

Service Manual

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INTRODUCTION

This service manual provides the necessary information to use the service functions on the RG57 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 a distance of 26 ft. (8m)).

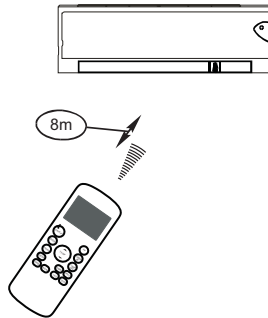


Fig. 2 – Remote Controller Location

⚠ 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. Slide the battery compartment cover off, according to the arrow direction, 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. Slide the battery compartment cover back into position.

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.

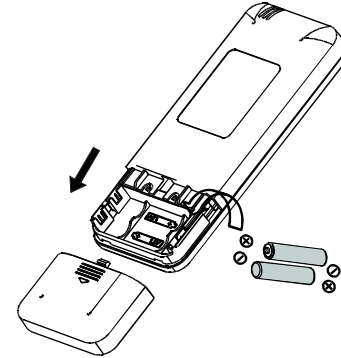


Fig. 3 – Replacing batteries

Remote Controller Specification

Table 1—Remote Controller Specification

Model	RG57F3(B)/BGFEU1
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.

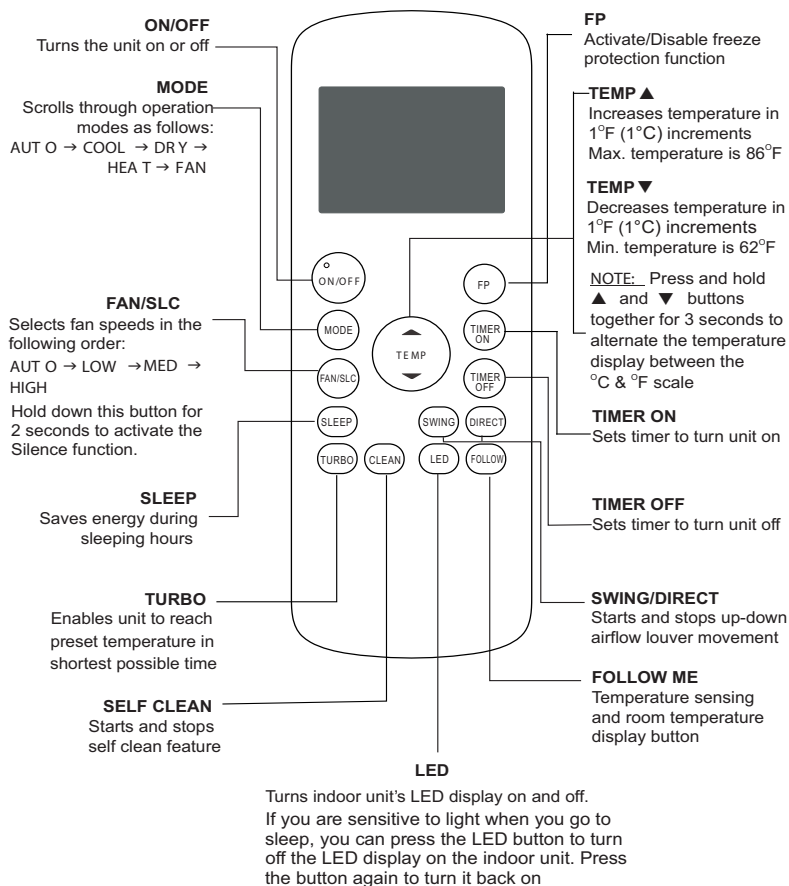


Fig. 4 – Remote Controller

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 2 minutes. Turn the power back on.
3. Remove the batteries from the remote and wait for the remote screen to clear.
4. Within 30 seconds of replacing the batteries, simultaneously press **MODE** and **TIMER ON** for five (5) seconds.
5. You are now in the **SERVICE FUNCTION** mode – and the remote display reads **F1**.
6. Use **TEMP UP/DOWN** to find and display the parameter you want to change.
7. When the parameter you want to change is displayed, press **MODE** (parameters displayed after pressing **MODE** are default values only, NOT the values stored in the controller).
8. To change the parameter use the **TEMP UP/DOWN** until the value you want is displayed.
9. Press **TIMER ON** to confirm the new setting value and transmit it to the Indoor Unit. “LL” will briefly be displayed on the indoor unit.
10. Repeat steps 6 thru 9 for any other parameter you are changing
11. When finished with ALL changes, simultaneously press **SLEEP** and **DIRECT** for two (2) seconds until display beeps.
12. Remove batteries from the remote and wait for one (1) minute before replacing them. Wait another thirty (30) seconds after remote display returns to set point value.
13. The remote is now restored to normal function and you may operate the system – you do NOT have to cycle power again.

