RG10 Series Wireless Remote Controller

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INTRODUCTION

This service manual provides the necessary information to use the service functions on the **RG10** series wireless remote controller. Use the **TABLE OF CONTENTS** to locate a desired topic.



Fig. 1 — RG10A(B2S)/BGEFU1



Fig. 2 — RG10B(B1)/BGEFU1



Fig. 3 - RG10L(2HS)/BGEFU1



Fig. 4 — RG10A5(B1)/BGCEFU1



Fig. 5 — RG10A4(B1)/BGEFU1

NOTE: Remote part number can be found on the back of the wireless remote.

TYPE: RG10********

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. 6 — 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.

NOTES:

- 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. 7 — Remove the back cover

Remote Controller Specification

Table 1 — Parts List

MODELS	RG10L(2HS)/BGEFU1 RG10A(B2S)/BGEFU1 RG10B(B1)/BGEFU1 RG10A5(B1)/BGCEFU1 RG10A4(B1)/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.





NOTE: To alternate between °C and °F, buttons must be pressed gently, otherwise the remote will not recognize the command.

REMOTE CONTROLLERS



Fig. 9 — RG10A(B2S)/BGEFU1



Fig. 10 — RG10B(B1)/BGEFU1



Fig. 11 - RG10A5(B1)/BGCEFU1



Fig. 12 — RG10A4(B1)/BGEFU1



Fig. 13 — RG10L(2HS)/BGEFU1

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Accessing the INQUIRY Mode

CAUTION

Read and understand the function changes you wish to make in advance. Neither the indoor unit nor the remote control displays the new level of any of the changes made while in the **INQUIRY** mode. Be sure to document the changes you've made to the system's programming using the **INQUIRY** mode. Once you complete the changes and exit the **INQUIRY** mode, if additional changes are made to the programming, the system will not show the new previously set level(s).

For example, when you first access **CODE 22**, **Heating Temperature Compensation**, the remote control display defaults to **0**. If you change it to **-2**, then save and exit out of the **INQUIRY** mode, the next time someone goes back in and accesses **CODE 22**, the remote's display will not display **-2**. Instead it will show **0** because that's the default. If you are unsure of the previous changes, due to a lack of documentation, you could press the **DOWN** symbol to the maximum change range of **-6**, then press the **UP** symbol until you are back to **0**, and make the new adjustments accordingly. Be sure to document the changes when you are done.

- Simultaneously press ON/OFF in and FAN SPEED in for 8 seconds.
 a. The remote is now in the INQUIRY mode.
 - b. The remote control remains in the **INQUIRY** mode for 1 minute if no other button is pressed.
 - c. While in the **INQUIRY** Mode, the remote display cancels all icons except **AUTO**, **COOL**, **DRY**, **HEAT** and **Battery Strength**.
 - d. The remote control digital display defaults to **0** upon entering the **INQUIRY** mode.
 - e. In the **INQUIRY** mode, each digital code (from 0 to 30) is accessed by pressing the **UP** or **DOWN** arrows .
 - f. The INQUIRY information appears on the high wall indoor unit display in approximately 1 second after accessing the digital code. Press OK to send as well.
 - g. In the **INQUIRY** mode, all other buttons and operations are invalid except for **UP**, **DOWN** and **OK** or the operation to exit the **INQUIRY** mode.

Remote Controller Service Mode Functions

Note: While in the INQUIRY mode, refer to the following instructions to enter SERVICE mode for the applicable codes.

Below is a list of INQUIRY modes and serviceable functions.

- a. Before using the remote's service functions, turn **OFF** the indoor unit with the remote.
- b. Turn **OFF** the power to the outdoor unit for 2 minutes. Turn the power back **ON**.
- c. Remove the batteries from the remote and wait for the remote screen to clear. Within 30 seconds of replacing the batteries, use UP or DOWN to scroll through the INQUIRY modes.
- d. To enter the **SERVICE** mode for an applicable **INQUIRY** mode, press **ON/OFF** for 2 seconds.
- e. After SERVICE adjustments have been made, press ON/OFF for 2 seconds to exit the SERVICE mode and return to the INQUIRY mode.
- f. Once operations in the INQUIRY mode are complete, press ON/OFF and FAN SPEED for 2 seconds to exit. All buttons on the remote controller are disabled for 60 seconds
- g. To ensure changes are locked, power down the outdoor unit for three (3) minutes after all the service mode changes are made.

