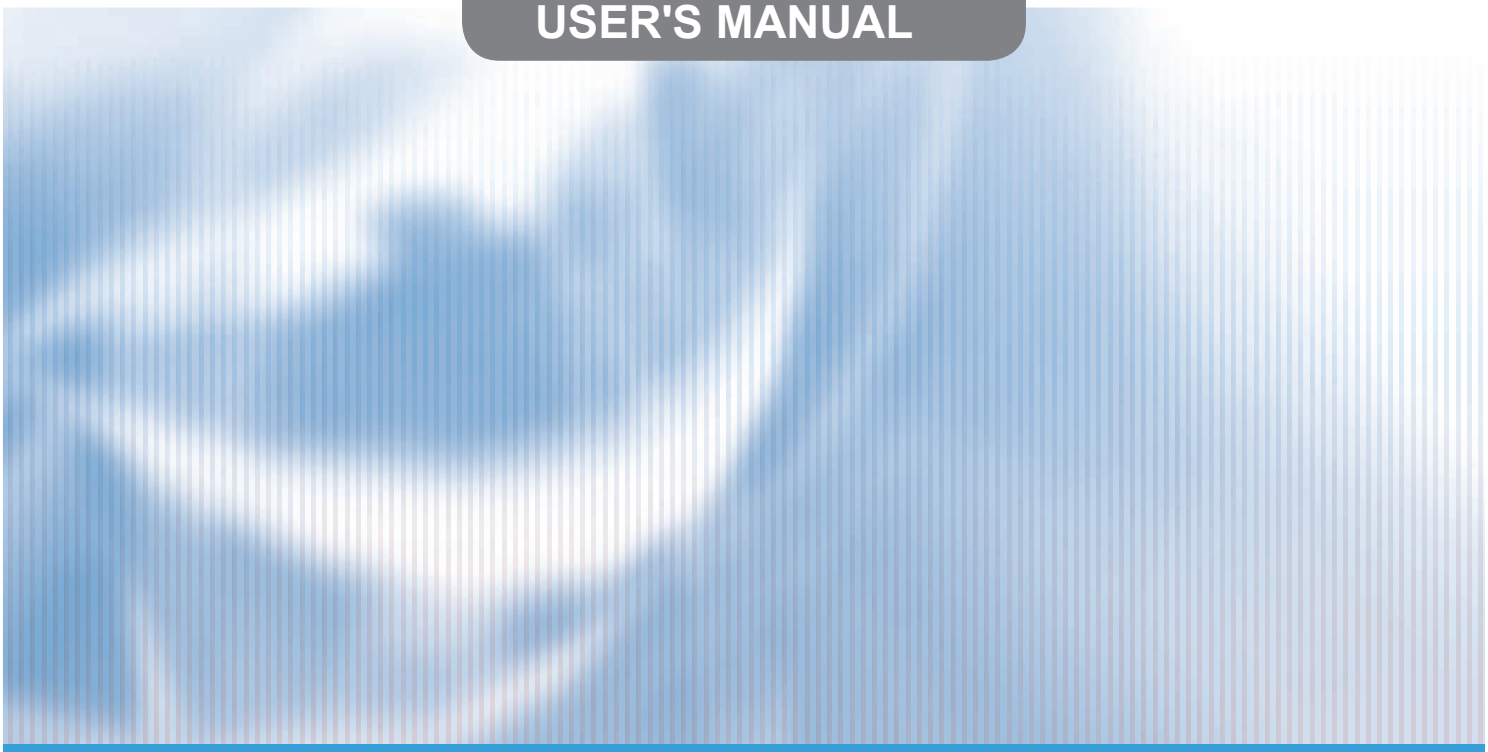
USER'S MANUAL



MULTI COMBI SERIES

FLOOR&CEILING MC-F09,12,18,24AI

sinclair
AIR CONDITIONING

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.

◆ The power supply of the entire unit must be the power supply of outdoor unit. And disconnect the main power of outdoor units before cleaning.

◆ 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 .The appliance shall not be used by children without supervisor.

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

◆ Missing information regarding electric supply tolerances(+/-10%, +/-1Hz) in documentation.

◆ Humidity range: 30%~95%.

◆ 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 installed at a height of 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 ℃ DB, the heating range of the unit(only for the heat pump type unit) is the outdoor environment temp. -15~27 ℃ DB.

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.

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

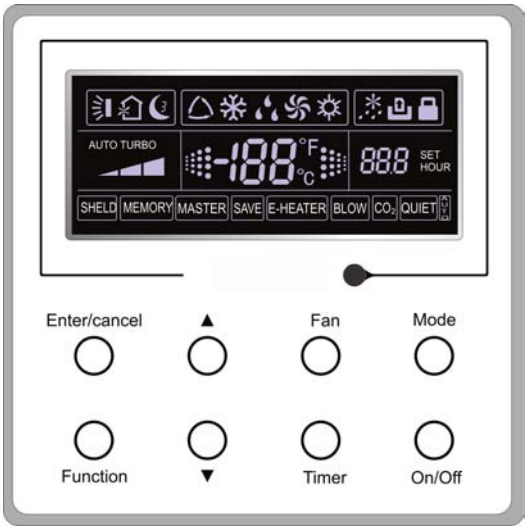


Fig.1 Outside View of the Wired Controller

1.2 LCD of the Wired Controller

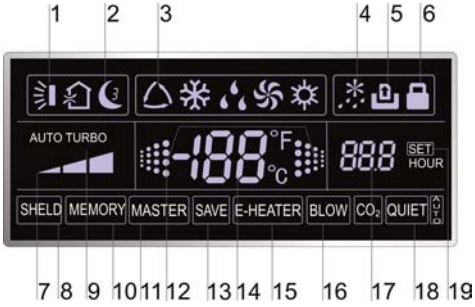


Fig.2 LCD of the Wired Controller

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

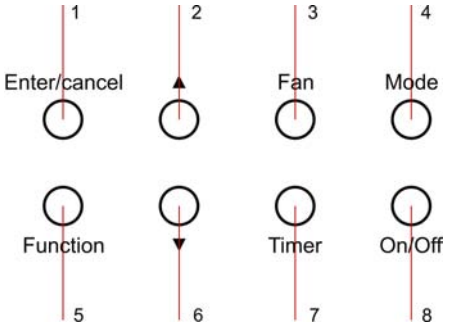


Fig. 3 Buttons on the Wired Controller

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.

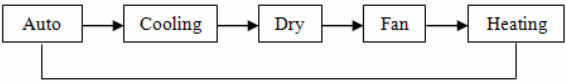
Note: The state shown in Fig.4 indicates the "Off" state of the unit after power on. The state shown in Fig.5 indicates the "On" state of the unit after power on.

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℃ every 0.5s, as shown in Fig.6.

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

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

In the Auto mode, the setting temperature is unadjustable.

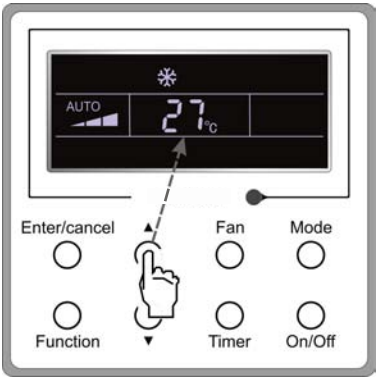
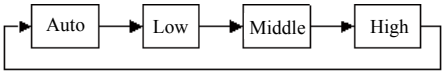


Fig.6

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.



