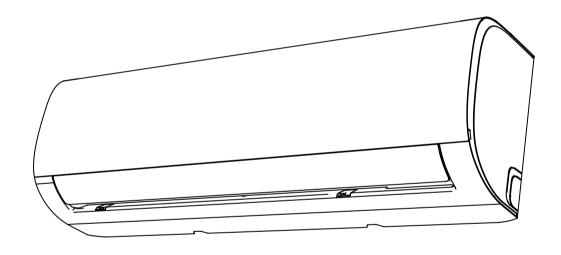


### **OWNER'S MANUAL**



# AIR CONDITIONER EDGE INVERTER SERIES



MODELS: OSH-09FRH

OSH-12FRH

OSH-18FRH

OSH-24FRH

Thank you very much for purchasing our air conditioner. Please read this owner's manual carefully before using your air conditioner. Make sure to save this manual for future reference.

### **Table of Contents**

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### Safety Precautions

### **Read Safety Precautions Before Installation**

Incorrect installation due to ignoring instructions can cause serious damage or injury. The seriousness of potential damage or injuries is classified as either a **WARNING** or **CAUTION**.



This symbol indicates that ignoring instructions may cause death or serious injury.



This symbol indicates that ignoring instructions may cause moderate injury to your person, or damage to your appliance or other property.



### WARNING

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

### Explanation of symbols displayed on the indoor unit or outdoor unit (For the unit adopts R32/R290 Refrigerant only):

|   | WARNING | This symbol shows that this appliance used a flammable refrigerant. If the refrigerant is leaked and exposed to an external ignition source, there is a risk of fire. |  |
|---|---------|---|--|
|   | CAUTION | This symbol shows that the operation manual should be read carefully.   |  |
| T | CAUTION | This symbol shows that a service personnel should be handling this equipment with reference to the installation manual.   |  |
|   | CAUTION |   |  |
| i | CAUTION | This symbol shows that information is available such as the operating manual or installation manual.  |  |

### Safety Precautions

### Symbols in this Use and Care Manual are interpreted as shown below.

Be sure not to do.



Grounding is essential.



Pay attention to such a situation.



Warning: Incorrect handling could cause a serious hazard, such as death, serious injury, etc.



Use correct power supply in accordance with the rating plate requirement. Otherwise, serious faults or hazard may occur or a fire maybe break out.

Keep the power supply circuit

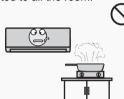
Connect the power supply cord

to it firmly and correctly, lest an electric shock or a fire break out due to insufficient contact.

breaker or plug from dirt.

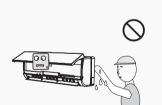


It is harmful to your health if the cool air reaches you for a long time. It is advisable to let the air flow be deflected to all the room.



Prevent the air flow from reaching the gas burners and stove.





Do not touch the operation buttons when your hands are wet.

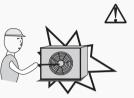


Do not use the power supply circuit breaker or pull off the plug to turn it off during operation. This may cause a fire due to spark, etc.



It is the user's responsibility to make the appliance be grounded. Turn off the appliance by remote according to local codes or ordinances by a licenced technician.

control firstly before cutting off power supply if malfunction occurs.



Never insert a stick or similar obstacle to the unit. Since the fan rotates at high speed, this may cause an injury.



Do not repair the appliance by yourself. If this is done incorrectly, it may cause an electric shock, etc.

