




























2. Operating Instructions

2-1 The Feature of Key in remote control

NO	NAMED OF KEY	FUNCTION OF KEY
1	 (On/Off)	On/Off button. Press the  button to stop or run the air conditioner.
2	 (UP)	Temperature adjustment button(UP). To increase the temperature by the pressing the temperature button.
	 (DOWN)	Temperature adjustment button(DOWN). To decrease the temperature by the pressing the temperature button.
3	Mode 	Mode selection button. Each time you press this button Mode is changed in the following order  : Auto Mode  : Fan Only  : Cool Mode  : Heat Mode  : Dry Mode
4		Fan speed adjustment button. Each time you press this button, FAN SPEED is changed in the following order.
5		Swing button. It adjusts the airflow to upward and downward.
6		Turbo button. The air conditioner cools or heats the room as quickly as possible. After 30minutes, the air conditioner is reset automatically to the previous mode.
7		Energy saving button. If you wish to save energy when using your air conditioner, select the Energy saving mode with the  button.
8		Sleep button. The sleep timer can be used when you are cooling or heating your room to switch the air conditioner off automatically after a period of six hours.

NO	NAMED OF KEY	FUNCTION OF KEY
9		<p>Anion button. Press the  button to generate ion from the air conditioner.</p>
10		<p>On Timer button. The On Timer enables you to switch on the air conditioner automatically after a given period of time that is from 30 minutes to 24 hours. To set the operating time, press the  button one or more times until the required time display.</p>
11		<p>Off Timer button. The Off Timer enables you to switch off the air conditioner automatically after a given period of time that is from 30 minutes to 24 hours. To set the operating time, press the  button one or more times until the required time display.</p>
12		<p>Timer Set/Cancel button. After setting On Timer or Off Timer, press the  button to set it completely. And press the  button again to cancel On Timer or Off Timer set.</p>
13		<p>Digital <i>i</i> On/Off button. If you want to turn off the display during operation press the  button.</p>

2-1-1 Name & Function of Key in remote control

1. AUTO MODE : In this mode, operation mode(COOL, HEAT) is selected automatically by the room temperature of initial operation.

Room Temp	Operation Type
$T_r \geq 21^\circ\text{C} + \Delta T$	Cool Operation (Set Temp: $24^\circ\text{C} + \Delta T$)
$21^\circ\text{C} + \Delta T > T_r$	Heat Operation (Set Temp: $22^\circ\text{C} + \Delta T$)

$\Delta T = -1^\circ\text{C}, -2^\circ\text{C}, 0^\circ\text{C}, +1^\circ\text{C}, +2^\circ\text{C}$

ΔT is controlled by setting temperature up/down key of remote control

2. COOL MODE : The unit operates according to the difference between the setting and room temperature. ($18^\circ\text{C} \sim 30^\circ\text{C}$)
3. HEAT MODE : The unit operates according to the difference between the setting and room temperature. ($16^\circ\text{C} \sim 30^\circ\text{C}$)
 - *Prevention against cold wind : In order to prevent the cool air from flowing out at the heat mode, the indoor fan does not operate or operates very slowly in the following cases. At this time, the indoor heat exchanger will be preheating.
 - For 3~5 minutes after the initial operation
 - For deicing operation
 - The operation of an indoor fan in accordance with the temperature of an indoor heat exchanger

The temperature of indoor heat exchanger	Indoor fan speed
below 28°C	off
28°C - below 34°C	LL Speed
34°C - below 40°C	L Speed
above 40°C	Setting Speed

*High temperature release function : It is a function to detect an outdoor overload by the sensor of an indoor heat exchanger and to turn the outdoor fan or the compressor ON/OFF for safety.

*Deice : Deicing operation is controlled by indoor unit's heat exchanger temperature and accumulating time of compressor's operation.




Deice ends by sensing of the processing time by deice condition.

