

WIRE CONTROLLER OPERATION MANUAL

RWV04

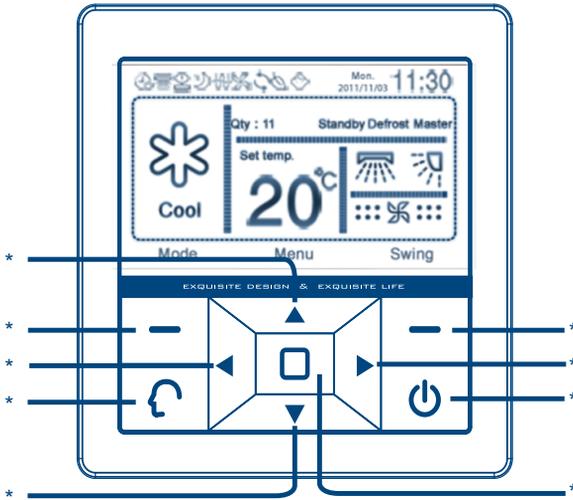
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No. 0150513925

- Please read this manual carefully before using
- Keep this operation manual for future reference

Parts and Functions

Key instructions for the wired controller



- *Up direction key:
It provides temperature rise function in the mode switching interface; if this key is pressed in the menu interface, the cursor moves upward; it raises the numerical value when adjusting value.
- *Left function key:
According to the function prompt above the key, it provides mode switching function in the mode interface and return function in the menu interface.
- *Left direction key:
It provides air speed switching function (when the right key is the swing key); it provides cursor leftward movement function in other interfaces.
- *Intelligent key:
In the main menu interface, press this key to initiate the intelligent work mode (excluding single cold mode and single heat mode and when there is no intelligent mode for indoor DIP switch setting.).
- *Down direction key:
It provides temperature drop function in the mode switching interface; if this key is pressed in the menu interface, the cursor moves downward; it reduces the numerical value when adjusting value.

Parts and Functions

*Right function key:

According to the function prompt above the key, it provides swing on/off function or air speed (when both the left-right and up-down options are not selected in the air direction setting interface) switching in the mode interface; it provides the confirmation function in the menu interface and it provides the “Next step” function in the interface of “Service Set –Password-Original password”.

*Right direction key:

It provides air speed switching function (when the right key is the swing key); it provides cursor rightward movement function in other interfaces.

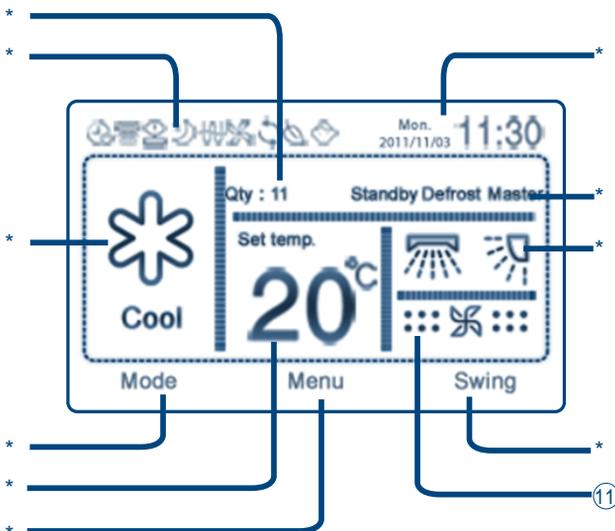
*Startup & Shutdown key:

It provides startup and shutdown function. When in shutdown state, press this key to start it up; press the key again to shut it down.

*Menu/main interface/input key:

It provides menu function in the mode interface; in the menu interface, it will enter the main interface; in the password interface, it functions as the characters input key referring to the prompting character above the key.

■ Main interface display



Parts and Functions

- *Online units display area:
it displays the number of the units controlled by one wired controller
- *Special function/fault icon display area:
such as weekly timer, Swing, sleep, children lock, force, air exchange and energy conservation; each icon corresponds to a function; if a fault appears, the fault icon is displayed.
- *Mode display area:
intelligent, heating, cooling, dehumidification and fan modes (the single cold mode has only cooling, dehumidification and fan modes; the single heat mode has only heating and fan modes; except when DIP switch of indoor unit has mode limit.)
- *Left function key function prompt area
- *Set temperature display area:
the range of adjustment is 16° to 30° (except when in the setting of energy conservation function).
- *“Menu/main interface/input” key function prompt area:
if any function is prompted here, press the menu/main interface/input to execute the prompted function
- *Date and time display area
- *Status indication area:
Indication of the master/slave unit of the wired controller, filter screen cleaning prompt/defrosting status indication/forced defrosting issuance prompt, operation/standby status indication.
- *Swing:
dynamic display during setting of swing (single swing, or both swings or no swing, depending on the set air direction)
- *Right function key function prompt area
- ⑪Air speed display area:
Automatic, weak air, moderate air, strong air; the fan mode has no automatic air