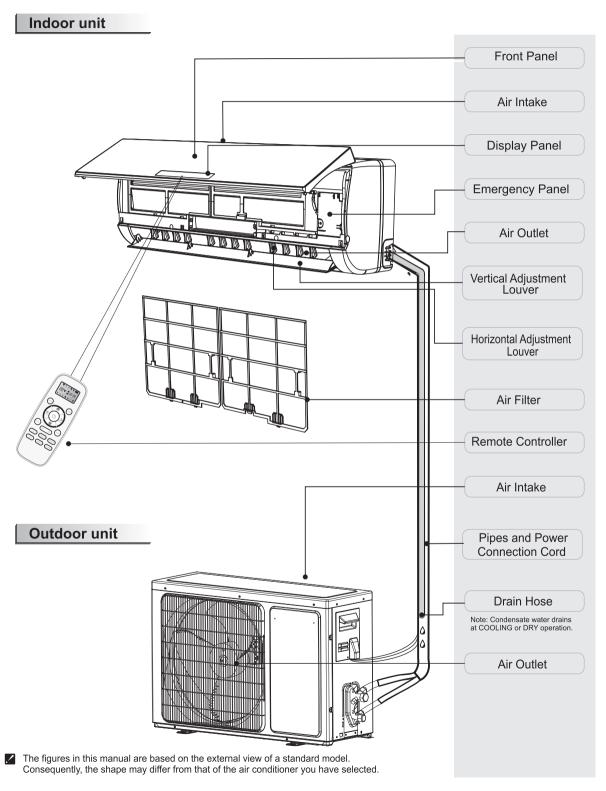


Do not put any objects on the outdoor



Do not knit, pull or press the power supply cord, lest the power supply cord be broken. An electric shock or fire is probably caused by a broken power supply cord.

### Identification of parts



### **Display introduction**

Temperature indicator

Displey set temperature.

It shows FS after 200 hours of usage as reminder to clean the filter. After filter cleaning press the filter reset button located on the indoor unit behind the front panel in order to reset the display. (optional)

2 Running indicator

It lights up when the AC is running. It flashes during defrosting.

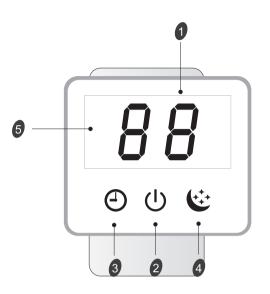
3 Timer indicator

It lights up in during set time.

Sleep indicator

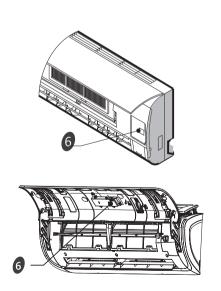
It lights up in sleep mode.

Signal Receptor



### 6 Emergency button

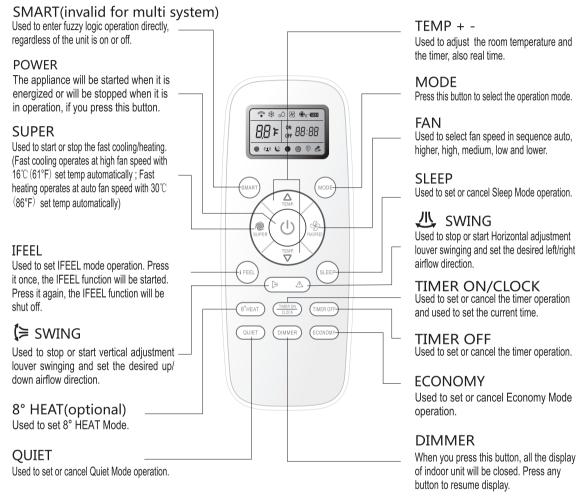
To let the AC run or stop by pressing the button.



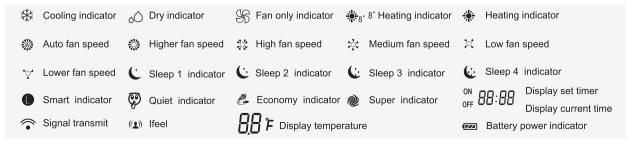
### Remote controller

### Remote controller

The remote controller transmits signals to the system.



#### Indication symbols on LCD:



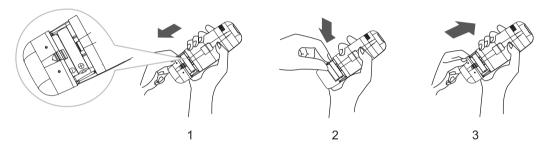
Note: Each mode and relevant function will be further specified in following pages.

### Remote controller

### Remote controller

#### ♦ How to Insert the Batteries

- 1. Remove the battery cover according to the arrow direction.
- 2. Insert new batteries making sure that the (+) and (-) of battery are matched correctly.
- 3. Reattach the cover by sliding it back into position.



