VRF STANDARD WIRED CONTROLLER

Operation Manual

Model Number
MWC-S01 CS

IMPORTANT NOTE:
Please read this manual carefully before installing
or operating your air conditioning unit.

ActronAir

- 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.
- For convenience of future reference, keep this manual after reading it.

CONTENTS

1 GENERAL SAFETY PRECAUTIONS

2 OPERATION

3 INSTALLATION

1 GENERAL SAFETY PRECAUTIONS

1.1 About the documentation

- The precautions described in this document cover are very important topics, follow them carefully.
- All activities described in the installation manual must be performed by an authorized installer.
- IDU refers to Indoor unit and ODU refers to Outdoor unit.

1.1.1 Meaning of warnings and symbols

⚠ DANGER

Indicates a situation that results in death or serious injury.

⚠ DANGER: RISK OF ELECTROCUTION

Indicates a situation that could result in electrocution.

⚠ 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.

⚠ **CAUTION**

Indicates a situation that could result in minor injury.

○ **NOTE**

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

ⓘ **INFORMATION**

Indicates useful tips or additional information.

1.2 For the user

- If you are uncertain about how to operate the unit, please get in touch with your installer or reach out to ActronAir for assistance.

- 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.

♀ NOTE

- Do NOT place any objects or equipment on top of the controller.
- Do NOT sit or stand on the controller.

- 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 authorized installer and must comply with applicable legislation. Units must be treated at a specialized 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.

2 OPERATION

2.1 Wired controller: Overview

26.5 °C

Display

Menu/Back Left key OK Right key On/Off
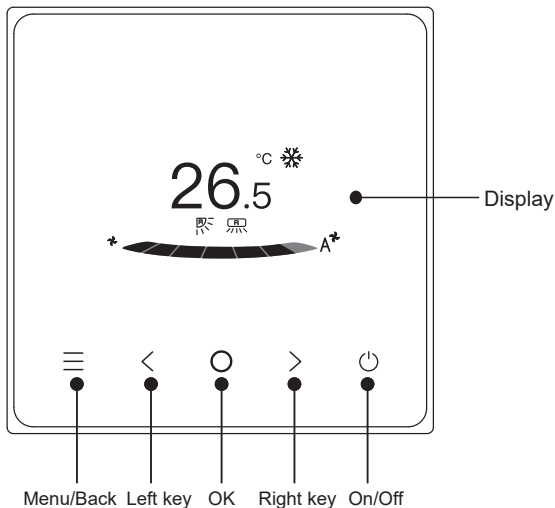
2.2 Operation

1. On/Off Press " ⏻ ". The interface/operation button will light up and the device will start. Under one-to-many individual control, the screen will not power down when the power-off button is pressed.
Press "⏻" again. The screen/operation button will be 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.
This is also the "Confirmation" / "Set" / "Ok" button.

Icon description

$26._5$ ℃	Set temperature display		
(Q̇off 2h)	Timer off	(Q̇on 2h)	Timer on
❄	Cooling	☼	Heating
(A)	Auto	(≋	Dry
⌀	Fan	⌂℃	Indoor temp.

米	Rapid cooling	🔅	Rapid heating
🔀	Up/down swing	🔀	Left/right swing
🦠	Sterilization	🌙	Sleep
卌	Auxiliary heater	eco	ECO
(3D)	3D air	〜	Comfort
⋏	Blow on people	⋏	Avoid people
⋀	ETA	⊕	Backup Mode
🔇	Mute IDU	🔒	Lock child lock
⚠	Fault prompt	🔓	Unlock child lock
🔒	Lock		
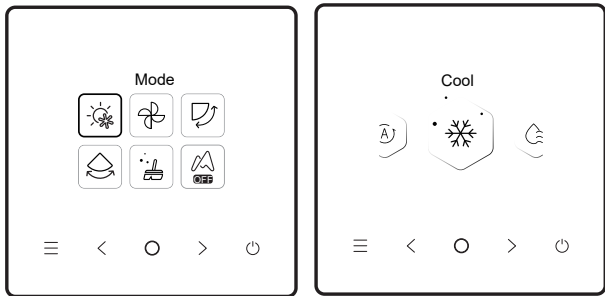
Mode

Select the mode in 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.

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

⚠ CAUTION

All IDUs in the same air conditioning system can only operate in the same mode (such as cooling and heating). A conflict will occur if the IDUs operate in different modes. Therefore, make sure that the operating mode of all IDUs is the same.

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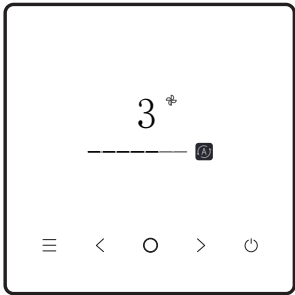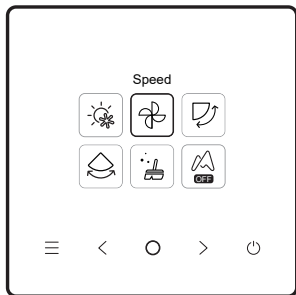
Select the fan speed in the menu, and press " ↻ " for confirmation. After entering the fan speed interface, press " < " or " > " to select the operating speed, or press "≡" to return to the menu.

⚠ CAUTION

- Depending on IDU models, 3 speeds or 7 speeds are supported.

- With efficiency ensured, the air conditioner may adjust the fan speed depending on the indoor temperature, leading to a difference between the real-time fan speed and the set one or causing the fan to stop. This is normal.

