

USER'S MANUAL

# MULTI COMBI SERIES

CASSETTE

MC-C24AI





## User Notice

◆ When operating, the entire capacity of the cooperating indoor unit should be not larger than 150% of outdoor unit. Otherwise, it will cause the shortage of cooling (heating) capacity.

◆ A Breaker(or fuse) need to be installed in every indoor unit, and the capacity should be according with indoor unit's electrical parameter; all the indoor units are required to be centralized controlled by a total Switch, this Switch can cut off the electric power supply in case of emergency. The Breaker(or fuse) on each indoor units have the function of short circuit prevention and abnormal overload avoiding, it should be connected in normal situation. The total switch controlling the power supply of all the indoor units. Before clearing and maintenance job being carried out to the indoor units, it is very important to turn off the total power supply switch.

◆ In order to turn on the units successfully, the main power switch should be opened 8 hours before the operation.

◆ After receiving the turn off signal, every indoor unit will continue to work for 20-70sec to make use of the rest cool air or the rest heat air in the heat exchanger, while preparing for the next operation. And this is normal.

◆ When the selected operating mode of the indoor unit are clash with the operating mode of the outdoor unit, the malfunction light will blink after 5s on the indoor unit or remote controller showing that the operation clash, then the indoor unit will stop. At this time, change the operation mode of the indoor unit to the one that would not clash with the outdoor operating mode to make the operation normal. The cooling mode is not clash with the dry mode, while the fan mode is not clash with any mode.

◆ The appliance shall not be installed in the laundry

◆ An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring

◆ Information regarding transport/storage temperature (-25-55°C) is missing

◆ Main switch provided by end user: main switch handle should be black or gray, it can be locked in "OFF" position with padlock

◆ The main disconnection device should be explained in user manual and the height should be recommended at 0.6-1.7m. over current protection is required(EN 60947-3, EN 60947-2)

◆ The cooling range of the unit is the outdoor environment temp.-5~48°C DB, the heating range of the unit( only for the heat pump type unit) is the outdoor environment temp. -15~27°C WB.

This product must not be disposed together with the domestic waste. This product has to be disposed at an authorized place for recycling of electrical and electronic appliances.



**Thank you for your selecting of Sinclair air conditioner, please read this usage and install instruction carefully and keep it well in order to use this unit correctly.**

## II Wireless Remote Controller YT1F

Notes:

- ① . Be sure that there are no obstructions between the receiver and the remote controller;
- ② . Do not drop or throw the remote controller;
- ③ . Do not let any liquid into the remote controller and expose the remote controller to direct sunlight or any place where is very hot.
- ④ . This is a general use remote controller. If press some button which is not available for the corresponding function, the unit will keep the original running status.

### 1 Function of Press Buttons:



Fig.21

Note: This remote controller is universal and can be used for multi-functional air conditioning. If the button on the remote controller with the function which the air conditioner doesn't have is pressed, the unit remains in its original operating mode.

#### 1) ON/OFF (⏻)

Press this button to turn on/off the unit. After that, the sleep function will be canceled but the preset time is still remained.

#### 2) MODE

Auto, Cool, Dry Fan, Heat modes can be selected circularly by pressing this button. Auto mode is the default after power on. Under Auto mode, the temperature will not be displayed. Under Heat mode, the initial value is 28°C (82 °F ); Under other modes, the initial value is 25°C (77 °F ).



△ Auto

❄ Cool

💧 Dry

🌀 Fan

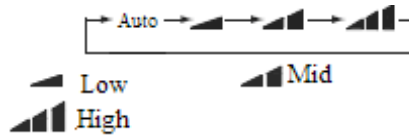
☀ Heat (Only for the cooling and heating unit)

#### 3) SLEEP





Sleep On and Sleep Off can be selected by pressing this button. After powered on, the default is Sleep Off. After the unit is turned off, the Sleep function is canceled. When the sleep function is set already, the symbol ⏻ will be displayed. And at this time, the time of timer can be adjusted. Under Fan and Auto modes, this unction is not available.

4) FAN

Auto, Low, Middle, or High fan speed can circularly selected by pressing this button. After powered on, the default is Auto speed. Under Dehumidifying mode, only Low fan speed is available.



5) CLOCK

The clock can be set up by pressing this button, with the symbol  displayed and blinking. In such a case, pressing + or - within 5 seconds can adjust the value. If the button is pressed down for more than 2 seconds, the value on ten's place will increase by 1 in every 0.5 seconds. After that, repressing this button and then symbol  stops blinking, which indicates the setting is made successfully. After powered on, the default value is 12:00 with  displayed. Once the symbol  is displayed, the current time is the Clock value; otherwise it is the Timer value.

6) LIGHT

Light On and Light Off can be set by pressing this button when the unit is at On or Off status. After powered on, the default is Light On.

7) TURBO

In Cool or Heat mode, pressing this button can activate or deactivate this function. When this function is on, its symbol will be displayed. Any change of either mode or fan speed will make this function canceled automatically.

8) BLOW

BLOW On and BLOW Off can be set by pressing this button. In Cool and Dehumidifying modes, press this button to activate this function and then “BLOW” will be displayed. After that, it can be canceled by repressing this button. After powered on, the default is Blow Off. If the ON/OFF button is operated or the unit is switched to the Cool or Dehumidifying mode, it will keep its original status. When the unit is turned off, Only Blow Off is available. Under Auto, Fan or Heat mode, this function is unavailable.


9) —

The preset temperature can be decreased by pressing this button. If the button is pressed down for more than 2 seconds, the temperature will be decreased quickly until it is released, with °C ( °F ) displayed at the time. Under Auto mode, the temperature adjustment is unavailable.

10) +

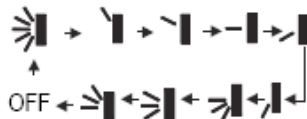
The preset temperature can be increased by pressing this button. If the button is pressed down for more than 2 seconds, the temperature will be increased quickly until it is released, with °C ( °F ) displayed all the time. Under Auto mode, the temperature adjustment is unavailable. The setting range is 16-30 °C or 61-86 °F





11) TEMP

It can be decided by pressing this button which temperature will be displayed, indoor set temperature, or indoor ambient temperature. When the indoor unit is powered on, the indoor set temperature will be displayed, while if the status is changed to , the indoor ambient temperature will be displayed. However, the indoor set temperature will be displayed again when the controller receives other remote controls signals. Without setting this function, the default is the indoor set temperature.


12) SWING UP/DOWN 

The swing angle which circularly changes as below can be selected by pressing this button:



This kind of remoter controller is universal. And the three swing statuses of    are the same as that of .

If the swing function is deactivated when the air guide louver is swing up and down, it will stop at the current position.

 indicates that the air guide louver swings up and down among all five positions.

## 13) AIR ( )

AIR ON or Air OFF can be selected by pressing this button.

## 14) TIMER ON

“ON” will be displayed and blink for 5 seconds by pressing this button, and soon adjust the time by pressing + or - within 5 seconds. Each press will make the time increased or decreased by 1 minute. If the button is pressed down for more than 2 seconds, the time will be changed quickly in such a way: firstly the value on the one’s place is changed and then is the value on the ten’s place. Once Timer ON has been set already, it can be canceled by repressing it. Before the setting, please adjust the CLOCK to the current actual time.

## 15) TIMER OFF

TIME OFF can be activated by pressing this button, with “OFF” blinking. The method of setting is the same as that for TIMER ON.

## 16) HEALTH ( )

This function can be activated or deactivated by pressing this button. After the unit is turned on, the default is HEALTH ON.

## 17) I FEEL

This function can be activated by pressing this button and canceled by another press. When this function is on, the I FEEL information will be sent out in 200ms after each operation on the controller and the remote controller will send the temperature information to the main controller every 10 minutes.

## 2 Guide for General Operation

a. After powered on, press ON/OFF and then the unit will start to run. (Note: when powered off, the guide louver of the main unit will close automatically).

b. Press MODE to select the desired running mode.

c. Press + or - to set the desired temperature (it is unnecessary to set the temperature under the AUTO mode.)

d. Press FAN to set the fan speed, AUTO, LOW, MID, or HIGH.

e. Press  to select the swing angle.

## 3 Guide for Optional Operation

### a. About BLOW

This function indicates that moisture in the evaporator of the indoor unit will be dried after the unit is stopped to avoid mould.

① . BLOW ON: When press the ON/OFF button to turn off the unit, the indoor fan will continue running for about another 10 minutes at the low speed. In this case, the indoor fan can be stopped directly by pressing the button BLOW.

② . BLOW OFF: When press the ON/OFF button to turn off the unit, the whole unit will be stopped completely.

b. About AFTERHEAT BLOW

Under the Heat mode or Auto Heat mode, if the unit is turned off, the compressor and outdoor fan will stop running immediately and the upper and lower guide board will rotate to the horizontal position, while the indoor fan will still run at the low fan speed. Then, 10 seconds later, the unit will stop completely.

c. About AUTO RUN

When AUTO RUN is selected, the setting temperature will not be displayed on the LCD and the unit will choose the suitable running mode automatically in accordance with the room temperature.

d. About TURBO

If this function is activated, the unit will run at super-high fan speed to cool or heat quickly so that the ambient temperature will approaches the preset temperature as soon as possible.

# I Wired Controller XK19

## 1 Wired Controller XK19

It is optional for the cassette type, wall-mounted, and floor ceiling indoor units.

### 1.1 Outside View of the Wired Controller



Fig.1 Outside View of the Wired Controller

### 1.2 LCD of the Wired Controller

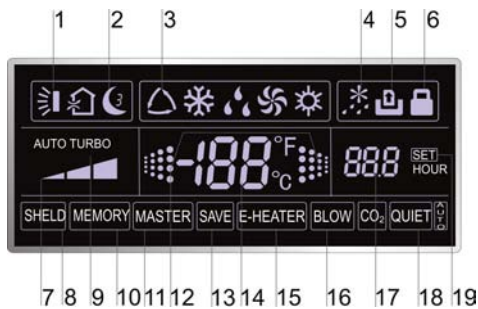






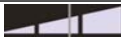





Fig.2 LCD of the Wired Controller



## 1.3 Introduction to the Symbols on LCD

Table 1

No.	Symbols	Description
1		Swing function.
2		Sleep function (3 types: sleep 1, sleep2 and sleep 3).
3		Running modes of the indoor unit (Cooling, Dry, Fan and Heating).
4		Defrosting function for the outdoor unit.
5		Gate-control function (this function is yet unavailable for this unit).
6		Lock function.
7		High, middle, low or auto fan speed of the indoor unit.
8	SHIELD	Shield functions (buttons, temperature, On/Off, Mode or Save is shielded or Save is shielded by the remote monitor).
9	TURBO	Turbo function.
10	MEMORY	Memory function (The indoor unit resumes the original setting state after power failure and then power recovery).
11	MASTER	Master wired controller (this function is yet unavailable for this unit).
12		It blinks under on state of the unit without operation of any button.
13	SAVE	Energy-saving function.
14		Ambient/preset temperature value.
15	E-HEATER	Electric auxiliary heating function.
16	BLOW	Blow function.
17		Timing value.
18	QUITE	Quiet function (two types: quiet and auto quiet).
19	SET	It will be displayed under the debugging mode.