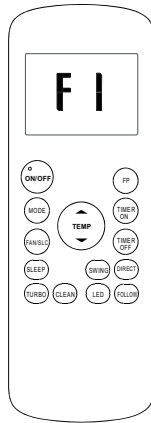


Fig. 5 – Remote Controller

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



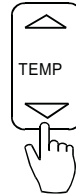
POWER OFF: Press to turn off the unit

Fig. 6 – Power Off



MODE: Use to modify the selected function. Press **MODE** to enter the parameter setting interface, and the selected parameter indicator will flash. Use **TEMP ▲ and ▼** to modify the parameter or select another parameter in conjunction with **FAN** and **TIMER OFF**.

Fig. 7 – Mode



TEMP ▲ and ▼: Use to select functions 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



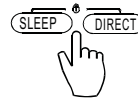
TIMER ON: Press to confirm the setting parameter and transmit the signal to the unit.

Fig. 9 – Timer ON



FAN & TIMER: On the parameter setting interface, press FAN and TIMER OFF to select the parameter to modify.

Fig. 10 – Fan and Timer



LOCK: Press and hold **SLEEP** and **DIRECT** 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. 11 – Lock

REMOTE CONTROLLER SERVICE FUNCTIONS

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

Auto-Start Function (F1)

In case 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. In order to enable/disable this function:

1. Press ▲ and ▼ to select “F1”.

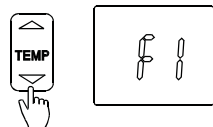


Fig. 12 – Select F1

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

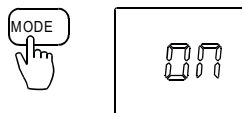


Fig. 13 – Select On or Off

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



Fig. 14 – TIMER ON

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”.

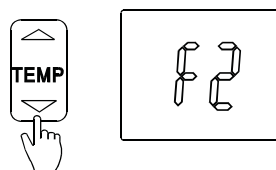


Fig. 15 – Select F2

2. Press **MODE**. Next, press ▲ and ▼ to select the parameter (range: -6°C ~ 6°C).

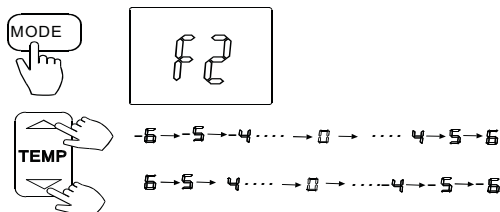


Fig. 16 – Select the parameter

3. Press **TIMER ON** to confirm.



Fig. 17 – Timer On

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”.

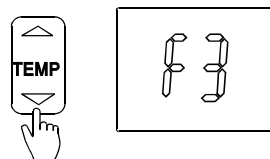


Fig. 18 – Select F3

2. Press **MODE**. Press **FAN** to select the parameter. Next, press ▲ and ▼ to select 1.

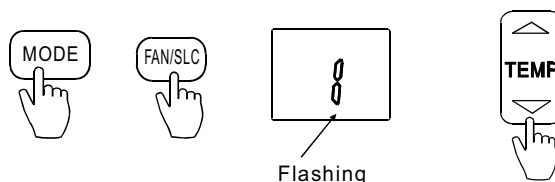


Fig. 19 – Select 1

3. Press **TIMER OFF** to adjust the parameter. The parameter continues to flash. Next, press ▲ and ▼ to adjust the parameter (range: 63°F (17°C) ~ 70°F (21°C)).

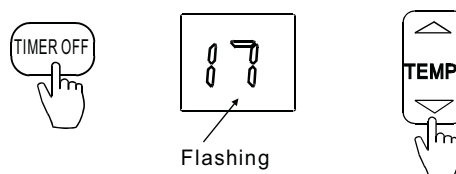


Fig. 20 – TIMER OFF

4. Press **TIMER ON** to confirm.



Fig. 21 – TIMER ON

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”.

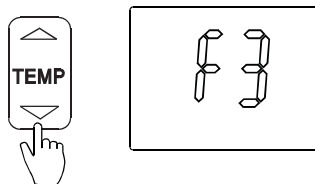


Fig. 22 – Select F3

2. Press **MODE**. Press **FAN** to select the parameter. Next, press ▲ and ▼ to select “2”.

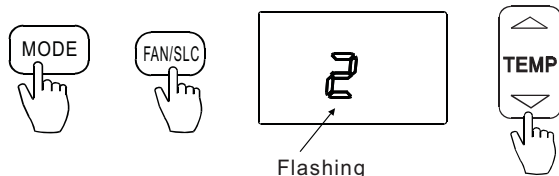


Fig. 23 – Select 2

3. Press **TIMER OFF** to adjust the parameter, which continues to flash. Next, press ▲ and ▼ to adjust the parameter (range: 46°F(8°C) ~ 82°F(28°C)).