- After the fan speed is set, it takes time for the air conditioner to respond. It is normal if the air conditioner does not respond to the setting immediately.

Swing
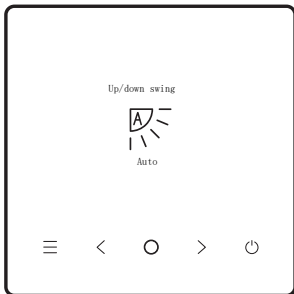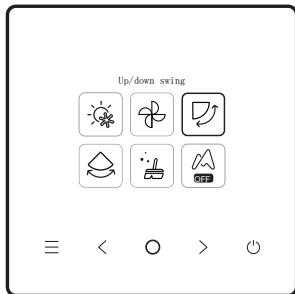
Select the swing (left/right) up/down function in the menu, and press " ○ " for confirmation. After entering the swing interface, press " < " or " > " to adjust the swing angle, or press " ≡ " to return to the menu.

⚠ CAUTION

- The swing feature may be disabled when IDUs do not support the this feature.

- When the unit is off, the wired controller automatically shuts louvers of the air outlet.

Independent swing only applies to IDUs with an independent swing device.
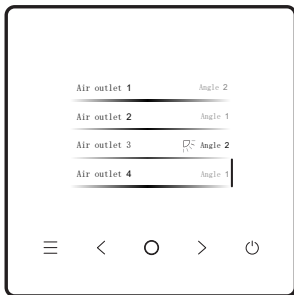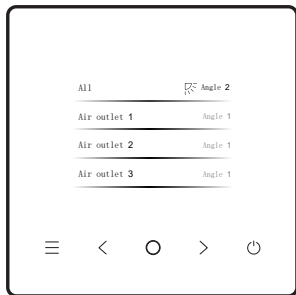
Select the swing up/down function on the menu, and press " ○ " for confirmation. After entering the swing interface, press " < " or " > " to select the air outlet to be controlled, or press " < " or " > " to adjust the swing angle.

⚠ CAUTION

- The swing feature may be disabled when IDUs do not support the this feature.

Timer
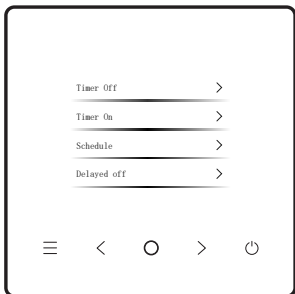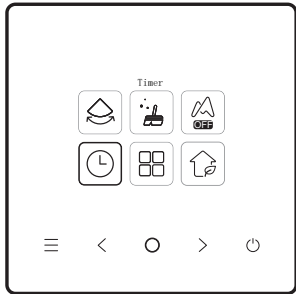
Select the timer function on the menu, and press "○" for confirmation. After entering the timer interface, press "<" or ">" to select the corresponding timer, and press "○" to start function setting.

1. **Timer off:** Enter the timer off interface, press "<" or ">" to set the turn off time, and press "○" for confirmation and return to the home page to display the timer period.

2. **Timer on:** Enter the timer on interface, press "<" or ">" to set the turn ON time, and press "○" for confirmation and return to the home page to display the timer period.

3. **Schedule:** Enter the schedule interface. You may turn on more than one schedule. When a schedule is enabled, the air conditioner will go on and off at the specific times. The parameters and operation cycles of all schedules are configurable.

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.
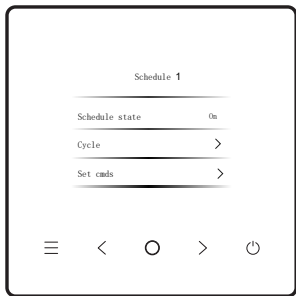
Set command:

(1) Simple Schedule

You can set up to five commands, each of which contains the time and power-on/off information. Press " < " or " > " to switch the set object, and press " ○ " to switch the settings. Upon the setting, press " ≡ " to save the settings and return.

(2) Schedule

You can set up to five commands, each of which contains the time, mode, fan speed and set temperature. Press " < " or " > " to switch the set object, and press " ○ " to switch the settings. Upon the setting, press " ≡ " to save the settings and return.

Set cmds	Set cmds
09:00　ON	09:00　Cool **Level4** 26℃
12:30　OFF	12:30　Auto
23:00　ON	23:00　OFF
Add cmds　　　Reset	Add cmds　　　Reset
≡　＜　○　＞　⏻	≡　＜　○　＞　⏻
Simple Schedule	Schedule
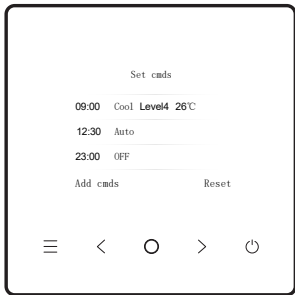
- Delayed off (Manual after hour set)
  This function is only effective after the schedule is enabled. After delayed off is set, the air conditioner will delay its shutdown in accordance with the set delay based on the original weekly timed power-off time.
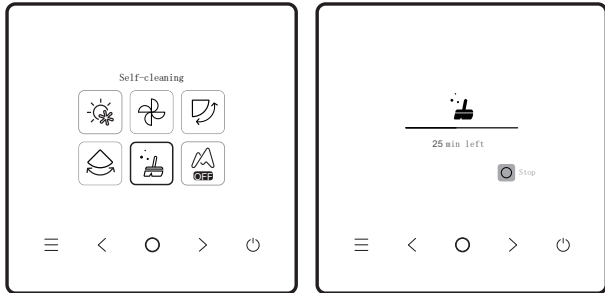
Self-cleaning

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

⚠ **NOTES**

- You can quit self-cleaning by pressing " ◯ " to stop self-cleaning or pressing " ⏻ " to stop directly.