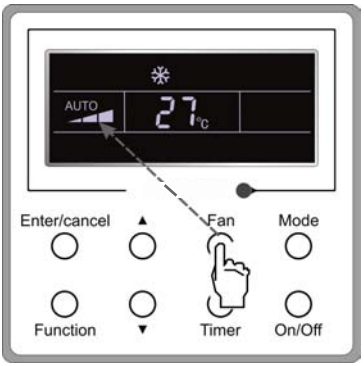


Fig.7

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.

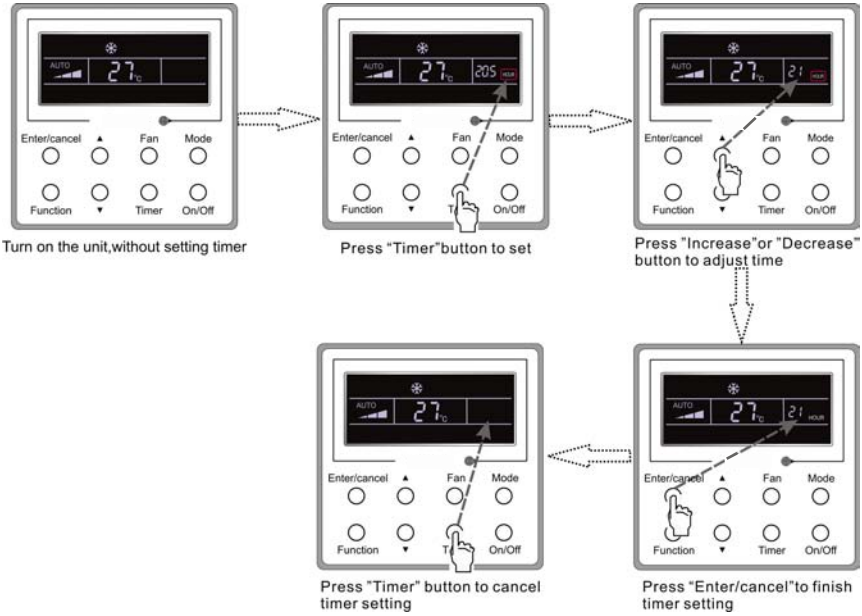


Fig. 8 Timer off Setting under the “On” State of the Unit

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.

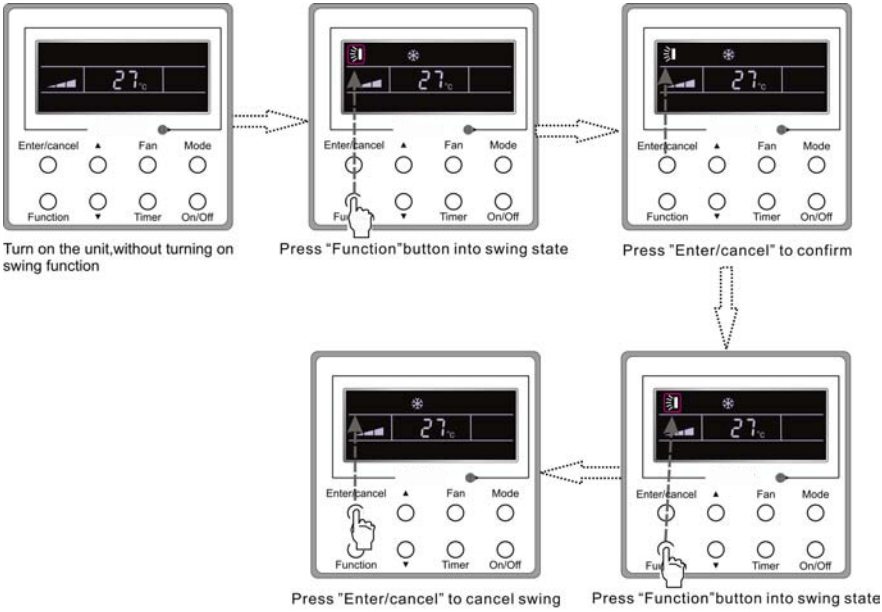


Fig. 9 Swing Setting

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.

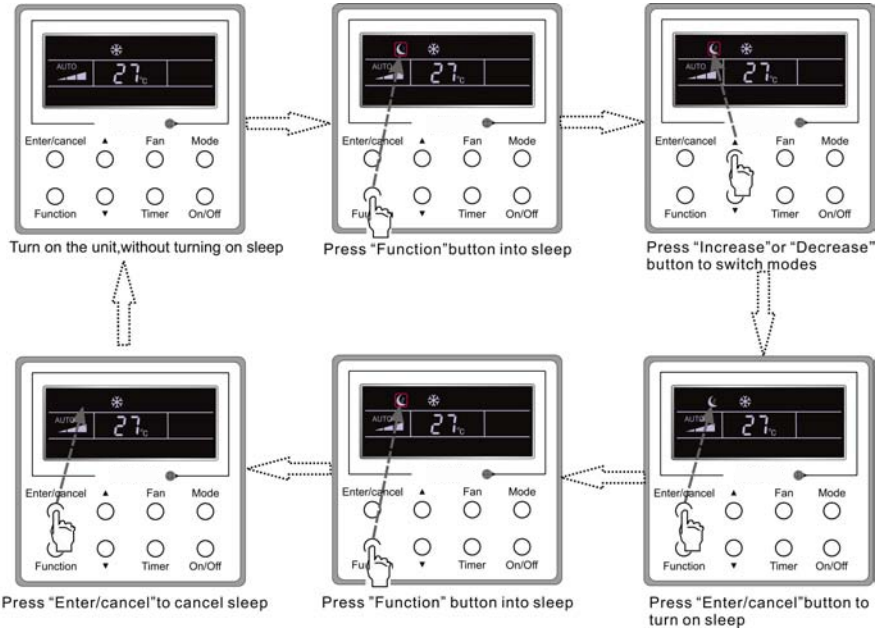


Fig. 10 Sleep Setting

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℃ after the unit runs under Sleep 1 for 1hr and 1℃ after another 1hr.After that, the unit will run at this temperature.

In the Heating mode, the temperature will decrease by 1℃ after the unit runs under Sleep 1 for 1hr and 1℃ 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 ℃ -23 ℃ , 24 ℃ - 27 ℃ or 28 ℃ - 29 ℃ or at 30 ℃ , 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 ℃ . Under the mode of Sleep 2, the temperature will increase by 1℃ every 1hr. After it increases by 2℃ in total, it will keep at 27℃ . 7 hours later, it will decrease by1℃ , i.e. 26℃ .After that, the unit will keep running at 26℃ .