Parts and Functions

Explanation of the icons of the wired controller

	Intelligent mode		Time setting
	Heating mode		Weekly timer
	Cooling mode		Sleep
	Dehumidification mode		Left-right swing
	Fan only mode		Up-down swing
	Energy conservation function		Swing function
	Fault		Air change
	Force		Children lock
	Mute		Health

Display and adjustment of air speed

1. Default air speed upon initial energization

Mode	Cooling	Heating	Intelligent	Dehumidification	Fan
Air speed	Strong air	Weak air	Automatic air	Automatic air	Weak air

2. Press the “left-right” key to set air speed

Strong air: Moderate air: Weak air:

Automatic: * * * i.e. automatic cyclic display in weak*moderate*strong*weak air

- In the fan mode, automatic air is unavailable. The other displays are the same with the above.
- For some models, the right function key is the “air speed” key (i.e. the bottom right corner of the interface displays “speed”), so air speed is adjusted using the right function key, instead of left-right direction key.

Operation

Weekly timer setting:

1. Proceed with main interface*Menu*Weekly timer*"Enter" to enter, which is shown in Figure 1; When the cursors is at \oplus , press "Enter" key to add a group of timing information; non-initial setting may be displayed as shown in Figure 2; maximally 7 groups of timing information can be set.

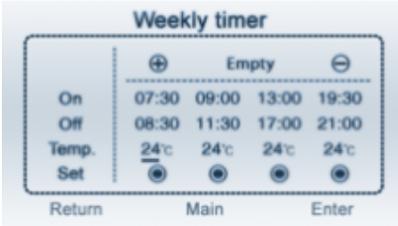


Figure 1

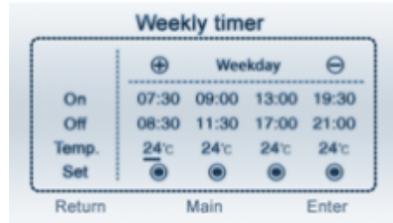


Figure 2

2. Setting of weekly timer

Press the "Enter" key, a window as shown in Figure 3 will pop out. The location where the cursor stays is flickering, \bigcirc indicates unselected and \bullet indicates selected ; press the "Input" key to select it so that it changes to \bullet or \bigcirc ; weekly timer can be set as you wish. After the selection has been done, press the "Enter" key to exit the setting of weekly timer; return to the main interface for weekly timer. If "from Sunday to Saturday" are selected, after pressing "Enter", the timing item should be "Daily"; If "from Monday to Friday" are selected, after pressing "enter", the timing item should be "Weekday", as shown in Figure 2.

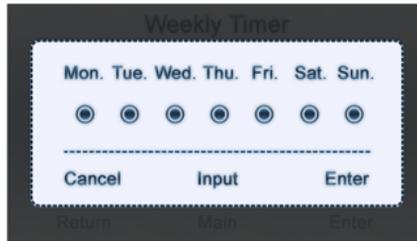


Figure 3

Operation

3. Time setting of timing switch

- A. After the timing items for week have been set, each group of set timing information displays 5 seconds cyclically; when it is displayed in the timing information group, press the “Downward” key to initiate the time setting of the timing switch of the current group;
- B. The cursor is flickering where it stays; when the right function key, as an “Enter” key, is pressed, the cursor becomes static, which indicates that it is in the adjustment state; press the upward-downward key to adjust the time and temperature. After adjustment of time and temperature, move the cursor leftward and rightward to confirm the time and temperature.
- C. For adjustment of time, keep the “upward” key or “downward” pressed down for 5s, the clock change will accelerate, with acceleration frequency of 10times/s.
- D. During flicker of the cursor, move upward, downward, leftward or rightward to select the circle below; use the right function key, as an “Enter” key, to confirm or cancel the setting; ● represents setting valid and ○ represents setting invalid.
- E. If ● is present in a timing item containing week, this means the corresponding timing information is valid.

4. Deletion of timing information

If, in a “weekly timer” interface, the cursor is at “⊕”, press the leftward-rightward key to select “⊖”; then press “Enter” key to pop out the window as shown in Figure 4. Then press the left key or right key to delete or retain the timing information.

