SAFETY PRECAUTIONS

1. Before using the appliance, read this manual thoroughly and operate under its direction.
2. “CAUTION” and “DANGER” have the following meanings in these instructions:

DANGER！： This mark indicates procedures which, if improperly performed, might lead to the death or serious injury of the users.

CAUTION！： This mark indicates procedures which, if improperly performed, might possibly result in personal harm to the user, or damage to property.

DANGER！

- Do not use or place combustible and explosive gas or liquid near the air conditioner.
- Do not attempt to install this unit by yourself.
- In the event of a malfunction (burning smell, etc.), immediately stop operation and turn off the electrical breaker.
- The indoor air must be well ventilated so that oxygen deficiency accident can be avoided.
- Do not insert fingers or objects into the outlet port or intake grilles.
- Do not start or stop air conditioner operation by turning on or off the electrical breaker and so on.

CAUTION！

- Before install, ensure the power supply correspond to the nameplate and check the security of the power source.
- To avoid refrigerant and water leakage, fire or electric shock, make sure that the wires, pipes and drain hose are proper before operation.
- The system should not be operated by children.
- Do not handle the air conditioner with a wet hand.
- Always turn off the electrical breaker whenever cleaning the air conditioner or changing the air filter.
- Turn off power source when not using the unit for extended periods.
- Do not expose the air conditioner to damp or corrosive environment.
- Do not climb on or place objects on the air conditioner.

STRUCTURE AND COMPONENTS

The air conditioner consists of an indoor unit and an outdoor unit, while connecting pipes and duct are excluded in the system.

Fig.1 **Round Flange** **Square Flange**

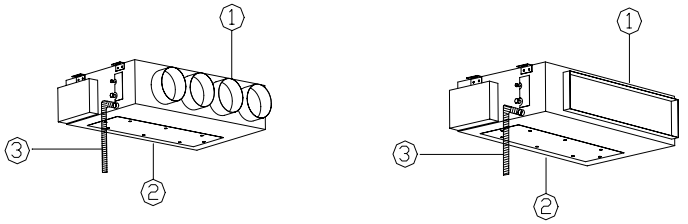

Fig.2

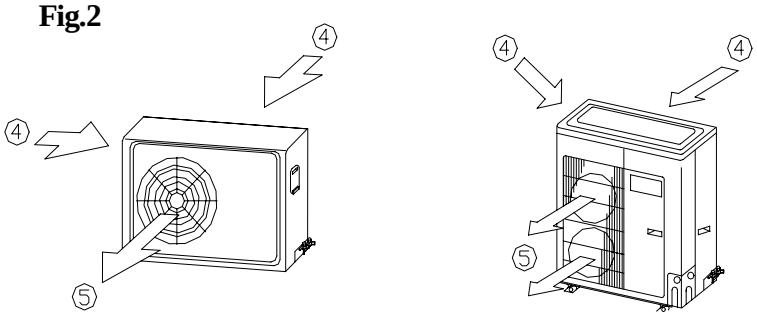

Fig.1 Indoor Unit

① **Outlet Port**
② **Intake Port**
③ **Drain Hose**

Fig.2 Outdoor Unit

④ **Intake Port**
⑤ **Outlet Port**

Notice: The default flange is square. The round one can be ordered as an attachment. The three-port round flange is for KF(R)-65P and KF(R)-75P while the four-port one is for KF(R)-100P and KF(R)-120P.