#### Note:

 Use 2 LR03 AAA(1.5volt) batteries. Do not use rechargeable batteries. Replace batteries with new ones of the same type when the display becomes dim.

#### ◆ Storage and Tips for Using the Remote Controller

The remote controller may be stored mounted on a wall with a holder.

Note: The remote controller holder is an optional part.



#### ♦ How to Use

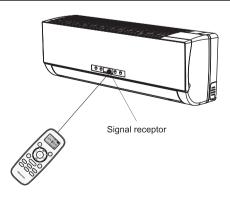
To operate the room air conditioner, aim the remote controller to the signal receptor. The remote controller will operate the air conditioner at a distance of up to 7m whenpointing at signal receptor of indoor unit.

### **A** CAUTIONS

For appropriate signal transmission between remote controller and indoor unit, keep the signal receiver away from the following items:

- Direct sunlight or other strong lights or heat
- Flat panel television screen or other electrical appliances that react to the remote controller

Additionally, the air conditioner will not operate if curtains, doors or other materials block the signals from the remote controller to the indoor unit. If the signal may not be transmitted properly, either move these materials or consult your local dealer.



### **Operation modes**

### Selecting mode

Press MODE

button once by once

Result:

The operation modes changed in sequence:



Heating mode is NOT available for cooling only air conditioner.

#### ◆ FAN mode

Press

SAN SPEED

button once by once

Result:

The fan speed is changed in sequence:



∠ At "FAN ONLY" mode, the "AUTO" is not available.

At "DRY" mode, Fan speed is set at "AUTO" automatically, "FAN" button is ineffective in this case.

### ◆ Setting temperature

Press (A)

button once

Result:

Raise temperature setting by 1°C or 1°F

Press (TEMP

button once

Result:

Lower temperature setting by 1°C or 1°F

| Range of available set temperature |                     |  |
|------------------------------------|---------------------|--|
| *HEATING, COOLING                  | 16℃~30℃ (61°F~86°F) |  |
| DRY                                | <b>-7 ∼ 7</b>       |  |
| FAN ONLY                           | unable to set       |  |
|                                    |                     |  |

\*Note: Press and hold " house in button and " button together for 3 seconds will alternate the temperature display between the °C and °F scale.

\*Note: Heating mode is NOT available for cooling only models.

\*Note: At "Dry" mode, a decrease or rise of up to 7°C can be set

with Remote controller if you still feel uncomfortable.

### **◆ Turning on**

Press



button.

Result:

The RUN indicator of the indoor unit lights up.

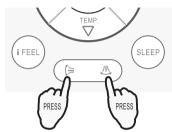
SWING, SMART, TIMER ON, TIMER OFF, CLOCK, 8°HEAT, SLEEP and SUPER operation modes will be specified in the following pages.

- Changing modes during operation, sometimes the unit does not response at once. Wait 3 minutes.
  - During heating operation, air flow is not discharged at the beginning. After 2—5 minutes, the air flow will be discharged until temperature of indoor heat exchanger rises.
  - · Wait 3 minutes before restarting the appliance.

### Airflow direction control

Vertical airflow(Horizontal airflow) is automatically adjusted to a certain angle in accordance with the operation mode after turning on the unit.

| Operation mode        | Direction of airflow |
|-----------------------|----------------------|
| COOLING, DRY          | horizontal           |
| *HEATING,<br>FAN ONLY | downward             |



The direction of airflow can be also adjusted to your own requirement by pressing the "(> \_ \_ \_ \_ b) " button of the remote controller.

\*Heating mode is only available for heat pump models.

### Vertical airflow control (with the remote controller)

Using remote controller to set various angles of flow or specific angle as you like.

Press " () button once.

**Result:** The vertical adjustment louver will swing up and down automatically.



Press " 📜 " button again .

**Result:** The louvers swing to a suitable angle as desired.



### Horizontal airflow control (with the remote controller)

Using remote controller to set various angles of flow or specific angle as you like.

Press " U " button once.

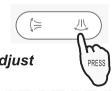
**Result:** The horizontal adjustment louver will swing left and right automatically.



Press " July " button again .