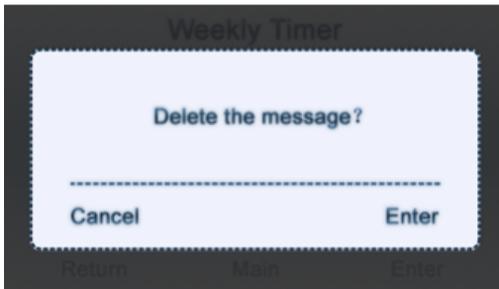


Figure 4

5. Timing switch on/off conflict prompt: if the timing has been set in such a way that timing on/off setting conflicts occur at the same time on the same day, those shown in Figure 5 will pop out.

Note: In the time setting state of week timing(cursor still), if no order input for 1 minute, screen saver will be activated and it will automatically return to main interface; In which state, non-conflicting orders are effective and otherwise no interface popping out; Latter input conflicting orders are ineffective with NON-SET state displaying

Operation

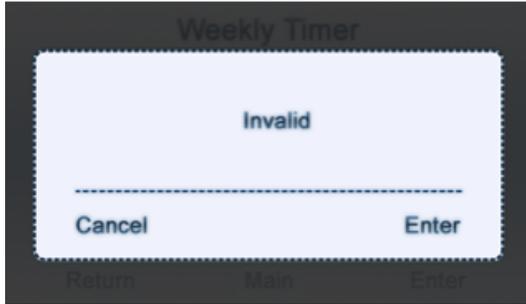


Figure 5

6. Prior to setting of weekly timer, please make time setting through main interface* Menu* Time interface.
7. The slave unit of the wired controller has no setting of weekly timer.
8. Weekly timer setting done, it needs to exit the weekly timer interface to execute the order.

■ Current clock setting

1. Proceed through main interface*Menu*Time*“Enter” key to enter, which is shown in Figure 6,



Figure 6

2. Default setting starts with the “Year” value, press the “rightward key” to select “Year”*“Month” *”Day” *”Hour” *”Minute”*”Week”; or press the “leftward key” to select “Week” *”Minute” *”Hour” *”Day” *”Month” *”Year”;
3. When the time to be changed has been selected, press the “Upward key” or “Downward key” to adjust the time;
4. After all the times have been adjusted, press “Enter” key to complete the setting.

Operation

Service setting

1. Proceed through main interface *Menu*Other*enter password*press “Enter” key*Service Set*press “Enter” key to initiate the setting, which is shown in Figure 7.

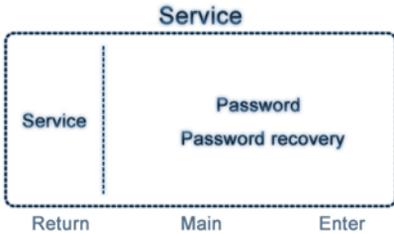


Figure 7

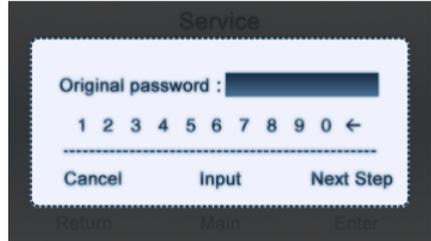


Figure 8

2. Password setting

- A. Common users are provided with a four-digit password which is initially 1234; high-class users are provided with a six-digit password 841226 which can be operated by the technical personnel only.
- B. Press the “upward” key or “downward” key to select “password” and press “Enter” key to initiate password setting, which is shown in Figure8. Password setting is intended for changing only the password of a common user.
- C. Press the “leftward” key and “rightward” key to select in the line of numbers; press the “input” key to fix the selected numbers in the password box. When password entry is completed, press the right key to proceed with “next step”. If the original password is input incorrectly, a window prompting “Wrong password” will pop out as shown in Figure 9. Press “Enter” or “Cancel” in this window to return to the figure 8.

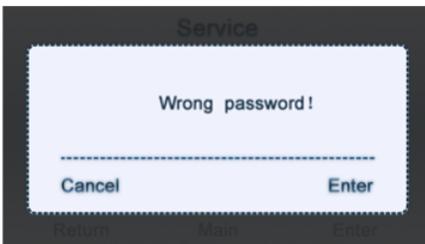


Figure 9

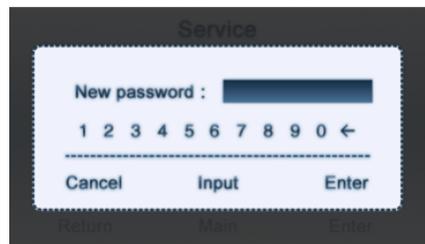


Figure 10

- D. If the “original password” is entered successfully, a window will pop out as shown in Figure 10 prompting “New password”; enter the password in the same way as described above and then press “Enter” key again to confirm successful setting of new password or press “Cancel” key to cancel the password setting.