CONTROLS AND FUNCTION

1. CONTROL PANEL(Fig.3)

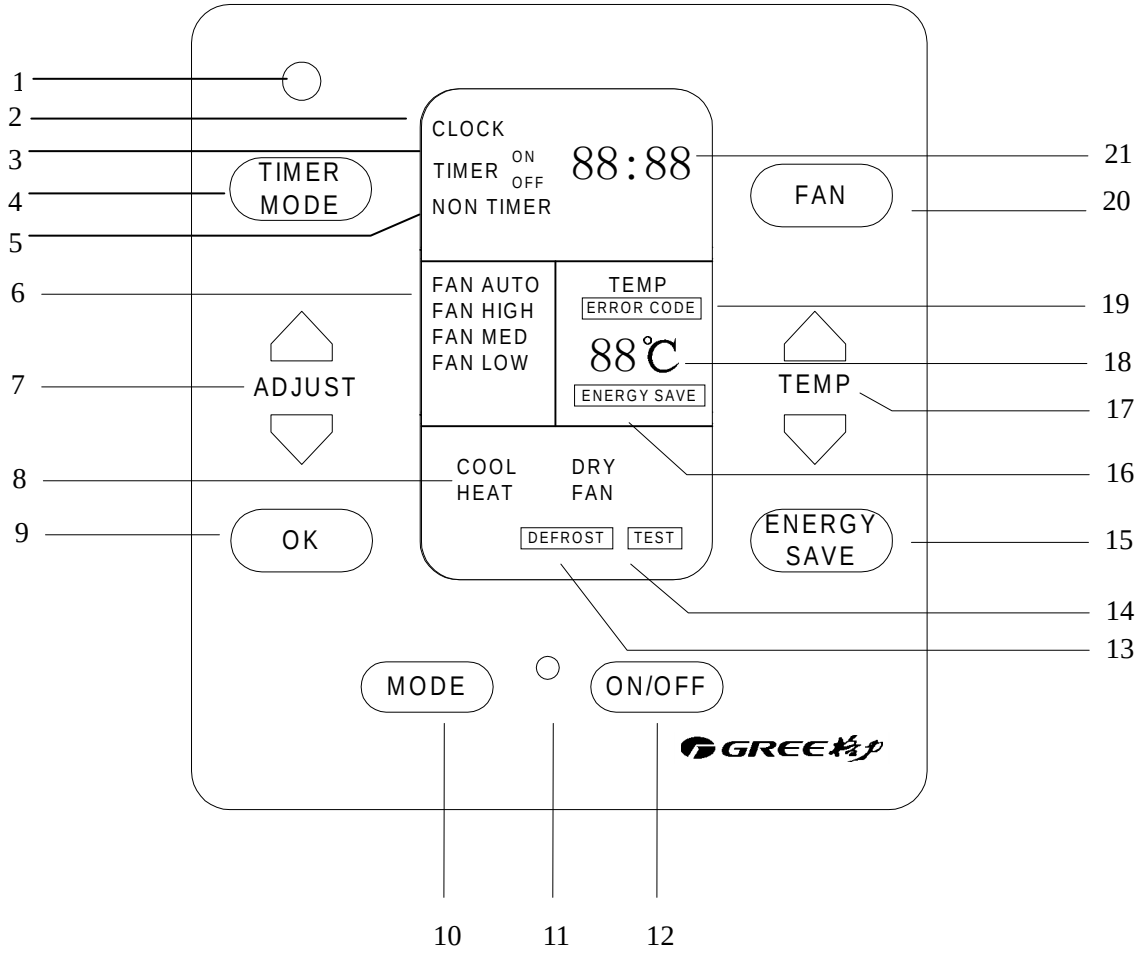

Fig.3

1 WIRELESS REMOTE CONTROL SIGNAL RECEIVER	12 ON/OFF
2 CLOCK	13 DEFROST
3 TIMER ON, OFF	14 TEST
4 TIMER MODE	15 ENERGY SAVE BUTTON
5 NON TIMER (TO CANCEL TIMER ON OR TIMER OFF)	16 ENERGY SAVE
6 FAN AUTO, FAN HIGH, FAN MED, FAN LOW	17 TEMPERATURE ADJUST BUTTON
7 TIME ADJUST BUTTON	18 TEMP DISPLAY
8 OPERATION MODE DISPLAY(COOL, DRY, HEAT, FAN)	19 ERROR CODE
9 OK	20 FAN CONTROL BUTTON
10 MODE	21 TIME DISPLAY
11 OPERATION LAMP	

2. HOW TO OPERATE

(1) ON/OFF

- Press the "**ON/OFF**" switch, the air conditioner will start operating and the operation lamp will light up.
- Press the "**ON/OFF**" switch again, then the air conditioner will stop operating and the operation lamp will go out (Fig.4).