- Only for IDU models with self-cleaning function.

- When self-cleaning is enabled, if one IDU in the system goes into self cleaning mode, all IDUs connected to the same system will initiate self clean mode at the same time.

- During the process of self-cleaning, the IDUs may blow out cold or hot air.

ETA
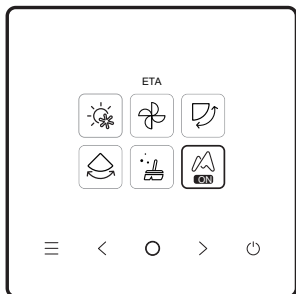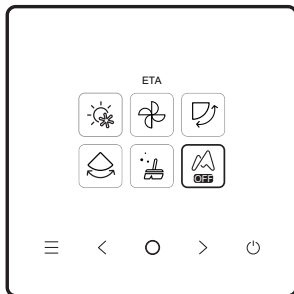
Select the ETA function on the menu, and press " ○ " to enable or disable the ETA function. The ETA function is real-time energy saving.
ETA is real time energy saving mode. This reduce the power consumption to gain efficiency.

IAQ monitoring
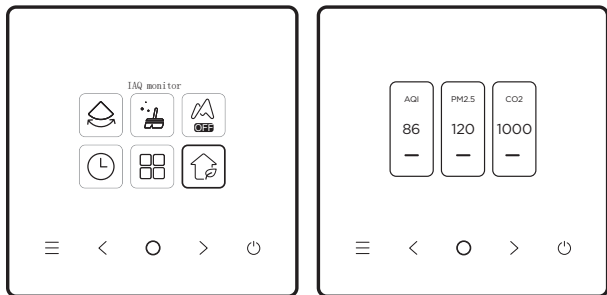
Select the IAQ (Indoor Air Quality) function on the menu, and check the air quality indicators such as AQI, PM2.5 and CO_2 in real time. Indoor air quality monitoring requires adequate configuration of the IDU.

⚠ CAUTION

The IAQ feature may not be available to some units. Check Owner's manual for applicable features.

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 by selecting 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 allowing you to select the unit you wish to control first.
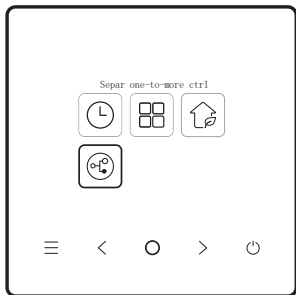
Separate one-to-more control
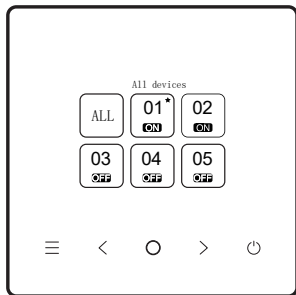
Main interface of separate control

On the primary interface of the distinct one-to-more control feature, press "≡" to exit from this mode of control. Press either "<" or ">" to switch the controlled unit. The controller can control all indoor units or a specific indoor unit. Once the desired unit to control is chosen, press "⏻" to swiftly toggle power on/off. Press "○" to set the parameters.

| All on | > |
| All off | > |

≡ Back

≡ < ○ > ⏻

On/Off	On
Mode	Cool
Temperature	26.5℃
Speed	Level3

≡ < ○ > ⏻
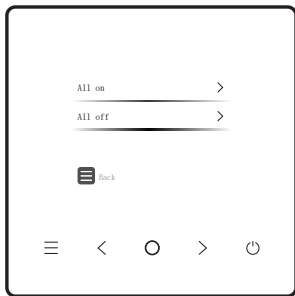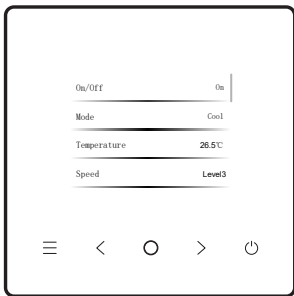
Fast startup   Setting

ⅰ INFORMATION

- Under separate control, you can enable swing setting in "Engineering Menu".

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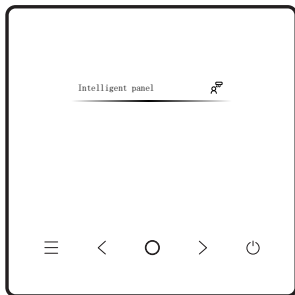
Select the function setting on the menu, and press " ○" for confirmation. After entering the function setting interface, press " < " or " > " to switch the function, and press " ○" to enable the selected function.

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

Upon receiving the ECO command, the IDU will initiate the ECO mode. It will modify the current setpoint threefold. The initial adjustment will increase the setpoint by 1° after the IDU has been in ECO mode for over 1 hour. Subsequently, each adjustment will change the set temperature by 1° every hour.

In cooling mode, the IDU will increment the setpoint by 1° every hour,

while in heating mode, it will decrease the setpoint by 1° every hour. For instance, if the setpoint is 20° in cooling mode, it will become 21° after 1 hour, then 22° after an additional hour, and finally 23° after the last hour.

The IDU internally handles the adjustments to the set temperature, and these changes won't be displayed in the controller's interface.

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. With sleep enabled, it will be cancelled after manual power-off or mode switching. You have to re-enable this function.

During cooling mode operation, the Indoor unit will set the temperature to preset 25° and incrementally raises it by 1° each hour. This temperature adjustment occurs twice, resulting in a final temperature of 27° for the subsequent 6 hours.