Operation

E. If the new password has been set successfully, a window prompting “New password set Successfully*”, as shown in Figure 11 will appear; press “Enter” or “Cancel” to return to the previous menu.

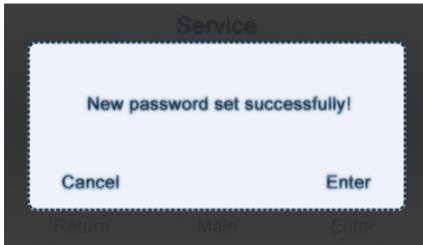


Figure 11



Figure 12

3. Restore the initial password

- A. Select “Password recovery” as shown in Figure 7 and then press “Enter” key to enter the interface as shown in Figure 12; press the left key “Cancel” or the right key “Enter” to cancel this operation or confirm restoration of the initial password.
- B. This operation here is used for restoring only the password of a common user.

■ Fault code query:

Proceed through main interface*Menu*Other*enter password*press “Enter” key*Error code*enter 14.

The password entry interface is shown in Figure 13 and the entry method is the same as password setting.

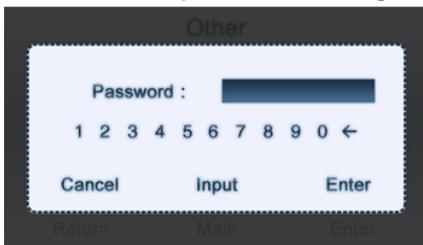


Figure 13

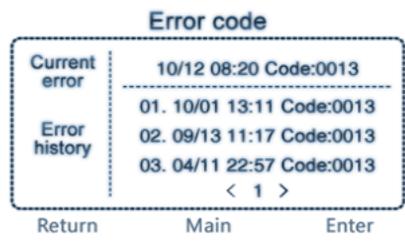


Figure 14

- 1. Use the “leftward” key and “rightward” key to check the fault codes inside the unit; where <1> can be 1 to 16, which is the address code within the wired controller group.
- 2. In the current interface, keep both the “left” key and “right” key pressed down for 5 seconds to clear the historic faults record.

Operation

3. A common user can view the current faults and historic faults; a high-class user can view 10 historic faults, using the “downward” key and “upward” key. If a common user presses the “downward” key, a window as shown in Figure 15; a high-class user can enter his/her password to view ten historic faults.

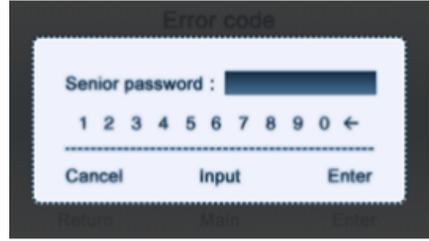


Figure 15

air direction setting

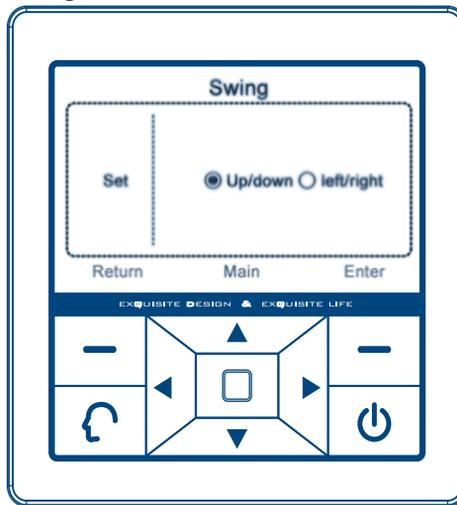


Figure 16

1. Proceed through main interface*Menu*Swing*press “Enter” key; the default air direction is up/down. If a left/right air deflector is being controlled, the “left/right” option can be selected.
2. If only the left/right direction is selected when setting the swing function, only the left/right air deflector will swing; if only the up/down direction is selected when setting the swing function, only the up/down air deflector will swing; if both the left/right direction and up/down direction are selected, both the left/right air deflector and up/down air deflector will swing (for different models, some units have only the left/right air deflector or up/down air deflector; the setting needs to be made consistent with the specific model).
3. ● Indicates “selected”, ○ indicates “unselected”
4. If both the up/down direction and left/right direction are not selected, the bottom right corner of the main interface will display the air speed; Use the right key to switch the air speeds.