## 2 Buttons

### 2.1 Buttons on the Wired Controller

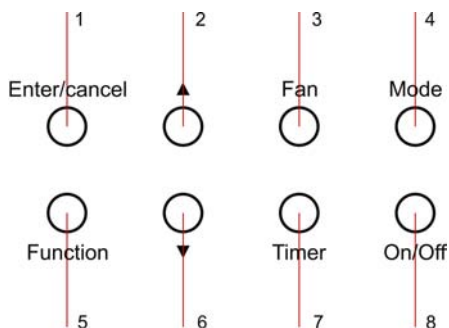




Fig. 3 Buttons on the Wired Controller

## 2.2 Function of the Buttons

Table 2

No.	Name	Function
1	Enter/cancel	① Function selection and cancellation. ② Press it for 5s to examine the outdoor ambient temperature.
2	▲	① Running temperature setting of the indoor unit, range:16 ~ 30℃ . ② Timer setting, range:0.5-24 hr. ③ Switchover between quiet/auto quiet or among sleep1/sleep2/sleep 3.
6	▼	
3	Fan	Setting of the high/middle/low/auto fan speed.
4	Mode	Setting of the Cooling/Heating/Fan/Dry mode of the indoor unit.
5	Function	Switchover among the functions of Swing/Sleep/Turbo/Save/E-heater/Blow / Quiet etc.
7	Timer	Timer setting.
8	On/Off	Turn on/off the indoor unit.
4+2	▲+Mode	Press them for 5s under off state of the unit to enter/cancel the Memory function (If memory is set, indoor unit after power failure and then power recovery will resume the original setting state. If not, the indoor unit is defaulted to be off after power recovery. Memory off is default before delivery).
3+6	Fan+▼	By pressing them at the same time under off state of the unit,  will be displayed on the wired controller for the cooling only unit, while  will be displayed on the wired controller for the cooling and heating unit.
2+6	▲+▼	Upon startup of the unit without malfunction or under off state of the unit,press them at the same time for 5s to enter the lock state, in which case, any other buttons won't respond the press. Repress them for 5s to quit this state.

## 3 Operation Instructions

### 3.1 On/Off

Press On/Off to turn on the unit and turn it off by another press.

Note: The state shown in Fig.4 indicates the “Off” state of the unit after power on. The state shown in Fig.5 indicates the “On” state of the unit after power on.

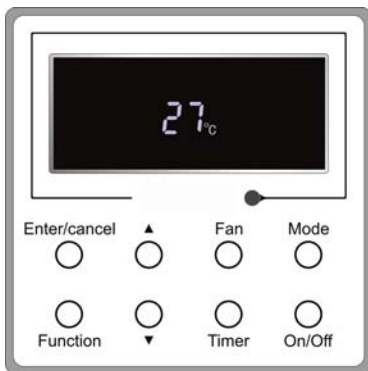


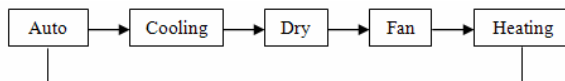
Fig. 4 “Off” State



Fig. 5 “On” State

### 3.2 Mode Setting

Under the “On” state of the unit, press Mode to switch the operation modes as the following sequence: Cooling-Dry-Fan-Heating.



### 3.3 Temperature Setting

Press ▲ or ▼ to increase/decrease the preset temperature. If press either of them continuously, the temperature will be increased or decreased by 1°C every 0.5s, as shown in Fig.6.

In the Cooling, Dry or Heating mode, the temperature setting range is 16°C ~ 30°C .

In the Fan mode, the setting temperature is fixed at 26°C .

In the Auto mode, the setting temperature is unadjustable.

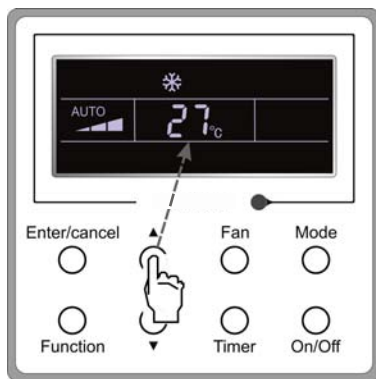


Fig.6

### 3.4 Fan Setting

Under the “On”/“Off” state of the unit, press Fan and then fan speed of the indoor unit will change circularly as shown in Fig.7.

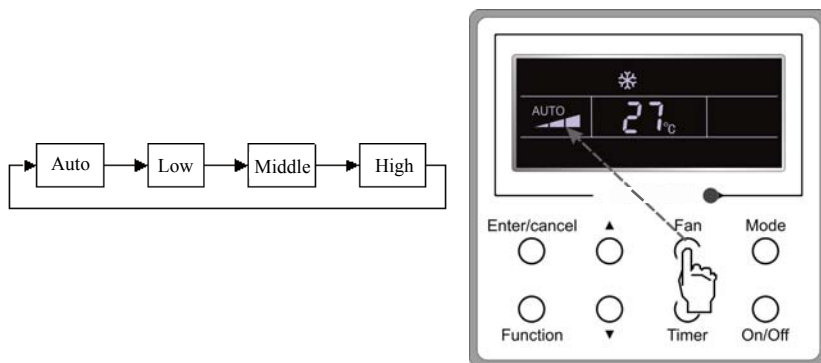


Fig.7

### 3.5 Timer Setting

Under the “On”/“Off” state of the unit, press Timer to set timer off/on.

Timer on setting: press Timer, and then LCD will display “xx.x hour”, with “hour” blinking. In this case, press ▲ or ▼ to adjust the timing value. Then press Enter/cancel to confirm the setting.

Timer off setting: press Timer, if LCD won't display xx.x hour, and then it means the timer setting is canceled.

Timer off setting under the “On” state of the unit is shown as Fig.8.

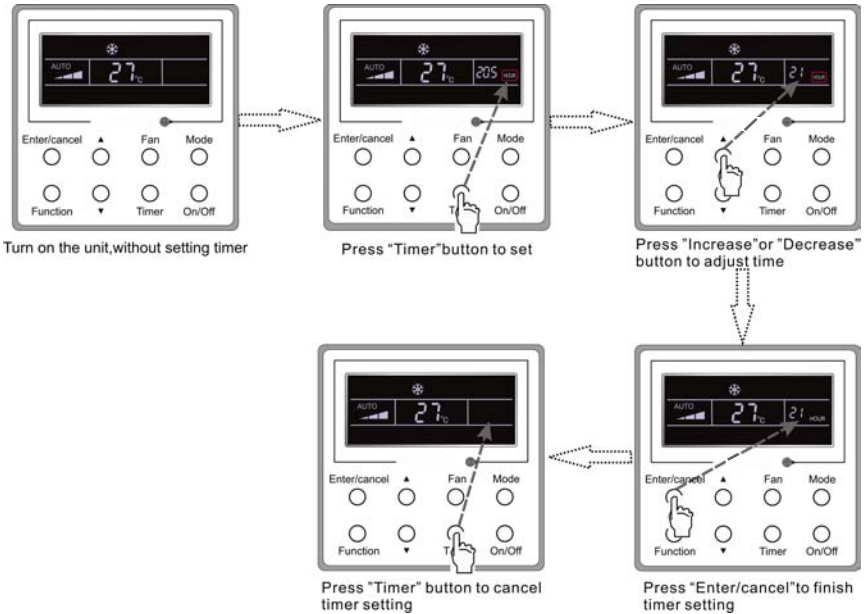


Fig. 8 Timer off Setting under the “On” State of the Unit

Timer range: 0.5-24hr. Every press of ▲ or ▼ will make the set time increased or decreased by 0.5hr. If either of them is pressed continuously, the set time will increase/ decrease by 0.5hr every 0.5s.

### 3.6 Swing Setting

Swing On: Press Function under on state of the unit to activate the swing function. In this case, will blink. After that, press Enter/cancel to make a confirmation.

Swing Off: When the Swing function is on, press Function to enter the Swing setting interface, with blinking. After that, press Enter/cancel to cancel this function.

Swing setting is shown as Fig.9.

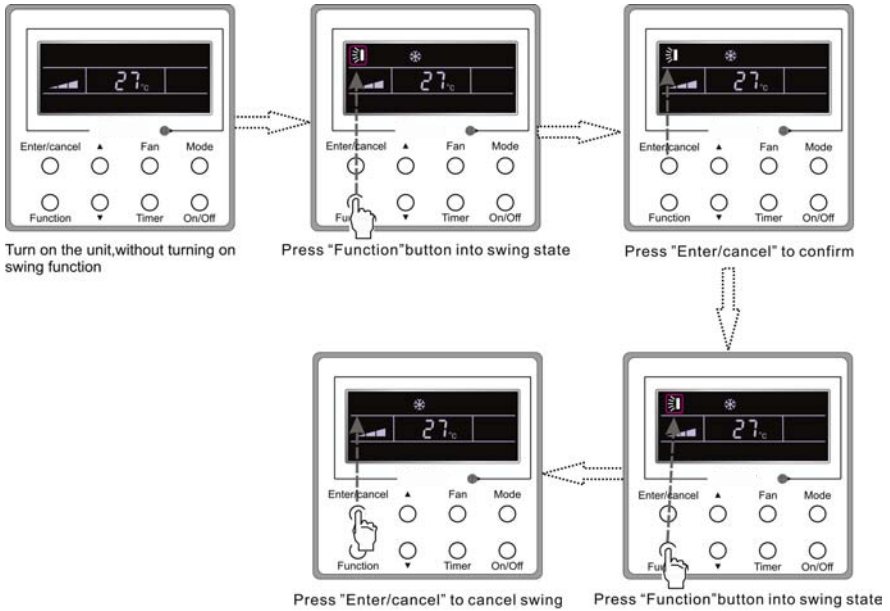


Fig. 9 Swing Setting

Note:

- ① . Sleep, Save, Turbo, Blow or Quiet setting is the same as the Swing setting.
- ② . After the setting has been done, it has to press the key “Enter/cancel” to back to the setting status or quit automatically five seconds later.

### 3.7 Sleep Setting

Sleep on: Press Function under on state of the unit till the unit enters the Sleep setting interface. Then press ▲ or ▼ to switch among Sleep 1, Sleep 2 and Sleep 3. After that, press Enter/cancel to confirm the setting.

