

Service Manual

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INTRODUCTION

This service manual provides the necessary information to use the service functions on the RG66 wireless remote controller. Use the Table of Contents to locate a desired topic.



Fig. 1 – Remote Controller

HANDLING THE REMOTE CONTROLLER

Remote Controller Location

Keep the remote controller within a distance where its signals can reach the indoor unit's receiver (not to exceed 26 ft. (8m)).

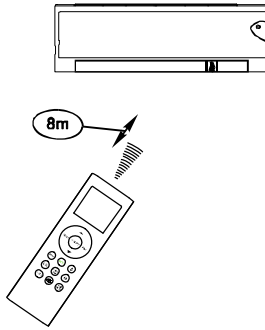


Fig. 2 – Remote Controller Location

⚠

CAUTION

- The air conditioner will not operate if curtains, doors or other materials block the signals from the remote controller to the indoor unit.
- Prevent any liquid from falling on or into the remote controller. Do not expose the remote controller to direct sunlight or heat.
- If the infrared signal receiver on the indoor unit is exposed to direct sunlight, the air conditioner may not function as designed. Use curtains to prevent sunlight from shining directly on the air conditioner.
- If other electrical appliances respond to the remote controller, either move the appliances or consult your local dealer.

Replacing Batteries

The remote controller uses two alkaline dry batteries (AAA).

1. Release clip to remove battery cover plate, then replace the old batteries with new batteries.
2. Insert the new batteries. Ensure the batteries are installed correctly, based on their (+) and (-) polarities.
3. Align the bottom of the cover plate with the opening of the battery compartment.
4. Push the top part down gently until the clip locks in place.

NOTE:

- Do not mix old and new batteries or batteries of different types.
- Do not leave the batteries in the remote controller if the remote is not going to be used for 2 or 3 months.
- Dispose old batteries in the appropriate recycle bins.

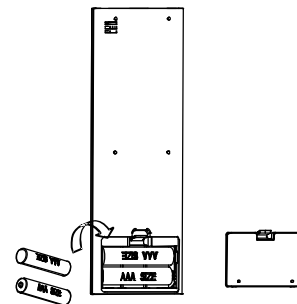


Fig. 3 – Remove the back cover

Remote Controller Specification

Table 1—Remote Controller Specification

Model	RG66B9(2H)/BGEFU1
Rated Voltage	3.0V (Dry batteries AAA)
Signal Receiving Range	26 ft. (8m)
Environment	23°F (-5°C) ~ 140°F (60°C)

FUNCTION BUTTONS

Before you use your new system, familiarize yourself with the remote controller. The following is a brief introduction of the remote controller.