Operation

Sleep setting

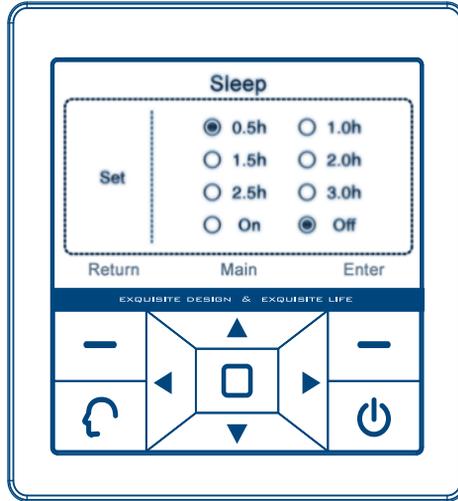


Figure 17

1. Proceed through main interface*Menu*Sleep*press “Enter” key to initiate this mode; The default state is shutdown.
2. Use the up ,down, left and right keys to adjust the cursor; The location where the cursor stays has the circle flickering; press the “Enter” key to select the time and switch between on/off.
3. The selected time 0.5, 1, 1.5, 2, 2.5 and 3 mean that the wired controller will shut down in 0.5/1/1.5/2/2.5/3 hours from time setting.
4. If the sleep mode has been set, the main interface will have the sleep icon.
5. Prior to setting of sleep mode, please make the time setting, so that the time can be consistent with the current actual time.
6. The slave unit of the wired controller has no setting of sleep setting.
7. If wired controller is powered off, sleeping function is "OFF"; Reset the function if needed.

Operation

Unit number setting

(This function is intended for debugging by technical personnel. The wired controller No. with no permission of address setting by indoor DIP switch setting displays grey, with access to checking and no access to changing the communication No.)

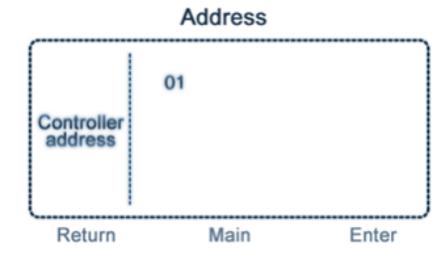


Figure 18

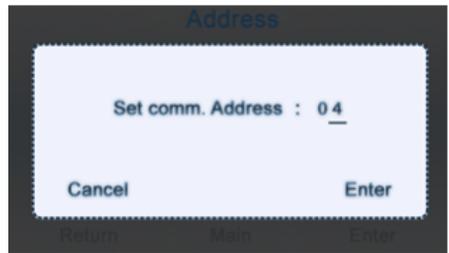


Figure 19

1. Proceed through main interface*Menu*Other *enter the password of the technical personnel*press “Enter” key*Addressing*press “Enter” to enter the interface as shown in Figure 18.
2. Wired controller number, as shown in Figure 18, is set by DIP switch of indoor unit. If one wired controller controls one unit, there is only 01; it displays the unit numbers corresponding to the indoor units in operation.
3. When in the interface as shown in Figure 18, if there are more than one wired controller numbers, use the “upward”, “downward”, “leftward” and “rightward” keys to select a unit number and press “Enter” key; Then the POP window as shown in Figure 19 will appear.
4. When the window in Figure 19 has popped out, the communication unit number of this controller can be set (communication addresses between the outdoor unit and indoor unit) 1-64; use the leftward and rightward keys to adjust the unit digits and tens digits and use the upward and downward keys to adjust the values on the corresponding digits; then press “Enter” or “Cancel” to return to the interface as shown in Figure 18.
5. The controller address equals the corresponding value of indoor unit’s group address dial code plus 1.

Mode lock setting

1. Proceed through main interface*Menu*Other *enter password*Mode *press “Enter” key. The default state is “Normal”.
2. In single cold mode, only cooling, dehumidification and fan modes can be executed and the intelligent key is ineffective. In single heating mode, only heat and fan modes can be executed and the intelligent key is ineffective. In normal mode, the heating, cooling, dehumidification, fan and intelligent modes can be executed.

Operation

3. The location where the cursor stays has the circle flickering; use the leftward and rightward keys to adjust the cursor; press the cursor where it stays to select ; indicates “selected” and indicates “unselected”.