**Result:** The louvers swing to a suitable angle as desired.

NOTE:If the unit doesn't have four ways airflow function, you can adjust horizontal airflow by yourself.



- Do not turn the vertical adjustment louvers manually, otherwise malfunction may occur. If that happens, turn off the unit first and cut off the power supply, then restore power supply again.
  - B It is better not to let the vertical adjustment louver tilt downward for a long time at COOLING or DRY mode to prevent condensed water from dripping.

### **SMART mode(**invalid for multi system)

### ♦ How to set SMART mode?

Press the

s (SMART) b

button.

Result:

Enters **SMART** mode(fuzzy logic operation) directly regardless of the unit is on or off.

Temperature and fan speed are automatically set based on theactual room temperature.



Heat pump models

| ricat parrip moders |                |   |
|---------------------|----------------|---|
| Indoor temperature  | Operation mode | Target temperature  |
| 21°C(70°F) or below | HEATING        | 22°ℂ(72°F)  |
| 21℃-23℃(70°F-73°F)  | FAN ONLY       |   |
| 23℃-26℃(73°F-79°F)  | DRY            | Room temperature<br>decrease 2℃(2°F) after<br>operate for 3 minutes |
| Over 26°C(79°F)     | COOLING        | 26°C(79°F)  |

#### Cooling only models

| 5 · 5 · · · · · ·   |                |   |  |
|---------------------|----------------|---|--|
| Indoor temperature  | Operation mode | Target temperature  |  |
| 23°C(73°F) or below | FAN ONLY       |   |  |
| 23℃-26℃(73°F-79°F)  | DRY            | Room temperature<br>decrease 2℃(2°F) after<br>operate for 3 minutes |  |
| Over 26°C(79°F)     | COOLING        | 26°C(79°F)  |  |

SMART button is ineffective in SUPER mode.

**ECONOMY** button is ineffective in SMART mode.

Press MODE button cancel SMATR mode.

Note: Temperature, airflow and direction are controlled automatically in SMART mode. However, for the inverter you can choose from -7 to 7. if you still feel uncomfortable.

### ♦ What you can do in SMART mode?

| Your feeling   | Button                   | Adjust  |
|--|--------------------------|---|
| Uncomfortable because of unsuitable air flow volume. | 140 1722                 | Indoor fan speed alternates among Higher, High,<br>Medium, low and Lower each time when this button<br>is pressed.  |
| Uncomfortable because of unsuitable flow direction.  | (\(\sum_{\text{\beta}}\) | Press it once, the vertical adjustment louver(horizontal adjustment louver) swings to change vertical airflow direction(horizontal airflow direction). Press it again, the swing stops. |

### ♦ How to cancel the SMART mode?

Press the

button.

**Result:** The SMART mode will be cancelled.



### 8°HEAT mode

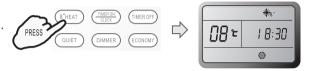
8°HEAT mode is used to set 8° heating mode.

In 8°HEAT mode, the fan speed is set at "AUTO" automatically.

#### ♦ How to set 8°HEAT mode?



**Result:** The 8° heat mode will be started.



### ♦ How to cancel 8°HEAT mode?

Press any button except for (TIMEROFF) and () and ().

**Result:** The display **\***<sup>®</sup> will disappear and the 8°HEAT mode will be cancelled.

Note:

In 8°HEAT mode, the default temperature is set 8°C.

8° HEAT mode can be set only when the air conditioner works in the heating mode.

#### **SUPER** mode

**SUPER** mode is used to start or stop fast cooling or heating.

**SUPER** mode can be set when the appliance is in operation or energized.

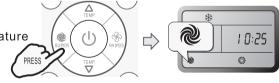
In SUPER mode, you can set airflow direction or timer.

#### ♦ How to set SUPER mode?

Press super button at the cool mode.

**Result:** At higher fan speed, the set temperature

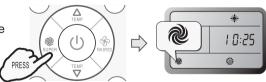
automatically to 16°C(61°F).



Press Super button at the heat mode.

**Result:** At auto fan speed, the set temperature

automatically to 30°C(86°F).



### How to cancel SUPER mode?

Press SUPER, MODE, FAN, ON/OFF or SLEEP button.