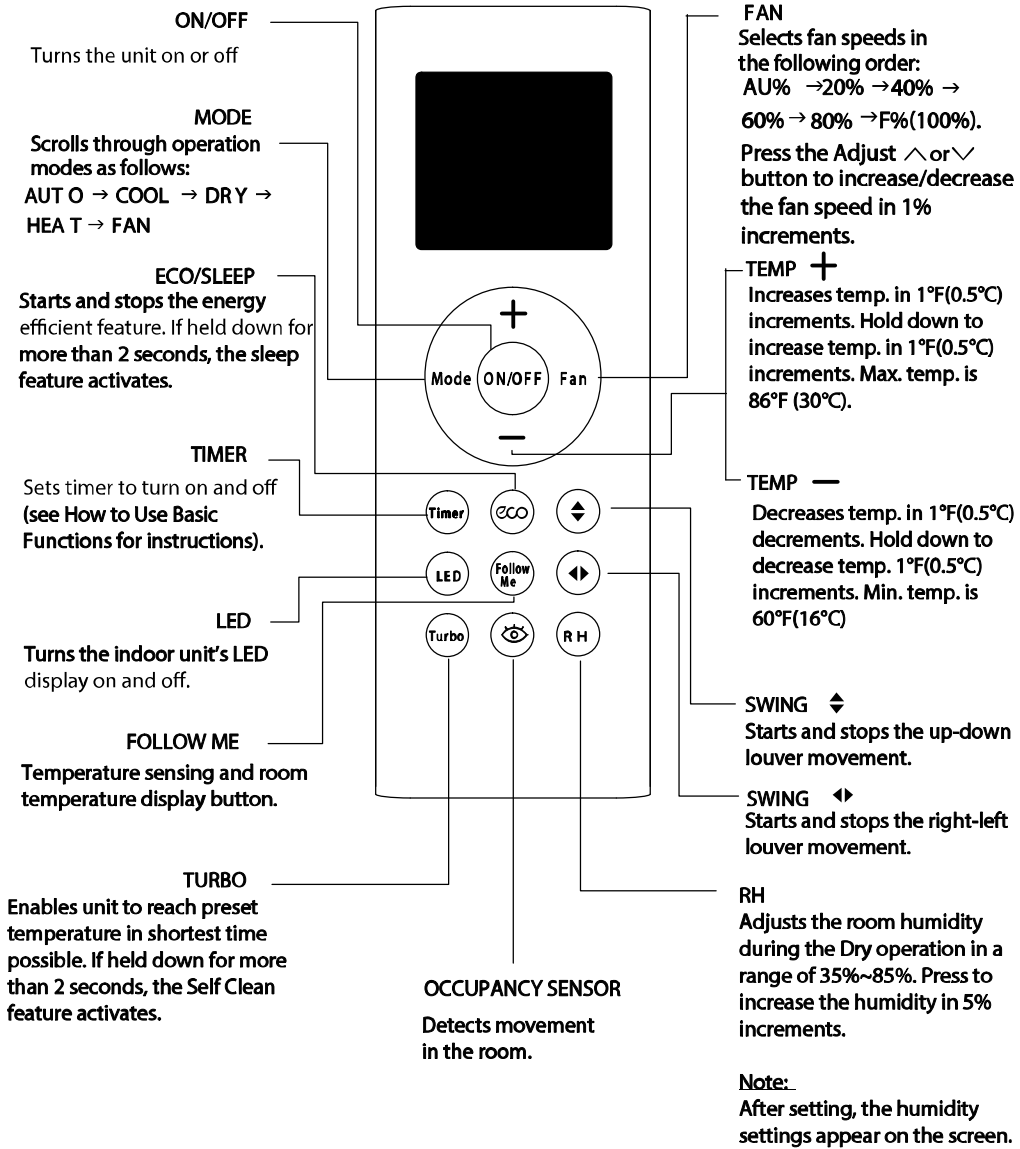


Fig. 4 – Remote Controller

NOTE: Remote Controller also available through RCD P/N 17317000A34063. Remote Holder P/N 12117000000318.

ACCESSING THE SERVICE FUNCTIONS

Caution: Read and understand the function changes you wish to make in advance. The remote will not read the parameters in the unit.

1. Before using the service functions of the remote, turn **OFF** the indoor unit with the remote.
2. Turn **OFF** the power to the outdoor unit for 3 (up to 5) minutes. Turn the power back **ON**.
3. Remove the batteries from the remote and wait for the remote screen to clear and press any button to clear the screen.
4. Within 30 seconds of replacing the batteries, simultaneously press **MODE** and **FAN** for five (5) seconds. You are now in the **SERVICE FUNCTION** mode and the remote displays **F1**.
5. Use **TEMP +** or **-** to find and display the parameter you want to change.
6. When the parameter you want to change appears, press **MODE** (parameters displayed after pressing **MODE** are default values only, **NOT** the values stored in the unit. The values are stored in the unit, not the controller. Pressing **MODE** only displays the default value for that setting.)
7. To change the parameter use the **TEMP +** or **-** until the value you want appears.
8. Press **FAN** to confirm the new setting value and transmit it to the Indoor Unit (the unit displays the value being set). For example (HH), when setting F6 to heating only. (CO) and the number (1) appears when setting the F4 function to 1. The readout is different for each function setting change. The unit also beeps along with the readout to confirm this.
9. Repeat steps 6 thru 9 for any other parameter you are changing.
10. When finished, turn **OFF** power to the outdoor unit for 3–5 minutes to reset the system with the new changes.
11. Remove batteries from the remote and press any button to clear the screen. Replace the batteries and wait 30 seconds.
12. The remote is now restored to normal function and you may operate the system. The power needs to be cycled for 3–5 minutes.

