# NORTEK GLOBAL HVAC, LLC

# Wired Controller WRC2

## Installation Instructions / Owner's Manual

## Controller

● Please read this owner's manual carefully before operation and retain it for future reference
● Specifications & illustrations subject to change without notice or incurring obligations

# User Notice

Please carefully read this manual before installation and operation of this product. Keep it for future reference. Please note the symbols below.

| ⚠️ WARNING! | Failure to comply will result in severe personal injury, property damage and/or death. |
|---|---|
| ⚠️ CAUTION! | Failure to comply could result in personal injury and/or property damage. |

| ⚠️ CAUTION! |
|---|
| Do not install the wired controller in a damp area or in direct sunlight. |
| Handle controller carefully. Do not frequently assemble/disassemble the wired controller. |
| Controller must be kept dry. Do not operate the wired controller with wet hands. |
| Do not install or remove the wired controller yourself. If necessary, please contact a qualified technician. |
| This wired controller can be used with various kinds of air conditioners. Some functions do not apply to the duct type air conditioners, and will not be covered in this manual. |
| Before operating the air conditioner, please read this manual carefully and keep it for future reference. |

# Contents

# 1 Introduction to the Wired Controller



Fig.1 Appearance of the Wired Controller

## 1.1 LCD Icon Indicators
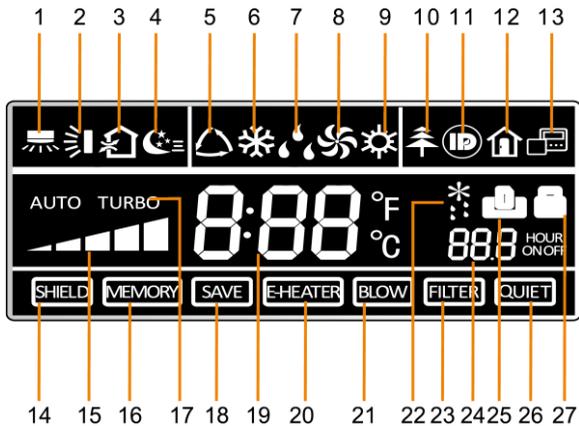


Fig.2 Appearance of the LCD

# 1.2 LCD Icon Descriptions

Table 1

| No. | Icons | Description |
|-----|-------|-------------|
| 1 | | Left and right swing function |
| 2 | | Up and down swing function |
| 3 | | Air exchange function |
| 4 | | Sleep function |
| 5 | | Auto mode |
| 6 | | Cooling   mode |
| 7 | | Dry mode |
| 8 | | Fan mode |
| 9 | | Heating mode |
| 10 | | Health function |
| 11 | | I-Demand function |
| 12 | | Vacation function |
| 13 | | Status display of master and slave wired controller |
| 14 | SHIELD | Shield function<br>The button operation, temperature setting, "On/Off" operation, "Mode" setting, and "Save" setting are disabled ("shielded"). |
| 15 | AUTO TURBO | Fan speed |
| 16 | MEMORY | MEMORY function<br>The unit will resume the original setting status after recovery from power outage. |
| 17 | TURBO | Turbo function |
| 18 | SAVE | Energy-saving function |
| 19 | 8:88 °F °C | Ambient/setting temperature |

| 20 | E-HEATER | Electric heater |
| 21 | BLOW | Blow function |
| 22 | ✳ | Defrost function |
| 23 | FILTER | Filter cleaning |
| 24 | 88.8 HOUR ON OFF | Timer Setting |
| 25 | ⬆ | Keycard control / Detected status sensed by human body |
| 26 | QUIET | Quiet function |
| 27 | 🔒 | Lock function |

# 2 Controls

## 2.1 Buttons
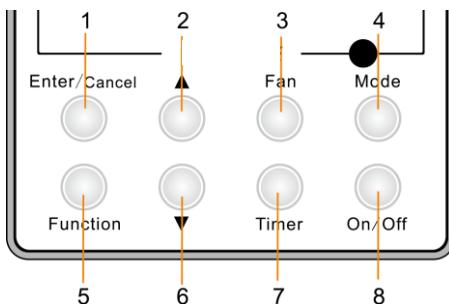


Fig. 3 Press Buttons

## 2.2 Buttons Function

Table 2

| No. | Press Buttons | Function Introduction |
|---|---|---|
| 1 | Enter/Cancel | Function selection and canceling; Press it for 5s to display the outdoor and indoor ambient temperature. |
| 2 | ▲ | Running temperature setting of indoor unit, range: 16~30°C (61°~86°F). Timer setting, range:0.5-24hr |
| 6 | ▼ | Air function setting Save setting Clean setting |

| 3 | Fan | Select fan speed from high, medium-high, middle, medium-low, low, and auto levels. |
|---|---|---|
| 4 | Mode | Select Cooling, Heating, Fan, Auto or Dry mode. |
| 5 | Function | Switch among these functions Swing / Air / Sleep / Health / I-Demand / Vacation /Turbo / Save / E-Heater / Blow / Quiet |
| 7 | Timer | Timer setting |
| 8 | On/Off | Turn on/off indoor unit |
| 4 mode + 2 ▲ | MEMORY | Press Mode and ▲at the same time for 5s when unit is turned off to activate/deactivate memory function (After a power outage, if Memory is set, indoor unit will resume original setting state after power recovery. If Memory setting is not on, unit will remain off after power recovery. The default setting is for Memory function to be ON) |
| 2 ▲ + 6 ▼ | Lock | When unit is off or on, press ▲and ▼ buttons at the same time for 5s to Lock the controller buttons. No other buttons will operate while in Lock setting. Repress ▲ and ▼ again for 5s to exit Lock state. |
| 4 mode + 6 ▼ | °F/°C | With unit turned off, press the Mode and ▼ at the same time for 5s to switch the temperature scale between Celsius and Fahrenheit. |

# 3 OPERATION INSTRUCTION

## 3.1 On/Off

Press the On/Off button to turn on or off the unit.

Notes:

①　Fig.4 indicates the OFF state of the unit after startup.

②　Fig.5 indicates the ON state of the unit



Fig. 4 OFF State of the Unit　　　　Fig. 5 ON State of the Unit
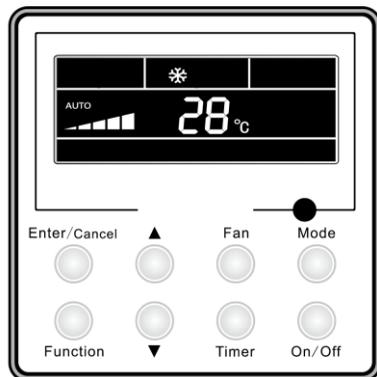
# 3.2 Mode Setting

Under ON status, press the Mode button to switch the operation modes as shown in Fig. 6:
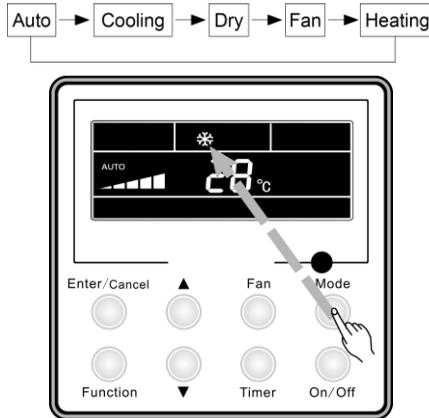


Fig. 6

# 3.3 Temperature Setting

Press ▲ or ▼ button to increase or decrease temperature setting under ON status. Pressing and holding either button will increase or decrease temperature setting by, 1°C (2°F) every 0.5s.

In Cooling, Dry, Fan and Heating mode, temperature setting range is 16°C~30°C (61°~86°F).

In Auto mode, the temperature setting can't be changed.
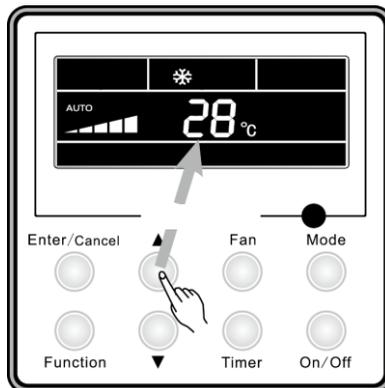


Fig. 7 Temperature Setting

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# 3.4 Fan Speed Setting

Press Fan button to change the indoor unit fan speed as shown in the sequence in Fig. 8:
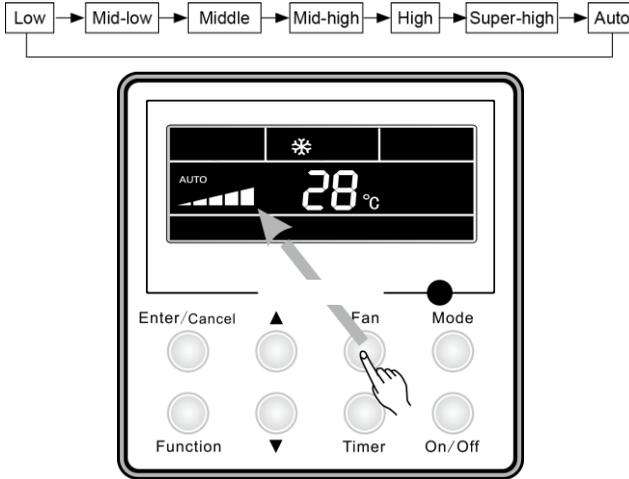


Fig. 8 Fan Speed Setting

# 3.5 Right and Left Swing

Under ON status, press the Function button to select the "Right and Left Swing" function option and then press the Enter/Cancel button to activate it.