**Result:** The display return to the original mode.

Escape from SUPER mode.



Note:

SMART button is not available in SUPER  $\,$  mode.

ECONOMY button is not available in SUPER mode.

The Appliance will continue working in SUPER mode for 15 minutes, if you don't escape from it by pressing any of the buttons mentioned above.

### **Timer mode**

It is convenient to set the timer on with **TIMER ON/CLOCK and TIMER OFF** buttons when you go out in the morning to achieve a comfortable room temperature at the time you get home. You can also set timer off at night to enjoy a good sleep.

#### ♦ How to set TIMER ON?

1. Press TIMERON CLOCK

button.

Result: "ON 12:00" flashes on the LCD.

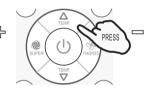


2. Press the or button.

**Result:** Once to increase or decrease the time setting by 1 minute.

One and a half seconds to increase or decrease the time setting

by 10 minute.
For a longer time to increase or decrease the time by 1 hour.



3. When your desired time displayed on LCD, press the TIMER ON button and confirm it.

Result: A "beep" can be heard.

"ON" stops flashing.

The TIMER indicator on the indoor unit lights up.



4. After the set timer displayed for 5 seconds the clock will be displayed on the LCD of the remote controller instead of set timer.

#### ♦ How to cancel TIMER ON?

Press the (TIMERON ) button again.

Result: A "beep" can be heard and the indicator disappears,

the time on mode has been canceled.

Note: It is similar to set TIMER OFF, you can make the appliance switch off automatically at your desired time.



### **QUIET** mode

In this mode, the air conditioner will work with low noise performance by low compressor frequency and low fan speed. This mode is only available for inverter models.

Note: Press MODE, FAN, SMART, SUPER button can cancel QUIET mode.

## PRESS QUIET DIMMER (ECONOMY)

### **ECONOMY** mode

In this mode, the air conditioner will bring you energy saving performance by lower running currency.

ECONOMY button is ineffective in SMART and SUPER mode.

Press ON/OFF , MODE ,TEMP △ ,TEMP ▽ , FAN SPEED , SLEEP , QUIET or ECONOMY button cancel ECONOMY mode.

### **CLOCK** button

### ♦ How to adjust the real time?

1. Press TIMER ON CLOCK butt

button about 3 seconds.

**Result:** The time flashes on the LCD.





2. Press △ and ▽ buttons.

**Result:** Once to increase or decrease the time setting by 1 minute.

One and a half seconds to increase or decrease the time setting

by 10 minute.

For a longer time to increase or decrease the time by 1 hour.



3. Press CIMERON button again about 3 seconds.

Result: The real time is set.





### **IFEEL** mode

The temperature sensor built in remote controller is activated. It can sense its surrounding temperature, and transmit the signal back the unit, the unit can adjust the temperature so as to provide maximum comfort.

### ♦ How to set IFEEL mode ?

Press the

button

Result: The transmit signal in the display will appear,

and the IFEEL function will be started.



Note:

Advice to put the remote controller in the place where the indoor unit receive signal easily. Advice to cancel the IFEEL mode so as to save energy when stopping the air conditioner.

### How to cancel IFEEL mode?

Press the

button once again.

Result: The transmit signal in the display will disappear.

and the IFEEL function will be shut off.



### **Dimmer button**

### How to set the DIMMER?

Press the (DIMMER) button to turn off the light and the display in the unit.

Note:

When the light is off, receive signal will turn on the light again.



### **SLEEP** mode

SLEEP mode can be set in COOLING ,HEATING or DRYING mode.

This function gives you a more comfortable environment for sleep.

- The appliance will stop operation automatically after operating for 8 hours.
- Fan speed is automatically set at low speed.

#### ♦ How to set SLEEP mode?

Each time steep button is pressed.

Result: The operation mode is changed in sequence:

SLEEP 1 
SLEEP 2 
SLEEP 3 
SLEEP 4 
QUIT SLEEP MODE

#### SLEEP mode 1:

- Set temperature will rise by 2°C(2°F) at most if the appliance operates in cooling mode for 2 hours constantly, then keeps steady.
- Set temperature will decrease by 2°C(2°F) at most if the appliance operates in heating mode for 2 hours constantly, then keeps steady.