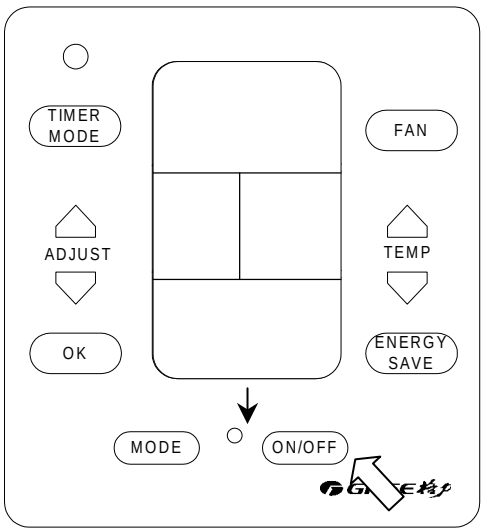

Fig.4

(2) TIMER MODE setting

- Each time the button is pressed, the timer mode will change in the following order.

→ CLOCK(HOUR) → CLOCK(MINUTE) → TIMER ON(HOUR) → TIMER ON(MINUTE) → TIMER OFF(HOUR) → TIMER OFF(MINUTE) → EXIT TIMER MODE

- When **CLOCK** is shining, hour of the time will be displayed, and the push on the "**TIME ADJUST**" button at that time will set to a desired hour, (Fig.5)

: use to advance the time forward

: use to turn the time back

After hour is set, press the "**TIMER MODE**" to set minute, and the push on the "**TIMER ADJUST**" button will set to a desired minute (Fig.6). Pres the "OK" button to confirm and exit TIMER MODE setting. Setting TIMER ON or TIMER OFF is the same way of CLOCK adjustment.

("**TIME ADJUST**" button will increase/ decrease the time by every hour [or minute].)

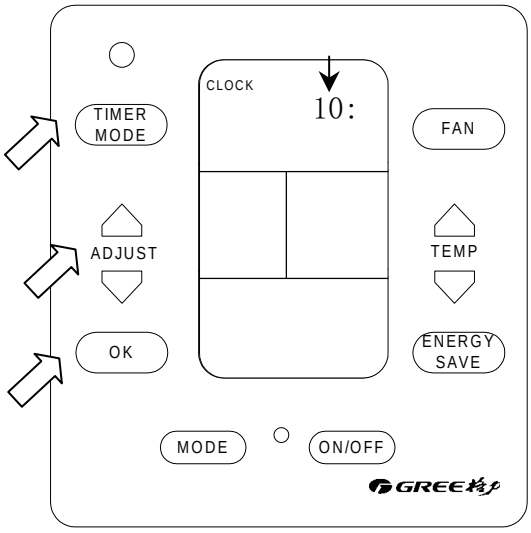

Fig.5: set the time of hour at 10 o'clock.

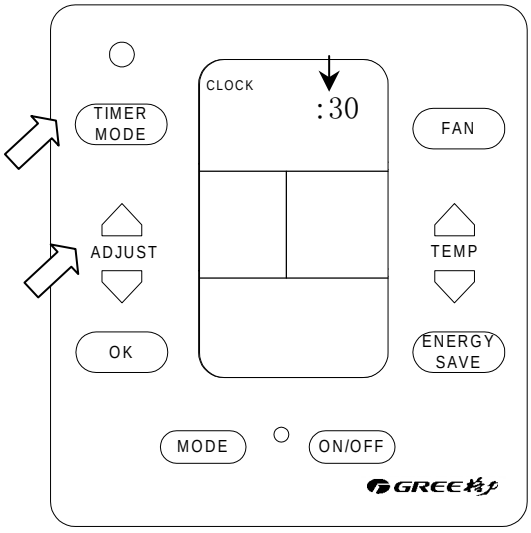

Fig.6: set the time of minute at 30

❖ When **TIMER ON** displayed, time for starting the unit (automatically) can be set in the same way of time adjustment.