When the Swing function is activated, press the Function button to select the "Right and Left Swing" function option and then press the Enter/Cancel button to deactivate it.

Right and Left Swing function setting is shown in Fig. 9.
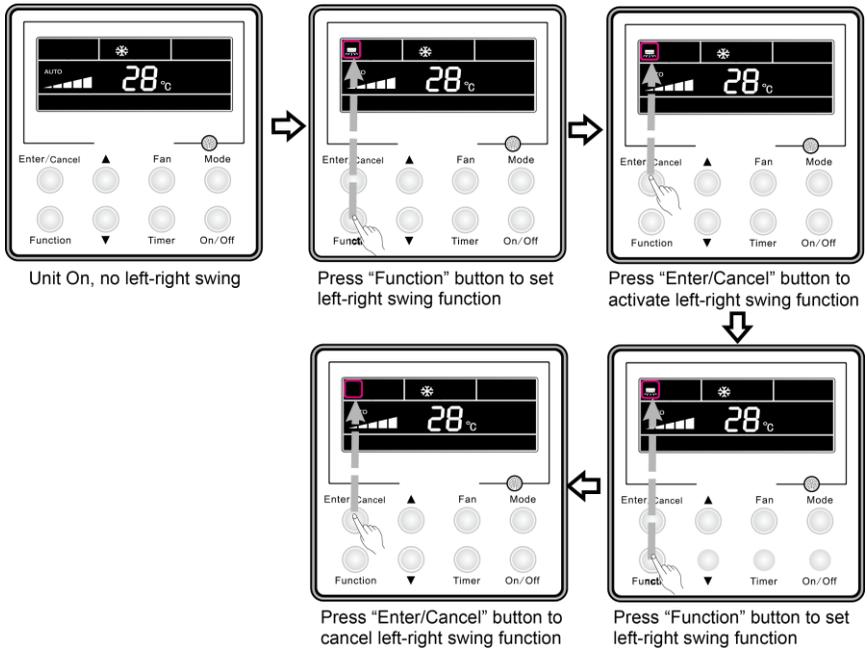
Fig. 9 Right and Left Swing Setting

# 3.6 Up and Down Swing

Under ON status, press the Function button to select the "Up and Down Swing" function option and then press the Enter/Cancel to activate it.

When the Swing function is activated, press the Function button to select the "Up and Down Swing" function option and then press the Enter/Cancel button to deactivate it.

Up and Down Swing function setting is shown in Fig. 10.
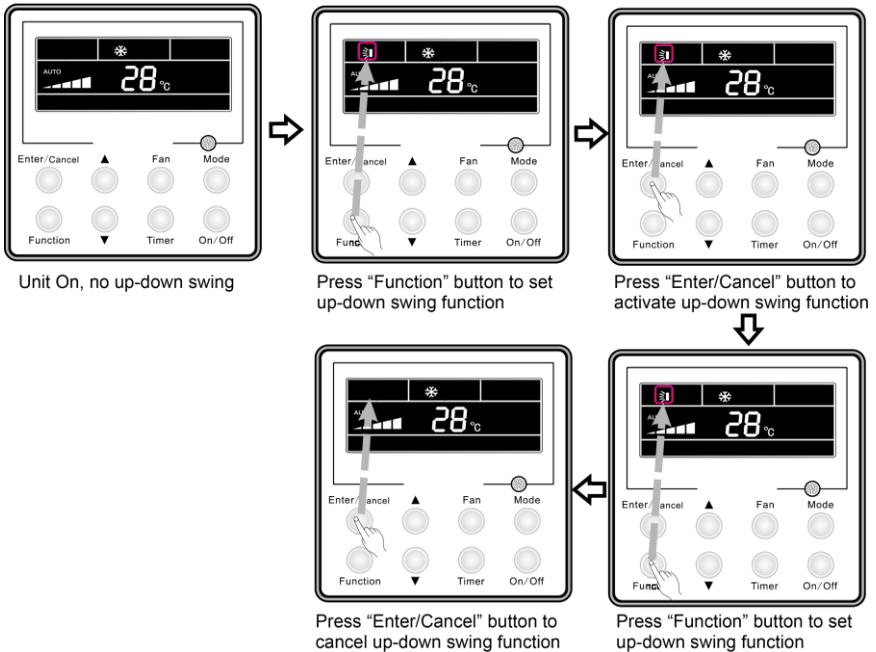
Fig. 10 Up and Down Swing Setting

# 3.7 Timer Setting

**Timer On Setting:**

This setting will indicate the time the unit will automatically turn itself on. When the unit is OFF, press the Timer button to display the Hour setting with ON blinking, then press ▲/▼ to adjust the Timer On Setting. Press the Mode button to select Timer Off Setting.

**Timer Off Setting:**

When the unit is ON, press the Timer button, to display the Hour setting with OFF blinking, then press ▲/▼ to adjust the Timer Off setting. Press the Timer button to confirm.

Cancellation of Timer Setting: The timer setting can be canceled by pressing the Timer button. When the Hour setting is no longer displayed, the Timer Setting is off.

Timer Setting under ON status is shown in Fig. 11:

Unit On, no timer function

Press "Timer" button to set timer off

Press "▲" or "▼"button to adjust timer time

Press "timer" button to activate timer function

Press "▲" or "▼"button to adjust timer time

Press "Mode" button to set timer on
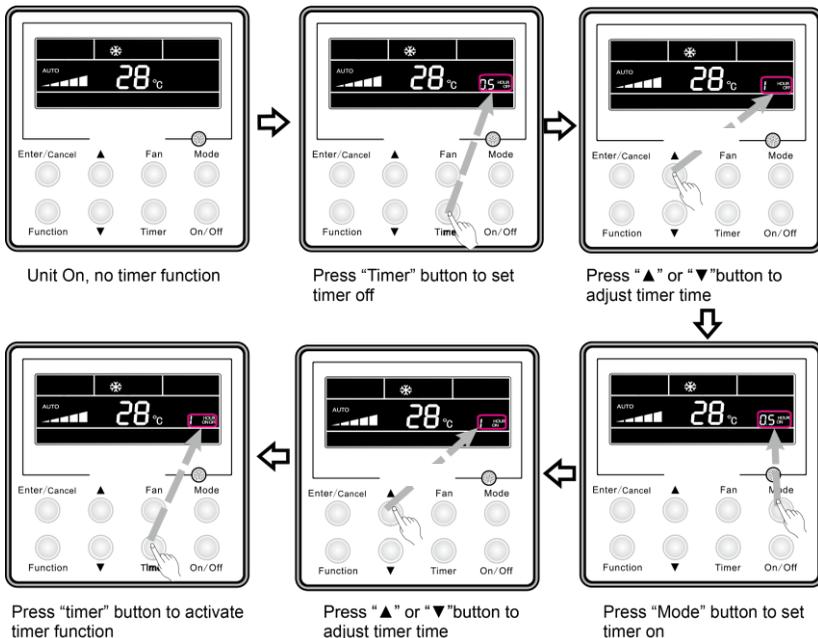
Fig. 11 Timer Setting under ON status

Timer range: 0.5-24hr. Each press of the ▲ or ▼ button will change the setting time increase or decrease by 0.5hr. Press and hold either button to increase/ decrease timer setting by 0.5hr every 0.5s.

**Notes:**

① . When Timer On and Timer Off both are set, the displayed time is the Timer On setting. At the designated time, the unit will turn on and the Timer Off setting will be displayed.

② . Timer On setting starts when the unit is turned off; Timer Off setting starts when the unit is turned on.

# 3.8 Air Exchange Setting

How to activate the air exchange function:

Under ON status, press the Function button to select the Air function. With the function symbol flashing, press ▲ or ▼ to select a specific air function, then press the Enter/Cancel button to activate. When this function is activated, the symbol will be displayed. Type 1 is the defaulted Air function selection.

There are 10 Air function types on the wired controller as shown below. Only type 1 or 2 may be selected from a wireless controller.

1——The unit continuously runs for 60min, and fresh air valve open for 6 min.

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2——The unit continuously runs for 60min, and fresh air valve open for 12 min.

3——The unit continuously runs for 60min, and fresh air valve open for 18 min.