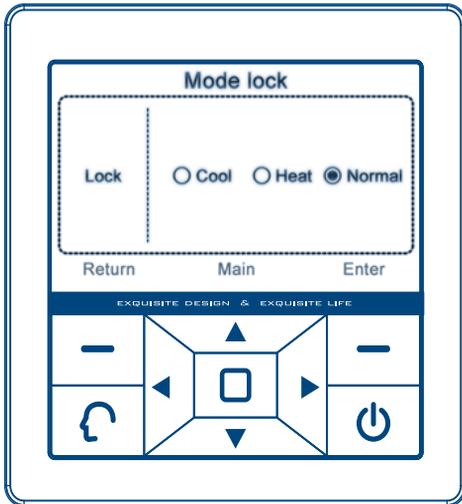


Figure 20

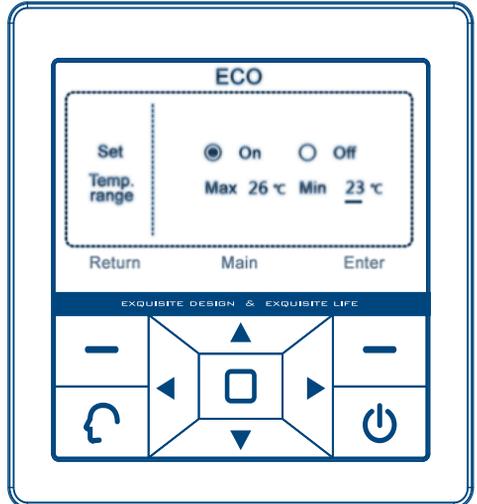


Figure 21

ECO setting

1. Proceed through main interface*Menu*ECO*press the “Enter” key to initiate. The default state is shutdown.
2. Upper temperature limit---the maximum temperature value that can be set for heating mode;
Lower temperature limit ---the minimum temperature value that can be set for cooling/dehumidification mode.
3. Use the leftward and rightward keys to adjust the cursor;the circle flickers where the cursor stays; indicates “unselected”; press “Enter” and it will change to which indicates "selected".
4. When “off” is selected, temperature setting is not constrained by energy conservation setting; The range of temperature adjustment is 16°C to 30°C; if “on” is selected, temperature setting is constrained with energy conservation setting.
5. When it has been adjusted to the values corresponding to “upper limit” or “lower limit” using leftward and rightward keys, an underline will appear below the temperature value and now the “upward” and “downward” keys can be used to adjust the temperature; the maximum and minimum temperature values are 16°C and 30°C.
6. If energy conservation is on, the main interface will display the icon for energy conservation.

Operation

Additional functions

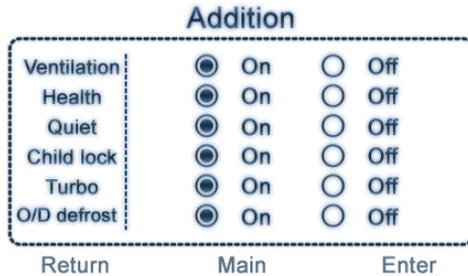


Figure 22

1. Proceed through main interface *Menu*Addition*press “Enter” key to initiate. The default state is shutdown.
2. Ventilation: Some models have the air ventilation and some models do not. For those models that do not have this function, the ventilation setting will not be usable.
3. Health: Some models have the health function and some models do not. For those models that do not have this function, the health setting will not be usable.
4. Quiet: Some models have the quiet function and some models do not. For those models that do not have this function, the quiet setting will not be usable.
5. Turbo: Some models have the turbo function and some models do not. For those models that do not have this function, the turbo setting will not be usable.
6. When the children lock is on, it automatically returns to the main interface and all the keys are unusable. The main interface displays the icon for children lock; keep both the leftward and rightward keys pressed down for 5 seconds and the children lock icon will disappear, and now the children lock is disengaged and all the keys are usable.
7. O/D defrost is effective in the heating mode; The O/D defrost command is sent to indoor unit.

Note: for some models, the turbo and quiet functions are reserved functions and are in grey color.

Operation

■ Special parameters

This function is a reserved function and is temporarily in color grey

■ Filter screen cleaning

1. If the state indication area of the main interface displays “filter”, filter cleaning shall be performed.
2. When “filter” is being displayed, keep both the upward and downward keys pressed down for 5 seconds to cancel the “filter” icon.