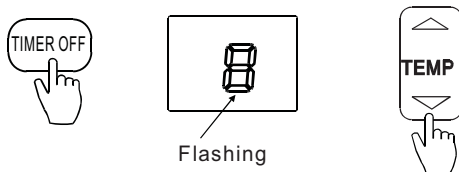


Fig. 24 – Adjust the parameter

4. Press **TIMER ON** to confirm.



Fig. 25 – TIMER ON

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

1. Press ▲ and ▼ to select “F4”.

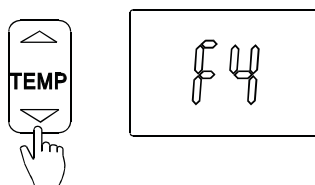
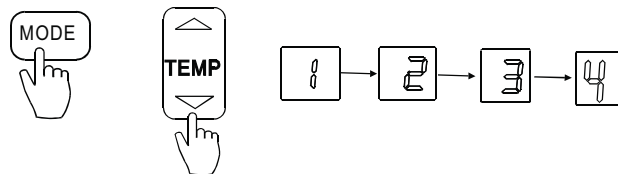


Fig. 26 – Select F4

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. 27 – Select a number

3. Press **TIMER ON** to confirm.



Fig. 28 – TIMER ON

Louver Angle Memory Function (F5)

1. Press ▲ and ▼ to select “F5”.

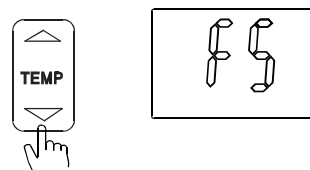
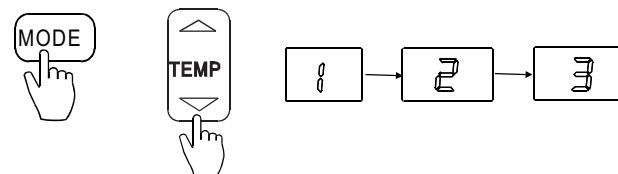


Fig. 29 – Select F5

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. 30 – Select a number

3. Press **TIMER ON** to confirm.



Fig. 31 – TIMER ON

Heating Only or Cooling and Heating Setting (F6)

1. Press ▲ and ▼ to select “F6”.

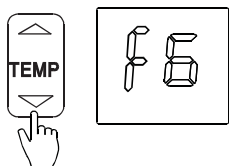


Fig. 32 – Select F6

2. Press **MODE**. Next, press ▲ and ▼ to select “HH” or “CH” (HH: Heating only – CH: Cooling and Heating).

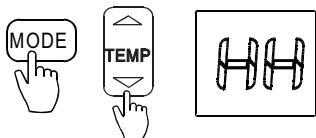


Fig. 33 – Select HH or CH

3. Press **TIMER ON** to confirm.



Fig. 34 – TIMER ON

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”.

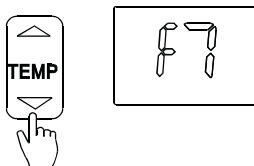


Fig. 35 – Select F7

2. Press **MODE**. Next, press ▲ and ▼ to select the parameter (range: -2°C ~ +2°C).
3. Press **TIMER ON** to confirm.



Fig. 36 – TIMER ON

Refrigerant Leakage Detection (F8)

1. Press ▲ and ▼ to select “F8”.

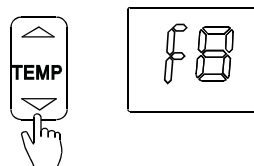


Fig. 37 – Select F8

2. Press **MODE**. Next, press ▲ and ▼ to select “ON” or “OFF”.
3. Press **TIMER ON** to confirm.



Fig. 38 – TIMER ON

Cleaning Filter Reminder (F9)

1. Press ▲ and ▼ to select “F9”.

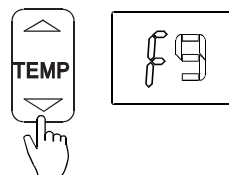


Fig. 39 – Select F9

2. Press **MODE**. Next, press ▲ and ▼ to select “ON” or “OFF”.
3. Press **TIMER ON** to confirm.



Fig. 40 – TIMER ON

Filter Replacement Reminder (E1)

1. Press ▲ and ▼ to select “E1”.

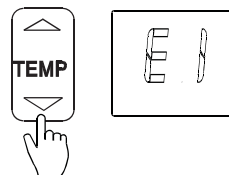


Fig. 41 – Select E1

2. Press **MODE**. Next, press ▲ and ▼ to select “ON” or “OFF”.
3. Press **TIMER ON** to confirm.



Fig. 42 – TIMER ON

Lowest Temperature Setting (E2)

1. Press ▲ and ▼ to select “E2”.

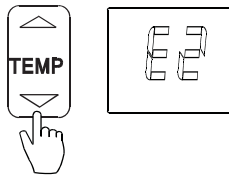


Fig. 43 – Select E2

2. Press **MODE**. Next, press ▲ and ▼ to set the temperature (range: 63°F(17°C) to 75°F(24°C)).
3. Press **TIMER ON** to confirm.