4. DRY MODE : Has 3 states, each determined by room temperature. The unit operates in DRY mode.
 - *Compressor ON/OFF Time is controlled compulsorily (can not set up the fan speed, always breeze).
 - *Protective function : Low temperature release. (Prevention against freeze)
5. TURBO MODE : This mode is available in AUTO, COOL, HEAT, DRY, FAN MODE. When this button is pressed at first, the air conditioner is operated "powerful" state for 30 minutes regardless of the set temperature, room temperature. When this button is pressed again, or when the operating time is 30 minutes, turbo operation mode is canceled and returned to the previous mode.
 - *But, if you press the TURBO button in DRY or FAN mode that is changed with AUTO mode automatically.
6. SLEEP MODE : Sleep mode is available only in COOL or HEAT mode. The operation will stop after 6 hours.
 - *In COOL mode : The setting temperature is automatically raised by 1°C each 1hour. When the temperature has been raised by total of 2°C , that temperature is maintained.
 - *In HEAT mode : The setting temperature is automatically dropped by 1°C each 1hour. When the temperature has been dropped by total of 2°C , that temperature is maintained.

7. **FAN SPEED** : Manual (3 step), Auto (4 step)
 Fan speed automatically varies depending on both the difference between setting and the room temperature.

8. **COMPULSORY OPERATION** :
 For operating the air conditioner without the remote control.
 *The air conditioner starts up in the most suitable mode for the room temperature:

Room Temperature	Operating Mode	Temperature Setting
Less than 21°C	Heat	22°C approx.
21°C or above	Cool	24°C approx.

9. **SWING** : BLADE-H is rotated vertically by the stepping motor.
 *Swing Set : Press the  button under the remote control is displayed on LCD the  and the blades move up and down. If the one more time press the  button, blades location is stop.

10. **SETTING THE ON/OFF TIMER** :
 *ON TIMER : The On Timer enables you to switch on the air conditioner automatically after a given period of time. You can set the period of time from 30 minutes to 24 hours.
 *OFF TIMER : The Off Timer enables you to switch off the air conditioner automatically after a given period of time. You can set the period of time from 30 minutes to 24 hours.

11. **GENERATING ANION** :
 The air conditioner can generate anion with an ionizer in the indoor unit.

12. SELF DIAGNOSIS

Error Mode	DISPLAY 7-SEGMENT		Remark
	Operation Off	Operation On	
Indoor unit room temperature sensor error (open or short)	OFF	E1	
Indoor unit heat exchanger temperature sensor error(open or short)	OFF	E2	
Indoor FAN MOTOR error : Keep the RPM value 450 below for 15 seconds	OFF	E3	
EEPROM error	OFF	E6	
Error in option In case of No option set-up In case of option data error	All lamp blinking	All lamp blinking	

13. **BUZZER SOUND** : Whenever the On/Off button is pressed or whenever change occurs to the condition which is set up or select, the compulsory operation mode, buzzer is sounded "beep".

2-2 Installation

2-2-1 Selecting Area for Installation

Select an area for installation that is suitable to the customer's needs.

2-2-1(a) Indoor Unit

1. Make sure that you install the indoor unit in an area providing good ventilation. It must not be blocked by an obstacle affecting the airflow near the air inlet and the air outlet.
2. Make sure that you install the indoor unit in an area allowing good air handling and endurance of vibration of the indoor unit.
3. Make sure that you install the indoor unit in an area where there is no source of heat or vapor nearby.
4. Make sure that you install the indoor unit in an area from which hot or cool air is spread evenly in a room.
5. Make sure that you install the indoor unit in an area away from TVs, audio units, cordless phones, fluorescent lighting fixtures and other electrical appliances (at least 1 meter).
6. Make sure that you install the indoor unit in an area which provides easy pipe connection with the outdoor unit, and easy drainage for condensed water.
7. Make sure that you install the indoor unit in an area which is large enough to accommodate the measurements shown in figure on the next page.