4——The unit continuously runs for 60min, and fresh air valve open for 24 min.

5——The unit continuously runs for 60min, and fresh air valve open for 30 min.

6——The unit continuously runs for 60min, and fresh air valve open for 36 min.

7——The unit continuously runs for 60min, and fresh air valve open for 42 min.

8——The unit continuously runs for 60min, and fresh air valve open for 48 min.

9——The unit continuously runs for 60min, and fresh air valve open for 54 min.

10——The unit continuously runs for 60min, and fresh air valve always open.

How to deactivate the air exchange function:

When the Air function is activated, it can be deactivated by pressing the Function button to select the Air function option. With the Air symbol flashing, press the Enter/Cancel button so that the Air symbol disappears.

Air Exchange setting selection is shown in Fig. 12:



Unit On, no Air function

Press "Function" button to set air function

Press "▲" or "▼"button to adjust air mode

Press "Enter/Cancel" button to cancel air function

Press "Function" button to set air function

Press "Enter/Cancel" button to activate air function
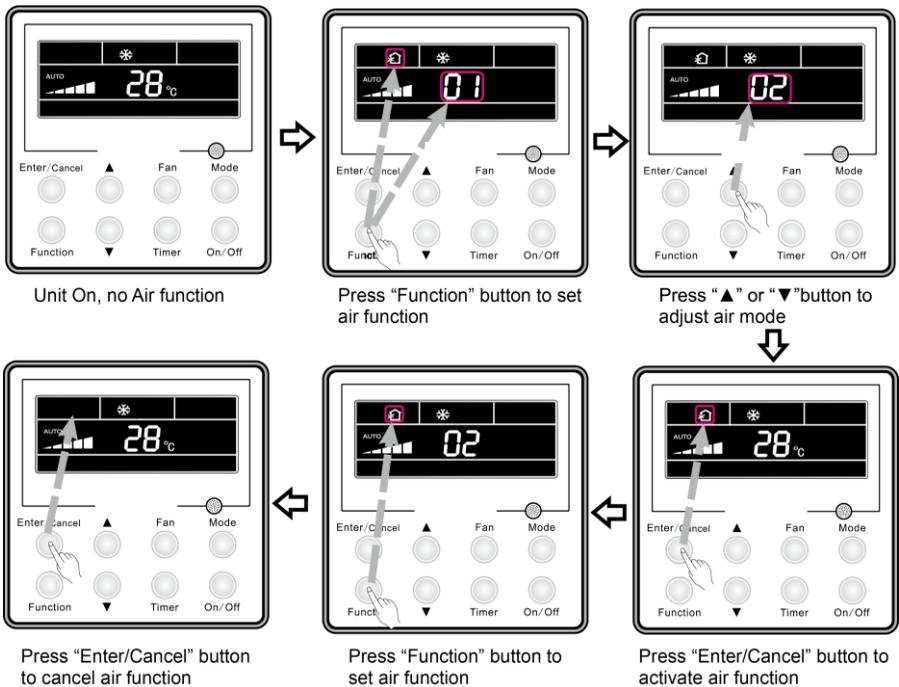
Fig. 12 Air Exchange Setting

# 3.9 Sleep Setting

Sleep On: Press the Function button under ON status to select the Sleep function

option and then press the Enter/Cancel button to activate it.

Sleep Off: When the Sleep function is activated, press the Function button to select the Sleep function option and then press the Enter/Cancel button to deactivate this function.

Sleep setting is shown in Fig. 13:



Unit On, no Sleep function        Press "Function" button to set        Press "Enter/Cancel" button to
                                  sleep function                        activate sleep function

Press "Enter/Cancel" button to        Press "Function" button to
cancel sleep function                 set sleep function
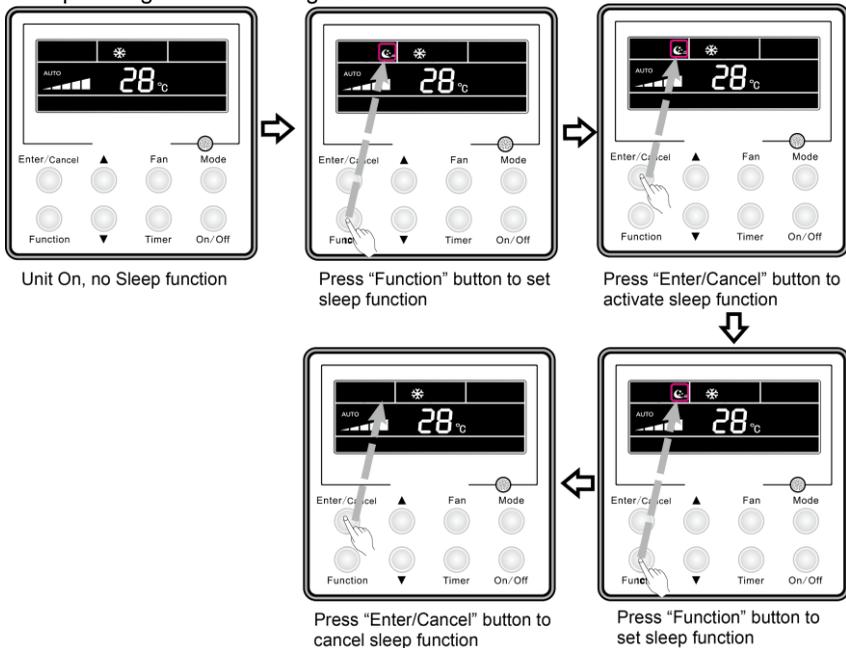
Fig. 13 Sleep Setting

**Notes:**

①. After a power outage and recovery, the Sleep function is defaulted to OFF.

②. The Sleep function is unavailable under the Fan mode.

③. When the Quiet function is activated, the Quiet function will be ON whether the Sleep function is activated or deactivated.

④. When activating the Sleep function under Cooling mode, the temperature range can be 16~23°C (61°~73°F), 24~27°C(75°~81°F), 28~29°C(82°~84°F) or 30°C(86°F). Each of them has a different curve as shown in Fig. 14.

e.g. If the Sleep temperature setting is 25°C(77°F), the setting temperature will rise by 1°C(2°F) in each hour until it reaches 27°C(81°F). After 7 hours, the setting temperature will drop to 26°C(79°F) and stay at that temperature until it is manually changed.

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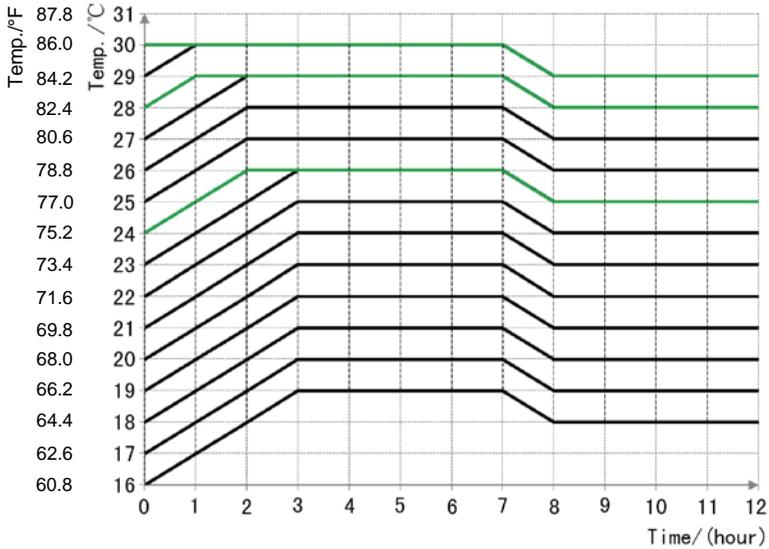
Fig. 14 Sleep Curve under the Cooling Mode

When activating the Sleep function under the Heating mode, the setting temperature range can be 16°C(61°F), 17~20°C(62°~68°F), 21~27°C(70°F~81°F) or 28~30°C(82°~86°F). Each of them has a different curve as shown in Fig. 15.

e.g. If the Sleep temperature setting is 22°C(72°F), the setting temperature will drop by 1°C(2°F) each hour until it reaches 20°C(68°F). Then, the unit will run at this temperature until it is manually changed.
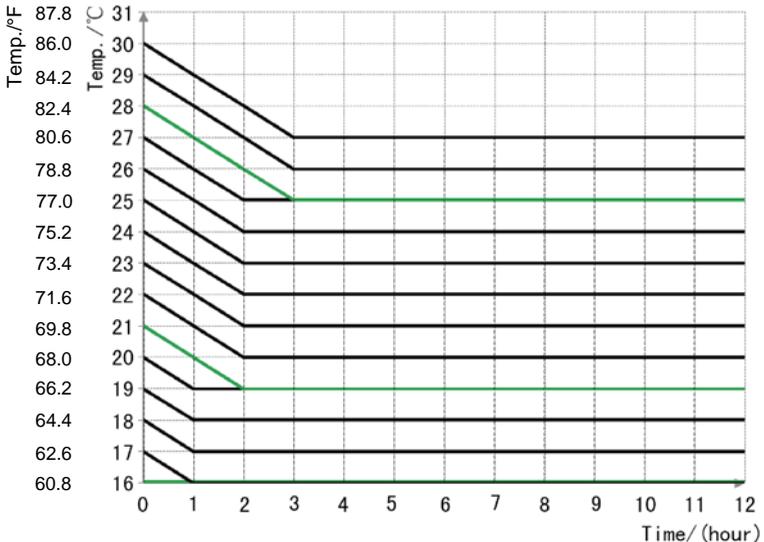


Fig. 15 Sleep Curve under the HEAT Mode

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# 3.10 Health Setting

Under unit ON status, press the Function button to select Health function. With the Health icon flashing. Press the Enter/Cancel button to activate health function.