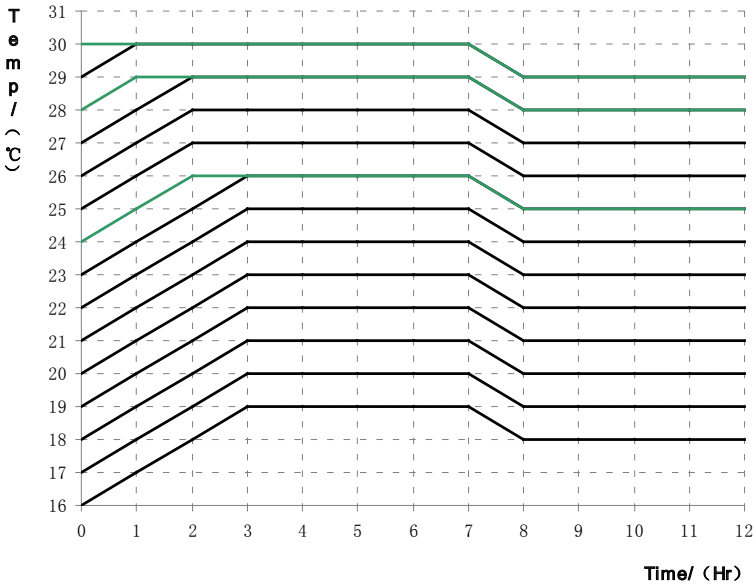


Fig.11 Sleep Curve of Sleep 2 in Cooling Mode

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

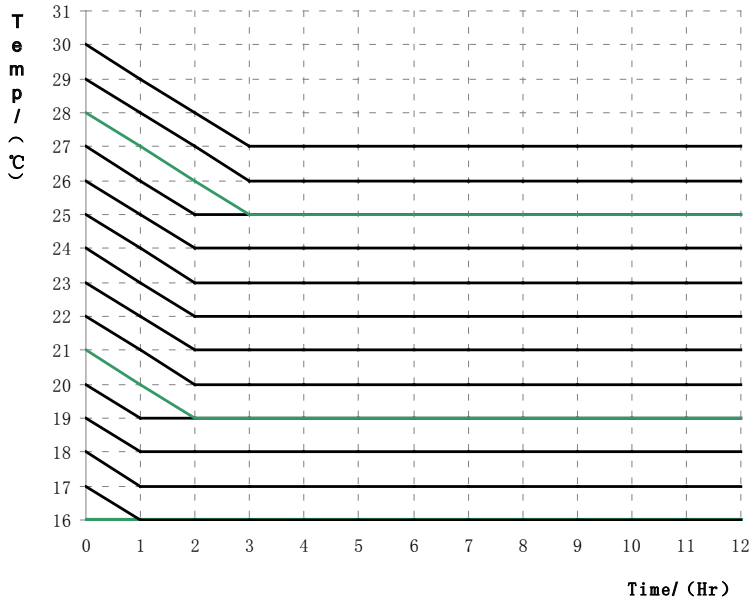


Fig.12 Sleep Curve of Sleep 2 in Heating Mode

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

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.

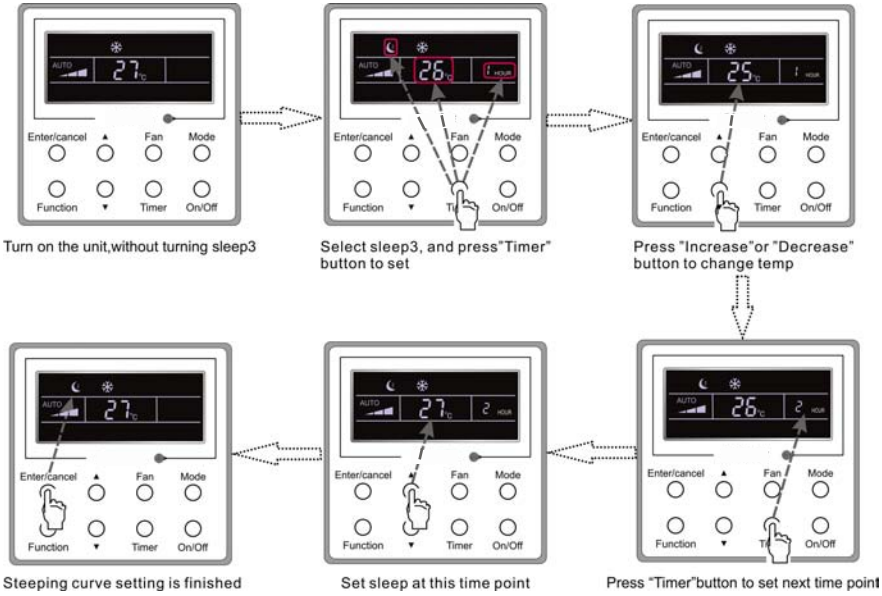


Fig. 13 Sleep Curve Setting under Sleep 3

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℃ 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.

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.

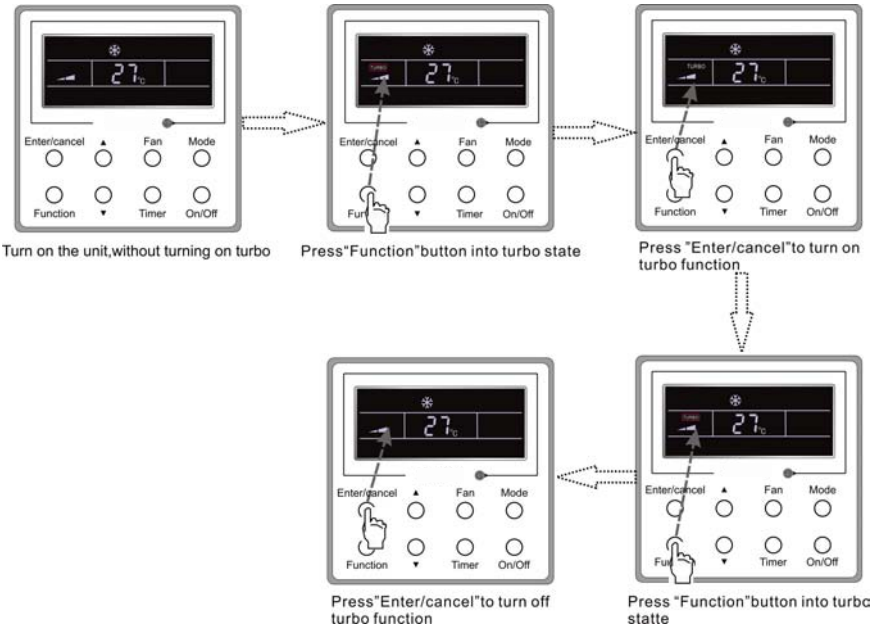


Fig.14 Turbo Setting

Notes:

①. When the Turbo function is activated, if the difference between the room temperature and set temperature is at or below 2 ℃ (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℃ .