Sleep off: When the Sleep function is activated, press Function to enter the Sleep setting interface. After that, press Enter/cancel to can this function.

Sleep setting is shown as Fig.10.

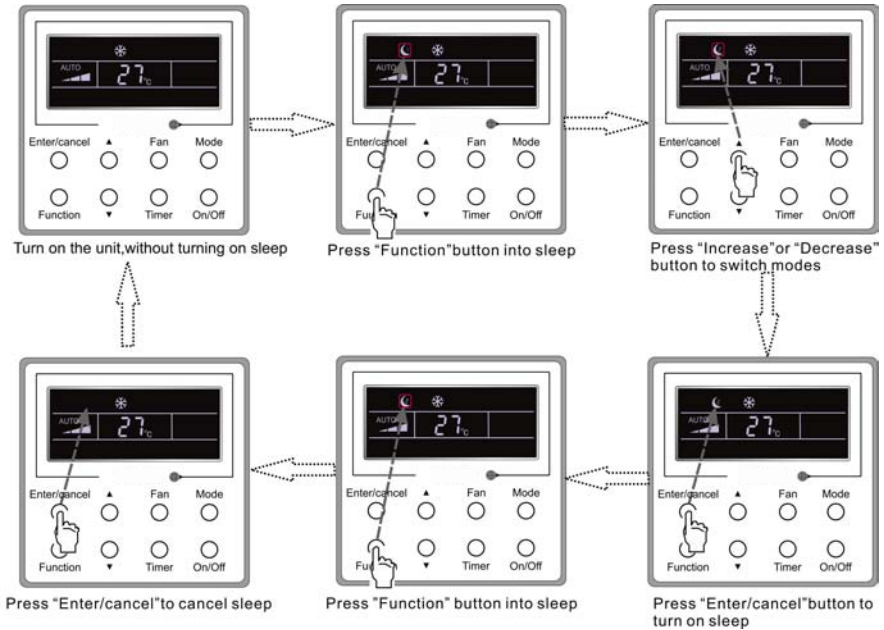


Fig. 10 Sleep Setting

Sleep off is default after power failure and then power recovery, and the sleep functions is unavailable under the fan mode.

There are three Sleep modes: Sleep 1, Sleep 2 and Sleep 3.

a. Sleep 1

In the Cooling or Dry mode, the temperature will increase by 1°C after the unit runs under Sleep 1 for 1hr and 1°C after another 1hr. After that, the unit will run at this temperature.

In the Heating mode, the temperature will decrease by 1°C after the unit runs under Sleep 1 for 1hr and 1°C after another 1hr. After that, the unit will run at this temperature.

b. Sleep 2

In the Cooling mode, the temperature may be set between 16°C -23°C , 24°C - 27°C or 28°C - 29°C or at 30°C , and their Sleep curves are shown in Fig.11 (Note: The curve is only for reference, the actual temperature is subject to the time point.)

For example: The temperature in the Cooling mode is set at 25°C . Under the mode of Sleep 2, the temperature will increase by 1°C every 1hr. After it increases by 2°C in total, it will keep at 27°C . 7 hours later, it will decrease by 1°C , i.e. 26°C .After that, the unit will keep running at 26°C .

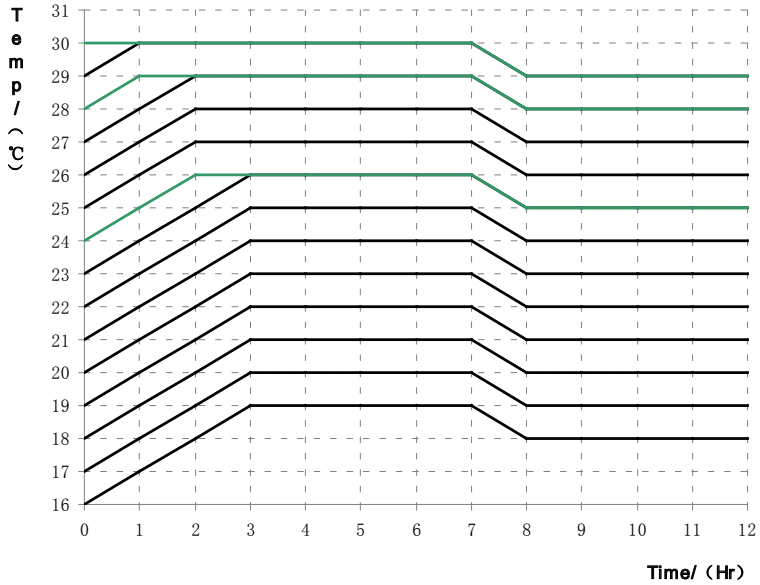


Fig.11 Sleep Curve of Sleep 2 in Cooling Mode

In the Heating mode, the temperature may be set at 16°C or between 17°C - 20°C , 21°C -27°C or 28°C - 30°C and their Sleep curves are shown in Fig.12:

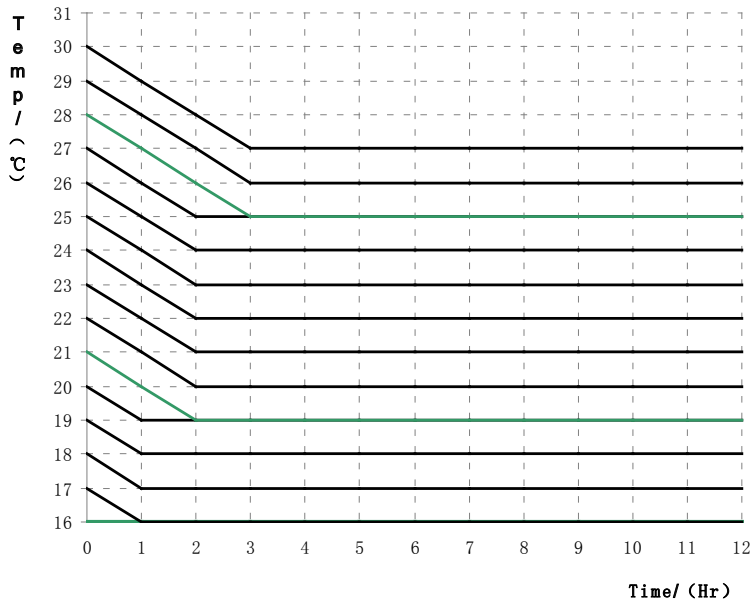


Fig.12 Sleep Curve of Sleep 2 in Heating Mode

For example, the temperature in the Heating mode is set at 22 °C .Under the mode of Sleep2, the temperature will decrease by 1 °C every 1hr. After it decreases by 2 °C in total, i.e. 20 °C ,the unit will keep running at 20°C .

c. Sleep 3

Sleep curve setting under Sleep 3(DIY mode)

d. Under the mode of Sleep 3, press Timer to enter the Sleep setting. In this case, “1 HOUR” is displayed where the timing value once is displayed and the corresponding temperature with the last Sleep curve setting is displayed where the ambient/preset temperature once in displayed.

e. Press ▲ or ▼ to change the corresponding temperature setting.

f. Press Timer, time will automatically increase by 1hr, and the corresponding temperature with the last Sleep curve setting is displayed where the ambient/preset temperature once is displayed.

g. Repeat step 2 and step 3 till 8 HOUR Sleep setting is finished.

h. Press Enter/cancel to confirm the setting.

Sleep curve setting under Sleep 3 is as shown in Fig.13.

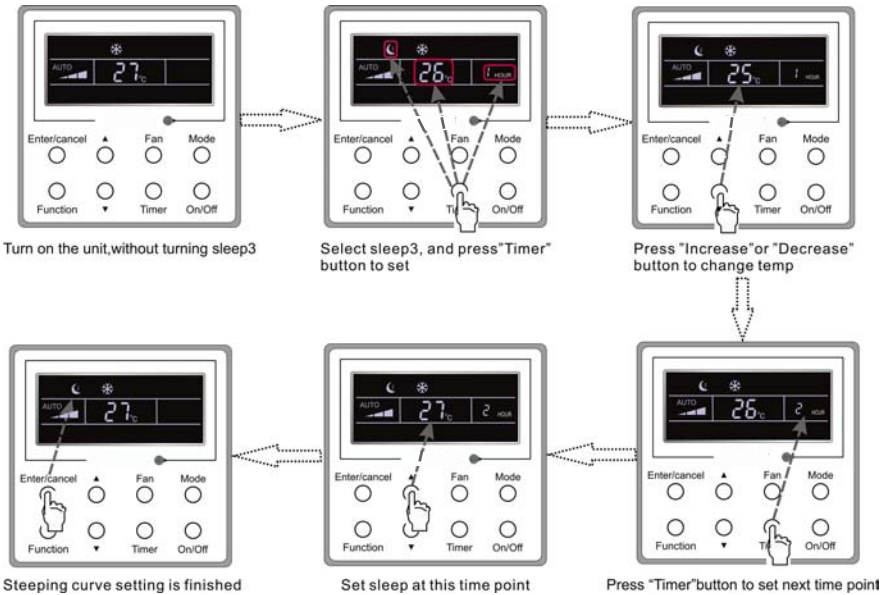


Fig. 13 Sleep Curve Setting under Sleep 3

Notes:

- ① . During the above setting, if Function is pressed down or there is not any operation within 5s, sleep curve setting will be canceled.
- ② . 26°C is the default Sleep curve temperature before delivery. The wired controller will automatically memorize the Sleep curve after the setting.

### 3.8 Turbo Setting

Turbo function: The unit at the high fan speed can realize quick cooling or heating so that the room temperature can quickly approach the setting value.

In the Cooling or Heating mode, press Function till the unit enters the Turbo setting interface and then press Enter/Cancel to confirm the setting.



## Wired Controller XK19

When the Turbo function is activated, press Function to enter the Turbo setting interface and then press Enter/Cancel to cancel this function.

Turbo function setting is as shown in Fig.14.

