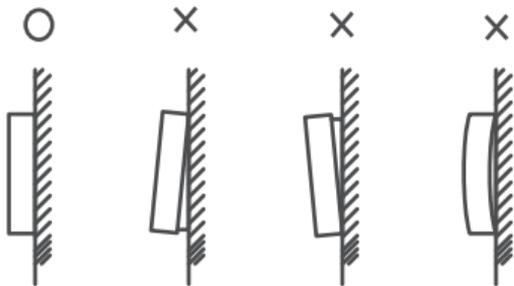


Avoid the water entry into the wired remote controller. Use trap and putty to seal the wire connectors during wiring installation.

**Connect the wired controller and the rear case as shown in the following figure.**



Correct connection.



 **NOTE**

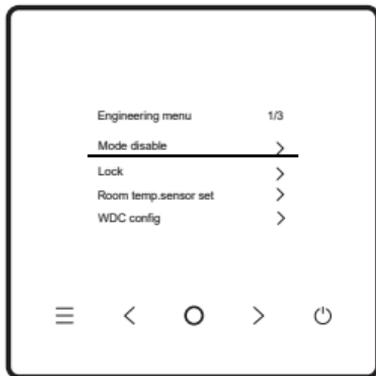
- Make sure that no cables are clamped when connecting the wired controller and rear case.
- The wired controller and rear case should be installed correctly. Otherwise, they may become loose and fall apart.

# Engineering Menu



This menu system should be accessed by installers and service technicians only.

Changing parameters within the engineering menu can impact product performance, efficiency and reliability



## Parameter settings of the wired controller

- Parameters can be set in the power-on or power-off state.
- Hold "≡" and ">" for 3 seconds to enter the parameter setting interface.
- After entering parameter setting interface, Press "<" and ">" to switch the parameter. Set parameters according to the Table of Parameter Settings. Press "○" to enter the parameter setting interface. Then press ">" and "<" to change parameter value and press "○" to save changes.
- Press the "≡" button to return to the previous page until exiting the parameter setting or exiting the parameter setting after 60s without any operation.
- When it is in the parameter settings page, the wired controller does not respond to any remote control signal.

## Engineering Menu

Menu	Submenu	Setting
Engineering	Mode disable	Auto, Cool, Heat, Fan, Dry
	Lock	Set temp.
		Speed
	Room temp. sensor set	Room temp. sensor position
		Room temp. sensor compensation
	WDC config	For details, see the "WDC config"
	IDU settings	For details, see the "IDU settings"
	Set IDU address	Set IDU address
	System running status query	Fault info
		IDU info
	IDU time	WDC info
	Other	Restore Settings
Self-check		

## WDC Configuration

Menu	Submenu	Third-level menu	Default	Remarks
WDC config	Set main/sec. wired ctrl.	main/second	Master WDC	
	0.5°C displayed or not	Set temp. format: 0.5/1	0.5	
	Set temp. range /cool and heat	Set upper and lower temp. limits in cooling/heating mode	2nd IDU: 17°C-30°C; 3rd IDU: 16°C-30°C	
	Rem control rcpt of WDC	Enable/Disable	Enable	
	WDC auto restart	Enable/Disable	Enable	
	Perf. degradation	On/Off	Off	only V8 IDU
	Filter state	On/Off	Off	only V8 IDU
	Filter clean reminder	No filter reminder function 500h, 1000h, 2500h, 5000h	500h	
	Filter reset			
	WDC light	On/Off	On	
	Separ one-to-more ctrl.swing	On/Off	Off	only V8 IDU
	After hours	30 min, 60 min, 90 min, 120 min, 180 min, 240 min, invalid	Invalid	

## IDU Set Items

### V8 protocol

IDU set item	Parameter name	Parameter range	Remarks
Site Config	Static pressure setting of IDU	00/01~19/FF	The IDU sets the static pressure based on the set gear, FF (VRF unit: main board DIP of IDU; other models: reserved)
	High ceiling setting	00/01/02	00: 3 m; 01: 4 m; 02: 4.5 m
	On-site air flow adjustment factor	00/01/02/03/04/05/06	00: 1; 01: 1.05; 02: 1.1; 03: 1.15; 04: 0.95; 05: 0.9; 06: 0.85
	Q4/Q4 min air outlet closed 1	Free control/Close	00: Free control; 01: Close
	Q4/Q4 min air outlet closed 2	Free control/Close	00: Free control; 01: Close
	Q4/Q4 min air outlet closed 3	Free control/Close	00: Free control; 01: Close
	Q4/Q4 min air outlet closed 4	Free control/Close	00: Free control; 01: Close
	Cooling/heating only for IDU	Cooling and heating / Cooling only	
One-to-many of WDC enabled	No/ Yes		
IDU setting	IDU buzzer	Only panel/Silent/Ring	
	EXV opening selection during heating standby	224P/288P/00P /Auto regulation	
Set IDU address		0-63	For details, see the "Set IDU address"