#### SLEEP mode 2:

- Set temperature will rise by 2°C(2°F) if the appliance operates in cooling mode for 2 hours constantly, decrease by 1°C(1°F) after 6 hours, then decrease by 1°C(1°F) after 7 hours.
- Set temperature will decrease by  $2^{\circ}C(2^{\circ}F)$  if the appliance operates in heating mode for 2 hours constantly, rise by  $1^{\circ}C(1^{\circ}F)$  after 6 hours, then rise by  $1^{\circ}C(1^{\circ}F)$  after 7 hours.

### **SLEEP mode 3:**

- Set temperature will rise by  $1^{\circ}\mathbb{C}(1^{\circ}F)$  if the appliance operates in cooling mode for 1 hour , rise by  $2^{\circ}\mathbb{C}(2^{\circ}F)$  after 2 hours, then decrease by  $2^{\circ}\mathbb{C}(2^{\circ}F)$  after 6 hours, decrease by  $1^{\circ}\mathbb{C}(1^{\circ}F)$  after 7 hours.
- Set temperature will decrease by 2°C(2°F) if the appliance operates in heating mode for 1 hour, decrease by 2°C(2°F) after 2 hours, then rise by 2°C(2°F) after 6 hours, rise by 2°C(2°F) after 7 hours.

### SLEEP mode 4:

Set temperature will keeps steady.

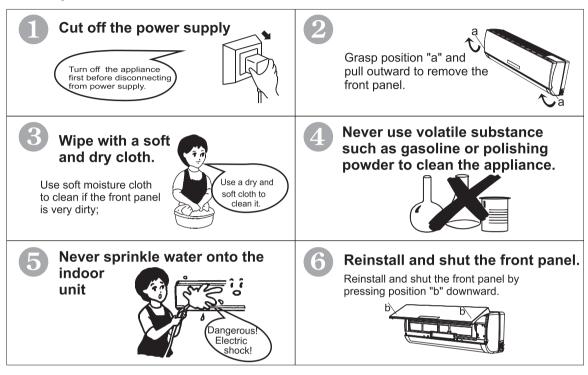
Note: Press SUPER, SMART, MODE or FAN button cancel SLEEP mode.

Note: By pressing "Sleeping mode" four times, or selecting other modes like SUPER, SMART, OR FAN, you could cancel the sleeping function of those units without four sleeping curves.

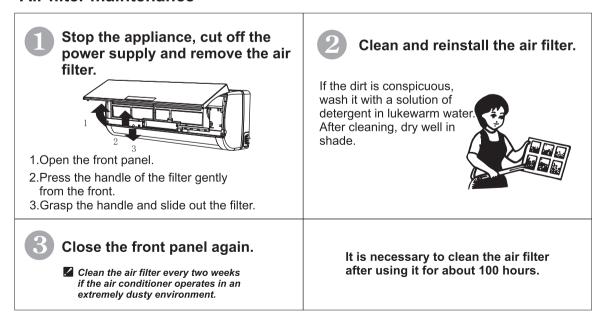
Note: Heating is NOT available for cooling only air conditioner.

### **Maintenance**

### • Front panel maintenance



### Air filter maintenance



### **Protection**

### Operating condition

#### Operating temperature

| Temperat              | ure | Cooling operation(DB/WB) | Heating<br>operation(DB/WB) | Drying operation(DB/WB) |
|-----------------------|-----|--------------------------|-----------------------------|-------------------------|
| Indoor<br>temperature | max | 32°C/23°C                | 27°C/18°C                   | 32°C/23°C               |
|                       | min | 21°C/15°C                | 20°C/15°C                   | 18°C                    |
| Outdoor               | max | 43°C/26°C                | 24°C/18°C                   | 43°C/26°C               |
| temperature           | min | -15°C/-16°C              | -15°C/-16°C                 | 21°C                    |

#### NOTE:

The temperature of some products is allowed beyond the range. In specific situation, please consult the merchant. If the air conditioner runs in COOLING or DRY mode withdoor or window opened for a long time when relative humidity is above 80%, dew may drip down from the outlet.