In heating mode, the indoor unit sets the temperature to a predetermined 22° and subsequently decreases it by 1° per hour. This two-step adjustment culminates in a temperature of 20° for the remaining 6 hours.

Users have the flexibility to modify the preset temperature at any point while the unit is in sleep mode. The indoor unit will promptly update both the set temperature and the preset sleep mode pattern to align with the adjusted settings.

Auxiliary heater: The auxiliary heater has four modes:
Auto Operation of Auxiliary Heater, Auxiliary Heater Enabled, Auxiliary Heater Disabled, and Auxiliary Heater Used Separately.

Sterilization ON

Sleep OFF

Aux heater only enabled in Heat mode
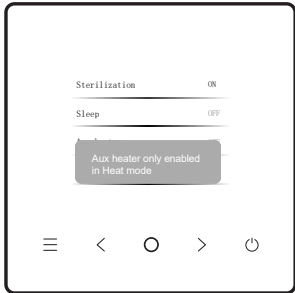
⚠ **CAUTION**

When Auxiliary Heater is installed,

- Auto Operation of Auxiliary Heater: Upon power on, the air conditioner will determine whether to start the auxiliary heater automatically based on the ambient temperature in heating mode. At this moment, the air conditioner operates in "Auto Operation of Auxiliary Heater" mode.

- Auxiliary Heater Used Independently: The auxiliary heater can be used independently without starting the compressor. Please contact the local dealer for more information.

  The auxiliary heater can only be started in heating mode.

- The auxiliary heater is an additional heating component to the air conditioner, but the power consumption will increase after the auxiliary heater starts working.

Powerful operation: After powerful operation is enabled, the IDU will accelerate cooling/heating. Powerful operation is only available for cooling or heating mode. After powerful operation is enabled, the maximum runtime of the IDU is 30 minutes. After powerful operation is disabled, the IDU will be controlled normally. Power operation will stop if the operating mode or fan speed is changed.

Air flow setting: The wired controller can set the IDU air flow to "Comfortable" or "Off". If the air flow is set to "Comfortable", the fan speed and swing angle of the IDU will automatically adjust to a relatively comfortable level.
This function only applies to IDUs with air flow setting feature.
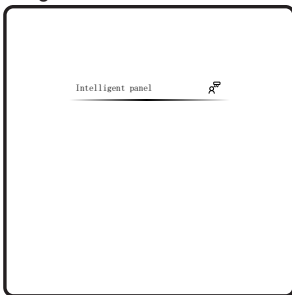
Intelligent panel is a function supported by the unit's intelligent panel (human sensor).

⚠ **NOTE**

This feature may not be available depending on unit purchased. See Owner's manual for applicable features.

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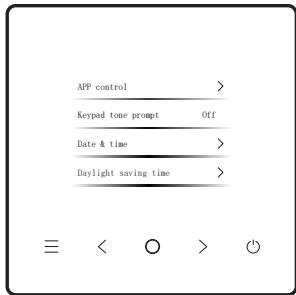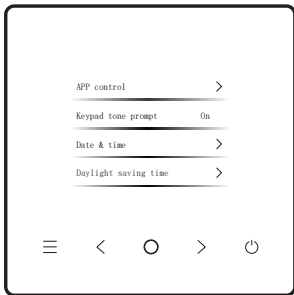
After "Keypad tone prompt" is disabled, the wired controller will operate in silence.

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

Quiet IDU

Quiet IDU ON	Quiet IDU OFF
Temp. unit setting1 ℃	Temp. unit setting1 ℃
Room temp. display ON	Room temp. display ON
IDU light ON	IDU light ON
≡ 〈 O 〉 ⏻	≡ 〈 O 〉 ⏻
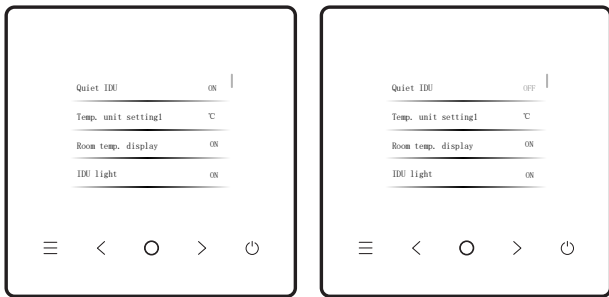
After "Quiet IDU" is enabled, the IDU will operate in silence.

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

When the command is enabled for Quiet Mode, the indoor unit will activate the Quiet mode. This action will result in the indoor unit's fan speed transitioning to auto mode, and a restriction will be applied to the maximum fan speed during sleep mode.

In the Quiet mode, the fan speed will not remain constant, leading to variations in sound levels. However, these sound levels will be noticeably lower than those experienced under normal auto fan speed conditions.

30

Temperature unit setting
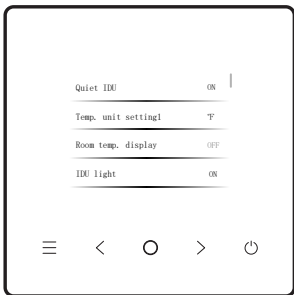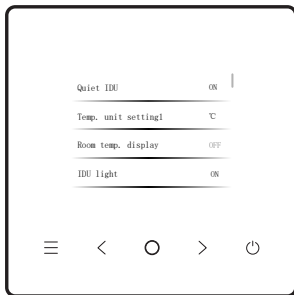
The temperature unit is Celsius by default. You can manually switch the unit between Celsius and Fahrenheit.

You can press " ○ " to enable or disable the temperature unit.