Fig. 44 – **TIMER ON**

Highest Temperature Setting (E3)

1. Press ▲ and ▼ to select “E3”.

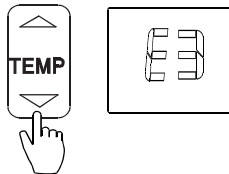


Fig. 45 – Select E3

2. Press **MODE**. Next, press ▲ and ▼ to set the temperature (range: 77°F(25°C) to 86°F(30°C)).
3. Press **TIMER ON** to confirm.



Fig. 46 – **TIMER ON**

Special Function Setting (E4)

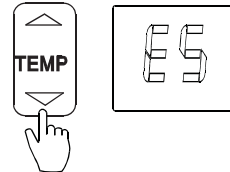
Not available, used on future applications.

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”.



H : Heating mode first
C : cooling mode first

Fig. 47 – Select E5

2. Press **MODE**. Next, press ▲ and ▼ to select “H” or “C”.
3. Press **TIMER ON** to confirm.



Fig. 48 – **TIMER ON**

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)

Available only on 40MBDQ Ducted Units.

1. Press ▲ and ▼ to select “E9”.

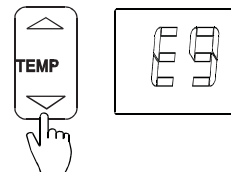


Fig. 49 – Select E9

2. Press **MODE**. Next, press ▲ and ▼ to select the values between 0 and 4.
3. Press **TIMER ON** to confirm.



Fig. 50 – **TIMER ON**

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	Cassette	Ducted	Floor Console
Auto—Start Function	F1	ON	ON	ON	ON
Heating Temperature Compensation	F2	2C	6C	6C	0C
Anti—Cold Air Function	F3	NORMAL	NORMAL	NORMAL	NORMAL
Indoor Fan Motor Speed Control after Set Temperature is Reached	F4	LOWEST SPEED	SET SPEED	SET SPEED	SET SPEED
Louver Angle Memory Function	F5	ON	N/A	N/A	N/A
Heating Only or Cooling and Heating Setting	F6	CH	CH	CH	CH
Cooling Temperature Compensation	F7	−2C	−2C	−2C	−2C
Refrigerant Leakage Detection	F8	ON	ON	ON	ON
Cleaning Filter Reminder	F9	OFF	OFF	OFF	OFF
Filter Replacement Reminder	E1	OFF	OFF	OFF	OFF
Lowest Temperature Setting	E2	17C	17C	17C	17C
Highest Temperature Setting	E3	30C	30C	30C	30C
Special Anti—Cold Air Function Setting	E4	N/A	N/A	N/A	N/A
Priority Setting of Heating or Cooling (Multi—Zone Systems only)	E5	H	H	H	H
Network Address Setting	E6	N/A	N/A	N/A	N/A
Capacity Code Selection	E7	N/A	N/A	N/A	N/A
Twins Setting	E8	N/A	N/A	N/A	N/A
Static Pressure Setting	E9	N/A	N/A	0	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—Point Check Function

Enquiry Information	Displaying Code	Meaning
T1	T1	T1 temp.
T2	T2	T2 temp.
T3	T3	T3 temp.
T4	T4	T4 temp.
T2B	Tb	T2B temp.
TP	TP	TP temp.
TH	TH	TH temp.
Targeted Frequency	FT	Targeted Frequency
Actual Frequency	Fr	Actual Frequency
Indoor fan speed	IF	Indoor fan speed
Outdoor fan speed	OF	Outdoor fan speed
EXV opening angle	LA	EXV opening angle
Compressor continuous running time	CT	Compressor continuous running time
Causes of compressor stop	ST	Causes of compressor stop
Reserve	A0	
Reserve	A1	
Reserve	b0	
Reserve	b1	
Reserve	b2	
Reserve	b3	
Reserve	b4	
Reserve	b5	
Reserve	b6	
Reserve	dL	
Reserve	Ac	
Reserve	Uo	
Reserve	Td	

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		