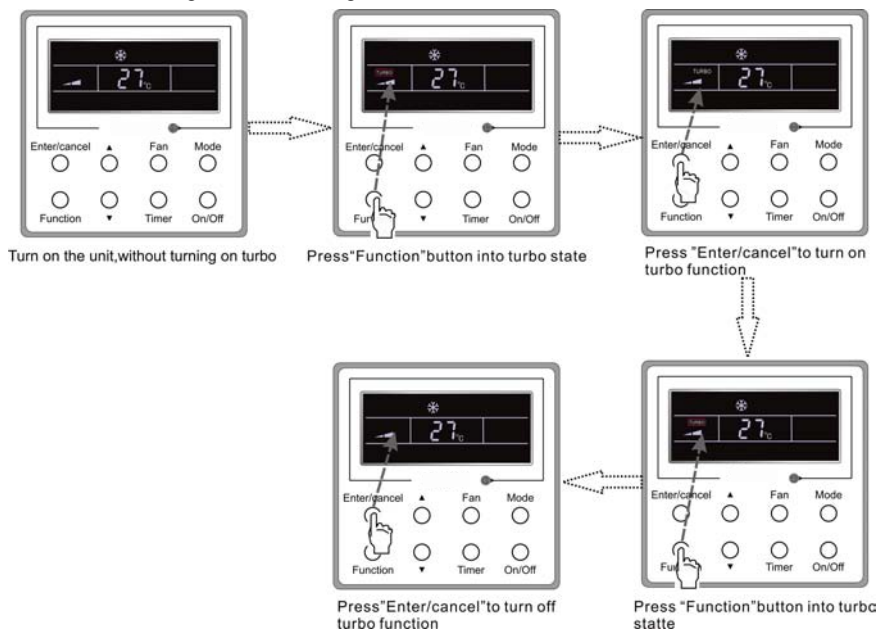


Fig.14 Turbo Setting

Notes:

① . When the Turbo function is activated, if the difference between the room temperature and set temperature is at or below 2 °C (detected in successive 1 min.), the Turbo function will be automatically deactivated.

② . Turbo function is unavailable in the Dry and Fan mode. And the Turbo function is off after power failure and then power recovery. If Quiet function is on, Turbo function will be canceled subsequently.

### 3.9 Save Setting

Save: Energy saving which will result the air conditioner runs in smaller temperature range is realized by setting lower limited value in the Cooling or Dry mode and upper limited value in the Heating mode.

Save Setting for Cooling:

Under the "On" state and in the Cooling or Dry mode of the unit, press Function to enter the Save setting interface and then press ▲ or ▼ to adjust the lower limited value in the Cooling mode. After that, press Enter/Cancel to activate the Save function. The initial lower limited value in the Cooling mode is 26°C .

When the Save function is activated, press Function to enter the Save setting interface and then press Enter/cancel to cancel this function.

The Save setting for cooling is shown in the Fig.15

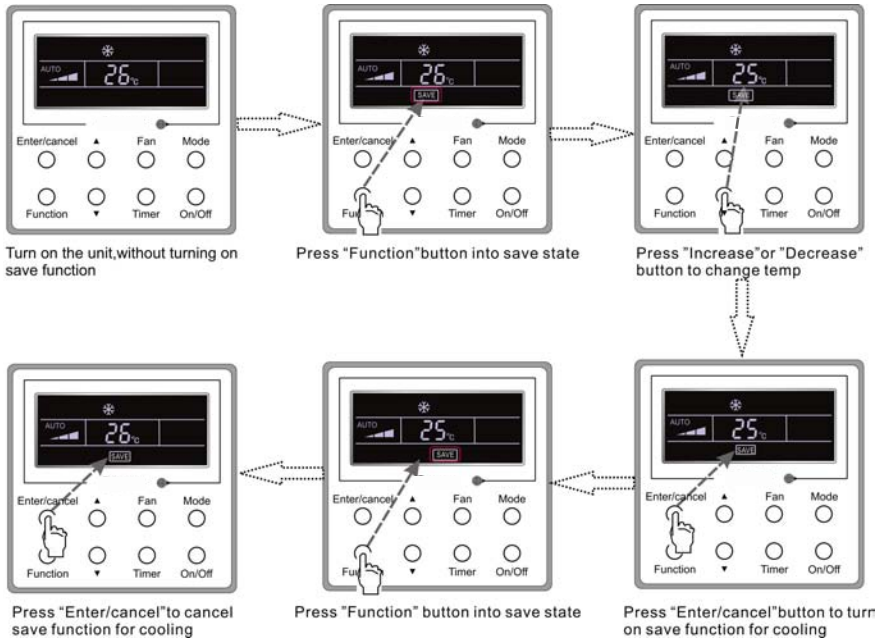


Fig. 15 Saving Setting for Cooling

Save Setting for Heating:

Under on state or in the Heating mode of the unit, press Function to enter the Save setting interface and then press ▲ or ▼ to adjust upper limited value in the Heating mode. After that, press Enter/Cancel to activate the Save function for heating. The upper initial limited value in the Heating mode is 20°C .

After the Saving function is activated, press Function to enter the save setting interface and then press Enter/Cancel to cancel this function.

Save setting for heating is as shown in Fig. 16

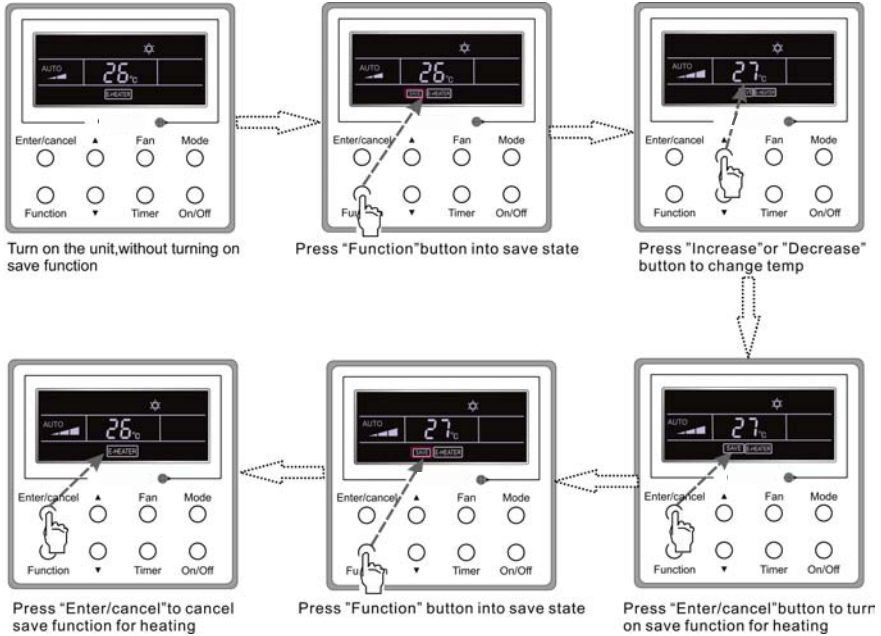


Fig.16 Save Setting for Heating

Notes:

- ① . If press Function on the Save setting interface or if there is not any operation for 5s after last button press, the Save setting will be canceled automatically by the system, with memorizing the present setting data.
- ② . When power is on after the power failure, the Save function will be memorized.

### 3.10 E-heater Setting

E-heater (auxiliary electric heating function): In the Heating mode, E-heater is allowed to be turned on for improvement of efficiency.

Once the wired controller or the remote controller enters the Heating mode, this function will be turned on automatically.

Press Function in the Heating mode to enter the E-heater setting interface and then press Enter/cancel to cancel this function.

Press Function to enter the E-heater setting interface, if the E-heater function is not activated, and then press Enter/Cancel to turn it on.

The setting of this function is shown as Fig.17 below:

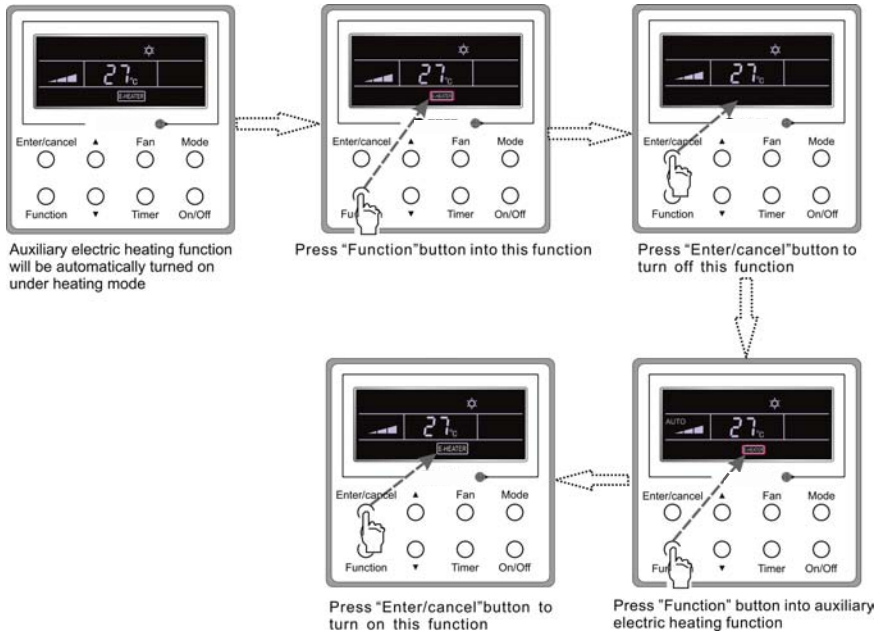


Fig.17 E-heater Setting

### 3.11 Blow Setting

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

In the Cooling or Dry mode, press Function till the unit enters the Blow setting interface and then press Enter/Cancel to active this function.

When the Blow function is activated, press Function to the Blow setting interface and then press Enter/Cancel to cancel this function.

Blow function setting is as shown in Fig.18

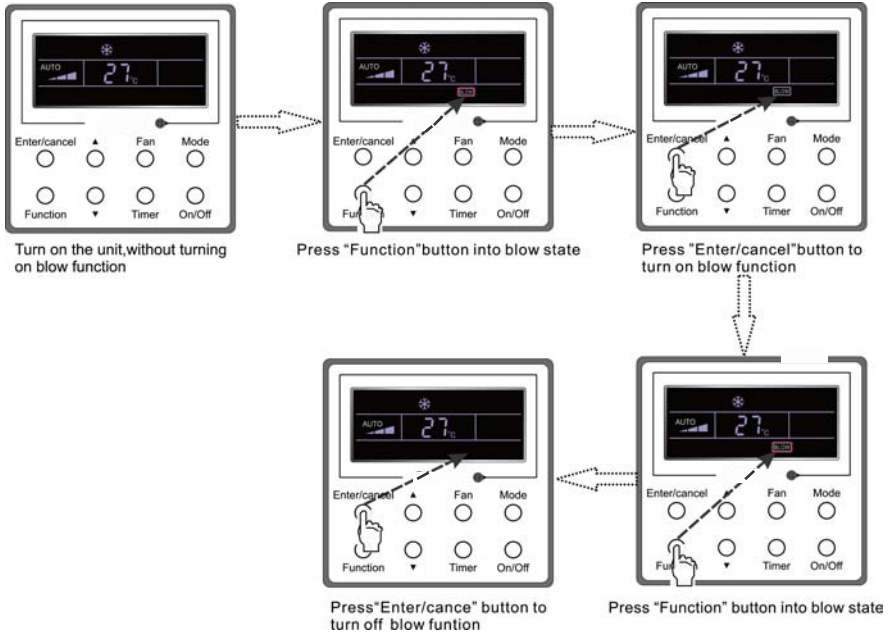


Fig.18 Blow Setting

Notes:

- ① . When the Blow function is activated, if turning off the unit by pressing On/Off or by the remote controller, the indoor fan will run at the low fan speed for 10 min, with “BLOW” displayed on the LCD. While, if the Blow function is deactivated, the indoor fan will be turned off directly.
- ② . Blow function is unavailable in the Fan or Heating mode.