### Noise pollution

- Install the air conditioner at a place that can bear its weight in order to operate more quietly.
- Install the outdoor unit at a place where the air discharged and the operation noise would not annoy your neighbors.
- Do not place any obstacles in front of the air outlet of the outdoor unit lest it increases the noise level.

### Features of protector

- 1. The protective device will work at following cases.
- Restarting the unit at once after operation stops or changing mode during operation, you need to wait for 3 minutes.
- Connect to power supply and turn on the unit at once, it may start 20 seconds later.
- 2. If all operation has stopped, press **ON/OFF** button again to restart, Timer should be set again if it has been canceled.

### Features of HEATING mode

#### Preheat

At the beginning of the HEATING operation, the airflow from the indoor unit is discharged 2-5 minutes later.

### Defrost

In **HEATING** operation the appliance will defrost (de-ice) automatically to raise efficiency.

This procedure usually lasts 2-10 minutes. During defrosting, fans stop operation.

After defrosting completes, it returns to **HEATING** mode automatically.

Note: Heating is NOT available for cooling only air conditioner models.

<sup>\*</sup>Optimum performance will be achieved within these operating temperature. If air conditioner is used outside of the above conditions, the protective device maybe trip and stop the appliance.

<sup>\*</sup>For Tropical (T3) Climate condition models, the temperature point is 55°Cinstead of 43°C.

### **Troubleshooting**

The following cases may not always be a malfunction, please check it before asking for service.

| Trouble  | Analysis   |
|--|--|
| Does not run   | <ul> <li>If the protector trip or fuse is blown.</li> <li>Please wait for 3 minutes and start again, protector device may be preventing unit to work.</li> <li>If batteries in the remote controller exhausted.</li> <li>If the plug is not properly plugged.</li> </ul> |
| No cooling or heating air  | <ul> <li>Is the air filter dirty?</li> <li>Are the intakes and outlets of the air conditioner blocked?</li> <li>Is the temperature set properly?</li> </ul>  |
| Ineffective control  | If strong interference(from excessive static electricity discharge, power supply voltage abnormality)presents, operation will be abnormal. At this time, disconnect from the power supply and connect back 2-3 seconds later.  |
| Does not operate immediately   | Changing mode during operation, 3 minutes will delay.  |
| Peculiar odor  | <ul> <li>This odor may come from another source<br/>such as furniture, cigarette etc, which is<br/>sucked in the unit and blows out with the air.</li> </ul>   |
| A sound of flowing water   | <ul> <li>Caused by the flow of refrigerant in the air conditioner, not a trouble.</li> <li>Defrosting sound in heating mode.</li> </ul>  |
| Cracking sound is heard  | <ul> <li>The sound may be generated by the expansion<br/>or contraction of the front panel due to change<br/>of temperature.</li> </ul>  |
| Spray mist from the outlet   | <ul> <li>Mist appears when the room air becomes<br/>very cold because of cool air discharged<br/>from indoor unit during COOLING or DRY<br/>operation mode.</li> </ul>   |
| The running indicator flashes on constantly, and indoor fan stops.   | The unit is shifting from heating mode to defrost. The indicator will flash within twelve minutes and returns to heating mode.   |
| Mode interfere For the reason that all indoor units use one outdoor unit, outdoor unit can only run with same mode (cooling or heating),so,when the mode you set is different from the mode that outdoor is running with, mode interfere occurs. Following shows the mode interfere scene. | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |

### European Disposal Guidelines

This appliance contains refrigerant and other potentially hazardous materials. When disposing of this appliance, the law requires special collection and treatment. **Do not** dispose of this product as household waste or unsorted municipal waste.

When disposing of this appliance, you have the following options:

- Dispose of the appliance at designated municipal electronic waste collection facility.
- When buying a new appliance, the retailer will take back the old appliance free of charge.
- The manufacturer will take back the old appliance free of charge.
- Sell the appliance to certified scrap metal dealers.

### **Special notice**

Disposing of this appliance in the forest or other natural surroundings endangers your health and is bad for the environment. Hazardous substances may leak into the ground water and enter the food chain.