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

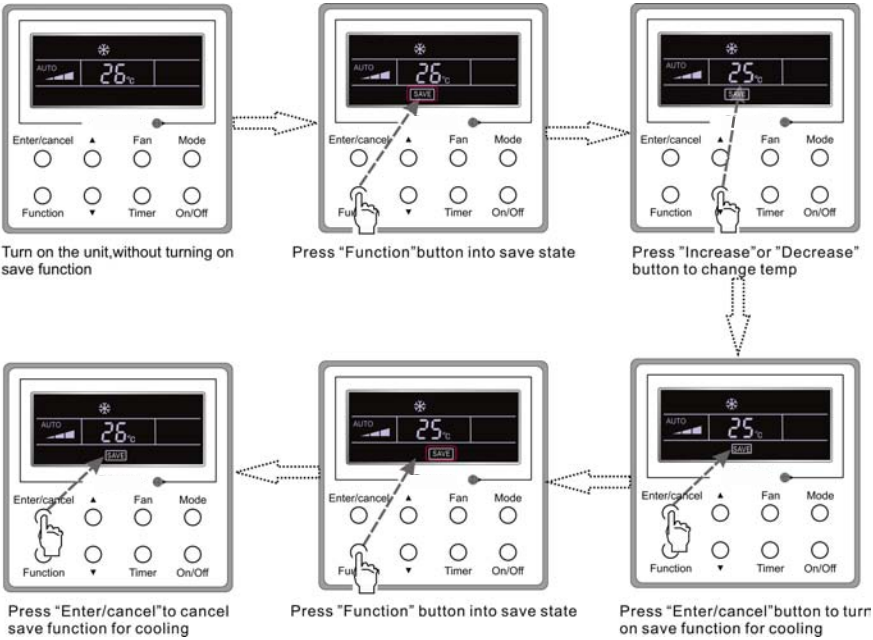


Fig. 15 Saving Setting for Cooling

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℃ .

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

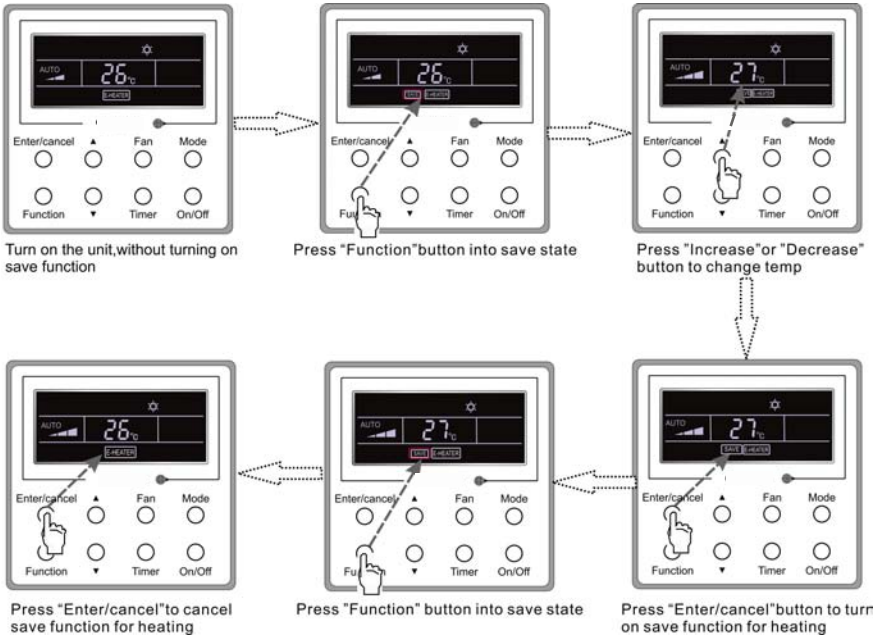


Fig.16 Save Setting for Heating

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:

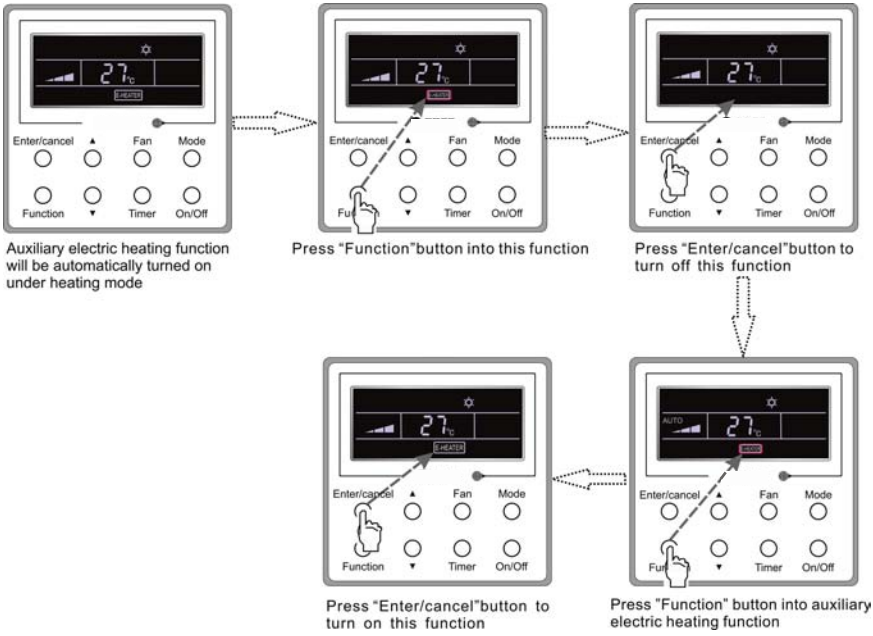


Fig.17 E-heater Setting

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

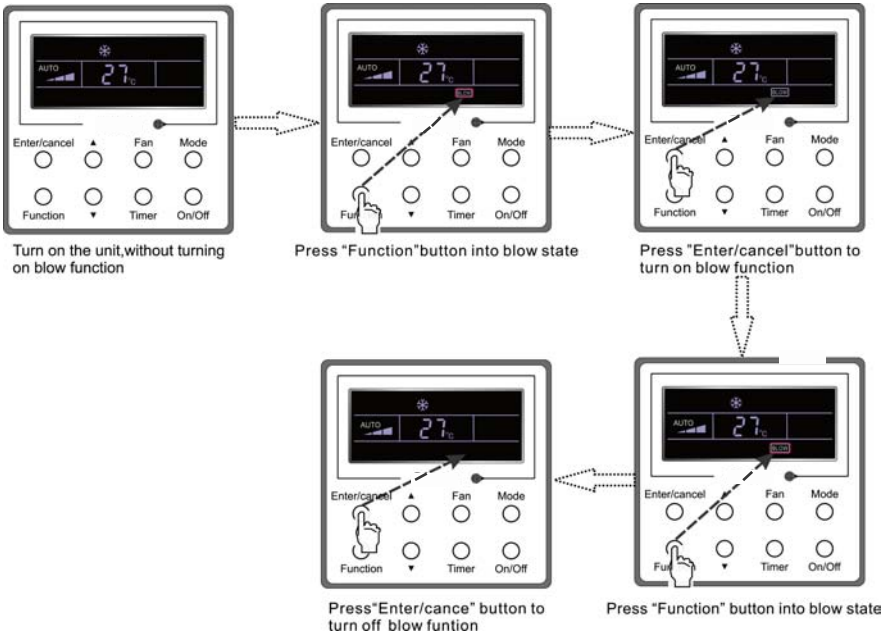


Fig.18 Blow Setting

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:

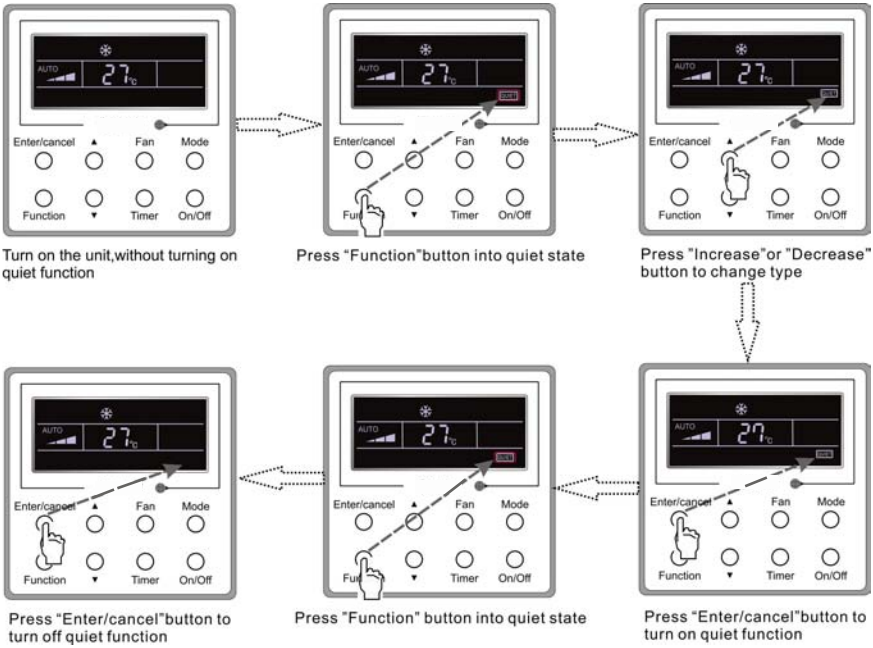


Fig.19 Quiet Setting

Notes:

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

②. When the Auto Quite 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 ≥ 4 ℃ ; the fan speed will reduce one grade if 2 ℃ ≤ the temperature difference ≤ 3℃ ; the fan speed will be at min. grade if the temperature difference ≤ 1℃ .

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 ▲ and ▼ 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 ▲ 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.

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.

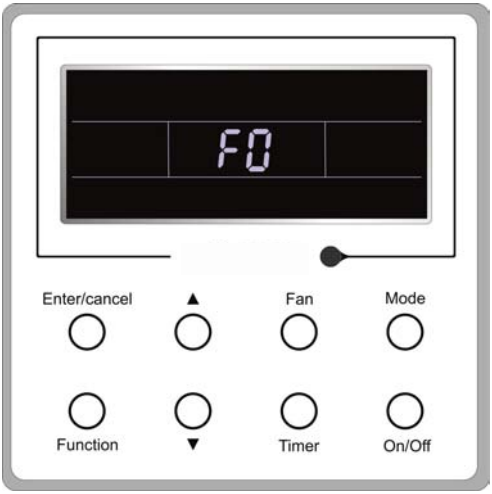


Fig.20

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 senor 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

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

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℃ (82 ℉); Under other modes, the initial value is 25℃ (77 ℉).

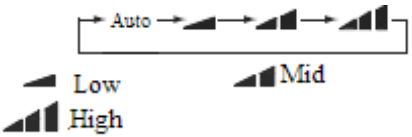
Auto
Cool
Dry
Fan
Heat (Only for the cooling and heating unit)

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 ℃ (℉) displayed al 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 ℃ (℉) displayed all the time. Under Auto mode, the temperature adjustment is unavailable. The setting range is 16-30 ℃ or 61-86 ℉

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.

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Ⅰ 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 hurt if the operation is incorrect.

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

⚠ **Warning!**

◆ For the usage safety of the air conditioner, the units should be earthed reliably .Do not connect the earth line with the gas pipe, water pipe, drainage pipe or other places that specialized personnel considers unsafe.

◆ Air conditioner must use special power supply circuit and switches for creepage protect and air with enough capacity should be installed in the circuit.

◆ Ensure that the connecting of power cord is normal, otherwise, electric shock or fire may happened.

◆ Do not cut off the power supply to turn off the unit when it is running, otherwise life time of units may shortened.

◆ Do not mangle wire or adopts wires that are not recommend to use, otherwise, electric shock or fire may happened.

◆ Please don’t operate the unit by wet hand, or electric shock may happened.

◆ Don’t insert finger or stick like things into outlet vent, otherwise, damage may be happened.

◆ Cut down the main power switch immediately if malfunction (such as smell the burning odor etc.) happen, and then contact the special engaged maintenance 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 the agency or professional personnel to repair or move the conditioner.

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

◆ Do cut off the main power supply of air conditioner if it would not be used for a long time.

◆ Please turn off the main power of the whole unit before cleaning the conditioner, otherwise electric shock or harm may be happened.

◆ Chemical sprayer should be placed 1m or more away from the unit, otherwise fire or explode may be caused.

◆ Do not let blockage happened in the inlet or outlet vent of the air conditioner, this would cause low efficacy or unit stop.

Ⅱ Selection of Installation Location and Precautions

1 Selection of Installation Location for Air Conditioner Unit

The installation of air conditioner unit must be in accordance with national and local safety codes.

Installation quality will directly affect the normal use of air conditioner unit. The user is prohibited from installation by himself. Please contact your dealer after buying this machine. Professional installation workers will provide installation and test services according to installation manual.

Do not connect to power until all installation work is completed.

2 Selection of Installation Location

* Such a place where cool air can be distributed throughout the room.
* Such a place where is condensation water is easily drained out.
* Such a place that can handle the weight of indoor unit.
* Such a place, which has easy access for maintenance.
* Such a place where is permitting easy connection with the outdoor unit.
* Such a place where is 1m or more away from other electric appliances such as television, audio device, etc.
* Avoid a location where there is heat source, high humidity or inflammable gas.
* Do not use the unit in the immediate surroundings of a laundry, a bath, a shower or a swimming pool.
* Be sure that the installation conforms to the installation dimension diagram.

3 Caution for installation where air conditioner trouble is likely to occur

* Where there is too much of oil.
* Where it is acid base area.
* Where there is irregular electrical supply.

Ⅲ Installation of Floor And Ceiling Type Indoor Unit

1 Space dimension for installation of the unit

The space around the unit is adequate for ventilation. (Refer to Fig.1)

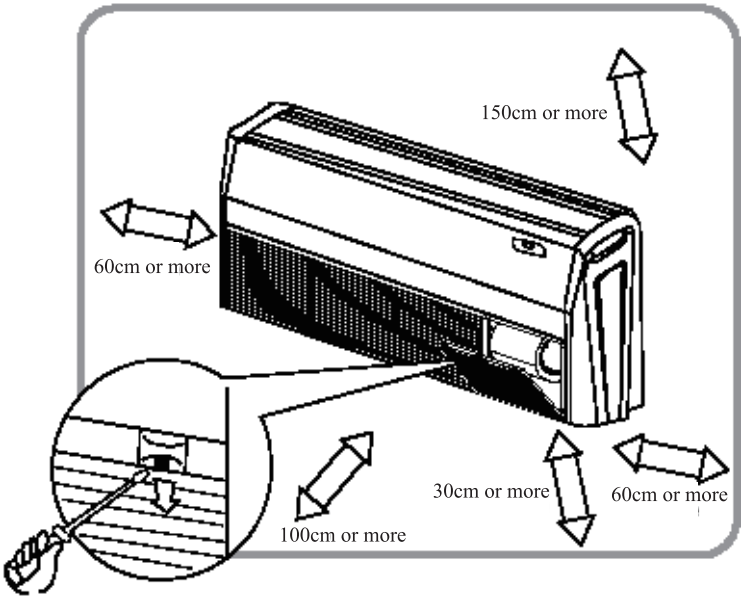


Fig.1

2 Important notice

a. The unit must be installed by the professional personnel according to this install instruction to ensure the well use.