2-2-1(b) Outdoor Unit

1. Make sure that you install the outdoor unit in area not exposed to the rain or direct sun light.
(Install a separate sunblind if exposed to direct sun light.)
2. Make sure that you install the outdoor unit in area allowing good air moment, not amplifying noise or vibration, especially to avoid disturbing neighbors.

(Fix the unit firmly if it is mounted in a high place.)

3. Make sure that you install the outdoor unit in area providing good ventilation and which is not dusty. It must not be blocked by any obstacle affecting the air-flow near the air inlet and the air outlet.
4. Make sure that you install the outdoor unit in area free from animals or plants.
5. Make sure that you install the outdoor unit in area not blocking the traffic.
6. Make sure that you install the outdoor unit in area easy to drain condensed water from the indoor unit.
7. Make sure that you install the outdoor unit in area which provides easy connection within the maximum allowable length of a coolant pipe(18*:15meters, 24*:20meters).

Note

1. Add (18*:30g, 24*:40g) of refrigerant (R-22) for every 1 meter if the pipe length exceeds the standard pipe length of 5 meters.
2. Maintain a height between the indoor and outdoor units of less than 8 meters.

8. Make sure that you install the outdoor unit in an area which is large enough to accommodate the measurements

2-2-1(c) Remote Control Unit

1. Make sure that you install the remote control unit in an area free from obstacles such as curtains etc, which may block signals from the remote control unit.
2. Make sure that you install the remote control unit in an area not exposed to direct sunlight, and where there is no source of heat.
3. Make sure that you install the remote control unit in an area away from TVs, audio units, cordless phones, fluorescent lighting fixtures and other electrical appliances (at least 1 meter).

Caution :

It is harmful to the air conditioner if it is used in the following environments: greasy areas (including areas near machines), salty areas such as coast areas, areas where sulfuric gas is present such as hot spring areas. Contact your dealer for advice.

2-3 Set up the Model option

The Method for Setting up the model option with remocon

• **It is necessary to set up option code after replacing the main-PCB as a service parts.**

Make sure that you can set up the option of code the remote controller after you replace the main PBA otherwise, the unit won't be working properly and all LED lamps on display will be flickering.

Step 1 : Preparing the remocon to main PCB option set

- 1st Remove the battery from the remocon.
- 2nd Press the temperature raise/down button simultaneously and insert the battery again.
- 3rd Make sure the remocon display shown as .



Step 2 : Second stage preparation of the remocon option set.

※ **Note** ; In case the wrong letter has been selected, continue to press the button until the correct letter appears.

- 1st If the first stage number "" appears on the display, proceed to the second stage.
- 2nd Every time the ① and ⑦ button, "" and "" each continue to appear.
- 3rd Whenever pressing the ②, ③, ④, ⑤, ⑥, ⑧, ⑨, ⑩, ⑪, ⑫ button, the number increase from 0~9(0123456789) and A, b, C, d, E, F each time.

① If the first number is , it is correct otherwise press Mode until appear.