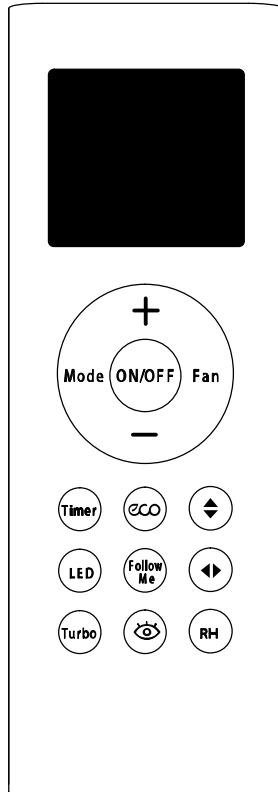


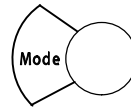
Fig. 5 – Remote Controller

IMPORTANT: The remote controller is enabled within 10 minutes after the indoor unit is powered on, and the indoor unit must be turned off.



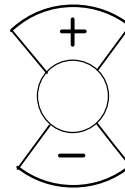
On/OFF: Press to turn the unit ON or OFF

Fig. 6 – Power On and Off



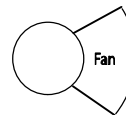
Mode: Use to modify the selected function. Press **Mode** to enter the parameter setting interface, and the selected parameter indicator flashes. Use **TEMP +** and **-** to modify the parameter.

Fig. 7 – Mode



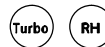
TEMP + and - : Use to select fuctions or adjust parameters. On the parameter unadjustable interface, press **+ and -** to select the specified function in a range of F1~F9 and E1~E9. Next, press **Mode** to enter the parameter modifying interface and the relevant parameter flashes. Press **+ and -** to adjust the parameter.

Fig. 8 – Temp



Fan: Press to confirm the setting parameter and transmit the signal to the unit.

Fig. 9 – FAN



LOCK: Press and hold **Turbo** and **RH** for 2 seconds, all the indoor unit's current settings are locked in and the remote controller will not accept any operation other than the **LOCK** operation.

Fig. 10 – Lock

REMOTE CONTROLLER FUNCTIONS

NOTE: The indoor unit beeps for 2 seconds indicating the function has been successfully set.

Auto-Start Function (F1)

In the event of a sudden power failure, the module memorizes the setting conditions before the power failure. The unit resumes the previous operation setting automatically after 3 minutes when the power returns. To enable/disable this function:

1. Press **+** and **-** to select “F1”.

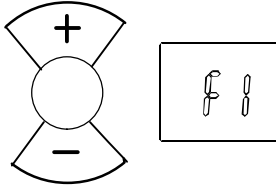


Fig. 11 – Select F1

2. Press **MODE**. Next, press **+** and **-** to select “ON” or “OFF”.

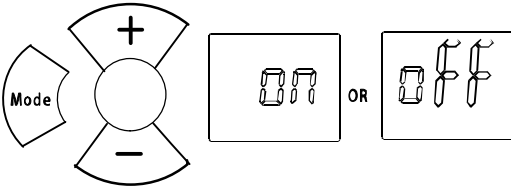


Fig. 12 – Select On or Off

3. Press **FAN** and the Auto-start function setting is complete.

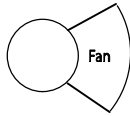


Fig. 13 – Fan

Heating Temperature Compensation (F2)

Defines the adjustment for the thermal stratification in the room and how the indoor unit is sensing the space. To adjust the temperature compensation, in Celsius only:

NOTE: The temperature compensation in Celsius regardless of the units used.