❖ When **TIMER OFF** displayed, time for stop the unit (automatically) can be set in the same way of time adjustment.

❖ Not in TIMER MODE setting, press "**TIMER ADJUST**":

△ display **TIMER ON** (**TIMER OFF**), press "**OK**" button to choose timer.(Fig.7)

▽ display **NON TIMER** (**TIMER OFF** or **TIMER ON**) press "**OK**" button to cancel **TIMER OFF** or **TIMER ON**.(Fig.8)

NOTICE:

During all these time setting procedures, no push on any button for over 15 seconds will lead to return to current time display.

If the time of **TIMER ON** and **TIMER OFF** are the same, the alarm will warning.

(3) FAN CONTROL

❖ Each time the button is pressed, the fan speed changes in the following order:

→AUTO→HIGH→MED→LOW

❖ When set to FAN **AUTO**: (Fig.9)

HEATING and COOLING: The fan speed will vary with the room temperature.

FAN: The fan speed will automatically be set on **MED**.

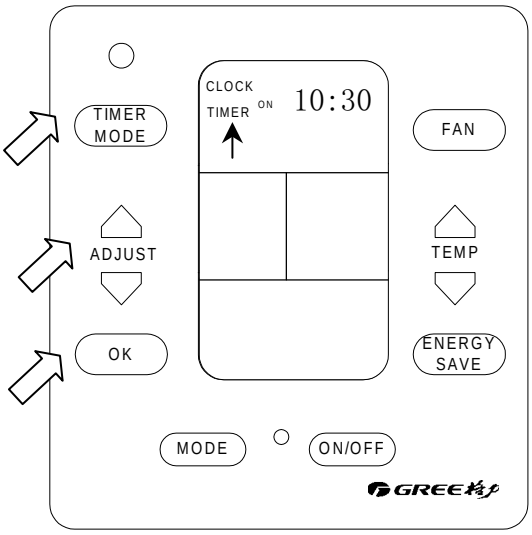

Fig.7: the LCD displays TIMER ON when setting the TIMER function

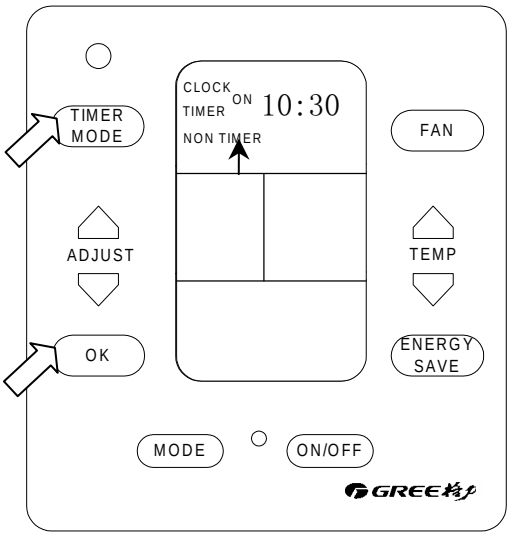

Fig.8: set NON TIMER(the LCD doesn't display).

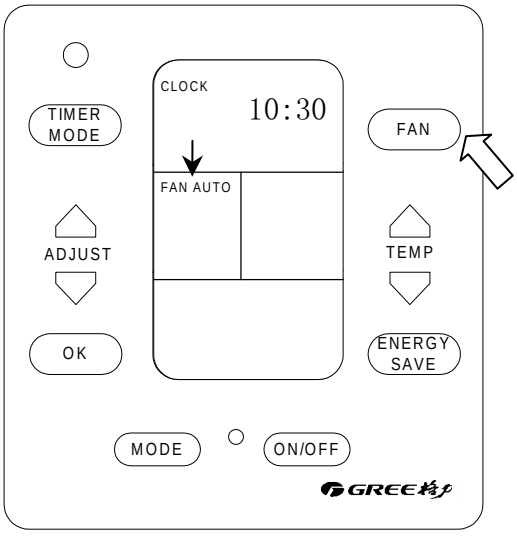

Fig.9: set the FAN AUTO.