■ Temperature compensation

(this function is intended for debugging by technical personnel and can only be entered by high-class users)

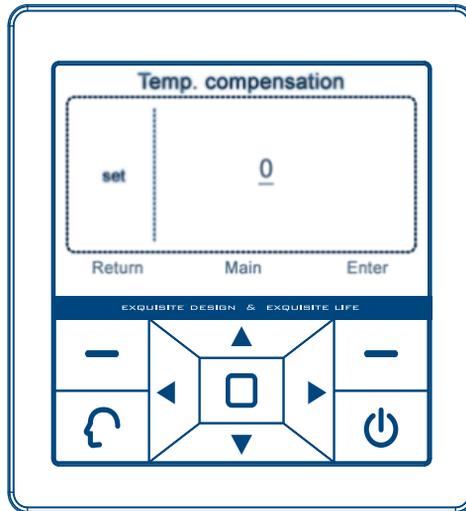


Figure 23

1. Proceed through main interface * Menu * Other * enter the high-class user password * Temp. Compensation * press “Enter” to initiate.
2. When in this interface, use the upward and downward keys to set the temperature value; the range of Celsius degrees is -4°C to 4°C ; the default value is 0; the range of Fahrenheit degrees is -7 to $+7$. Pressing “Enter”, value change is done; If pressing “Return”, original value is retained.

Operation

■ Special set

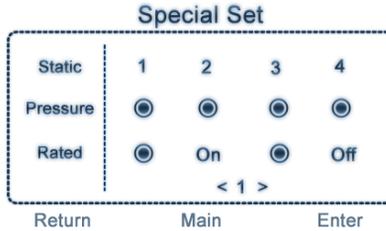


Figure 24

1. Special set is only effective to some types, with order ineffective if no such function equipped in the corresponding indoor units.
2. When powered on, the default static pressure grade is 1 and no rated value displayed; when communication stabilized (about 3 minutes later), static pressure and rated state can be checked.
3. Press up/down key to switch among Static pressure, rated value, wired controller group No.; press left/right key to move the cursor in every line and then press OK key to confirm the setting.
4. The circle flashes where the cursor locates when choosing static pressure and rated value; if the cursor moves to wired controller group No. location, the No. will be underlined and the range of No. is 1-16.

Operation

Detailed information

(the common user password is required for access)

1. Proceed through main interface *Menu*other*enter the password* Details*press “Enter” to initiate.
2. 063 is the address of the wired controller inside the group; if one unit is controlled by one wired controller, the default address is 01; the range of this value is 01 to 16; the Indoor address is the communication address of both indoor unit and outdoor unit, ranging from 1 to 64.
3. The wired controller address equals the corresponding value of indoor unit’s group address dial code plus 1.

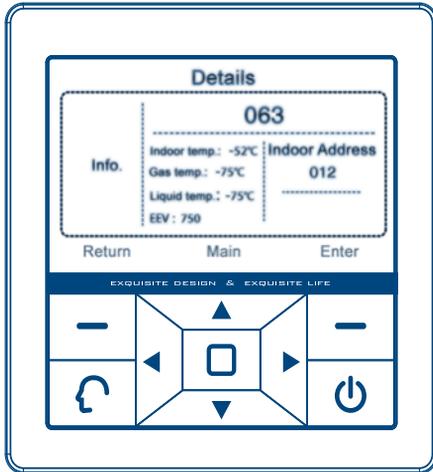


Figure 25

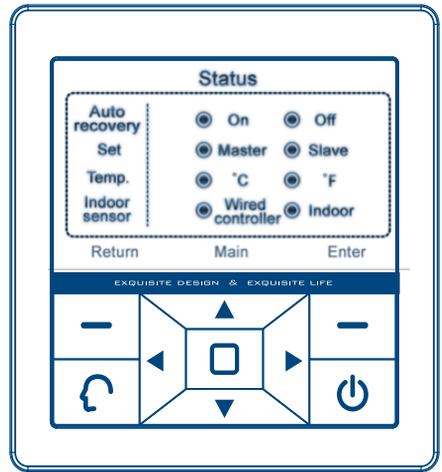


Figure 26

State setting

(this function is intended for debugging by technical personnel and can be entered by high-class users only)

1. Proceed through main interface *Menu*Other*enter the high-class user password*Status set*press “Enter” to initiate.
2. Use the upward, downward, leftward and rightward keys to adjust the cursor; the location where the cursor stays has the circle flickering; press “Enter” key to change it to ●, and the setting is completed. ● indicates “selected” and ○ indicates “unselected”.

Operation

3. Auto recovery: if this function is on, the state before power failure will be in the memory; after restoration of power failure, the unit will continue operating in the state as before the power failure. If this function is off, the state will not be memorized; if the unit is energized after power failure, it is in shutdown state; after startup, the default mode is in automatic mode as automatic air 24°C. If the auto recovery is set to be on and the sleep function is also set, in case of accidental power failure, the unit is in shutdown state when the power supply is resumed.
4. Master/slave setting: This setting is used for master/slave control of the wired controller and the master controller and slave controller are set separately.
5. Unit of temperature: Temperature is set in the units of Celsius degree and Fahrenheit degree.
6. Indoor sensor: Set the temperature source collection for ambient temperature sensor.