Room temperature display
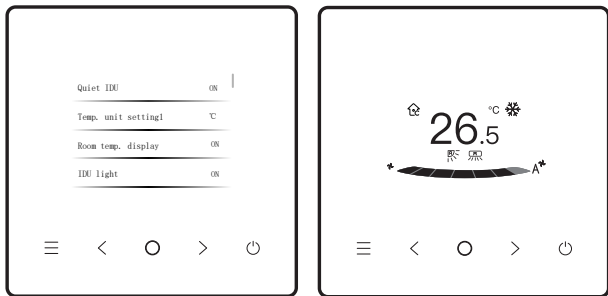
After the room temperature display is enabled, when you return to the home page and the unit is not turned ON, the control will automatically display the room temperature and presents a room temperature icon.

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

⚠ CAUTION

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

IDU light
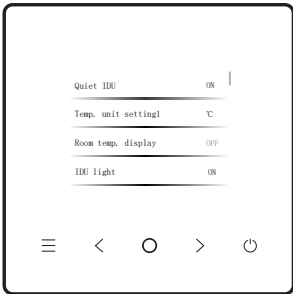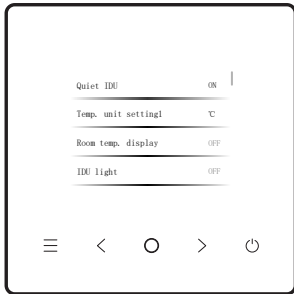
After the IDU light is enabled, the IDU display LED will light up. After the IDU light is disabled, the IDU display LED will turn off.
You can press " ○ " to turn on or off the IDU light.

Backlight time

Backlight time	15Second
Backlight brt	||||||||||Level16
Auto mode temp. setting	>
Child lock	>

≡ < ○ > ⏻

Backlight time	30Second
Backlight brt	||||||||||Level16
Auto mode temp. setting	>
Child lock	>

≡ < ○ > ⏻
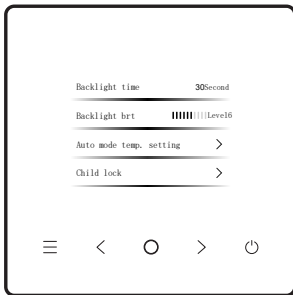
The backlight time can be set to 15s, 30s, 60s, or 90s. After the setting, if the device fails to receive any command within the set backlight time, it will enter standby mode and turn off the backlight. You can press " ○ " to adjust the backlight time.

Backlight brightness
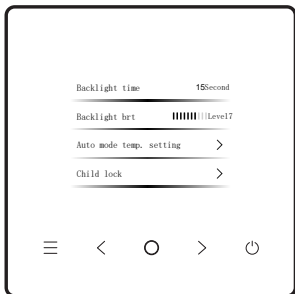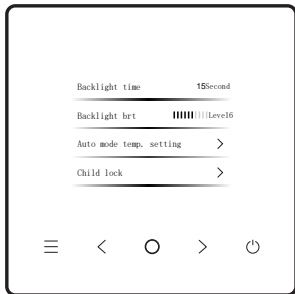
The backlight brightness has 10 levels used to set the display brightness of the device. The brightness increases from level 1 to 10. You can press " ○ " to adjust the backlight brightness.

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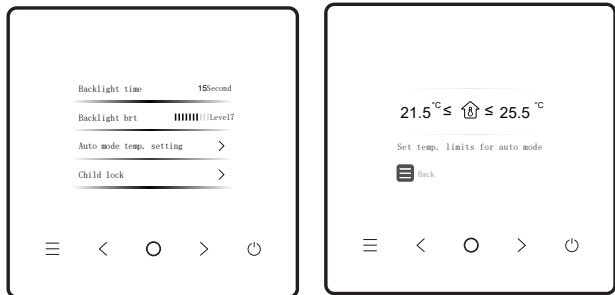
The temperature setting in auto mode enables you to set the temperature in auto cooling/heating mode, and maintain the indoor temperature within the set range.

Press " < " or " > " to enter the temperature setting in auto mode, press " ○ " to select.

Press " < " or " > " to select an item, press " ○ " to accept.

press " < " or " > " to adjust the range, press " ○ " to accept.

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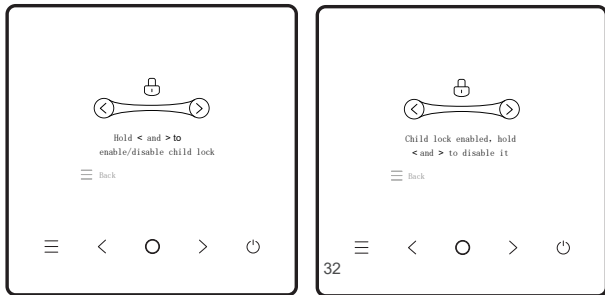
The child lock serves to prevent mis-operation of the device. After it is enabled, the buttons of the device will be locked and cannot be operated until the child lock is unlocked.