(4) TEMPERATURE ADJUST

- Press the "**TEMPERATURE ADJUST**" button, the temperature setting will be displayed (usually the room temperature is shown in the LCD[liquid crystal displayer]) .(Fig.10)

: press it to raise the temperature setting

: press it to lower the temperature setting

(Press once to change the temperature 1℃)

- Temperature setting range in various operation mode:

HEAT———————— 16℃～30℃

COOL———————— 16℃～30℃

DRY ———————— 16℃～30℃

FAN ———————— can not set temperature

NOTICE: When temperature is adjusted, no push on any button for over 15 seconds will lead to return to the current indoor temperature display.

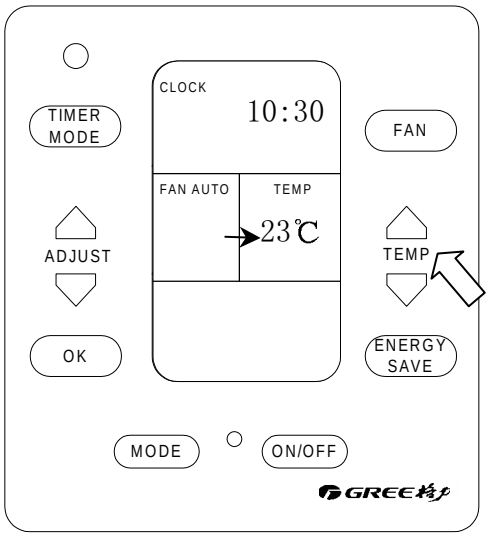

Fig.10: set the temperature at 23 ℃

(5) ENERGY SAVE

- Press the "**ENERGY SAVE**" button, the unit will run in the **ENERGY SAVE** mode and ENERGY SAVE will light up.(Fig.11)
- Press the "**ENERGY SAVE**" button once more, the **ENERGY SAVE** mode will be turned off and ENERGY SAVE will disappear.
- The **ENERGY SAVE** mode raises the set temperature slightly in the cooling mode and lowers the set temperature in the heating mode, as to economically control the operation of the unit.
- The temperature setting on the remote controller will not change if the **ENERGY SAVE** mode is used.

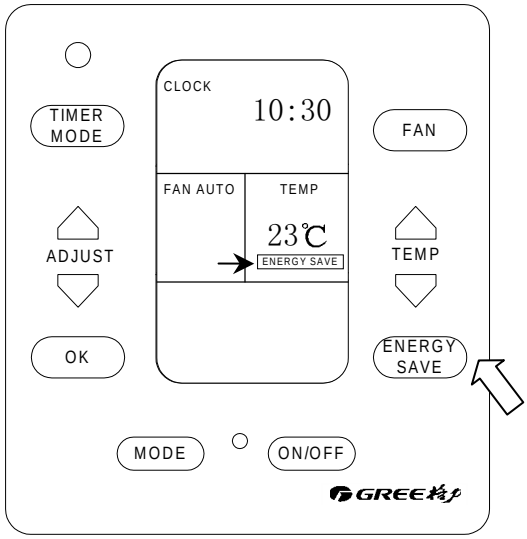

Fig.11: set the unit at energy save mode.

(6) OPERATION MODE

- Each time the button is pressed, operation mode will change in the following order.

→**COOL**→**DRY**→**FAN**→**HEAT**—┐

- **COOL** will be shown when cooling mode is used. In the mode, always set the

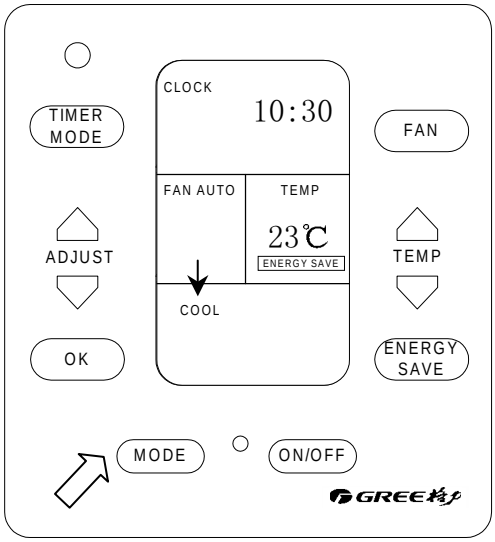

Fig.12: set the unit at cooling mode.

temperature lower than the current room temperature, otherwise, the unit will not enter the cooling mode but the fan will operate (Fig.12).