### 3.12 Quiet Setting

Quiet function consists of two kinds: quiet and auto quiet.

Press Function till the unit enters the Quite setting interface, with “Quiet” or “Auto” blinking. In this case, press ▲ or ▼ to switch between Quiet and Auto and then press Enter/cancel to make a confirmation.

When the Quiet function is activated, press Function till the unit enters the Quite setting interface, with “Quite” or “Auto” blinking. Then press Enter/cancel to cancel this function.

Quiet function setting is as shown in Fig.3.16:

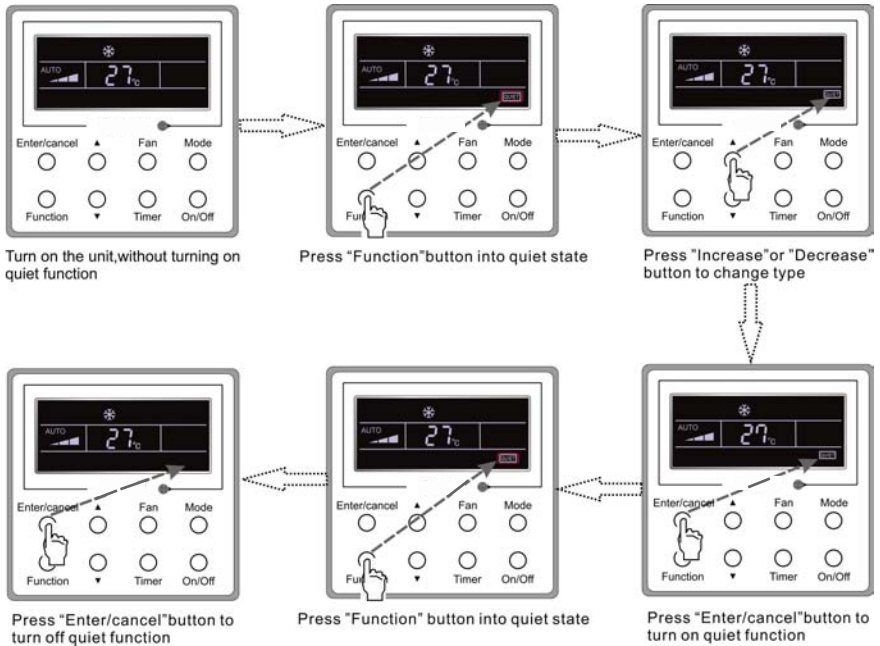


Fig.19 Quiet Setting

Notes:

① . When the Quiet function is activated, the fan speed is low and un-adjustable.

② . When the Auto Quiet function is activated, the unit will run according to the difference between the room temperature and the setting temperature. In this case, the fan speed is adjustable.

Difference between the room temperature and the setting temperature: the fan speed will keep its current state if the temperature difference  $\geq 4\text{ }^{\circ}\text{C}$  ; the fan speed will reduce one grade if  $2\text{ }^{\circ}\text{C} \leq$  the temperature difference  $\leq 3\text{ }^{\circ}\text{C}$  ; the fan speed will be at min. grade if the temperature difference  $\leq 1\text{ }^{\circ}\text{C}$  .

③ . When the Auto Quiet function is on, the fan speed can not be raised but reduced. If the high fan speed is manually adjusted, the function will quit automatically.

④ . There is not Auto Quiet function in the Fan or Dry mode. Quiet off is default after power failure and then power recovery.

### 3.13 Other Functions

#### a. Lock

Upon startup of the unit without malfunction or under the "Off" state of the unit, press  $\blacktriangle$  and  $\blacktriangledown$  at the same time for 5s till the wired controller enters the Lock function. In this case, LCD displays . After that, repress these two buttons at the same time for 5s to quit this function.

Under the Lock state, any other button press won't get any response.

#### b. Memory

Memory switchover: Under the "Off" state of the unit, press Mode and  $\blacktriangle$  at the same time for 5s to switch memory states between memory on and memory off. When this function is activated, Memory will be displayed. If this function is not set, the unit will be under the "Off" state after power failure and then power recovery.

## Wired Controller XK19

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Memory recovery: If this function has been set for the wired controller, the wired controller after power failure will resume its original running state upon power recovery. Memory contents: On/Off, Mode, set temperature, set fan speed, Save function and Lock function.

c. Enquiry of the Outdoor Ambient Temperature

Under the “On” or “Off” state of the unit, press Enter/Cancel for 5s, and the outdoor ambient temperature will be displayed after a sound of click. This enquiry state will quit by pressing Function or On/Off or during the temperature adjustment. If there is not any operation for 10s, it will also quit automatically.

### 4 Errors

If there is an error occurring during the operation of the system, the error code will be displayed on the LCD, as show in Fig.20. If multi errors occur at the same time, their codes will be displayed circularly.

Note: In event of any error, please turn off the unit and contact the professionally skilled personnel.

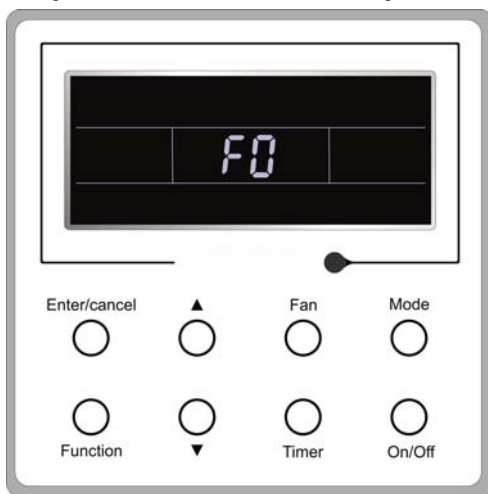


Fig.20

Table 3 Meaning of Each Error

Error	Error Code
High pressure protection	E1
Low pressure protection	E3
Discharge protection	E4
Over-current protection	P5
Communication error	E6
Indoor water overflow protection	E9
Mode conflict	E7
Anti-freezing protection	E2
Defrosting or oil returning for heating	H1
Indoor ambient temperature sensor open/short circuit	F1
Evaporator temperature sensor open/short circuit	F2
Indoor unit (liquid valve) refrigerant pipe inlet temperature sensor error	b5
Indoor unit (gas valve) refrigerant pipe outlet temperature sensor error	b7
Condenser coil inlet temperature sensor open/short circuit	A5
Condenser coil midway temperature sensor error	F4
Condenser coil outlet temperature sensor open/short circuit	A7
Discharge air temperature sensor error	F5
Outdoor ambient temperature sensor error	F3
Module temperature sensor error	oE
Outdoor unit overall error	oE



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## Safety Information

Please read this manual carefully before use this unit, and operate it correctly according to the guide in this manual.

Please take specially note to the meaning of these two marks:



**Warning!:** This mark means that it may cause casualty or badly heart if the operation is incorrect.



**Note!:** This mark means that it may cause casualty or property loss if the operation is incorrect.



**Warning:**

◆ Do not adopt fuse with unsuitable capacity or adopt iron thread instead of fuse, otherwise malfunction or fire may happened.

◆ Cut down the main power switch immediately if malfunction (such as smell the burning odor etc.) happened.

◆ Maintain ventilation to prevent oxygen leakage in room.

◆ Don't insert finger or stick like things into discharge vent or outlet grill.

◆ Please make sure that the unit is installed in the place that can bear the weight of it adequately. If the place is not strong enough, the air conditioner may drop and cause casualty event.

◆ Don't spray or smear any oil paint or insecticide on the surface of unit, otherwise, fire may be leaded.

◆ Do not refit the conditioner. Please contact the agency or prefect ional personnel to repair or move the conditioner.

**An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.**



**Note!:**

◆ Please check and make sure that the cord, drainage pipe and tubes are connected in the correct way to prevent leakage of water, refrigerant, electric shock or fire.

◆ The main power must connectable to the earth in order to assure the conditioner earthing effectively and to prevent electric shock. Please don't connect the earthing line with the gas pipe, water pipe, lightning rod or the connecting line of telephone.

◆ The air conditioner should be turned off at least after 5 mins' operation; otherwise it would affect the duration of the unit.

◆ Don't let the children operate the air conditioner.

◆ Please don't operate the unit by wet hand.

◆ Please turn off the main power of the unit before cleaning the conditioner or change the filter.

◆ Please cut off the main power if the conditioner will be used for a long time.

# Install Of The Cassette Type Indoor Unit

## Install Of The Cassette Type Indoor Unit

### ★ Schematic diagram of installation spaces

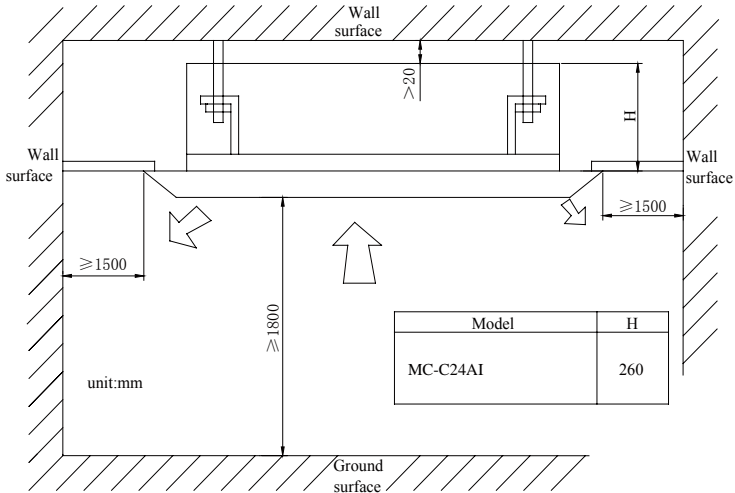


Fig.1

### ★ Select install location of the indoor unit

1. Obstruct should put away from the intake or outlet vent of the indoor unit so that the airflow can be blown though all the room.
2. Make sure that the installation had accord with the requirement of the schematic diagram of installation spaces.
3. Select the place where can stand 4 times of the weight of the indoor unit and would not increase the operating noise and oscillate.
4. The horizontally of the installation place should be guaranteed.
5. Select the place where easy drain condensated coagulated water, and easy connect with outdoor unit.
6. Make sure that there are enough space for care and maintenance. Make sure that the weight between the indoor unit and ground is above 1800mm.
7. When installing the steeve bolt, check if the install place can stand the weight 4 times of the unit's. If not, reinforce before installation. (Refer to the install cardboard and find where should be reinforced)

### ⚠ Note!

There will be lots of lampblack and dust stick on the acentric, heat exchanger and water pump in dining room and kitchen, which would reduce the capacity of heat exchanger, lead water leakage and abnormal operation of the water pump. **The following treatment should be taken under this circumstance:**

1. Ensure that the smoke trap above cooker has enough capacity to obviate lampblack to prevent the indraft of the lampblack by the air conditioner.
2. Keep the air conditioner far from the kitchen so that the lampblack would not be indraft by the air conditioner.