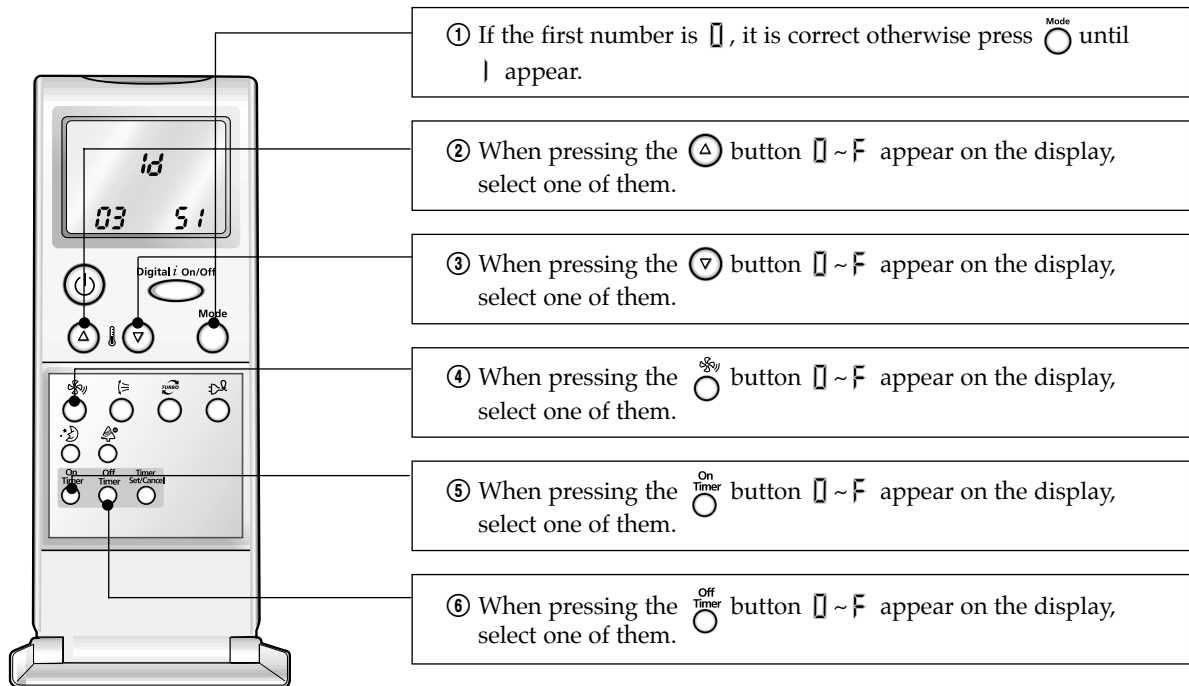
② When pressing the Δ button ~ F appear on the display, select one of them.

③ When pressing the ∇ button ~ F appear on the display, select one of them.

④ When pressing the ⚙ button ~ F appear on the display, select one of them.

⑤ When pressing the On Timer button ~ F appear on the display, select one of them.

⑥ When pressing the Off Timer button ~ F appear on the display, select one of them.



Step 3 : Reconfirming option set after completion

(in case of ex. 086115-1d0351)

After pressing Mode selector for the $\bar{\text{I}}$ mode, the display shown as 08 61 15.
 After pressing Mode selector for the $\bar{\text{I}}$ mode, the display shown as $\bar{\text{I}}$ d 03 51.

Step 4 : Pressing the ON/OFF button (⏻)

When pressing the operation ON/OFF key with the direction of remote controller for unit, the sound “Ding” or “Diriring” is heard and the OPERATION ICON(\approx) lamp of the display is flickering at the same time, then the input of option is completed. (If the diriring sound isn’t heard, try again pressing the ON/OFF button.)

Step 5 : Unit operation test-run

- First**, Remove the battery from the remote controller.
- Second**, Re-insert the battery into the remote controller.
- Third**, Press ON/OFF key with the direction of remote controller for set.

• Error Mode

1st If all lamps of indoor unit are flickering, Plug out and plug in again and pressing ON/OFF key to retry.

2nd If the unit is not working properly or all lamps are continuously flickering after setting the option code, see if the correct option code is set up for it’s model.

■ OPTION ITEMS

REMOCON MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
SH24TP6(A)	0	8	5	4	1	6	1	d	0	3	8	4
AQT24P6GB	0	8	5	4	1	7	1	d	0	3	8	4
AQT24P6GE	0	8	5	4	1	6	1	d	0	3	8	4
AQ24P6GB	0	8	5	2	d	5	1	d	0	3	9	5
SH18ZP0(A)	0	8	6	1	1	5	1	d	0	3	5	1
AQT18P0GB	0	8	5	4	1	7	1	d	0	3	5	1
AQT18P0GE	0	8	5	4	1	7	1	d	0	3	6	2
AQ18P0GB	0	8	5	1	1	5	1	d	0	3	5	1
AQ18P0GE	0	8	6	1	1	5	1	d	0	3	5	1