- **DRY** will be shown when dry mode is used. In this mode, the compressor and the outdoor fan will stop at times (run for six minutes every ten minutes), also the indoor fan speed is low. The temperature controlling is not so precise as that in cooling mode, but the energy save effect is more satisfying.
- **HEAT** will be shown when heating mode is used. In the mode, always set the temperature higher than the current room temperature, otherwise, heating will not start.

NOTICE: In heating mode, the air conditioner will prevent cold air blowing and start electric heating (if the unit has an electric heater). To avoid causing any uncomfortable feeling, the indoor fan will not run unless the detected condensing temperature is higher than the setting value. Depending on the indoor fan speed, start/stop of the compressor and the environment temperature, the electric heater starts operation.

- When the outside temperature is low and the humidity is high, frost will collect on the outdoor unit, which will reduce the heating efficiency. When this happens, the controller will automatically start the defrost cycle. During the defrost cycle, the heating mode will pause and **DEFROST** will light up. The unit will automatically continue to heat after defrost cycle is finished (Fig.13).
- **FAN** will be shown when fan mode is used. During this period, the room temperature can not be adjusted, the room temperature is displayed on the LCD.

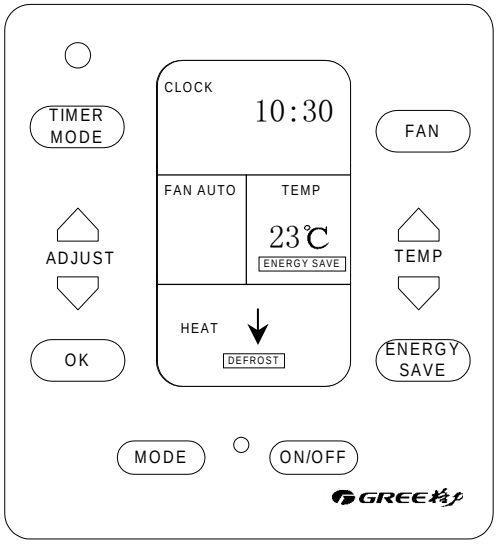

Fig.13: the LCD's display when the unit is on the defrost cycle.

NOTICE:The cooling only air conditioner has no HEAT MODE.

(7) **TEST**

When electricity is on for the first time and no button is pressed:

- Press the **TEMPERATURE ADJUST** button △ will force the unit to enter heating mode, the compressor, the 4-way reversing valve and the electric heater will act immediately, the fan speed changes to high and **TEST** will be shown. It will take five minutes before the unit stop automatically (Fig.14).

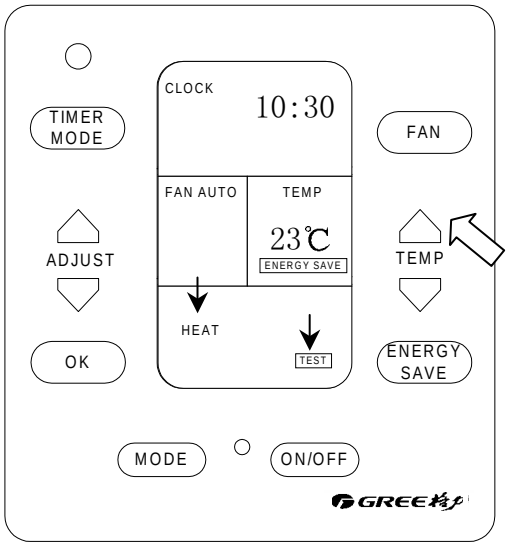

Fig.14: the LCD's display when the unit is on heating mode & testing mode.