### ★ Important notice:

- ◆ To guarantee the good performance, the unit must be installed by professional personnel according with this instruction.
- ◆ Please contact the local special nominated repair department before installation. Any malfunction

caused by the unit that is installed by the department that is not special nominated by Nepa spol.s.ro. would not deal with on time by the inconvenience of the business contact.

★ **Dimension of ceiling opening and location of the hoisting screw (M10)**

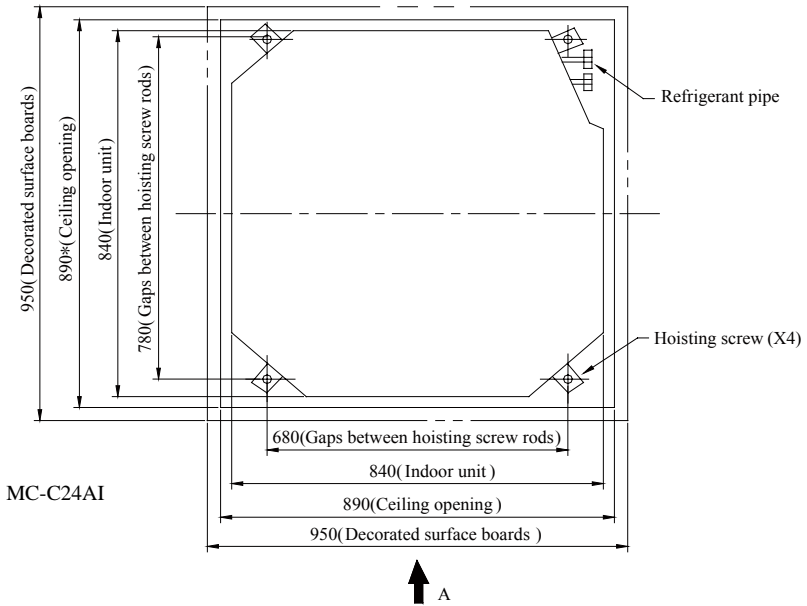
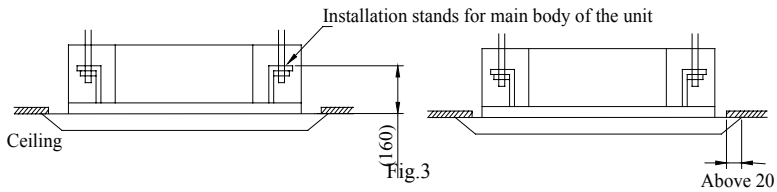


Fig.2 Install dimension of mode

◆ The drilling of holes in the ceiling must be done by the professional personnel.



Notes: The dimension for the ceiling openings with \* marks can be as large as 910mm. But the overlapping sections of the ceiling and the decorated surface boards should be maintained at no less than 20mm.

★ **Main body of hoisting air conditioner**

1 The primary step for install the indoor unit.

◆ When attach the hoisting stand on hoisting screw, do use nut and gasket individually at the upper and lower of the hoisting stand to fix it. The use of gasket anchor board can prevent gasket break off.

2 Use install cardboard

◆ Please refer to the install cardboard about the dimension of ceiling opening.

◆ The central mark of the ceiling opening is marked on the install cardboard.

◆ Install the install cardboard on the unit by bolt (3 piece), and fix the angle of the drainage pipe at the outlet vent by bolt.

3 Adjust the unit to the suitable install place. (Refer to the fig.3)

4 Check if the unit is horizontal.

◆ Inner drainage pump and bobber switch are included in the indoor unit, check if 4 angle of every unit are horizontal by water lever. (If the unit is slant toward the opposite of the coagulate water flow, there may be malfunction of the bobber switch and lead water drop.)

5 Backout the gasket anchor board used to prevent gasket break off and tighten the nut on it.

6 Backout the install cardboard.

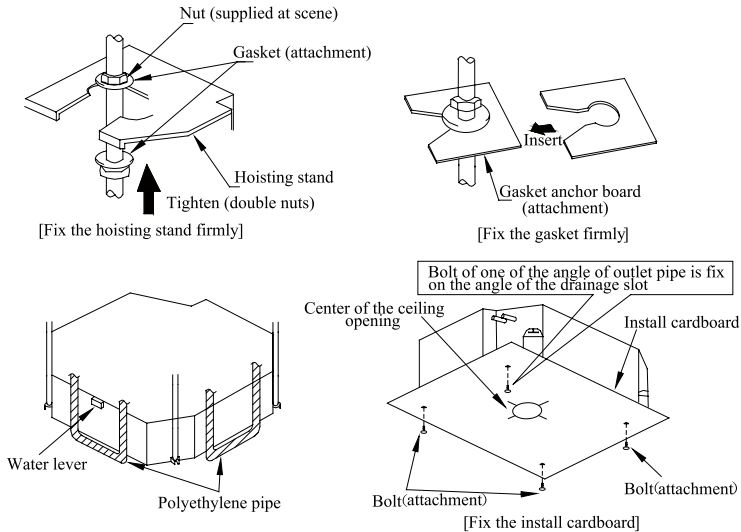


Fig.4

**⚠ Note!**

- Please do tighten the nuts and bolts to prevent air conditioner break off.

**★ Connection of the refrigerant pipe**

◆ When connect the pipe to the unit or backout it from the unit, please do use both spanner and torque wrench. as shown in fig.5.

◆ When connect, smear both inside and outside of the flare nut with freeze motor oil, screw it by hand and then tighten it with spanner.

◆ Refer to form 1 to check if the wrench had been tightened (too tight would mangle the nut and lead leakage).

◆ Examine the connection pipe to see if it had gas leakage, then take the treatment of heat insulation, as shown in the fig.5.

◆ Only use median sponge to entwine the wiring interface of the gas pipe and heat preservation sheath of the gas collection tube.

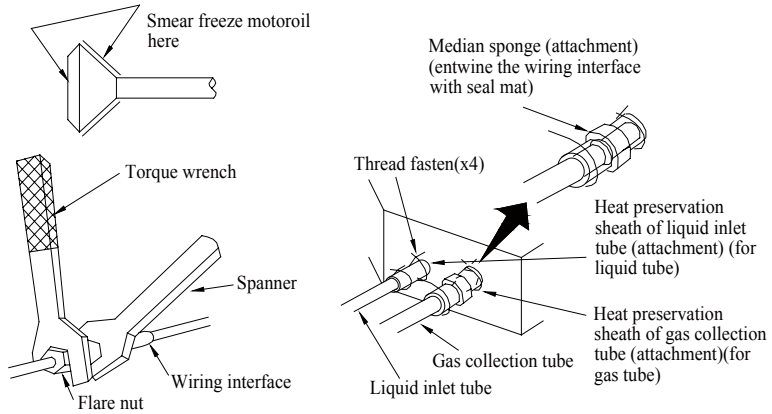


Fig.5

Form 1: The tightening torque needed for tightening nut

Diameter (Inch)	Surface thickness (mm)	Tightening torque (N · m)
φ1/4"	≥ 0.5	15-30 (N · m)
φ3/8"	≥ 0.71	30-40 (N · m)
φ1/2"	≥ 1	45-50 (N · m)
φ5/8"	≥ 1	60-65 (N · m)
φ3/4"	≥ 1	70-75 (N · m)

★ Drainage hose

1. Install the drain hose

◆ The diameter of the drain hose should be equal or bigger than the connection pipe's. ( The diameter of polythene pipe: Outer diameter 25mm Surface thickness ≥ 1.5mm)

◆ Drain hose should be short and drooping gradient should at less 1/100 to prevent the formation of air bubble.

◆ If drain hose cannot has enough drooping gradient, drain raising pipe should be added.

◆ To prevent bent of the drain hose, the distance between hoisting stand should is 1 to 1.5m.

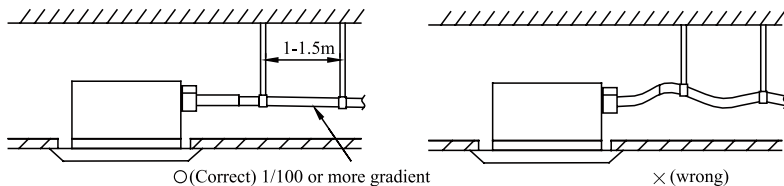


Fig.6

◆ Use the drain hose and clamp attached. Insert the drain hose to the drain vent, and then tighten the clamp.

◆ Entwine the big sponge on the clamp of drain hose to insulate heat.

◆ Heat insulation should be done to indoor drain hose.

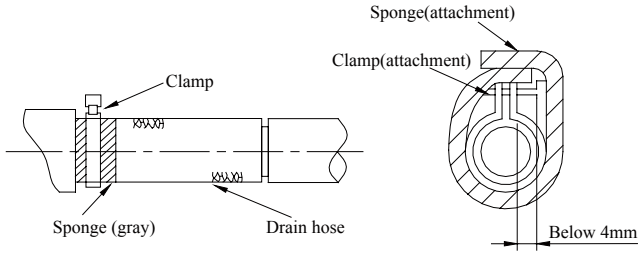


Fig.7

**Drain stepup pipe note**

- ◆ The install height of the drain raising pipe should less than 280mm.
- ◆ The drain raising pipe should form a right angle with the unit, and distance to unit should not beyond 300mm.

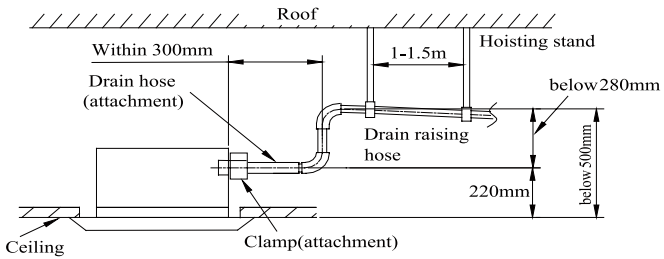


Fig.8

**Instruction**

- ◆ The slant gradient of the attached drain hose should be within 75mm so that the drain hole doesn't has to endure the unnecessary outside force.