SERVICE INQUIRY CODES

Table 1 —Service and Inquiry Codes (Sheet 1 of 3)

CODE	INQUIRY		SERVICE/	FOR SERVICE, PRESS ON/OFF FOR 2 SECONDS TO:	SELECTION GUIDE/NOTES
0		Error Code Check	SERVICE AND INQUIRY	Review error memory function. Displays "Ch". Press OK to send the query error code memory.	
1	T1	Indoor Ambient Temperature	SERVICE AND INQUIRY	Change the power off memory selection. This feature determines whether the unit memorizes the set conditions prior to a power failure. Displays "Ch". Press OK to return the current setting. Press UP or DOWN to cycle through settings 1 and 0.	0. Memory settings are off 1. Memory settings are on
2	T2	Indoor Coil Temperature	SERVICE AND INQUIRY	Change the option to control the indoor fan operation after reaching the set temperature. Displays " Ch ". Press OK to return the current setting. Press UP or DOWN to cycle through settings 1 through 11. Next, press OK to confirm the selection.	 Stop the fan Minimum fan speed Set speed intermittent fan-off 4 minutes/on 1 min Terminate after run time of 10 mins Terminate after run time of 15 mins Terminate after run time of 20 mins Terminate after run time of 30 mins Terminate after run time of 40 mins Terminate after run time of 50 mins Terminate after run time of 60 mins
3	Т3	Outdoor Coil Temperature	SERVICE AND INQUIRY	Change the option to control the COOLING and HEATING modes available for use on the unit. Press UP or DOWN to cycle through the settings CH , HH , CC or nU . Press OK to confirm.	CH - COOLING and HEATING: AUTO, COOLING, DRY, HEATING and FAN modes available HH - HEATING Only: HEATING and FAN modes available CC - COOLING without AUTO: COOLING, DRY and FAN modes available nU - COOLING and HEATING without AUTO: COOLING, DRY, HEATING and FAN modes available
4	T4	Outdoor Ambient Temperature	SERVICE AND INQUIRY	Change the selection of the lowest set temperature. NOTE: Temperature range is 60°F ~ 75°F (16°C ~ 24°C). Press UP or DOWN to select temperature setting. Press OK to confirm.	
5	TP (T5)	Compressor Discharge Temperature	SERVICE AND INQUIRY	Change the selection of the highest set temperature. NOTE: Temperature range is 77°F ~ 86°F (25°C ~ 30°C). Press UP or DOWN to select the temperature setting. Press OK to confirm.	
6	FT	Compressor target frequency	INQUIRY ONLY		
7	Fr	Compressor run frequency	INQUIRY ONLY		
8	dL	Unit amperage	SERVICE AND INQUIRY	Change the static pressure selection. Displays "Ch". Press OK to return the current setting. Press UP or DOWN to cycle through settings 0 through 4 or AF (constant air volume test). Press OK to confirm.	Only available on ducted/40MBAA units. Refer to the ducted/40MBAA installation manuals for Fan performances at varying static pressures for airflow settings.
9	Uo	Unit voltage	INQUIRY ONLY		
10	Sn	Capacity test (special usage)	INQUIRY ONLY		
11		Not available	INQUIRY ONLY		

(Sheet 2 of 3)