❖ Press the **TEMPERATURE ADJUST** button ▽ will force the unit to enter cooling mode and the compressor will act immediately, the fan speed changes to high and **TEST** will be shown. It will take five minutes before the unit stop automatically (Fig.15).

❖ **TEST** function only can be used for testing the unit in company. If enter this mode accidentally, shut off the power breaker.

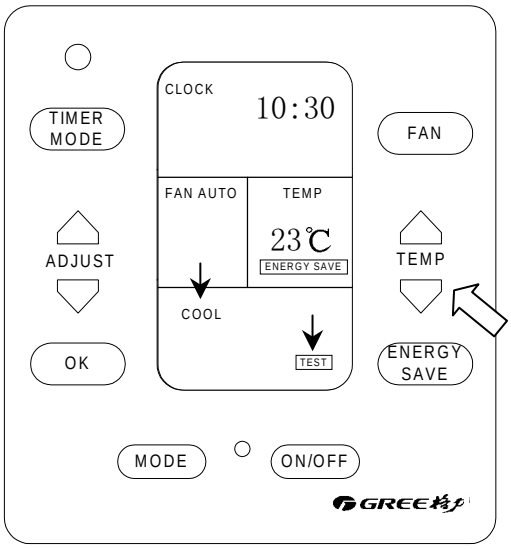

Fig.15: the LCD's display when the unit is on cooling mode & testing mode.

(8) In the event of malfunction, **ERROR CODE** will be shown and alarm will warning(press on any key will stop the alarm), at this time, immediately turn off the electrical breaker, and consult authorized service personnel. The error codes indicate:(Fig.16)

Error code	Malfunction
E1	High pressure protection of the compressor
E2	Indoor antifreeze protection
E3	Low pressure protection of the compressor
E4	High temperature protection of the vent-pipe
E5	Over-current protection of the compressor
F0	Indoor temperature sensor
F1	Evaporator temperature sensor
F2	Condenser temperature sensor
F3	Outdoor temperature sensor

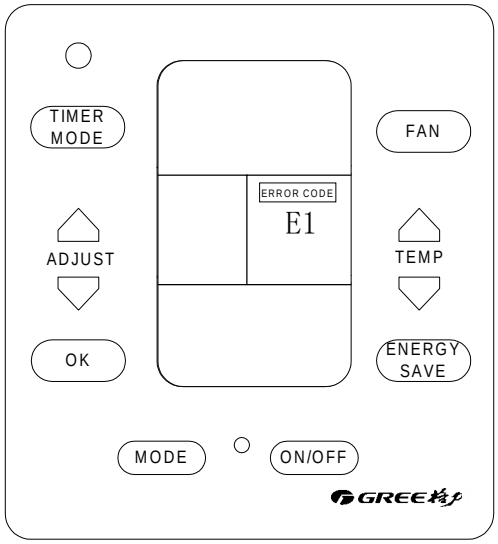

Fig.16: when the compressor's high pressure protection is active, the LCD displays E1.

TROUBLESHOOTING

When the air conditioner does not operate properly, please perform the following checks before requesting service.

MALFUNCTION	CAUSE
The unit does not operate at all.	• No power supply • Circuit breaker is tripped because of current leakage • Power voltage supply is too low • **START/STOP** switch set to the stop position • Failure in control system
The unit stops right after it is started.	• Object in front of the condenser • Abnormal operation of the control system • Outdoor temperature is higher than 45℃ when cooling mode is used
Cooling is not sufficient	• Dirty air filter • Too many heating sources or people in the room • Doors or windows are open • Obstacle at the air intake and outlet of the unit • Wrong temperature setting (too high) • Refrigerant leakage • Poor performance of the indoor temperature sensor
Heating is not sufficient	• Dirty air filter • Doors or windows are open • Wrong temperature setting (too low) • Obstacle at the air intake and outlet of the unit • Refrigerant leakage • Outdoor temperature is too low • Abnormal operation of the control system
Indoor fan does not work on heating operation	• Bad capacitor