Please contact the local NEPA spol.s.r.o 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 would not deal with on time by the inconvenience of the business contact.

b. It should be done by professional personnel when the air conditioner unit is moved to other place.

3 There are 2 styles of installation

* **Ceiling type**
* **Floor type**

Each type is similar to the other as follows:

a. Determine the mounting position on ceiling or wall by using paper pattern to indicate indoor frame. Mark the pattern and pull out the paper pattern.(Refer to Fig.2)

b. Remove the return grill, the side panel and the hanger bracket from the indoor unit as per procedure bellow.

* Press the fixing knob of the air intake grills, the grilles will be opened wider and then pull them out from the indoor.

* Remove the side panel fixing screw and pull to the front direction (arrow direction) to remove. Side panel fixing screw. (Refer to Fig.3)

* Loosen two hanger bracket setting bolts (M8) on eath side for less than 10mm. Remove two hanger bracket fixing bolts (M6) on the rear side. Detach the hanger bracker by pulling it backward (Refer to Fig.5).

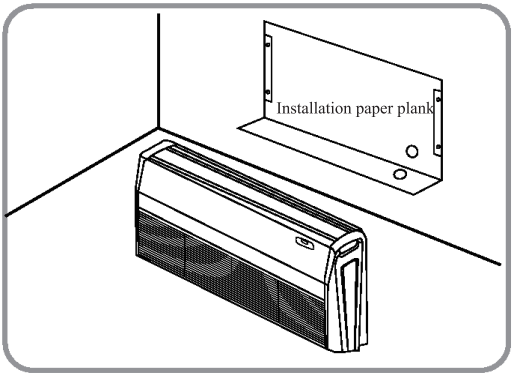


Fig.2

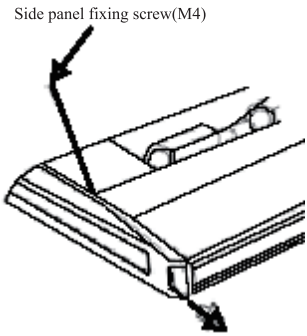


Fig.3

c. Set the suspension bolt. (Use W3/8 or M10 size suspension bolts)

* Adjust the distance from the unit to the ceiling slab beforehand. (Refer to Fig.4)

d. Fix the hanger bracket to the suspension bolt.

⚠ Warning !

* Make sure that extended suspension bolt from the ceiling stays inside the arrowed position. Readjust the hanger bracket when it is outside the arrowed position. (Refer to Fig.6)

* Suspension bolt stays inside the cap of indoor unit. Never remove the cap.

e. Lift the unit and slide forward unit the dent. (Refer to Fig.7)

f. Screw tightly both hanger bracket-setting bolts (M8). (Refer to Fig.5)

g. Screw tightly both hanger bracket-fixing bolts (M6) to prevent the movement of the indoor unit. (Refer to Fig.5)

h. Adjust the height so that rear side of the drainpipe slightly inclines to improve drainage.

⚠ Caution !

* Adjust the height by turning the nut with a spanner.

* Insert the spanner from the hanger bracket opening. (Refer to Fig.8)

In case of hanging

It is possible to install using inward facing hanger brackets by not removing the brackets from the indoor unit. (Refer to Fig.9)

Be sure to use only the specified accessories and parts for installation work.

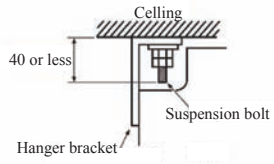


Fig.4

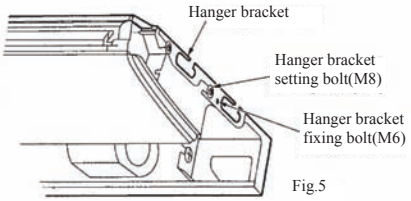


Fig.5

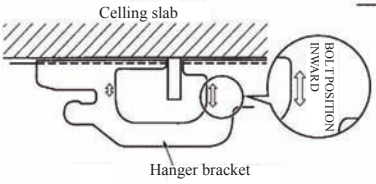


Fig.6

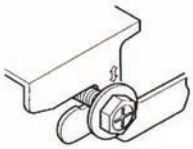


Fig.7

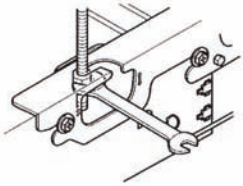


Fig.8

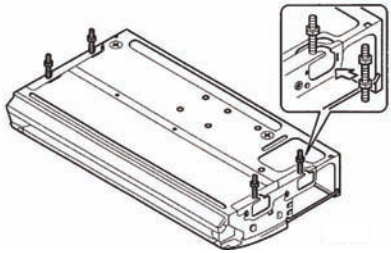
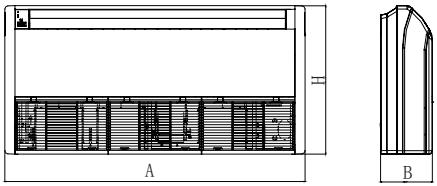


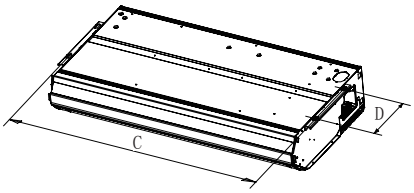
Fig.9

When installing the indoor unit, you can refer the paper pattern for installation, and make sure that the drainage side must be 10mm lower than the other side in order to drain the condensation water fluently.

Unit:mm

Model	A	B	H	C	D
MC-F09AI	1220	225	700	1158	280
MC-F12AI					
MC-F18AI					
MC-F24AI					





4 Electrical wiring

⚠ Caution: The power of every indoor unit should be connected in outdoor unit.

a. Open surface panel.

b. Remove the electrical box cover.

c. Route the power connection cord from the back of the indoor unit and pull it toward the front through the wiring hole upward.

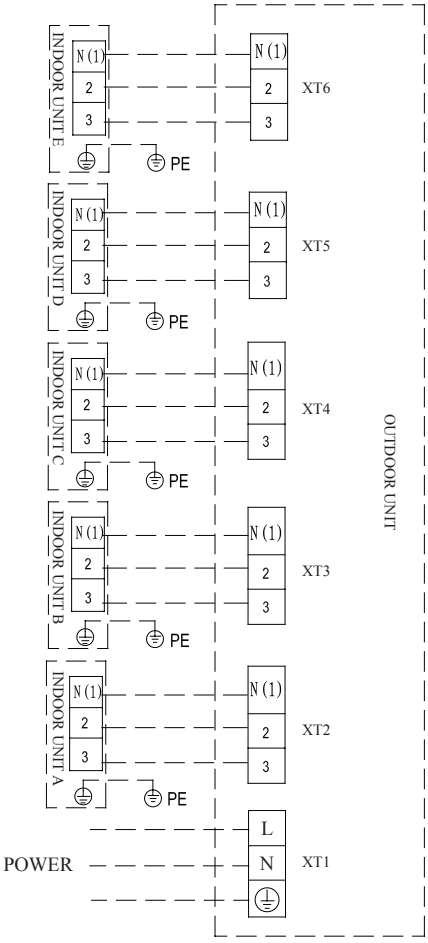
d. Connect the wiring (communication) through the piping hole of the chassis and the bottom of the appliance upward, then connect the brown wire to the Terminal board “3”;black wire(the communication wire) to the Terminal board“2”;blue wire to the Terminal board“N(1)”,and connect the earthing wire to the screw terminal on the electric box. Clamp them with the corresponding wire clamp packed in the chassis.

e. Reassemble the electrical box cover.