When Health is on, press "Function" button to set function, with "health" icon flashing. Then press the "Enter/Cancel" button to cancel Health function.

How to set Health function is shown in the Fig. 16:
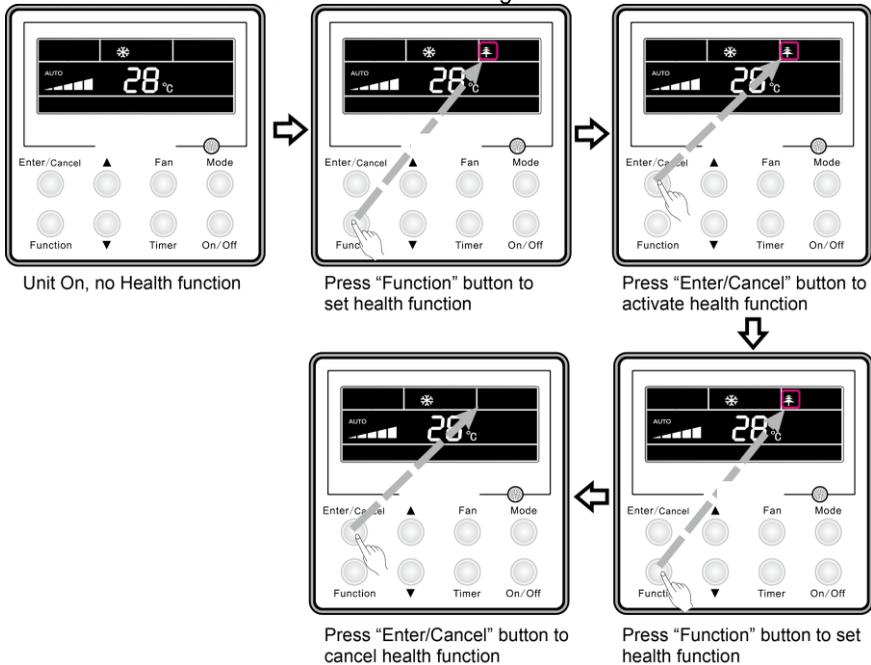


Fig. 16 Health Setting

**Note:**

①. The Health function can be cancelled by turning off the unit.

②. The Health function cannot be cancelled by switching modes.

③. After the unit is turned ON after being OFF, the Health function will resume.

# 3.11 I-Demand Setting

Under Cooling mode, press the Function button to select I-Demand function. With the I-Demand icon flashing, press Enter/Cancel to activate.

Remote will display the I-Demand icon, and "5E" will be displayed in the temperature display area.

When I-Demand is on, press the Function button to set function. With the

I-Demand icon flashing, press the Enter/Cancel button to cancel.

How to set I-Demand function is shown in the Fig. 17:
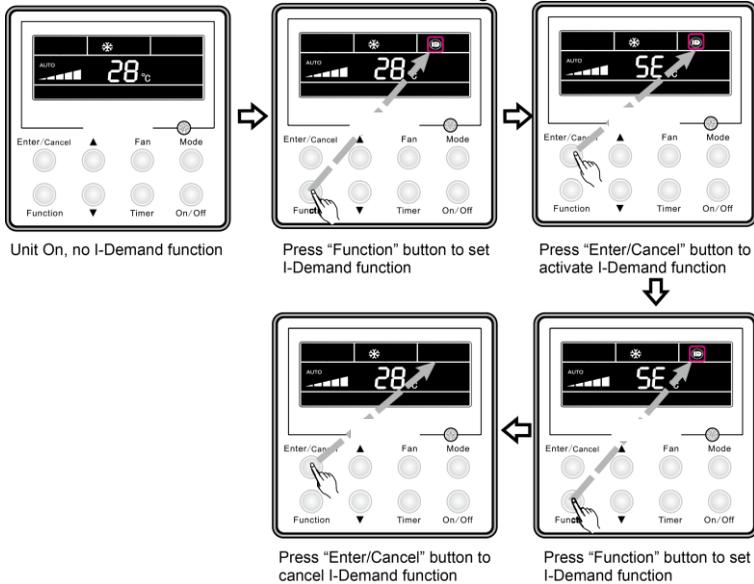


Fig. 17 I-Demand Setting

**Note:**

①. The I-Demand function can be cancelled by switching modes and turning unit off.

②. After the unit is restarts, I-Demand function will resume.

③. The I-Demand function can be cancelled by Sleep/Quiet function.

④. When the I-Demand function is set, the unit will run at Auto fan speed. The Turbo fan speed is not available.

⑤. When the I-Demand function is set, the setting temperature 27°C(81°F) cannot be changed.

⑥. I-Demand cannot be selected on the wired controller if the wireless controller disables temperature setting overrides.

# 3.12 Vacation Setting

Vacation function: It's used to maintain the indoor ambient temperature and activate fast heating.

Under heating mode, press the Function button to select Vacation function. With the Vacation icon flashing, press the Enter/Cancel button to activate Vacation function.

When Vacation is on, press the Function button to select Vacation function. With

the Vacation icon flashing, press the Enter/Cancel button to cancel.

How to set vacation function is shown in the Fig. 18:



Unit On, no Vacation function — Press "Function" button to set vacation function — Press "Enter/Cancel" button to activate vacation function

Press "Enter/Cancel" button to cancel vacation function — Press "Function" button to set vacation function
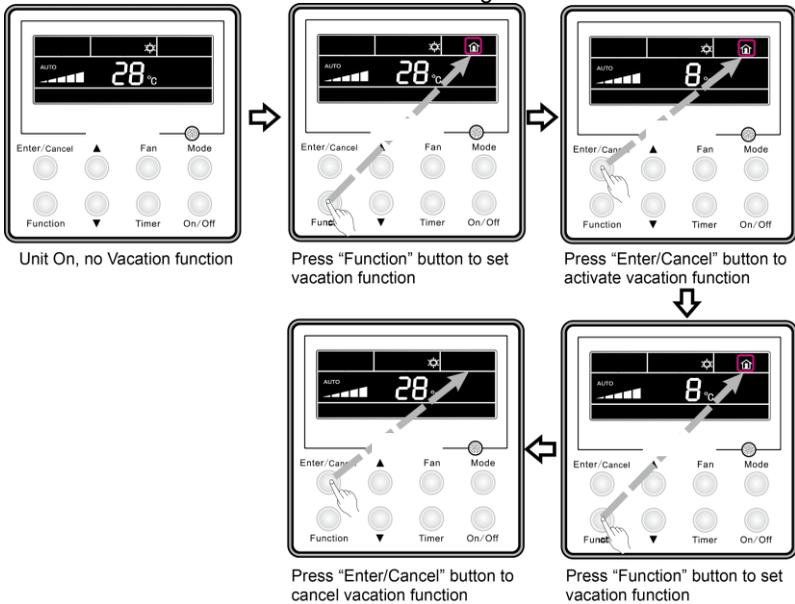
Fig. 18 Vacation Setting

**Note:**

①. The vacation function can be only set under heating mode.

②. The turbo function will be cancelled when the vacation function is set.

③. The Sleep and Quiet function will be cancelled when the vacation function is set.

④. After the unit is restarted, the vacation function will resume.

⑤. When the vacation function is set, the setting temperature cannot be disabled by a wireless control. Alternatively, the vacation function cannot be set when the wireless controller disables temperature setting overrides.

⑥. When the vacation function is set, the setting temperature shown on the wired controller is 8°C(46°F). The indoor fan will automatically run in Auto fan speed.

⑦. The vacation function can be cancelled when the operation mode is changed.. The temperature will go back to the original setting temperature prior to vacation function being set.

⑧. Unit ON/OFF will not cancel the vacation function.

## 3.13 TURBO Function Setting

Turbo function: This is the highest fans speed and can provide quick cooling or

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heating so that room temperature can quickly attain the setting temperature.

In the Cooling or Heating mode, press the Function button to select the Turbo function option, and then press the Enter/Cancel button to activate it.

When the Turbo function is activated, it can be deactivated by pressing the Function button to select the Turbo option and then press the Enter/Cancel button.