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
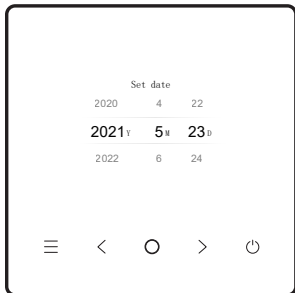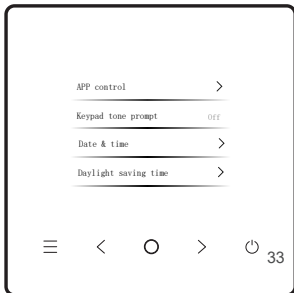
Date and time

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.
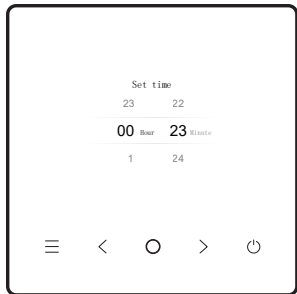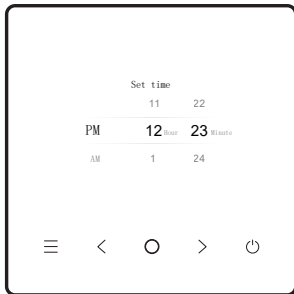
Time display

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

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
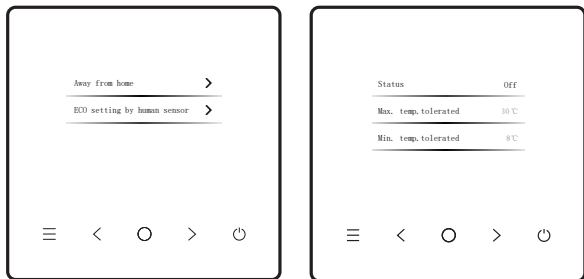
Away from home

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
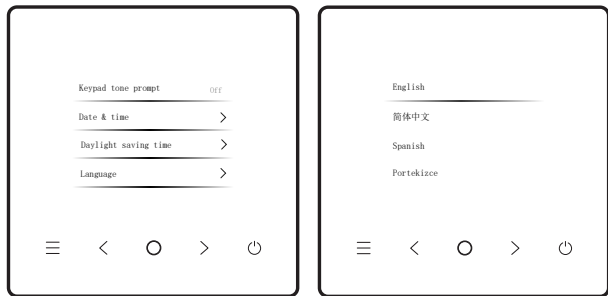
Language

You can enter the language to select your preferred language, the system will enter in the currently selected language.

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

2.3 Troubleshooting

Error code

Menu	Description	Remarks
C51	Communication fault between wired controller and IDU	Occurs only on the controller that is connected to the respective IDU

Error display
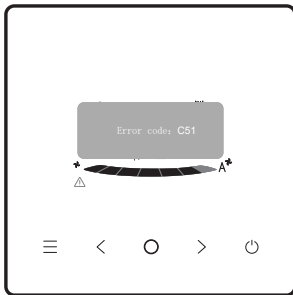
1. If any IDU or ODU fails, the wired controller displays the fault code. In case a communication fault occurs between the wired controller and any of the IDUs, the wired controller reports "C51". This will not stop the entire system.
2. The wired controller can record up to 10 faults, each of which includes the address of the faulty device, the fault code, and the time when the fault occurs.

2.4 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 of ODU. Please change the set mode to cooling/heating.

- **The word "Filter" is displayed on the operation panel. What should I do?**
  Into the WDC configuration settings and select the 'Filter reset' option and press 'O' to confirm reset the filter blockage reminder. **Refer to section 3.5.3 WDC Configuration on page number 64.**

  The filter notification is depended both on running hours and pressure, the default hours and setting parameters is shown above.

- **What are the possible causes if the air conditioner is not running as strongly as it should be?**
  Please check in the following sequence:
  1. Whether the set mode is cooling or heating;
  2. Whether the louvers of the air outlet face down;
  3. Whether there is any barrier 20 cm around the IDU;
  4. Whether the IDU is clogged and needs to be cleaned.
  5. If the problem persists, Please contact your installer or ActronAir.
- **Why does the air outlet of air conditioner drip?**
  The indoor air humidity is too high. Please close the doors and windows. The Louvre position may also be too high - see the owners manual for your indoor unit for reference.
- **Why does the ODU of air conditioner drip?**
  1. During cooling in summer, condensation water generated by the unit is discharged to the outside through the IDU drainage pipe. If the drainage pipe is close to the ODU, the condensation water may be mistaken for the water leaked from the ODU. The ODU does not drain any water during cooling.
  2. During heating in winter, the ODU may be frosted. Then, the unit will defrost and the defrosted water will flow from the drainage outlet at the bottom of the ODU. This is a normal phenomenon instead of a fault of the air conditioner. To deal with this, you may contact the after-sales personnel or the installer to install an ODU drainage pipe.

- **Why does air conditioner fail to start after it is powered on?**
  In winter, it takes some time for your air conditioner to warm up. Please wait a few minutes.

- **Why does air conditioner keep operating after it is powered off?**
  After air conditioner is powered off, it operates for a while to eliminate the moisture, so as to reduce the possibility of mould growth.

- **Why are the air conditioner functions non-adjustable?**
  If the controller display panel shows the lock icon, then press both "<" and ">" at the same time to unlock the child lock - please refer to Child Lock section (page 38) of the manual.

  If the lock icon is not indicating the child lock, it implies that the wired controller has been locked by the central controller. To unlock it, the action must be taken from the central controller. Alternatively, if the temperature or fan speed has been locked on the wired controller, accessing the engineering settings will allow for the unlocking of the temperature and fan speed locks.

3 INSTALLATION

3.1 Precautions for Installation

- To ensure correct installation, please read these installation instructions.
- The content provided here covers warnings, which contain important information about safety that must be followed.

⚠ WARNING

- Entrust the local distributor or local service agent to appoint a qualified technician to perform the installation. The user must not install the unit.

- Do not knock or indiscriminately disassemble the unit.

  The wiring must be compatible with the wired controller
- current.

  Use specified cables. Do not apply external force to the
- 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 at any place with oil mist (such as a kitchen).