Differences between the function of the master wired controller and slave wired controller:

Comparison item	Master wired controller	Slave wired controller
Function	All functions	1. Air direction setting, time setting, mode lock, indoor sensor, auto recovery and ECO shall be consistent with the master wired controller. 2. Weekly timer, sleep setting, addressing, special set and temp. compensation are in grey color and are not operable.

Screen saver:

If there is no operation for one continuous minute, the luminance of the wired controller will be reduced to protect the screen and save energy. Press any key to terminate the function of screen saver and recover the pre-existing luminance.

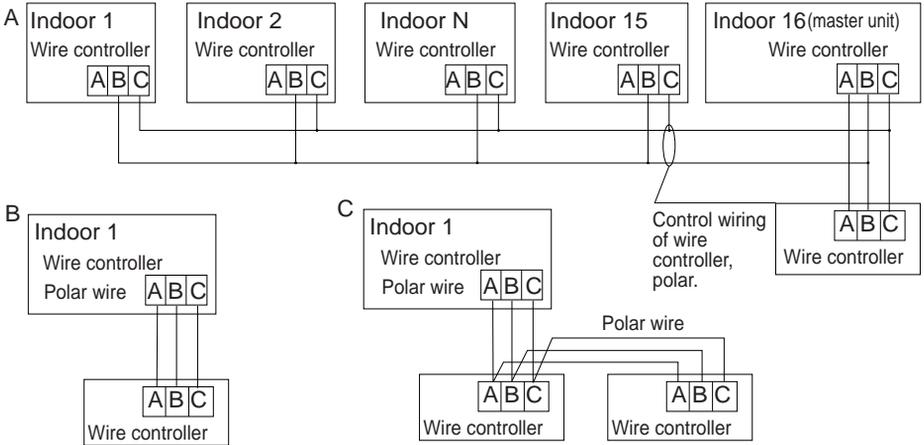
The handling of Centralization/Lock mode:

If central controller is connected in the AC system,

1. If there displays the icon of  in the main interface, the centralization mode is activated in the central controller in which only startup/shutdown keys can be operated and other keys are inoperable. If there is no operation for one continuous minute, the screen saver function will be initiated with the luminance of the wired controller reduced. Press any key to recover the pre-existing luminance.
2. If there displays the icon of  in the main interface, the lock mode is set in the central controller with no keys operable. If there is no operation for one continuous minute, the screen saver function will be initiated with the luminance of the wired controller reduced. Press any key to recover the pre-existing luminance.
3. If  or , weekly timer and sleep setting is invalid.

Operation

Wiring connections of wire controller:



There are three methods to connection wire controller and the indoor units: A. One wired controller can control max. up to 16 sets of indoor units, and 3 pieces of polar wire must connect the wire controller and the master unit (the indoor unit connected with wire controller directly), the others connect with the master unit through 2 pieces of polar wire.

B. One wire controller controls one indoor unit, and the indoor unit connects with the wire controller through 3 pieces of polar wire.

C. Two wired controllers control one indoor unit. The wire controller connected with indoor unit is called master one, the other is called slave one. Master wire controller and indoor unit; master and slave wire controllers are all connected through 3 pieces of polar wire.

Note: For some slim duct type and middle ESP duct type (The PCB spare part number of which is 0151800175 or 0151800173), there will be a different wiring method, please refer to the service manual to get the wiring details.

Communication wiring:

Communication wiring length(m)	Dimensions of wiring
< 100	0.3mm ² x3-core shielded wire
≥ 100 and <200	0.5mm ² x3-core shielded wire
≥ 200 and <300	0.75mm ² x3-core shielded wire
≥ 300 and <400	1.25mm ² x3-core shielded wire
≥ 400 and <500	2mm ² x3-core shielded wire

*One side of the shielded sheet of communication wire must be earthed.

Installation Of Wire Controller

■ Installation of wire controller:

1. Pass the communication cable through the hole of the concealed box
2. Pass the cable through the back cover of the wired controller at the place No.1
3. Mounted the back cover on the concealed box by screws
4. plug the terminals of the communication cables on the corresponding connectors, and slide the front cover of the wirde controller from up to down,then fixed
5. White wire, connected to indoor A, Yellow wire,connected to indoor B, Red wire,connected to indoor C