Turbo function setting is shown in Fig. 19:



| Unit On, no Turbo function | Press "Function" button to set turbo function | Press "Enter/Cancel" button to activate turbo function |

| Press "Enter/Cancel" button to cancel turbo function | Press "Function" button to set turbo function |
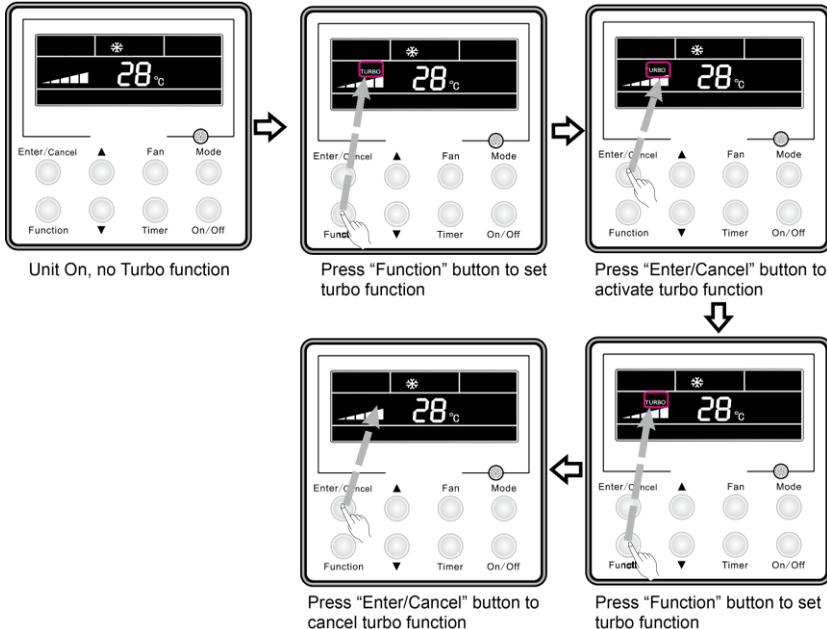
Fig. 19 Turbo Function Setting

**Notes:**

①. The Turbo function will not be deactivated due to power failure. In Dry, Fan and Auto modes, the Turbo function is unavailable and the icon won't be displayed.

②. The Turbo function will be automatically deactivated when the Quiet function is activated.

③. The Fan button can also be used to adjust the Turbo function.

# 3.14 SAVE Function Setting

The Energy Saving function can limit the temperature setting range for the air conditioner by setting low limit value temperature in Cooling or Dry mode and upper limit value temperature in Heating mode. As for the different batches of wired controllers, there are two kinds of setting method for SAVE function.

(1) Method 1 for setting SAVE function:

Energy Saving Setting for Cooling

When the unit is running under Cooling or Dry mode, press the Function button to select the Save function option. With the SAVE icon flashing, press ▲ or ▼ to adjust the lower limit. Press the Enter/Cancel button to activate this function.

Energy Saving Setting for Heating

When the unit runs under the HEAT mode, press the Function button to select the Save function option. With the SAVE icon flashing, press the Mode button to switch to the Save setting for Heating mode. Press ▲ or ▼ to adjust the upper limit. Press the Enter/Cancel button to activate this function.

The activated Save function can be deactivated by pressing the Function button to select the SAVE option and then pressing the Enter/Cancel button.

The energy saving setting is shown in the Fig. 20:

Unit On, no Save function

Press "Function" button to set energy-saving temperature for Cooling

Press "Mode" button to set energy-saving temperature for Heating.

Press "▲" or "▼"button to adjust temperature

Press "▲" or "▼"button to adjust temperature

Press "Enter/Cancel" button to activate save function
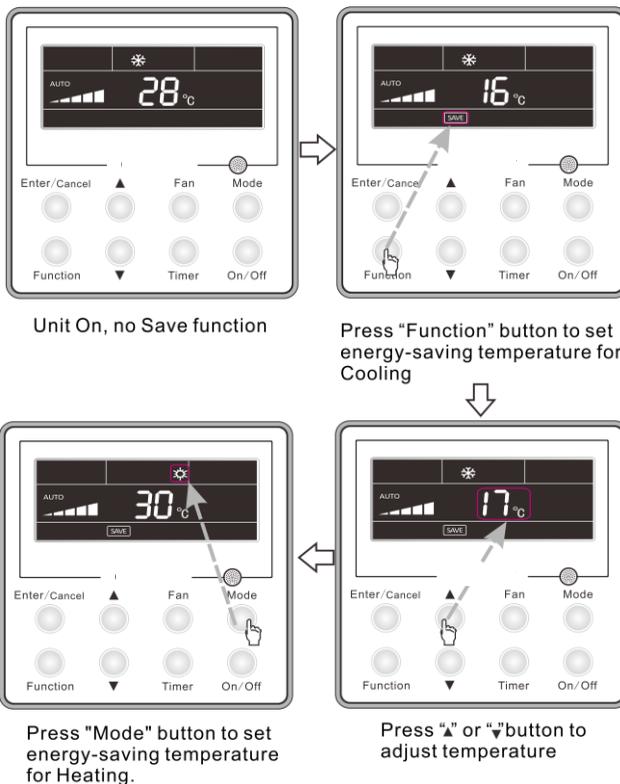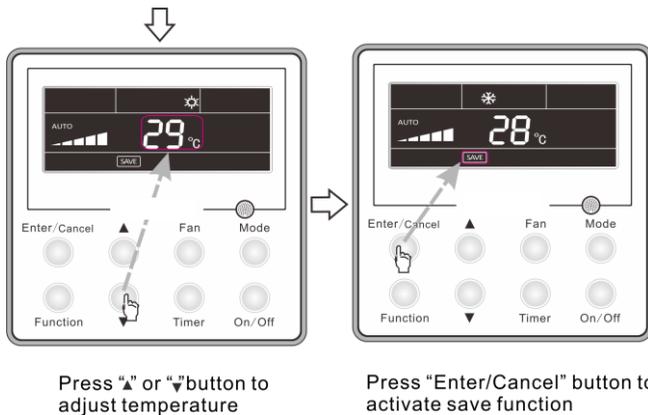
Fig. 20 SAVE function setting

**Notes:**

①. If the unit is operating under Auto mode or Sleep function, these will be cancelled with the SAVE function is activated,

②. While setting up the SAVE function, if the Function button is pressed or if other buttons are not pressed within 5s, the system will quit the SAVE setting, and the current setting data will not be saved.

③. The SAVE setting will be saved in the memory in the event of power failure.

④. The lower limit for cooling is 16°C(61°F) and the upper limit for heating is 30°C(86°F).

⑤. During the SAVE setting, if the expected setting temperature is outside of the limit listed in the previous step, the limit temperature will prevail.

(2) Method 2 for setting SAVE function：

Under OFF status, press Timer + ▲ buttons simultaneously for 5s to enter into the SAVE setting status. The SAVE icon and Cooling mode icon should be displayed. The SAVE icon will blink, and the upper / lower temperature will be displayed in the temperature area. Press the ▲ or ▼button to set upper and lower temperature limit (temperature setting range is 16~30°C(61~86°F). Press the Mode button to switch cooling and heating modes. If this unit is a cooling only model, you can only set the lower temperature limit for the SAVE function. Under the SAVE setting process, press Enter/Cancel or Swing/Enter button to save the set, and the SAVE function will be activated.

When SAVE function is activated, press the Timer and ▲ buttons simultaneously for 5s to cancel SAVE function.

SAVE setting under cooling or heating mode is shown in Fig. 21:

Unit Off, no Save function

Press "Timer" and "▲" button for 5s to set SAVE function

Press "Mode" button to switch SAVE setting mode

Press "▲" or "▼"button to adjust the lower limit

Press "▲" or "▼"button to adjust the upper limit

Press "Enter/Cancel" button to activate SAVE function
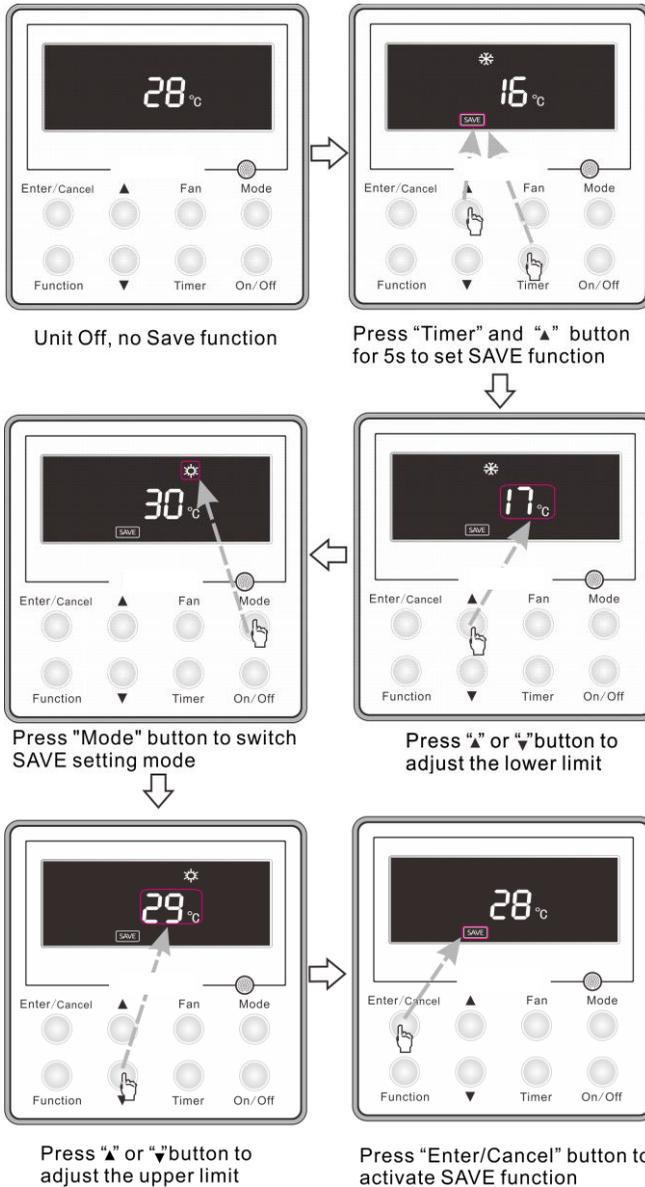
Fig.21 SAVE function setting (2)

**Notes:**

①.　If turn on the SAVE function under Auto mode, Auto mode will be deactivated.

②.　While setting up the SAVE function setting status, if no buttons are pressed for

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20s, the system will exit the SAVEE function setting status, the selected settings won't be saved.

③. The SAVE setting function will be held in memory in the event of a power failure.

④. The default setting for the minimum limit set temperature under cooling mode is 16°C(61°F);the default setting for the maximum limit set temperature under heating mode is 30°C (86°F);

⑤. After setting the SAVE function, if the selected temperature is outside the SAVE setting range, it will default to the allowable limit value.

⑥. If ▲ button is pressed when the set temperature is at the upper temperature limit, or the ▼button is pressed when the set temperature is at the lower temperature limit, or if the set temperature on the remote device is outside of the SAVE setting range, the SAVE icon will blink three times and the buzzer will sound twice.

# 3.15 E-HEATER Setting

E-HEATER: The E-HEATER function can be activated to improve heating efficiency. Generally, it will be activated automatically as the unit goes into Heating mode.

Activation of the E-HEATER Function: Press the Function button to select the E-HEATER option. With the E-HEATER icon flashing, press the Enter/Cancel button to activate it. After activation, the E-HEATER icon will be displayed.

Deactivation of the E-HEATER Function: Press the Function button to select the E-HEATER option. With the E-HEATER icon flashing, press the Enter/Cancel button to deactivate it.

E-HEATER Function setting is shown in Fig. 22:
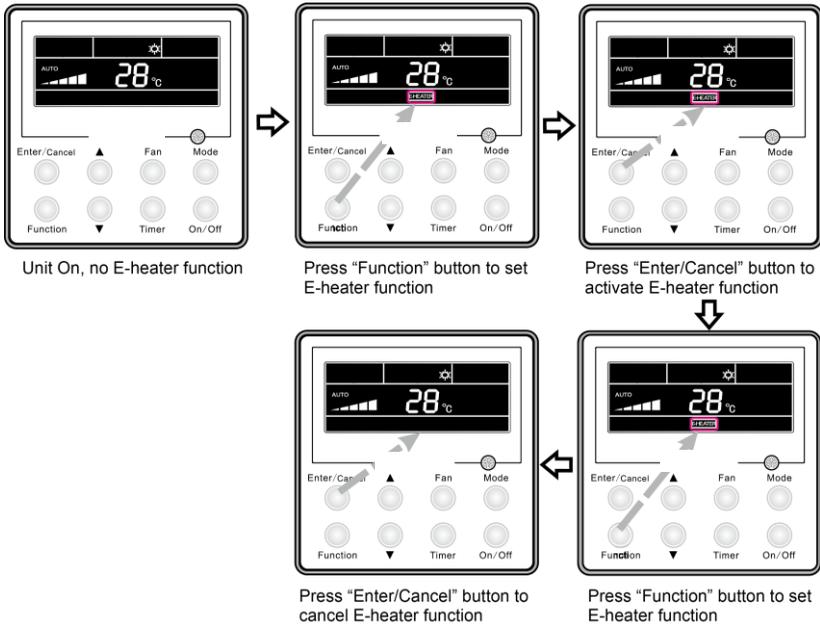
Fig. 22 "E-HEATER" Function Setting

**Note:**

The E-HEATER function is not available in Cooling, Dry, or Fan modes.

# 3.16 Blow Function Setting

BLOW function: After the unit is turned off, water in evaporator of indoor unit will be automatically evaporated to avoid mildew.

To activate the Blow Function: In Cooling or Dry mode, press the Function button to select the Blow option. With the BLOW icon flashing, press the Enter/Cancel button to activate it.

To deactivate the Blow Function: The activated Blow function can be deactivated by pressing the Function button to select the Blow option. Then press the Enter/Cancel button.

BLOW function setting is shown in Fig. 23



Unit On, no Blow function

Press "Function" button to set blow function

Press "Enter/Cancel" button to activate blow function

Press "Enter/Cancel" button to cancel blow function

Press "Function" button to set blow function
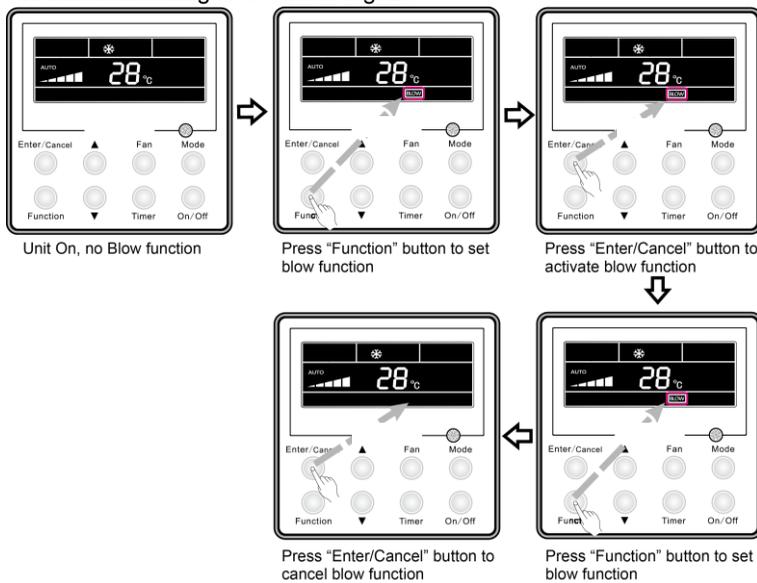
Fig. 23 Blow Function Setting

Notes:

①. When the Blow function is activated, if the unit is turned off through the On/Off button, the indoor fan will still run at low fan speed for another 2 minutes. When the Blow function is deactivated, the indoor fan will stop when the unit is turned off.

②. The Blow function is not available in Fan or Heating modes.

# 3.17 Clean-Filter Reminder Setting

Filter Setting: Allows user to program the wired controller with a reminder to clean the filter based on environmental pollution level settings and run time.

While setting Filter function, a two digit number will be shown in the timer area. The first number represents the pollution level. The second number indicates the accumulated operating hours of the indoor fan.

The first digit setting can be a "1" (light pollution level), "2" (medium pollution level), or "3" (serious pollution level). The second digit will be 0~9 and will represent different operation hours based on the pollution level. The default setting is for no Filter function. In this instance "00" will be displayed in the timer area.

Notes:

①. A Filter function timer setting of "10" indicates a light pollution level and 5500 operation hours. Each incremental increase in the second digit will add 500 hours to the Filter function timer setting. See Table 3.

②. A Filter function timer setting of "20" indicates medium pollution level and 1400 operation hours. Each incremental increase in the second digit will add 400 hours to the Filer function timer setting. See Table 3.

③. A Filter function timer setting of "30" indicates a serious pollution level and 100 operation hours. Each incremental increase in the second digit will add 100 hours to the Filter function timer setting. See Table 3.