1. Press **+** and **-** to select “F2”.

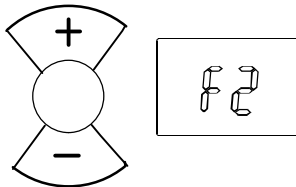


Fig. 14 – Select F2

2. Press **MODE**. Next, press **+** and **-** to select the parameter (range: $-6^{\circ}\text{C} \sim 6^{\circ}\text{C}$).

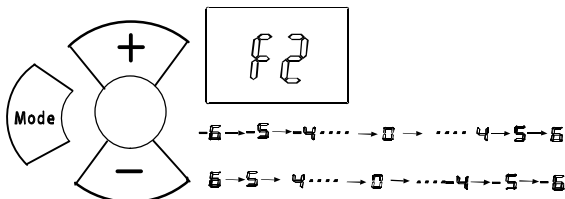


Fig. 15 – Select the parameter

3. Press **FAN** to confirm.

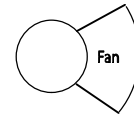


Fig. 16 – FAN

NOTE: The recommended setting is 0°C . The adjustment should not be more than 2°C .

Anti-Cold Air Function (F3)

A) Intelligent Anti-Cold Air Function

NOTE: The intelligent anti-cold air parameter changes with the room temperature. Once the room temperature rises, the anti-cold air temperature rises as well, which is designed to provide the user with increased comfort. After the room temperature decreases, the anti-cold temperature decreases as well, which is designed to improve fan speed and result in a faster heating operation.

NOTE: No setting adjustment recommended.

1. Press **+** and **-** to select “F3”.

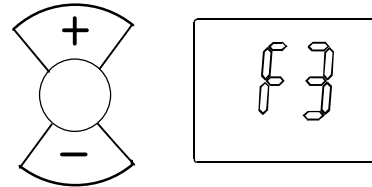


Fig. 17 – Select F3

2. Press **MODE**. Press **FAN** to select the parameter. Next, press **+** and **-** to select **1**.

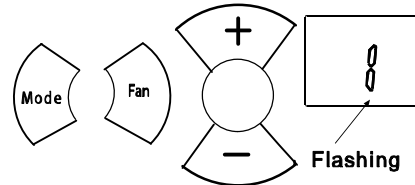


Fig. 18 – Select 1

3. Press **MODE** to adjust the parameter. The parameter continues to flash. Next, press **+** and **-** to adjust the parameter (range: $63^{\circ}\text{F} (17^{\circ}\text{C}) \sim 70^{\circ}\text{F} (21^{\circ}\text{C})$).

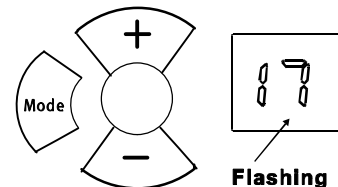


Fig. 19 – MODE

4. Press **FAN** to confirm.

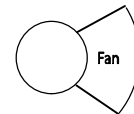


Fig. 20 – FAN

B) General Anti-Cold Air Function Setting (Cold Blow Prevention Function)

The general anti-cold air parameter is set regardless of the room temperature.

NOTE: No setting adjustment recommended.

1. Press **+** and **-** to select “F3”.

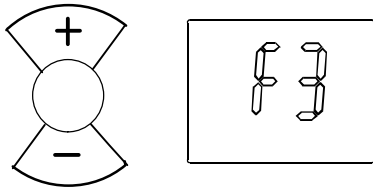


Fig. 21 – Select F3

2. Press **Mode**. Press **Fan** to select the parameter. Next, press **+** and **-** to select “2”.

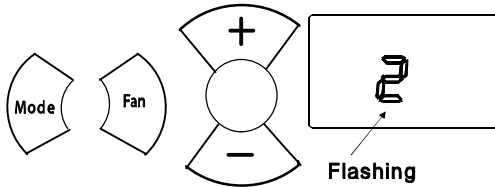


Fig. 22 – Select 2

3. Press **MODE** to adjust the parameter, which continues to flash. Next, press **+** and **-** to adjust the parameter (range: 46°F(8°C) ~ 82°F(28°C)).