IDU set item	Parameter name	Parameter range	Remarks
IDU setting	Mode switch interval in auto mode (min)	15min; 30min; 60min; 90min	
	Auto restart	No; Yes	
	Rem control rcpt of IDU display panel	Receive; Not receive	
	Set outdoor temp. when the auxiliary heater is on	Celsius degree: -25 to 20 Fahrenheit: -13 to 68	1 C or 1 F

IDU set item	Parameter name	Parameter range	Remarks
IDU setting	Set outdoor temp. when the third-party heater works separately	00/01/02/03/04/ 05/06/07/08/09/ 10/11/12/13/14/ 15/16/17	00: No limit; 01: -16°C/4°F; 02: -14°C/7°F; 03: -12°C/10°F; 04: -9°C/15°F; 05: -7°C/20°F; 06: -4°C/25°F; 07: -1°C/30°F; 08: 2°C/35°F; 09: 4°C/40°F; 10: 7°C/45°F; 11: 10°C/50°F; 12: 13°C/55°F; 13: 16°C/60°F; 14: 18°C/65°F; 15: 21°C/70°F; 16: 24°C/75°F; 17: 27°C/80°F
	Indoor temp. when auxiliary heater is on	Celsius: 10 to 30 Fahrenheit: 50 to 86	1 C or 1 F

IDU set item	Parameter name	Parameter range	Remarks
IDU setting	T1 temp. difference when auxiliary heater is on	0-7	0 to 7 represent 0 to 7°C/°F
	T1 temp. difference when auxiliary heater is off	0-10	0 to 10 represent -4 to 6°C/°F
	Auto dry function	Yes;No	00:No;01:Yes
Fan speed setting	Upper limit of automatic fan speed in cooling mode	Speed 4; Speed 5; Speed 6; Speed 7	
	Upper limit of automatic fan speed in heating mode	Speed 4; Speed 5; Speed 6; Speed 7	04: Speed 4; 05: Speed 5; 06: Speed 6; 07: Speed 7
	Air flow setting at fan speed 7	Constant speed; Constant air flow	
	Fan speed setting in cooling standby mode	Delayed fan shutdown; Speed 1;Speed 2; Speed 3;Speed 4; Speed 5;Speed 6; Speed 7;Fan speed before going to standby mode	
	Standby fan speed L1 range in dry mode	Fan off; L1; L2; Speed 1	
	Fan speed setting in heating standby mode	Thermal; Speed 1; Fixed gear 1	
	Time to stop the fan of IDU in heating mode (Thermal)	Fan off; 4min; 8min; 12min; 16 min (V8 protocol)	

IDU set item	Parameter name	Parameter range	Remarks
Temp. setting	IDU's anti-cold wind temperature setting in heating mode	00/01/02/03/04	Common IDUs (models 1, 3, 4, 6, and 8): 0: 15; 1: 20; 2: 24; 3: 26; 04: Invalid  FAPU (models 2 and 7): 0:14; 1:12; 2:16; 3:18; 04: Invalid
	Cooling return difference temp.	1°C; 2°C; 0.5°C; 1.5°C; 2.5°C	
	Heating return difference temperature	1°C; 2°C; 0.5°C; 1.5°C; 2.5°C	
	IDU heating temp. compensation	00/01/02/03/04	00: 6°C; 01: 2°C; 02: 4°C; 03: 8°C; 04: 0°C
	IDU cooling temp. compensation	00/01/02/03/04	00: 0°C; 01: 1°C; 02: 2°C; 03: 3°C; 04: -1°C
	Max. indoor temp. drop D3 in dry mode	00/01/02/03/04	00: 3°C; 01: 4°C; 02: 5°C; 03: 6°C; 04: 7°C