Table 3

| Filter Function Indicator | Fan Operation Hours | Filter Function Indicator | Fan Operation Hours | Filter Function Indicator | Fan Operation Hours |
|---|---|---|---|---|---|
| 10 | 5500 | 20 | 1400 | 30 | 100 |
| 11 | 6000 | 21 | 1800 | 31 | 200 |
| 12 | 6500 | 22 | 2200 | 32 | 300 |
| 13 | 7000 | 23 | 2600 | 33 | 400 |
| 14 | 7500 | 24 | 3000 | 34 | 500 |
| 15 | 8000 | 25 | 3400 | 35 | 600 |
| 16 | 8500 | 26 | 3800 | 36 | 700 |
| 17 | 9000 | 27 | 4200 | 37 | 800 |
| 18 | 9500 | 28 | 4600 | 38 | 900 |
| 19 | 10000 | 29 | 5000 | 39 | 1000 |

To set the Filter function, under ON status, press the Function button. With the FILTER icon flashing, the pollution setting level will be shown in the Timer area. Press ▲ and ▼ to adjust pollution level. Press the Enter/Cancel button to activate.

To cancel the Filter function, press the Function button to select. With the FILTER

icon flashing. Press ▲ and ▼ to adjust till "00" is shown in the timer area. Then press the Enter/Cancel button.

If the Filter function has been set correctly, the FILTER icon will be displayed.

How to set Filter function is shown in the Fig. 24:
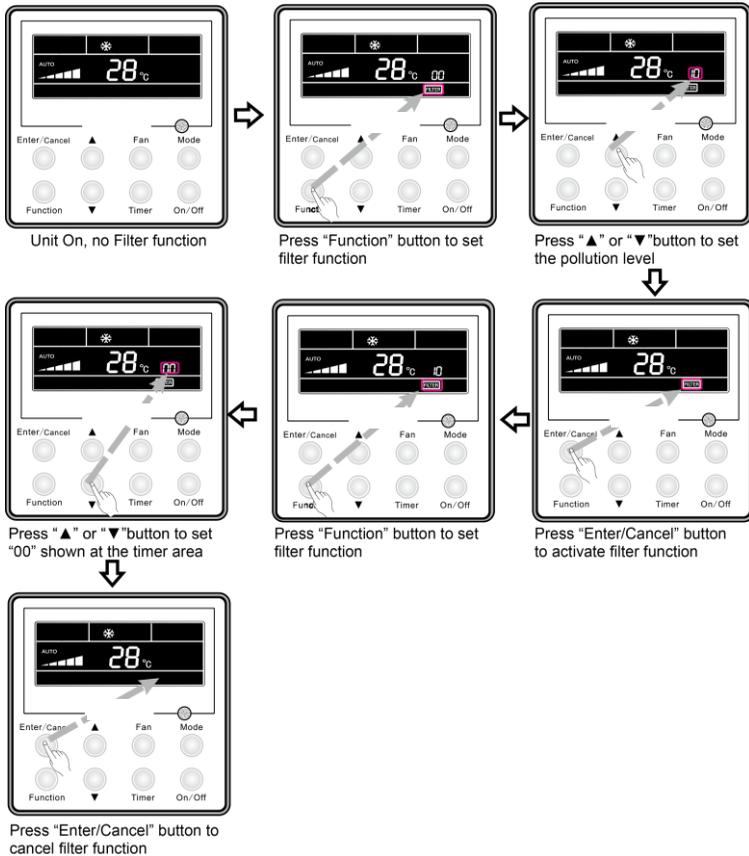


Fig. 24 Filter Setting

Notes:

①. The Filter function timer can be changed at a later time after the timer has been initially set. The controller will NOT start over at zero, but continue from the current operation hours. Follow the steps listed above for setting the Filter function timer.

②. Once the set operation hours have been reached, the FILTER icon will blink every 0.5s to remind user to clean the filter.

③. Once the FILTER icon begins to blink, the end user can still reset the Filter function timer to extend the operation hours. Follow the steps listed above for

setting the Filter function timer. The FILTER icon will then stop blinking. The controller will NOT start over at zero. The new setting MUST be greater than the existing setting, or the FILTER icon will continue to blink.

④. After cleaning the filter, the Filter function must be cancelled to stop the FILTER icon from blinking. Set the Timer area digit to "00", and press Enter/Cancel to confirm the setting. After the cancel Filter function is confirmed, the controller will be rest to zero operation hours.

⑤. Set the Filter function timer again for the next cleaning as listed above.

# 3.18 Quiet Function Setting

Press the Function button to set Quiet function. With the QUIET icon flashing, press the Enter/Cancel button to activate it.

To cancel the Quiet function, press the Function button, then press Enter/Cancel.

How to set Quiet function is shown in the Fig. 25



Unit On, no Quiet function

Press "Function" button to set quiet function

Press "Enter/Cancel" button to activate quiet function

Press "Enter/Cancel" button to cancel quiet function

Press "Function" button to set quiet function
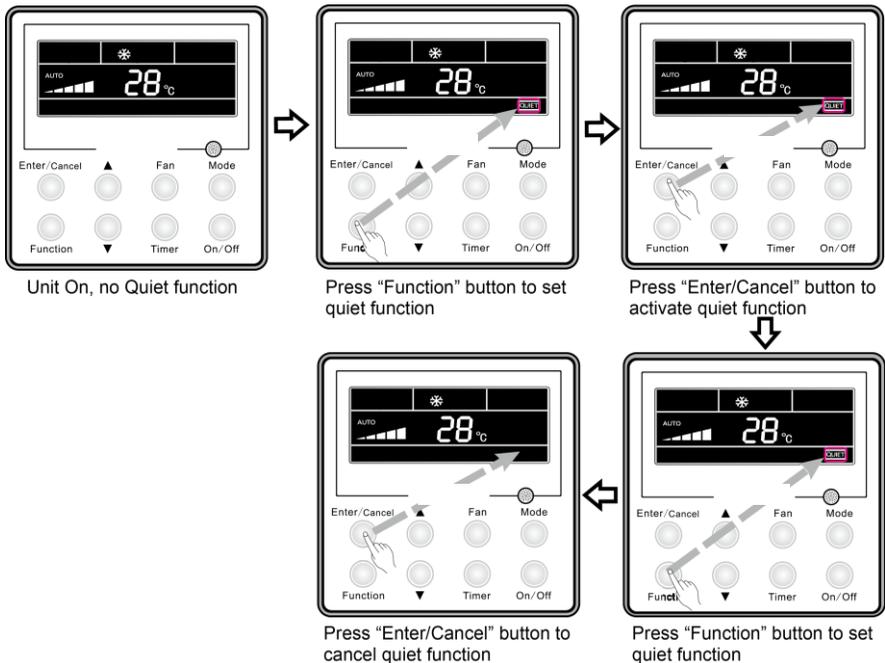
Fig. 25 Quiet function setting

**Notes:**

①. Quiet function is unavailable in Fan or Dry mode. After a power failure, the Quiet function will be deactivated and will need to be reset.

②. If Quiet function is set, turbo function will be canceled.

# 3.19 Ultra-Dry Setting

Under Dry mode, when the setting temperature is 16°C(61°F), press the ▼ button twice and the setting temperature will be changed to 12°C(54°F), the unit will then enter the Ultra-Dry function.

When the Ultra-Dry function is activated, it can be cancelled by pressing the ▲ button or pressing Mode button to switch mode.

# 3.20 Other Functions

## 3.20.1 Lock Function

Under On or OFF status, press ▲ and ▼buttons at the same time for 5s till the wired controller enters the lock state. The LCD lock⬚ will display. Repress these two buttons at the same time for 5s to quit the lock state.

When controller is locked, no other buttons will operate.

## 3.20.2 MEMORY Function

Memory recovery: If the Memory function is activated, the wired controller will resume its original running state when power is restored after an outage. If this function is deactivated, the unit will go to OFF status after power is restored after an outage.

Memory switchover: Under OFF status, press the Mode and ▲ buttons at the same time for 5s to switch memory modes. When setting the Memory mode, the MEMORY icon will be displayed.

Note:

It will take about 5 seconds to save data. Therefore, please do not turn off the power immediately, or data will not be saved.

## 3.20.3 Selection of Centigrade and Fahrenheit

Under OFF status, press the Mode and ▼ buttons at the same time for 5s to switch between Centigrade and Fahrenheit scales.

## 3.20.4 Ambient Temperature

Under On/Off status, press the Confirm button for 5s to enter ambient temperature interface. The timer area will show "01" or "02" and the temperature. The outdoor ambient temperature is indicated by "01," and "02" indicates the indoor ambient

temperature. Press the Mode button to switch between the two. Press any other button except Mode button, or receive the signal from the remote controller to exit this function. If no buttons are pushed within 20s, the unit will exit from this function automatically.

**Notes:**

①. If the unit is not connected to an ambient temperature sensor, the display of the ambient temperature sensor will be available.

②. If the outdoor temperature sensor has error, the display of the ambient temperature sensor will be disabled.

## 3.20.5 Indoor fan shutdown mode setting

Under unit OFF status, press the Function and Timer buttons simultaneously for 5s. The wired controller will enter parameter setting interface. To set it, press the Mode button until "05" is shown in the temperature display area. The unit will enter indoor fan shutdown mode.