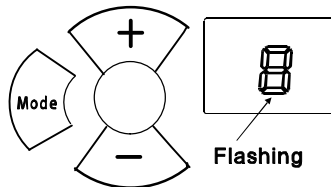


Fig. 23 – Adjust the parameter

4. Press **FAN** to confirm.

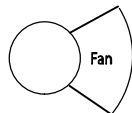


Fig. 24 – FAN

Indoor Fan Motor Speed Control after Set Temperature is Reached (F4)

1. Press **+** and **-** to select “F4”.

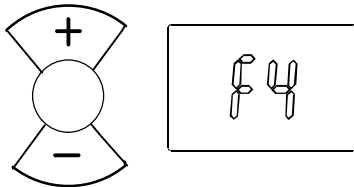
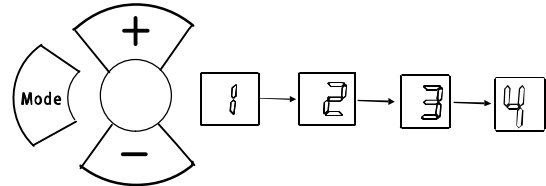


Fig. 25 – Select F4

2. Press **MODE**. Next, press **+** and **-** to select “1”, “2”, “3”, or “4”.



Indicates fan motor stopping



Indicates unit operating at lowest fan speed



Indicates unit operating at setting fan speed



Indicates intermittent function (1 min ON / 4 min OFF)

Fig. 26 – Select a number

3. Press **FAN** to confirm.

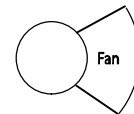


Fig. 27 – FAN

Louver Angle Memory Function (F5)

1. Press **+** and **-** to select “F5”.

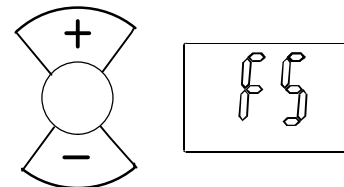
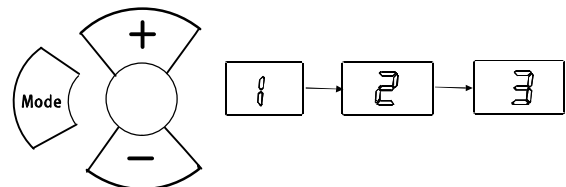


Fig. 28 – Select F5

2. Press **MODE**. Next, press **+** and **-** to select “1”, “2”, or “3”.



Indicates memory function cancellation



Indicates the louver angle memory function is enabled either by turning off or a power failure



Indicates the louver angle memory function is enabled by turning off and disabled due to a power failure

Fig. 29 – Select a number

3. Press **FAN** to confirm.

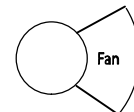


Fig. 30 – FAN

Heating Only or Cooling and Heating Setting (F6)

1. Press **+** and **-** to select “F6”.

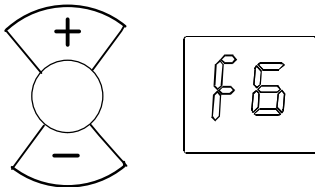


Fig. 31 – Select F6

2. Press **MODE**. Next, press **+** and **-** to select “HH” or “CH” or “CC” (HH: Heating only – CH: Cooling and Heating – CC: Cooling Only).