- Do not install the wired controller in damp places. Keep it 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.

3.2 BASIC PARAMETERS

Items	Description
Rated voltage	DC18V
Wiring size	RVVP−0.75mm^2 × 2
Operating environment	-5°C ~ 43°C
Humidity	≤ RH90%

3.3 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	3
7	Wall plugs	3

Prepare the following parts in the field:

No.	Name	Quantity	Remarks
1	Flush-mounted electrical box	1	Embedded into the wall
2	2-core shielded cable	1	RVVP-0.5 mm^2×2, embedded into the wall
3	Wiring tubes (insulation suite)	1	Embedded into the wall; maximum wiring length: 200 m
4	Phillips screwdriver	1	Used to install cross recessed head screws
5	Small slotted screwdriver	1	Used to remove the rear casing of wired controller

3.4 Installation

3.4.1 Installation Dimensions
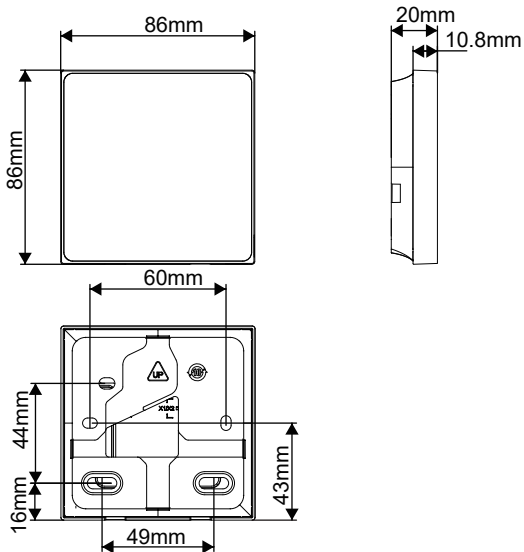
3.4.2. Wiring

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

- Applicable to bi-directional communication between a wired controller and an 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. The 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 slave controller.
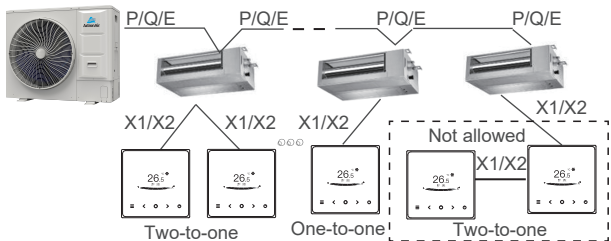
ⓘ INFORMATION

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

One-to-more system (only available for ECOFLEX IDU)

Use shielded cables and ground the shield layer

Use shielded wires, and do not ground the shield layer
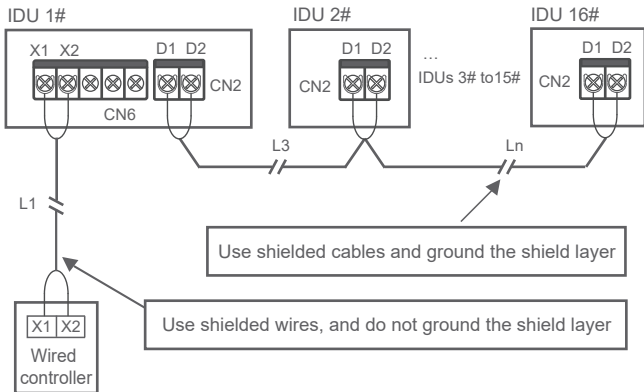
ℹ **INFORMATION**

Set one wired controller to control more than one IDU. Once communication has been established between the wired controller and the indoor unit, which can take up to 4 minutes, you can than operate and initiate commands and control commands can be implement.

Installlation of the rear casing of the wired controller

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

3×

screws and wall plugs
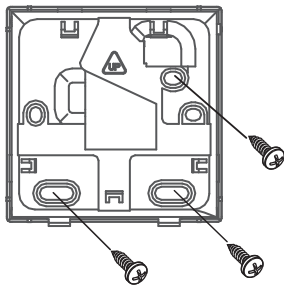
ⓘ INFORMATION

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

○ **NOTE**

When mounting the rear casing to a flush-mounted electrical installation box inside a wall, make sure that that wall is completely flat.

Electrician box

Screw hole installed on 86 electrical box, use two M4X25mm
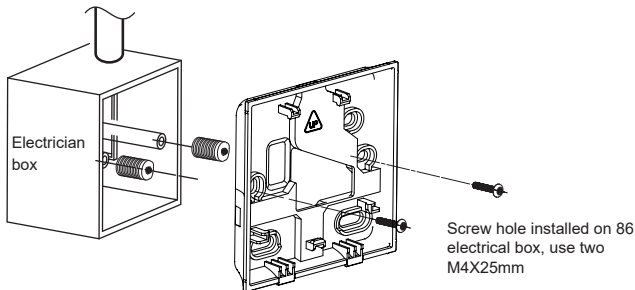
When installed on the wall:
The wire can directed in four directions as shown below.