CODE	INQUIRY		SERVICE/	FOR SERVICE, PRESS ON/OFE FOR 2 SECONDS TO:	SELECTION GUIDE/NOTES
		DEGORATION	Intection	Change the heating frequency lower limit	
12	Pr	Indoor fan speed	SERVICE AND INQUIRY	Displays "Ch". Press OK to return the current heating minimum frequency limit selection code. Press UP and DOWN to select the minimum heating frequency limit value. Press OK to confirm.	
				Change the maximum operating frequency of	
13	Lr	Electronic Expansion Valve (EEV) opening	SERVICE AND INQUIRY	Displays " Ch ". Press OK to return the current operating frequency code of the T4 Cooling Only intervals. Press UP or DOWN to select the limit value and then press OK .	
14	ir	Indoor fan speed	INQUIRY ONLY		Multiple the display number by 8 to calculate the actual RPM
15	HU	Relative Humidity	INQUIRY ONLY		Available in INQUIRY mode for the high tier/new mid tier units that have an RH sensor.
16	TT	Setpoint compensation temperature	INQUIRY ONLY		
17	dT	Dust concentration (not used)	INQUIRY ONLY		
18	WIFI	Wi-Fi signal strength	INQUIRY ONLY		The value is measured in dBm . The display values are 0, 1, 2, 3 and 4 (4 is the highest and 0 is the lowest)
				Change the cooling frequency upper limit	
19		Not available	SERVICE ONLY	Displays "Ch". Press OK to return the current frequency limit. Press UP or DOWN to select the preferred frequency upper limit value (in Hz). Press OK to confirm.	For example, the unit may be factory set to fluctuate between 40 and 84 Hz. If set to 50, the unit will now be limited to operating between 40 and 50 Hz.
20	οТ	Indoor fan target frequency	SERVICE AND INQUIRY	selection in Hz. Displays " Ch "; press OK to return the current frequency limit. Press UP or DOWN to select the preferred frequency upper limit value (in Hz). Press OK to confirm.	For example, the unit may be factory set to fluctuate between 40 and 84 Hz. If set to 50, the unit is limited to operating between 40 and 50 Hz.
				Change the cooling temperature compensation value.	
21		Cooling Temperature Compensation	SERVICE ONLY	Displays "Ch". Press OK to return the current temperature compensation value code. Press UP or DOWN to select the cooling temperature difference compensation value. Press OK to confirm.	This setting is used to adjust for temperature differences due to the height of the unit install. The offset value can be set at a range of -6° to $+6^{\circ}$.
				Change the heating temperature compensation value	
22		Heating Temperature Compensation	SERVICE ONLY	Displays "Ch". Press OK to return the current temperature compensation value code. Press UP or DOWN to select the heating temperature difference compensation value. Press OK to confirm.	This setting is used to adjust for temperature differences due to the height of unit installation. The offset value can be set at a range of -6° to $+6^{\circ}$.
23		Maximum Cooling Fan Speed	SERVICE ONLY	Change the maximum cooling fan speed setting as it relates to RPM. Displays "Ch". Press OK to return the current maximum cooling fan speed setting. Press UP or DOWN to select the maximum cooling fan speed. Press OK to confirm.	For example, the unit may be factory set to fluctuate between 300 and 1000 RPM. If set to 800, the unit is limited to operating between 300 and 800 RPM.

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CODE	INQUIRY	SERVICE/	FOR SERVICE,	
CODE	DESCRIPTION	INQUIRY	PRESS ON/OFF FOR 2 SECONDS TO:	SELECTION GUIDE/NOTES
24	 Minimum Cooling Fan Speed	SERVICE ONLY	Change the minimum cooling fan speed setting as it relates to RPM. NOTE: Changing this setting is not recommended as it may trigger unit protection protocols. Displays "Ch". Press OK to return the current minimum cooling fan speed setting. Press UP or DOWN to select the minimum cooling fan speed. Press OK to confirm.	For example, the unit may be factory set to fluctuate between 300 and 1000 RPM. If set to 500, the unit is limited to operating between 500 and 1000 RPM.
25	 Maximum Heating Fan Speed	SERVICE ONLY	Change the maximum heating fan speed setting as it relates to RPM. Displays "Ch". Press OK to return the current maximum heating fan speed setting. Press UP or DOWN to select the maximum heating fan speed. Press OK to confirm.	For example, the unit may be factory set to fluctuate between 300 and 1000 RPM. If set to 800, the unit will now be limited to operating between 300 and 800 RPM.
26	 Minimum Heating Fan Speed	SERVICE ONLY	Change the minimum heating fan speed setting as it relates to RPM. Note: Changing this setting is not recommended as it may trigger unit protection protocols. Displays "Ch". Press OK to return the current minimum heating fan speed setting. Press UP or DOWN to select the minimum heating fan speed. Press OK to confirm.	For example, the unit may be factory set to fluctuate between 300 and 1000 RPM. If set to 500, the unit is limited to operating between 500 and 1000 RPM.
27	 Not available			
28	 Not available			
29	 Not available			
30	 Not available			