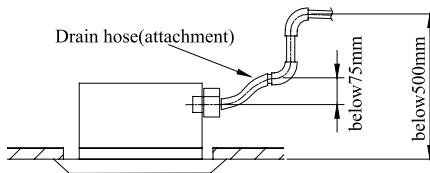
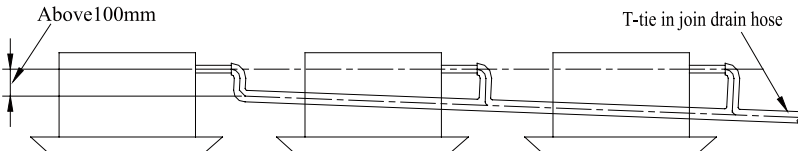


Fig.9

- ◆ Please install the drain hose according to the following process if several drain hoses join together.



The specs of the selected join drain hose should fits the running capacity of the unit.

Fig.10

**2 Check the smoothness of drain after installation.**

- ◆ Check the drain state by immitting 600cc water slowly from the outlet vent or test hole.
- ◆ Check the drain in the state of refrigerating after installation of the electric circuit.

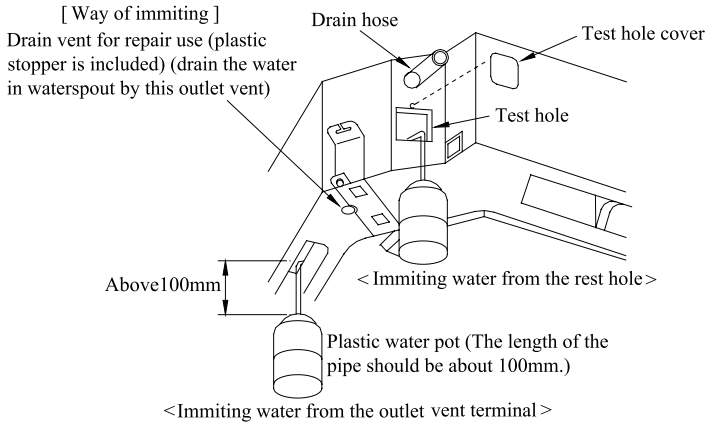


Fig.11

### ★ Electrical wiring



**Note: The power of the entire indoor unit must be connected in outdoor unit.**

- ◆ About the electrical wiring, please see the circuit diagram attached with the unit.
- ◆ All the installation of electrical wiring must be done by professional personnel.
- ◆ Please do take the earthing treatment.

#### Wiring method of connection unit and controller

##### ◆ Connection wiring (communication):

- ① Open electric box cover(1), drag the wiring (communication) from the rubber plug A, and impact them well individually by impact fastener.
- ② Wiring according to the indoor side circuit diagram.
  - ◆ Fix the impact fastener after connection.
  - ◆ Entwine the small sponge on the electric wire ( do entwine it to prevent condensation)
  - ◆ Impact tightly by impact fastener after connection and then fit on the electric box (1) and (2).
  - ◆ Connect the wiring (communication) through the piping hole of the chassis and the bottom of the appliance upward, then connect the brown wire to the Terminal board “3”; black wire (the communication wire) to the Terminal board “2”; blue wire to the Terminal board “N(1)”. and connect the earthing wire to the screw terminal on the electric box.



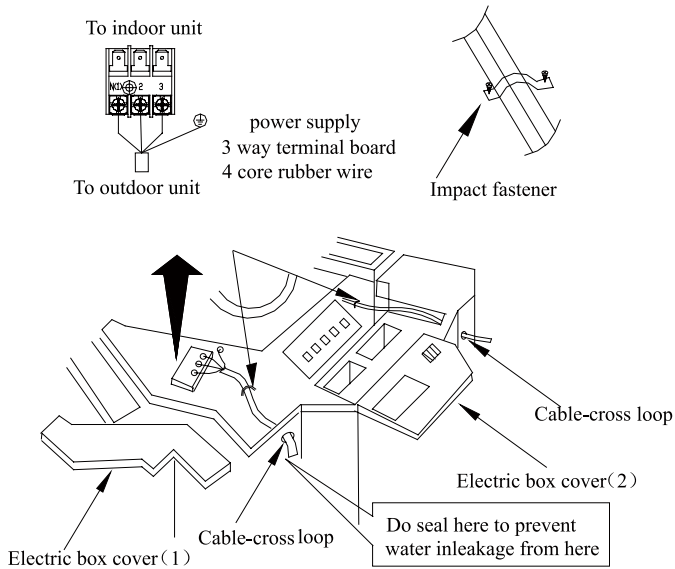


Fig.12

### ★ Install the panel

1. Set the panel to the indoor unit body by matching the position of the swing flap motor of the panel to the piping position of the panel to the piping position of the indoor unit as shown by fig.13.

2. Install the panel

① Install the panel on the indoor unit temporarily. When install, hang the latch on the hook that is located on the opposite side of the swing flap on the panel of the indoor unit. (2 positions)

② Hang the remaining 2 latches to the hooks on the sides of the indoor unit.(Be careful not to let the swing motor lead wire get caught in the sealing material.)

③ Screw the 4 hexagon head screws under the latches in about 15mm. (The panel would rise)

④ Adjust the panel by turning it toward the direction pointed by the arrow as shown in fig.13, so that the adjust board connect the ceiling well.

⑤ Tighten the screws until the thickness of the sealing material between panel and indoor unit reduced to 5-8mm.

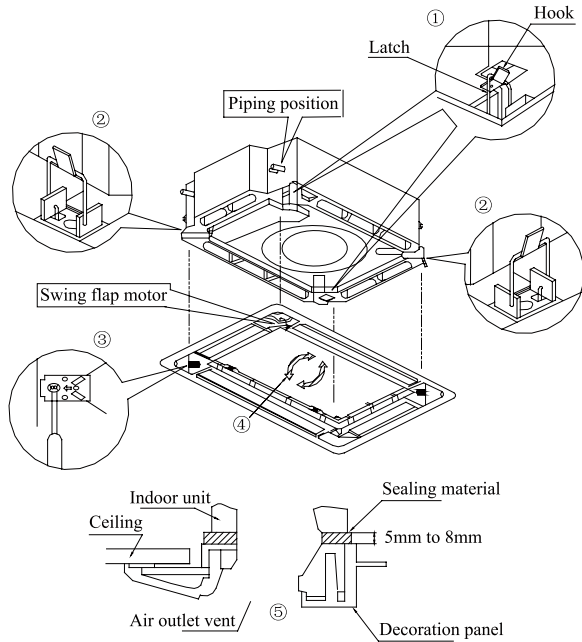


Fig.13

**Notes:**

1. Improper screwing of the screws may cause the troubles shown in fig.14.

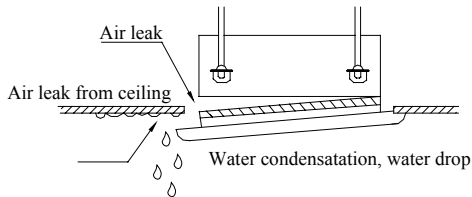


Fig.14

2. If gap still exist between ceiling and decoration panel after tightening the screws, readjust the height of the indoor unit. (As shown in fig.15)

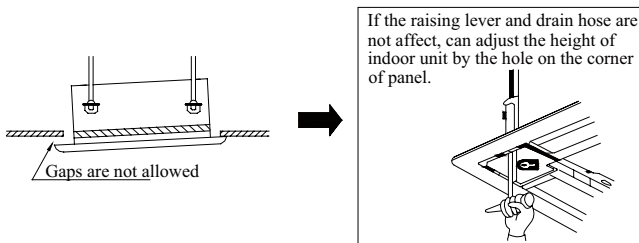


Fig.15

※ After fixing, be sure no gap left between the ceiling and the panel.

### 3. Wiring of the decoration panel (Fig.16)

Connect the joints for swing flap motor lead wire (at 2 places) installed on the panel.

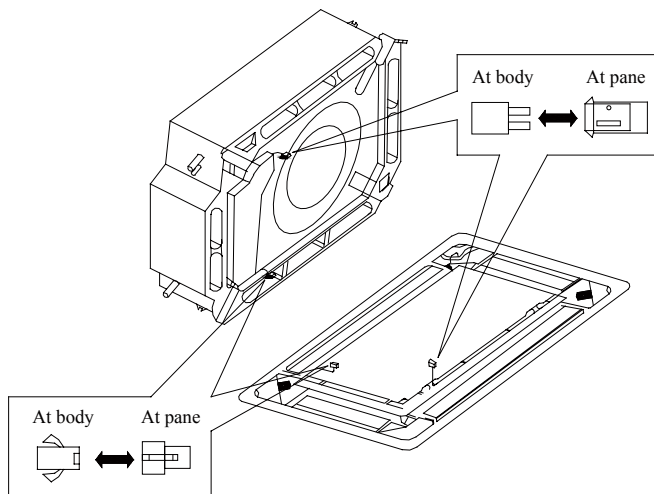
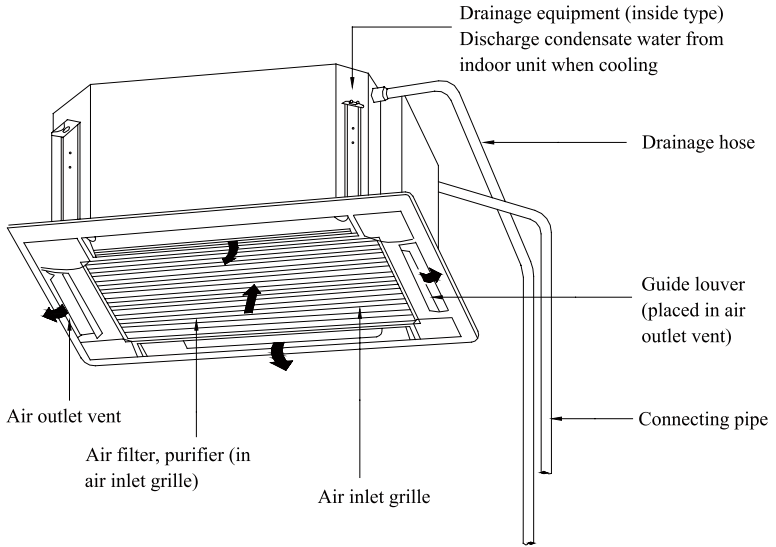


Fig.16

# Constitutes and Names of Parts of Cassette Type Indoor Unit



MC-C24AI

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## Working Temperature Range

Working Temperature Range

	Indoor side state		Outdoor side state	
	Dry bulb temp. °C	Wet bulb temp. °C	Dry bulb temp. °C	Wet bulb temp. °C
Rated Cooling	27	19	35	24
Max. cooling	32	23	48	26
Min. cooling	21	15	18	—
Rated Heating	20	15	7	6
Max. heating	27	—	24	18
Min. heating	20	15	— 15	— 16

## Operation Method When Meeting An Emergency

When wireless remote controller is lost or damaged, the following method could be adopted to control cassette type indoor unit:

- ◆ When the unit is turned off, press AUTO button on corner outer cover II , then the unit begin operate in cooling with the fan run in high speed. **The temp. will be set to 26 °C automatically.**
- ◆ When the unit is turned off, press TEST button on the corner outer cover II , then the unit begin running in heating and the fan is running in high speed. **The temp. will be set to 20 °C automatically.**
- ◆ When the unit is running, press AUTO button on corner outer cover II , then the unit stops running; under the running state of heating, press TEST button on corner outer cover II , then the unit stops running.