Cutting place of up,down,left
and right side wire outlet
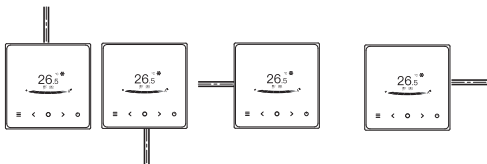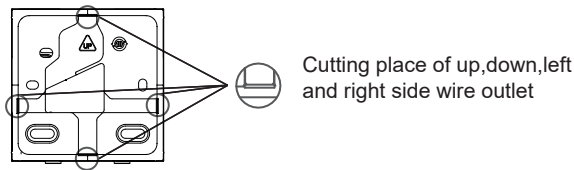
Up, down, left and right side wire outlet

Lead the 2-core shielded cable through the wiring hole in the bottom cap of the wired controller, and use screws to reliably fasten the shielded cable onto terminals X1 and X2. Then fix the bottom cap of the wired controller onto the electrical box by using pan head screws.
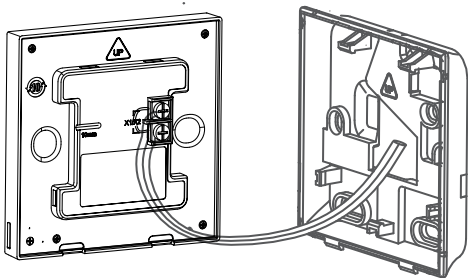
NOTE

- Do not perform wiring operations on energized 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.
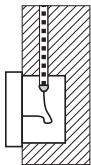
Electrician box   wire inside   wire outlet
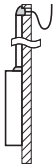
To avoid water entering into the remote ensure the cable has a loop to trap any water and ensure the wire entering the space is sealed.

Connect the wired controller and the rear cover as shown in the following figure.
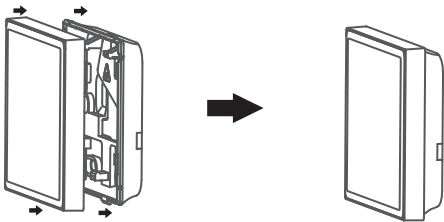
When the control is correctly connected to the backing plate the wall control should sit flush to the wall as below.
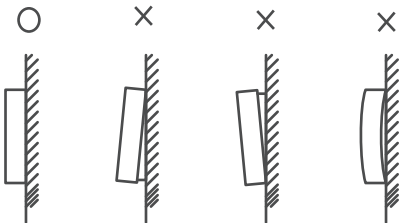
⌁ **NOTE**

- Make sure that no cables are clamped when buckling the wired controller and bottom cap.

- The wired controller and bottom cap should be installed correctly. Otherwise, they may get loose and fall apart.

3.5 Engineering Menu

3.5.1 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 the 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   1/3

Mode disable   >
Lock   >
Room temp.sensor set   >
WDC config   >

☰   ‹   ○   ›   ⏻
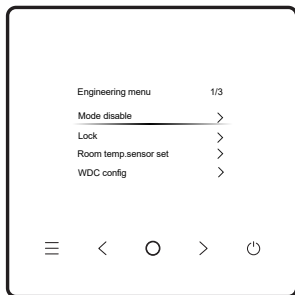
3.5.2. Engineering Menu

Menu	Submenu	Setting
Engineering Menu	Mode disable	Auto, Cool, Heat, Fan, Dry
	Lock	Set temp.
		Fan speed
	Room temp. sensor set	Room temp. sensor position
		Room temp. sensor compensation
	WDC config	For details, see the "WDC config"
	IDU set item	For details, see the "IDU set item"
	Set IDU address	Set IDU address
	ODU set item	For details, see the "ODU set item"
	System operating status query	Fault info
		ODU info
		IDU info
	IDU time	WDC info
	ODU time info	Runtime
		Runtime
		Fan 1 runtime
		Fan 2 runtime

Menu	Submenu	Setting
Engineering Menu	ODU time info	Compressor 1 runtime
		Compressor 2 runtime
	Other features	Restore Factory Settings
		Self-check

3.5.3 WDC Configuration

Menu	Submenu	Third-level menu	Default
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 temperature range for cooling/heating	Set upper and lower temp. limits in cooling/heating mode	2nd IDU: 17°C-30°C; 3nd IDU: 16°C-30°C
	Remote control/receiving of WDC	Enable/Disable	Enable
	WDC auto restart	Enable/Disable	Enable
	Perf. degradation	On/Off	Off
	Filter state	On/Off	Off
	Filter clean reminder	No reminder to filter, 500h, 1000h, 2500h, 5000h	500h
	Filter reset		
	WDC light	On/Off	On
	Separ one-to-more ctrl.swing	On/Off	Off
	After hours	30 min, 60 min, 90 min, 120 min, 180 min, 240 min, invalid	Invalid

ECOFLEX protocol

IDU set item	Parameter name	Parameter range	Remarks
On-site set item	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)
	IDU address setting	0-63	For details, see the "IDU address setting"
	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	
	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	Not sound/ Sound	
	EXV opening selection during heating standby	224P/288P/00P /Auto regulation	

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	
	Light (display panel) setting	Off; On	
	Set outdoor temp. when the auxiliary heater is on	Celsius degree: -25 to 20 Fahrenheit: -13 to 32	1°C or 1°C accuracy

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°C accuracy

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	Invalid; Valid	
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	Speed 1; 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; Fan speed before going to standby mode	
	Time to stop the fan of IDU in heating mode (Thermal)	4min; 8min; 12min; 16 min (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 displays d6.
	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	Not reset initial static pressure; Reset initial static pressure
	Filter ending - initial static pressure setting	10Pa; 20Pa; 30Pa ~19: 200Pa
FAPU setting	Ambient temp. when preheater is on	5°C; 0°C; (-5)°C

3.4.5 ODU Set Items

Parameter name	Parameter range
Energy rating of ODU	40% to 100%, every 1%
VIP IDU address	0-63
Heating and air supply enabled	Disable; Enable
Silence level of ODU	Level 0 to14

ActronAir

actronair.com.au

1300 522 722