Two options are available for the indoor fan shutdown mode:

Mode 1: .In heating mode when the thermostat setting is satisfied, heating will be disabled, but the fan will continued to blowing the remaining warm air. A duct or floor ceiling unit will continue to run for 60s. A cassette air handler will operate at low fan speed for 60s.

Mode 2: For any indoor unit operating in heating or cooling mode, the indoor fan will keep running for 10s after the thermostat setting has been satisfied.

Press the ▲ or ▼ button to adjust the mode. Under Mode 1/2, "00"/ "01" will be displayed up in the timer area. Then press the Enter/Cancel button to save the settings. The setting procedures are shown in Fig. 26:

Unit off

Simultaneously press "Function" and "Timer" button for 5s, the wired controller will enter parameter setting interface.

Press "Mode" button to set till "05" is shown on the temperature displayed area. Then the unit will enter the indoor fan shutdown mode.

Press "Enter/Cancel" button to save the settings and quit from the interface.

Press "▲" or "▼" button to adjust the mode.

Fig. 26 Indoor fan shutdown mode setting

Note:

Other modes and settings not discussed above retain factory default settings. Manufacturer is not responsible for equipment damage or property loss due to changes made to these settings.

# 4 Wired Controller Installation

## 4.1 Standard Parts
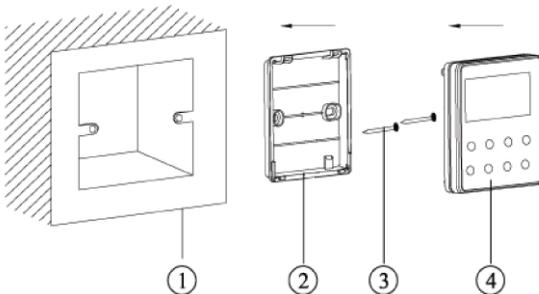
Table 4 Standard Parts

| No. | Description | Quantity |
|-----|-------------|----------|
| 1 | Base Box | 1 |
| 2 | Soleplate | 1 |
| 3 | Screw M4×25 | 2 |
| 4 | Front Panel | 1 |

Fig. 27 Wired Controller Standard Parts

# 4.2 Installation Location and Requirements

(1).  Do not install the wired controller in the damp place or in direct sunlight.

(2).  Do not install the wired controller close to high temperature object or place where the wired controller is likely to get wet.

(3).  In multi-family homes, do not install wired controller where interference could be detected from neighbor's same model controller.

(4).  Turn off the power before installing the controller.

(5).  To avoid electromagnetic interference or other malfunction:

①.  Be sure the communication line is wired into the correct port, otherwise it would result in communication fault.

②.  The communication line (wired controller) and power line must be separated with the minimal distance of 20cm (8 in.), to avoid communication fault.

③.  If the air conditioner is installed where it is likely to suffer electromagnetic interference, the communication line of the wired controller must be shielded twisted pair wire.

# 4.3 How to Install the Wired Controller

Select approved communication line of the wired controller: 2-core signal line (wire size≥0.75mm$^2$, length＜30m (98 feet), recommended length: 8m (26 feet)).

With the indoor unit OFF, secure the communication line on the indoor terminal board with screws. Follow the specific installation steps are shown in the Fig. 28:
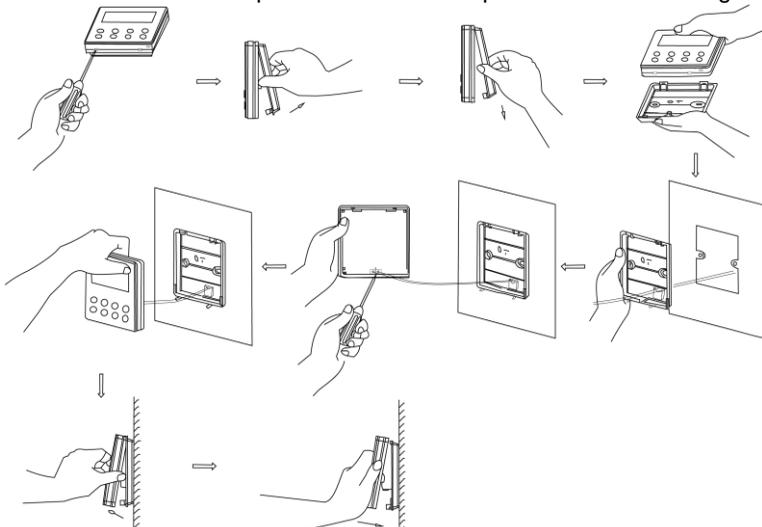


Fig. 28 Installation of the Wired Controller

Brief instructions:

①. Pull out the 2-core signal line from the mounting hole and pass this line through the round hole located at the bottom of the wired controller.

②. Use M4×25 screws to fix the soleplate of the wired controller on the wall.

③. Attach the signal line on the copper tabs X1 and X2. Make sure the line is tightly secured with no short-circuit potential.

④. Set the panel and the bottom together with clasps.

## 4.4 How to Remove the Wired Controller

The wired controller can be easily removed as shown in Fig. 29
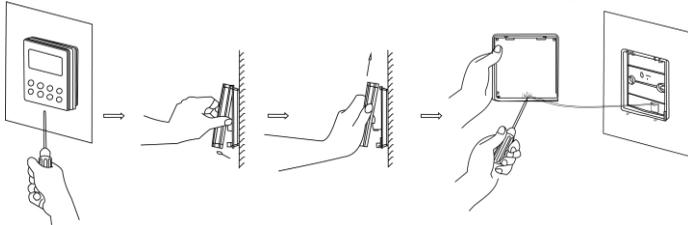


Fig. 29 Removal of the Wired Controller

# 5 Error Display

When an error occurs to the unit, the error code will be shown on the wired controller. When multiple errors simultaneously happen, display will alternate between the error codes.

When error occurs, please immediately shut down the unit and contact professional personnel.

As shown in the Fig.2 9, "E1" indicates high pressure protection.
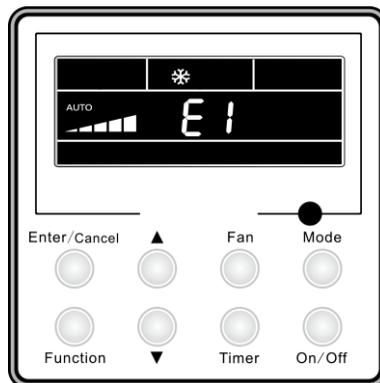


Fig. 30

Error codes and their description:

Table 5

| Number | Error code | Description |
|--------|-----------|-------------|
| 1 | E1 | Compressor high pressure protection |
| 2 | E2 | Indoor anti-freeze protection |
| 3 | E3 | Compressor low pressure protection, low refrigerant protection and refrigerant colleting mode |
| 4 | E4 | Compressor high discharge temperature protection |
| 5 | E6 | Communication error |
| 6 | E8 | Indoor fan motor error |
| 7 | E9 | Full water protection |
| 8 | F0 | Indoor ambient temperature sensor error |
| 9 | F1 | Evaporator temperature sensor error |
| 10 | F2 | Condenser temperature sensor error |
| 11 | F3 | Outdoor ambient temperature sensor error |
| 12 | F4 | Discharge temperature sensor error |
| 13 | F5 | Temperature sensor error of wired controller |
| 14 | C4 | Outdoor jumper error |
| 15 | C5 | Indoor jumper error |
| 16 | EE | Outdoor memory chip error |
| 17 | PF | Electric box sensor error |
| 18 | H3 | Compressor overload protection |
| 19 | H4 | Overloading |
| 20 | H5 | IPM protection |
| 21 | H6 | DC fan motor error |
| 22 | H7 | Drive desynchronizing protection |
| 23 | HC | Pfc protection |
| 24 | L1 | Humidity sensor error |
| 25 | Lc | Activation failure |
| 26 | Ld | Compressor phase sequence protection |
| 27 | LF | Power protection |
| 28 | Lp | Indoor and outdoor mismatch |
| 29 | dJ | Phase loss or reverse protection |

| 30 | U7 | 4-way valve direction changing protection |
|----|----|---------------------------------------------|
| 31 | P0 | Drive reset protection |
| 32 | P5 | Over-current protection |
| 33 | P6 | Communication error between main control and drive |
| 34 | P7 | Drive module sensor error |
| 35 | P8 | Drive module over temperature protection |
| 36 | P9 | Zero passage protection |
| 37 | PA | AC current protection |
| 38 | Pc | Drive current error |
| 39 | Pd | Sensor connecting protection |
| 40 | PE | Temperature drift protection |
| 41 | PL | Bus low voltage protection |
| 42 | PH | Bus high voltage protection |
| 43 | PU | Charge loop error |
| 44 | PP | Input voltage abnormality |
| 45 | ee | Drive memory chip error |
| 46 | oE | Outdoor unit malfunctions, please refer to status of error indicator in outdoor unit manual |

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