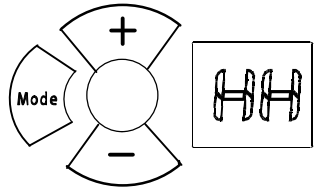


Fig. 32 – Select HH or CH or CC

3. Press **FAN** to confirm.

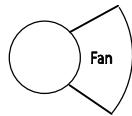


Fig. 33 – FAN

Cooling Temperature Compensation (F7)

Defines the adjustment for the thermal stratification in the room and how the indoor unit is sensing the space. To adjust the temperature compensation, in Celsius only:

NOTE: Temperature compensation in Celsius regardless of the units used.

1. Press **+** and **-** to select “F7”.

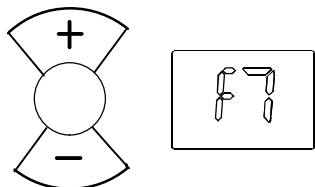


Fig. 34 – Select F7

2. Press **MODE**. Next, press **+** and **-** to select the parameter (range: -2°C ~ $+2^{\circ}\text{C}$).

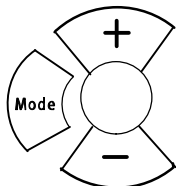


Fig. 35 – MODE

3. Press **FAN** to confirm.

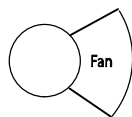


Fig. 36 – FAN

Refrigerant Leakage Detection (F8)

1. Press **+** and **-** to select “F8”.

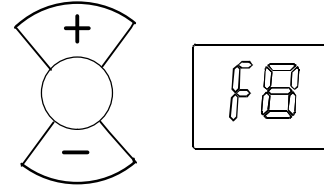


Fig. 37 – Select F8

2. Press **MODE**. Next, press **+** and **-** to select “ON” or “OFF”.

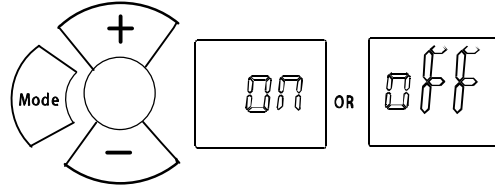


Fig. 38 – MODE

3. Press **FAN** to confirm.

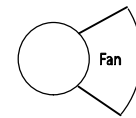


Fig. 39 – FAN

Cleaning Filter Reminder (F9)

1. Press **+** and **-** to select “F9”.

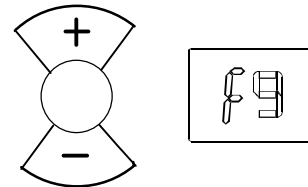


Fig. 40 – Select F9

2. Press **MODE**. Next, press **+** and **-** to select “ON” or “OFF”.

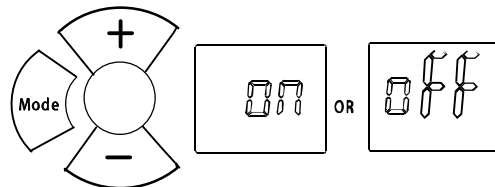


Fig. 41 – MODE

3. Press **FAN** to confirm.

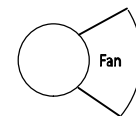


Fig. 42 – FAN

Filter Replacement Reminder (E1)

1. Press **+** and **-** to select “E1”.

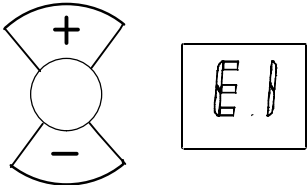


Fig. 43 – Select E1

2. Press **MODE**. Next, press **+** and **-** to select “ON” or “OFF”.

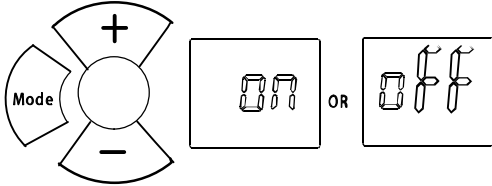


Fig. 44 – MODE

3. Press **FAN** to confirm.

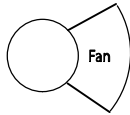


Fig. 45 – FAN

Lowest Temperature Setting (E2)