IDU set item	Parameter name	Parameter range	Remarks
Remote and alarm settings	On/Off port logic via remote control	Remote off (closed); Remote off (open)	Note: When powered off remotely, the digital display of wired controller of V8 displays d61, while that of V6 does not display this code
	Remote ON/OFF control (implemented at the second stage)	00/01	00: Forced OFF control; 01: ON/OFF control
	Remote Off delay	No delay; 1 min; 2 min; 3min; 4min; 5min; 10min	
	Alarm port logic	Alarm upon closing; Alarm upon opening	
	Sterilization setting	Yes/No	
	Drying time at self-cleaning	00/01/02/03	00: 10 min; 01: 20 min; 02: 30 min; 03: 40 min
	Mildew-proof fan runtime (power off in cooling/dry mode, except power off due to faults)	Default ; 60s; 90s; 120s	
	Dirt proof for ceiling	Invalid; Valid	
	Condensation proof	Invalid; Valid	
	Refrigerant leak alarm reset	Not reset; reset	

IDU set item	Parameter name	Parameter range
Energy conservation option	Meta level in cooling mode	Level 1; 01: Level 2; Level 3
	Meta level in heating mode	00: Level 1; 01: Level 2; 02: Level 3
	Initial static pressure detection	Retain initial static pressure; Reset initial static pressure
	Filter ending - initial static pressure setting	10Pa; 20Pa; 30Pa ~19: 200Pa
Fresh air setting	Ambient temp. when preheater is on	5°C; 0°C; (-5)°C

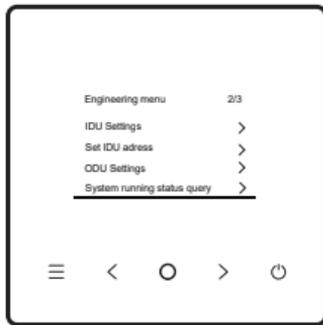
## Spot Check Function

Use the bi-directional communication wired controller to activate the spot check function in the following steps:

On the main page, hold "≡" and ">" for 3 s to enter the "Engineering menu". Press ">" unit go to the 2nd page "System running status query",press ">"to select the information you want to query, then press "○" key twice to enter the parameter query page.

Press the "<" or ">" key to query the parameters, and the parameters can be queried cyclically. See the spot check list below for details.

Press the "≡" key to exit the query function.



No.	Displayed content
1	IDU communication address
2	Capacity HP of IDU
3	Actual set temperature Ts
4	Set temperature of unit currently operating, Ts (Remarks: Temperature displayed is actual set temperature Ts)
5	Actual T1 indoor temperature
6	Modified indoor temperature T1 modify
7	T2 heat exchanger intermediate temperature
8	T2A heat exchanger liquid pipe temperature
9	T2B heat exchanger gas pipe temperature
10	Actual set humidity RHs
11	Actual RH indoor humidity
12	Actual fresh air processing unit TA air supply temperature
13	Air discharge pipe temperature
14	Compressor discharge temperature
15	Target overheating
16	EXV opening (actual opening/8)
17	IDU Software version No.
18	Historical error code (recent)
19	Historical error code (sub-recent)
20	[———] is displayed

## Initial Static Pressure Detection

Indoor units that are equipped with a constant air flow function are set to the constant air flow mode when they leave the factory. After the units are installed, they should undergo initial static pressure test before use. The steps are as follows:

On the main page, hold "≡" and ">" for 3 s to enter the "Engineering menu". Press ">" unit go to the "Energy saving option", press "○" to enter the option, then press ">" key to choose "Initial static pressure detection" function.

Press "○" to set and save the setting.

Press the "≡" key to exit the setting.

Engineering menu→Energy saving option→Initial static pressure detection

00: Not reset initial static pressure;

01: Reset initial static pressure

## Indoor Unit Static Pressure

- On the main page, hold "≡" and ">" for 3 s to enter the "Engineering menu". Press ">" to go to the "On-site settings", press "○" to enter the option, then press ">" key to "IDU static pressure".
- Press "○" to enter the setting. Then press "<" or ">" key to set the parameter, press "○" to save the setting.
- Press the "≡" key to exit the setting.

Engineering menu→On-site settings→IDU static pressure

## Fan Speed Settings

- On the main page, hold "≡" and ">" for 3 s to enter the "Engineering menu". Press ">" unit go to the "Fan speed settings",press ">" to enter the option, then press "○" key to "Air flow at fan speed 7".
- Press "○" to set and save the setting.
- Press the "≡" key to exit the query function.

Engineering menu → Fan speed settings → Air flow at fan speed 7

Sp: Constant speed;

Cst. air flow : Constant air flow

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