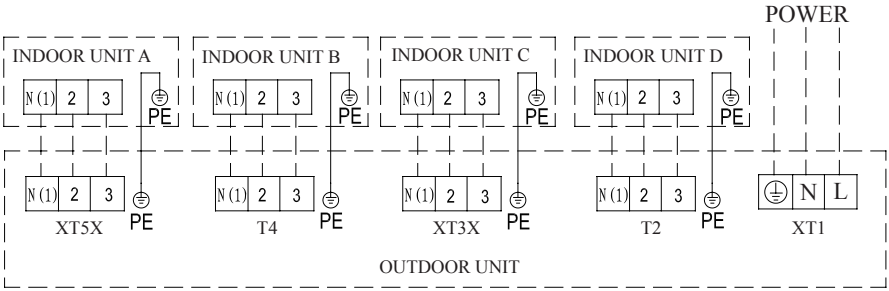
f. Recover the surface panel.

g. The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.

MC-E42AI



MC-E36AI



⚠ **Caution !**

① . The incorrect of wiring connecting would lead malfunction of some of the electric elements.

② . Make sure that the lead between the connect end and the clamp end has some need space after the wire is fixed.

③ . The appliance shall be installed in accordance with national wiring regulations.

5 Install the drainage pipe

Make sure the drain flows out

a. Drain piping.

＊ The drainpipe outlet direction can be chosen from either the right rear or right.

＊ The diameter of the drainpipe should be equal to or greater than the diameter of the connecting pipe.

＊ Keep the drain pipe short and incline downwards at a gradient of at least 1/100 to prevent air pockets. (Refer to Fig.10)

＊ Use the attached drain hose ④ and clamp ⑤ .

＊ Insert the drain hose completely into the drain socket. Tighten the clamp within the range of gray tape until the screw head is less than 4mm from the hose. (Refer to Fig.11,Fig.12)

＊ Wrap the attached sealing pad ⑪ over the clamp and drain hose to insulate. (Refer to Fig.12)

＊ No folding of drain hose inside the indoor unit. (Refer to Fig.13)

b. Confirm that smooth drainage is achieved after the piping work.

Pour 600cc of water into the drain pan from the air outlet for confirming drainage.(Refer to Fig.14)

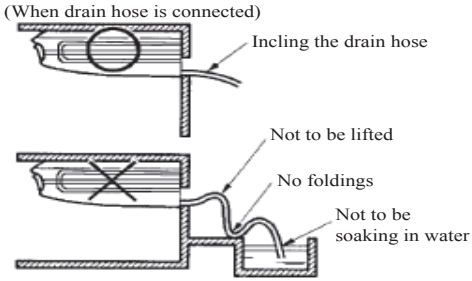


Fig.10

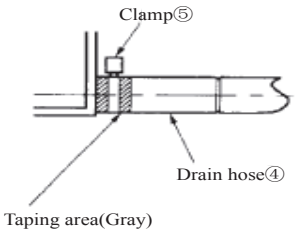


Fig.11

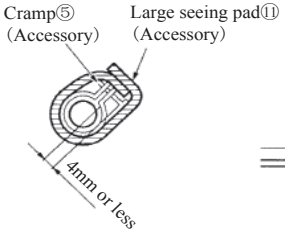


Fig.12

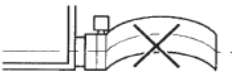


Fig.13

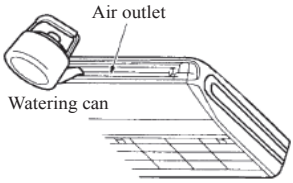


Fig.14

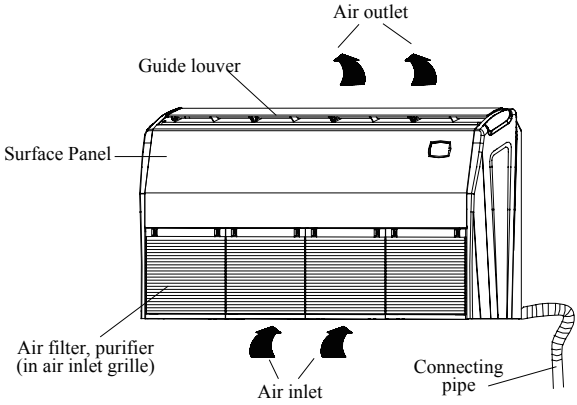
6 Install the connection pipes

Connect the connect pipe with the two relative leading pipe, tie the nut on tie–in of the connect pipe tightly.

⚠ **Caution !**

* Be careful in bending the connection pipes, or you will damage the pipes.
* If the tightening torque is too great in tightening the flare nut, leakage will happen.
* The temperature of refrigerant circuit will be high, please keep the interconnection away from the copper tube.

Ⅳ Constitutes and Names of Every Part of Floor And Ceiling Type Indoor Unit



Suitable model:

MC-F09AI, MC-F12AI, MC-F18AI, MC-F24AI

Note:The appearances will be same by the different models of air conditioners.

Ⅴ Working Temperature Range

Working Temperature Range

	Indoor side state		Outdoor side state	
	Dry bulb temp. ℃	Wet bulb temp.℃	Dry bulb temp. ℃	Wet bulb temp. ℃
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

Ⅵ Maintenance Method

⚠ Warning!

①. Do turn off the unit and cut off the main power supply when cleaning the air conditioner, otherwise electric shock may happened.

②. Do not make the air conditioner wet or electric shock may be lead; Ensure that the air conditioner will not be cleaned by water rinsing under any circumstance.

③. Volatility liquid like thinner or gasoline would damage the appearance of air conditioner. (So, only soft dry cloth and wet cloth moistened by neutral cleaning fluid could be used to clean the surface panel of air conditioner.)

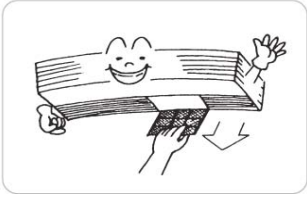
1 Cleaning the air filters

⚠ Warning!

Air filters should be cleaned by professionals with proper operation to ensure personal safety.

Suggestion:

If the air filter is dirty, it will cause the reduction of airflow. The unit is overloaded and consumes 6% more of electricity. So regular cleaning is necessary.