### Note!

Prevent using the operating method for meeting an emergency when the wireless remote controller could be used in normal. There are 3 lights on corner outer cover II , red for power, green for running, and yellow for timer.

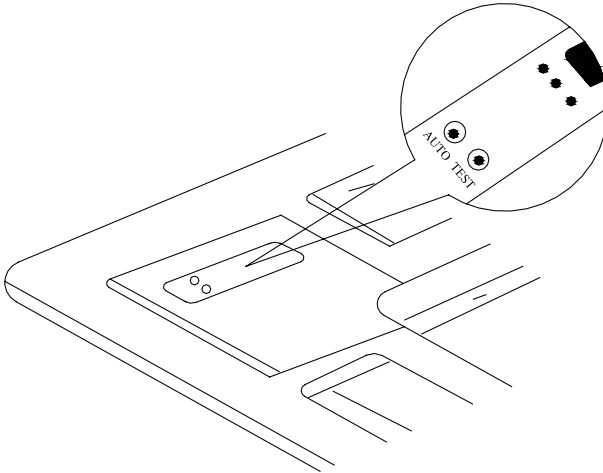


Fig.17

# Malfunction Debarring

**⚠ Warning!**

◆ Cut down the main power switch immediately if malfunction (such as smell the burning odor etc.) happened, and then contact service center. If the abnormal state is maintained, the unit may be damaged or electric shock or fire may be happened.

◆ Do not refit the conditioner. Please contact service center to repair or move the conditioner.

**★ Check the following items before contacting maintenance center**

Phenomena	Reason	Remedial Measures
Air conditioner doesn't run at all	Blow of fuse or breaker	Change fuse or close breaker
	Power cut	Restart when there is power supply
	Don't connect with power	Connect power well
	Low batteries of wireless remote controller	Change new batteries
	Wireless remote controller exceed remote control area	Signal could be received within 8m
Air conditioner runs but stops immediately	Blockage in inlet or outlet vent of indoor or outdoor unit	Clean out blockage
Abnormal cooling or heating	Blockage in inlet or outlet vent of indoor or outdoor unit	Clean out blockage
	Improper of temp. setting	Adjust settings in wireless remote controller
	Low setting of fan speed	Adjust settings in wireless remote controller
	Incorrect of wind direction	Adjust settings in wireless remote controller
	Door or window opened	Close
	Direct sun burn	Hang curtain or jalousie before windows
	Too many people in room	
	Too many heater in room	
	Filter blocked by dirt	Clean filter

---

**★ Instruction**

If problem still cannot found out after above checking, please contact service center and instruct phenomena and model.

**★ The following circumstance are not malfunction**

“Malfunction”		Reason
Air conditioner doesn't run	Start up unit immediately after turned off	The overload protects switch makes it run after 3 minutes delay.
	When opening power	Run for about 1 minute without other actions
Mist is blown from air conditioner	When cooling	The high humidity air in room is cooled rapidly
Noise is heard from air conditioner	Slight click sound heard once begin running	Sound of initialization for electric expand valve
	Hissing sound heard continuously when cooling	The sound for gas refrigerant flowing in the unit
	Hissing sound heard when starting or stopping	The sound for gas refrigerant stops flow
	Slight hissing sound heard when running or after running	Sound for running of drainage system
	Creak sound heard when running or after running	The grating sound caused by expands of panel and other parts for the change of temperature
Dust be blown for air conditioner	Started up after long time's doesn't runs	Dust in indoor unit be blown out
Odor gives out from air conditioner	When running	This is because when air conditioning, odors or cigarette smoke from the room that was sucked in is discharged again.

**★ After-sales Service**

When having quality or other problems when purchasing air conditioner, please contact the local service center.



## Maintenance Method

When air conditioner won't be used for a long time, please cut off the main power supply of air conditioner.

### Warning!

- ◆ Do not turn off the unit and cut off the main power supply when cleaning the air conditioner, otherwise electric shock or harm may happen.
- ◆ It is forbidden to wash air conditioner by water rinsing, otherwise electric shock may happen.

### ★ Cleaning air filter

When the usage environment has lots of dust, air filter should be cleaned more frequently (about once 6 months).

#### 1. Open air inlet grille

Pull the 2 handle on air inlet grille at the same time with the direction showed by arrow in fig. 18, pull down slowly. (Reverse when closing)

#### 2. Disassembly air filter

As shown in fig. 19, pull the handle behind air inlet grille, raise it and disassembly. Then discharge the 3 purifier fixed on filter.

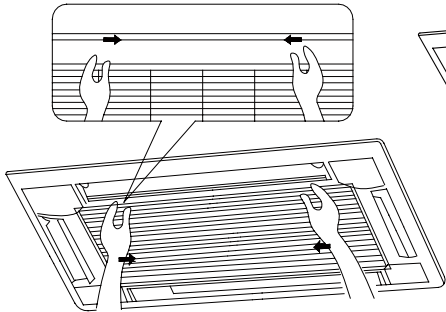


Fig. 18

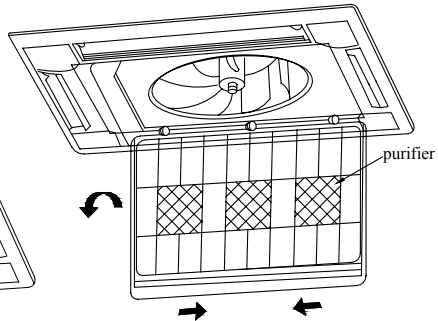


Fig. 19

#### 3. Clean

Adopts cleaner or water to wash filter; if the filter is too dirty ( like oil stain on it ), adopts warm water ( lower than 45°C ) with neutral scourer to clean it, then dry it in the shade.

### Note !

- Do not clean the filter by hot water whose temp. is higher than 45°C to prevent fade or deformation.
- Do not burn it on fire or the filter would catches fire or deformation.

#### 4. Install air filter

Fix the 3 purifiers on filter, install filter on the several bulges on top of air inlet grille, pull the handle behind air inlet grille toward inside to fix filter. As shown in fig. 20.

#### 5. Close air inlet grille (Refer to the 1<sup>st</sup> step)

Maintenance Method

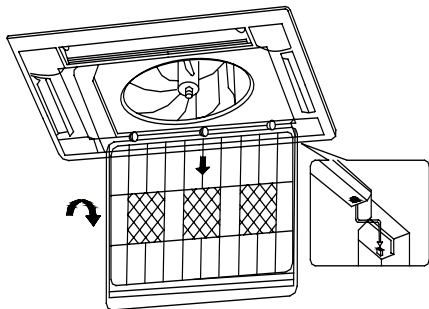


Fig. 20

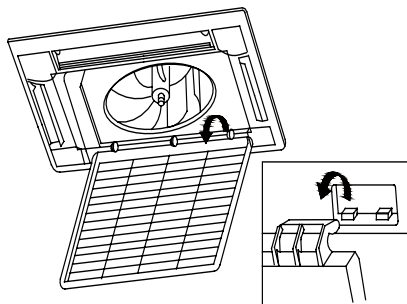


Fig. 21

### ★ Clean air inlet grille

1. Open air inlet grille (the same with the 1st step of Clean Air Filter)
2. Take out air filter (the same with the 2nd step of Clean Air Filter)
3. Take out air inlet grille

Open air inlet grille for an angle of 45°, as shown in fig. 21, rise it.

4. Clean

Clean it by pubescence brush, water and neutral cleaning, then throw water or dry it.

#### ⚠ Note !

Do not use water above 45°C to wash the panel to prevent fade or deformation.

5. Install air inlet grille (refer to 3rd step)
6. Install air filter (refer to the 4th step of Clean Air Filter)
7. Close air inlet grille (refer to the 1st step)

### ★ Install and change of air purifier

1. Open air inlet grille (the same the 1st step of Clean Air Filter)
2. Disassembly purifier

As shown in fig 22, disassembly air filter, screw out fixing bolts fixed on purifier on filter, then purifier could be disassembly.

3. Take out the package sack of static fiber net filter, then install the filter in stand of purifier, and fix purifier on air filter.

4. Install air filter (the same with the 4th step of Clean Air Filter)

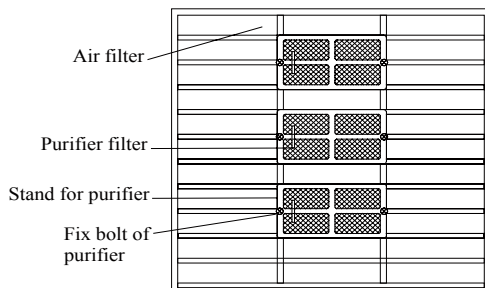


Fig.22

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### **Function and usage period for air purifying**

- ◆ Could adsorb CO, CO<sub>2</sub>, benzene, aldehydes and odor of gasoline etc..
- ◆ Could adsorb deleterious material that is smaller than 1 μm in air, as dust, pollen, bacteria, and virus.
- ◆ Usage period is 6 months to 1 year. If it is necessary to be changed, purchase new purifier in the nearest special engaged maintenance center.

### **★ Clean Outlet vent and Surface Panel**

- ◆ Clean the surface panel by soft dry cloth or wet cloth with neutral scourer.
- ◆ It is forbidden to clean surface panel by gasoline, benzene, diluents, cleansing powder etc..
- ◆ If the guide louver is too dirty, it may be removed to be cleaned. (As narrated below)

### **Disassembly and install of guide louver**

#### 1. Disassembly guide louver

Screw bolts in both end of guide louver to loose.



#### **Note !**

Do not wipe guide louver powerfully when cleaning, otherwise fluff on surface would fall off.

#### 2. Install guide louver

Rotate guide louver slightly could install the protruding edge of both end into grooves on both end of guide louver, and then tighten bolts.

### **★ Maintenance before or after usage season**

#### **Check before the usage season**

- ◆ Check if there is blockage in inlet or outlet vent of air conditioner.
- ◆ Check if the earthing wire had earthed reliably.
- ◆ Check if the air filter had been installed well.
- ◆ In order to start up the air conditioner smoothly after long time's turned off, turn on the main power supply 8 hours before turning on the air conditioner.

#### **Maintenance after usage season**

- ◆ Clean filter and body of air conditioner.
- ◆ Cut off the main power supply of air conditioner.
- ◆ The cooling or heating capacity and sound level are tested before leaving factory.
- ◆ If the parameter changed, refer to the data offered on nameplate.