1. Press **+** and **-** to select “E2”.

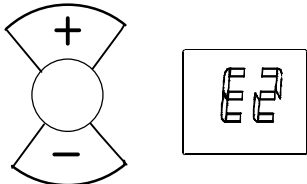


Fig. 46 – Select E2

2. Press **MODE**. Next, press **+** and **-** to set the temperature (range: 63°F(17°C) to 75°F(24°C)).

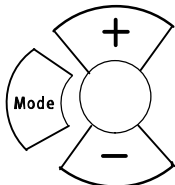


Fig. 47 – MODE

3. Press **FAN** to confirm.

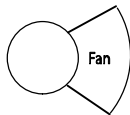


Fig. 48 – FAN

Highest Temperature Setting (E3)

1. Press **+** and **-** to select “E3”.

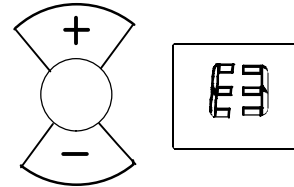


Fig. 49 – Select E3

2. Press **MODE**. Next, press **+** and **-** to set the temperature (range: 77°F(25°C) to 86°F(30°C)).

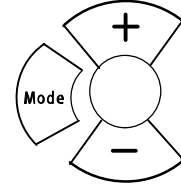


Fig. 50 – MODE

3. Press **FAN** to confirm.

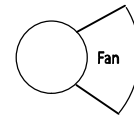


Fig. 51 – FAN

Special Function Setting (E4)

Not available, used on future applications.

Priority Setting of Heating or Cooling (only on Multi-Zone Systems (E5))

⚠ CAUTION

All heads must be set to the same priority.

1. Press **+** and **-** to select “E5”.

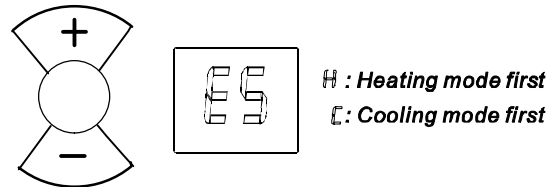


Fig. 52 – Select E5

2. Press **MODE**. Next, press **+** and **-** to select “H” or “C”.

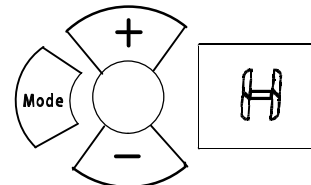


Fig. 53 – MODE

3. Press **FAN** to confirm.

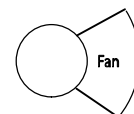


Fig. 54 – FAN

Network Address Setting (E6)

Not available, used on future applications.

Capacity Code Selection (E7)

Not available, used on future applications.

Twins Setting (E8)

Not available, used on future applications.

Static Pressure Setting (E9)

NOTE: Available only on Ducted Units.

1. Press **+** and **-** to select “E9”.

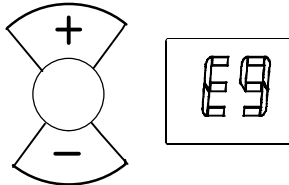


Fig. 55 – Select E9

2. Press **MODE**. Next, press **+** and **-** to select the values between 0 and 4.

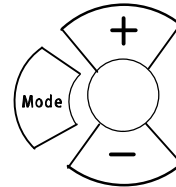


Fig. 56 – MODE

3. Press **FAN** to confirm.

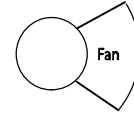


Fig. 57 – FAN

NOTE: Depending on the model, some of the remote controller’s functions may not function.