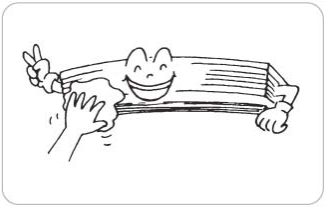
2 Cleaning the unit

Clean the air conditioner and the remote control with dry cloth or a vacuum cleaner. If damp cloth is used, remove moisture by using dry cloth afterward.

⚠ Caution !

①. Do not use benzene gasoline, thinners or polishing products for cleaning.

②. Do not wash with hot water (above 40℃). Some parts of the unit may be deformed.



3 At the start of the season

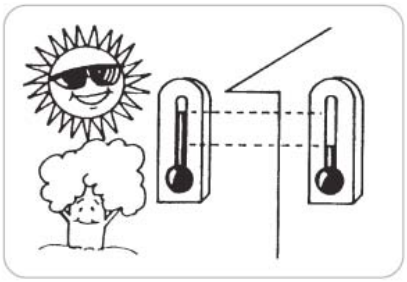
* Check if there is blockage in inlet or outlet vent of air conditioner.
* Check if the earth wire had earthed reliably by professional.
* Check if the batteries in wireless remote controller had been exchanged.
* Check if the air filter had been install well by professional.
* In order to start up the air conditioner smoothly after long time's turned off, turn on the main power supply 8 hours before turning on the air conditioner.
* Notice: all above should be operated by professional.

4 During the off season

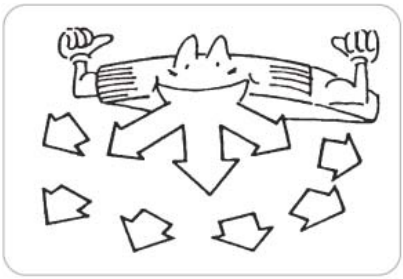
* Cut off the power supply main switch.
* Clean the air filters and other parts by professional.
* Leave the fan running for 2-3 hours to dry out the inside of the unit.
* Notice: all above should be operated by professional.

Ⅶ Operating Instructions

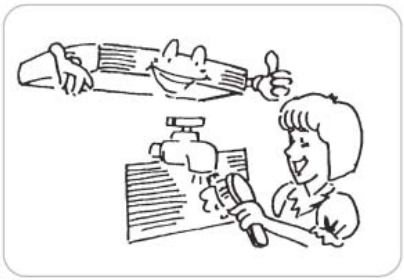
＊ The temperature should not be set lower than what you need. This would lead to increase energy cost.



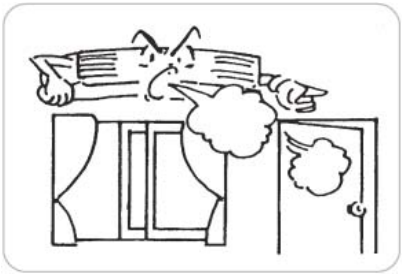
＊ To distribute cool air throughout the room, adjust airflow direction as shown by the arrows (see picture) to diffuse cool air.



＊ Clean the air filter every week for higher efficiency by professional.

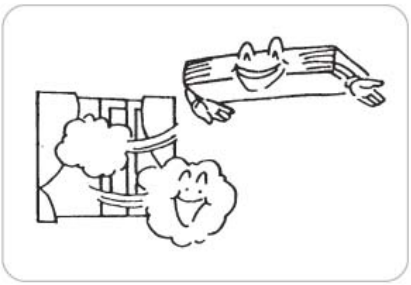


＊ Close window and door while operating the unit to prevent leakage of cooled air and save energy.



＊ Draw close curtains or close glass windows when cooling to prevent heat load from sun light which may cause more electricity cost.

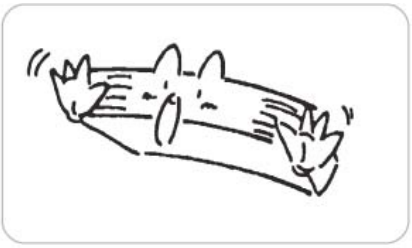
＊ In case of ineffective ventilation, open the window to ventilate the room air once in a while but not too long since cooled air will be uselessly drained out.



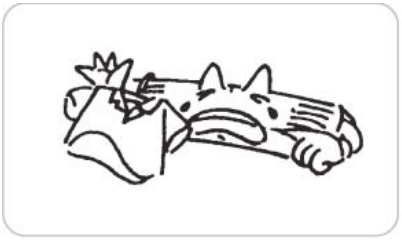
* Check electrical system (voltage and frequency). Use the power supply indicated on the unit to operate the air conditioner and only fuses with specified capacity it should be done by professional. Do not use pieces of wire instead of fuse.

* Turn off the air conditioner if, while the air conditioner is running, electricity interference occurs. If the unit is not to be used for a long time, cut off the power supply main switch.

* Do not insert objects into the air inlet or outlet when the air conditioner is running as it may cause damage or personal injury. Also pay special attention when children are around.



* Do not locate any obstacle against the air flow direction of indoor and outdoor unit. Otherwise, it can cause inefficient performance or malfunction.



* Do not channel the airflow directly at people, especially infants, aged persons, or patients.

* Do not locate a heater or any other heat source close to the unit. The heat may deform plastic parts.

Ⅷ Malfunction Analyzing

⚠ Warning !

Do not repair air conditioner by yourself for the incorrect repair would lead electric shock or fire. Please contact service center and had the unit repaired by specialized personnel. Check the following item before contacting to repair could save your time and cost.

Malfunction Phenomena	Malfunction Analyzing
The air conditioner can't start up just after turned off	The over load protect switch of the unit makes it runs after 3 mins delay
Odor gave out when the unit just turned on	This is because when air conditioning, odors or cigarette smoke from the room that was sucked in is discharged again.
Slight bicker was heard when the unit is running	This is the sound for inner refrigerant flowing
Mist come from air outlet vent when cooling	Indoor air is cooled rapidly
Creak sound is heard when running or after run	The grating sound caused by expands of panel and other parts for the change of temperature.
The air conditioner cannot run	Is power cut ? Is the power supply connected ? Is the circuit protector started aside ? Is the voltage too high or too low ? If TIMER had been set in wireless remote controller ? **Notice :all above should be operated by professional**
The cooling (heating) effect of the air conditioner is not good	Is the temp. set in proper ? Is the inlet, outlet vent of outdoor unit blocked ? Is the air filter too dirty to cause blockage ? Are windows and doors closed ? Is air quantity set to Low speed ? Is there other heating resource in room ?
Wireless remote controller cannot control	✲ Under the circumstance of changed batteries, the wireless remote controller sometimes would appear the phenomena of couldn't control. Take out the back cover and press "ACL" button to make it normal. ✲ The air conditioner is under abnormal disturbance orchanging function too frequently, to make wireless remote controller cannot control. Cut off main power switch and re-electrify could resume normal operation. Is the controller within the receiving area ? Or is there blockage ? Check if the voltages of batteries in wireless remotecontroller are enough; Otherwise change the btteries.

1 Service center

When the following phenomena appeared, please stop operating immediately, cut off main power supply of unit and contact service center for the conditioner.

✲ Harsh sound heard when running.

✲ The fuse or protector cut frequently.

✲ Substance or water pulled in the unit involuntary.

✲ Water leakage in room.

✲ Over heat of power cord.

✲ Odor is given out when running.

2 After-sales Service

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