DEFAULT VALUES OF INDOOR UNITS

Table 2—Default Values of Indoor Units

Description	Remote Code	High Wall
Auto—Start Function	F1	ON
Heating Temperature Compensation	F2	2C
Anti—Cold Air Function	F3	NORMAL
Indoor Fan Motor Speed Control after Set Temperature is Reached	F4	LOWEST SPEED
Louver Angle Memory Function	F5	ON
Heating Only or Cooling and Heating Setting	F6	CH
Cooling Temperature Compensation	F7	−2C
Refrigerant Leakage Detection	F8	ON
Cleaning Filter Reminder	F9	OFF
Filter Replacement Reminder	E1	OFF
Lowest Temperature Setting	E2	17C
Highest Temperature Setting	E3	30C
Special Anti—Cold Air Function Setting	E4	N/A
Priority Setting of Heating or Cooling (Multi—Zone Systems only)	E5	H
Network Address Setting	E6	N/A
Capacity Code Selection	E7	N/A
Twins Setting	E8	N/A
Static Pressure Setting	E9	N/A

POINT CHECK FUNCTION

Press **LED** on the remote controller three times and then press **SWING**  three times within 10 seconds, the buzzer rings for 2 seconds and the air conditioner enters the information enquiry status. Next, press **LED** to search the information.


Press **SWING**  to search the remaining information. When the air conditioner enters the enquiry information status, it displays the code name in 2 seconds (see Table 3).

Table 3—Information Codes

Displayed Code	Explanation	Additional Notes
T1	T1	T1 temperature
T2	T2	T2 temperature
T3	T3	T3 temperature
T4	T4	T4 temperature
TP	TP	TP temperature
Targeted Frequency	FT	Targeted Frequency
Actual Frequency	TR	Actual Frequency
Compressor Current	dL	N/A
Outdoor AC Voltage	UO	N/A
Indoor capacity test	Sn	N/A
Reserve	--	Running mode
Outdoor Fan Speed	Pr	Outdoor fan speed
EXV opening angle	LR	EXV opening angle
Indoor fan speed	IR	Indoor fan speed
Indoor humidity	HU	N/A
Adjusted setting temperature	TT	N/A
Indoor dust concentrations	DT	N/A
WIFI signal strength	IF	N/A
GA algorithm frequency	OT	N/A

CODE VALUE

When the air conditioner enters the enquiry information status, it displays the code value in the next 25 seconds after the display name appears (see Table 4).

Table 4—Code Value

Enquiry Information	Display Value	Meaning	Remark
T1,T2,T3, T4,T2B,TP, TH, Targeted Frequency, Actual Frequency	-1F,-1E, -1d,-1c, -1b,-1A	-25,-24,-23,-22,-21,-20	1. The displaying temperature is the actual value. 2. The temperature is Celsius no matter what kind of remote controller is used. 3. T1,T2,T3,T4,T2B display range: 77°F(-25°C)~ 158°F (70°C), TP display range: -20~ 130. 4. Frequency display range: 0~159HZ. 5. If the actual value exceeds the range, it displays the maximum value or minimum value.
	-19-99	-19-99	
	A0,A1...A9	100,101.....109	
	b0,b1...b9	110,111....119	
	c0,c1....c9	120,121....129	
	d0,d1...d9	130,131....139	
	E0,E1...E9	140,141....149	
F0,F1...F9	150,151....159		
Indoor fan speed/Outdoor fan speed	0	OFF	
	1,2,3,4	Low speed, Medium speed, High speed, Turbo	For some big capacity motors
	14-FF	Actual fan speed = Display value turns to decimal value and then multiply by 10. The unit is RPM.	For some small capacity motors, display value is from 14-FF (hexadecimal), the corresponding fan speed range is from 200-2550RPM.
EXV opening angle	0-FF	Actual EXV opening value = Display value turns to decimal value and then multiply by 2.	
Compressor continuous running time	0-FF	0-255 minutes	If the actual value exceeds the range, it displays the maximum value or minimum value.
Compressor stop causes	0-99	For a detailed meaning, please consult with an engineer	Decimal display
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		
Reserve	0-FF		

