



GAMA Electronics, Inc.

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RF Receiver Model # RFR12V1C-MB Instruction Manual

Overview:

The RFR12V1C-MB is an RF receiver operating at a fixed frequency of 340 MHz. The receiver operates from 12VDC and provides one isolated form C relay contact (normally open and normally closed contacts with one common). The receiver works with KF340-12, 12 button keyfobs. The receiver can be set up to respond to any button on any keyfob and can be set up with multiple buttons and/or keyfobs. Up to 42 buttons can be stored in the receivers memory. The desired buttons are programmed into the receivers memory during the programming process. The receiver's relay can be configured to function as a latching relay or momentary relay. Each transmitter has a unique address that is transmitted along with the button number when a button is pressed. The relay mode (latching or momentary) is programmed into the receiver's memory during the programming process. A "program" button is provided on the receiver to program the transmitter(s) address and button number into the receiver's memory. An LED on the receiver indicates the receiver's programming status and illuminates when the relay is energized. The receiver is encased in a small, waterproof enclosure. The keyfob transmitter and receiver have an operating range of at least 100 feet. The receiver provides five, 1/4" push-on terminals for connecting the power and relay contacts.

"Latching" vs. "momentary" relay operating modes:

When the receiver is configured for "latching" mode, the relay will toggle on and off each time a programmed button is pressed on the keyfob(s). If multiple buttons / keyfobs are used any programmed button can energize the relay and any programmed button can de-energize the relay.

When the receiver is configured for "momentary" mode the relay will energize and remain energized as long as the programmed button is pressed.

Maximum ratings:

Power for the receiver can be in the range of 10 to 15Vdc. The receiver is reverse polarity protected.

The relay contacts are electrically isolated from the DC power leads.

The relay contacts are rated at 8 Amps @ 30Vdc or 120/240Vac.

Power consumption:

10mA when the relay is de-energized. 45mA when the relay is energized.

Power connection:

12Vdc power connects to the terminals marked "+" and "-".

Relay contact connection:

Common connects to the terminal marked "COM".

The normally open contact connects to the terminal marked "NO".

The normally closed contact connects to the terminal marked "NC".

Dimensions:

1.65" X 1.46" X 1.04". The flexible whip antenna extends 3" from the enclosure.

Net weight 2.35 oz.



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Programming instructions:

Each keyfob transmitter has its own unique internal address along with the data as to which button is pressed that is transmitted whenever a button on the keyfob is pressed. The receiver needs to be programmed to respond only to specific keyfob buttons it is intended to operate with. The following steps configure the receiver to operate with a particular keyfob transmitter(s) button(s). Up to 42 keyfob buttons can be programmed to one receiver. Please read the entire programming procedure before starting. Prior to programming the receiver, verify that the receiver is connected to the input power. When the receiver enters program mode, all previous transmitter addresses that were programmed will be erased from the receiver's memory.

1. Locate the pushbutton labeled "PROGRAM" on the receiver. Press and hold this button until the red LED next to the program button illuminates (approximately 3 seconds). The receiver is now in the transmitter program mode. Release the button. At this point all previously programmed transmitter addresses are erased from the receiver's memory.
2. On the 12 button keyfob, press the desired button you wish the receiver to respond to. The red LED on the receiver extinguishes and then illuminates (blinks once). Release the button.
3. Repeat previous step for additional key fob buttons that you desire this receiver to respond to. The red LED on the receiver will blink each time a new button is pressed.
4. Latching / Momentary: If a keyfob button is pressed that has already been programmed the receiver will switch to "Latching" mode. If the same button is pressed again, "momentary" mode will be selected again. The receiver will alternate between modes each time a programmed button is pressed. When in the "latching" mode the LED will flicker as each new button is programmed in stead of blinking off then on.
5. The receiver will return to normal mode if no transmitter buttons are pressed for 5-seconds. The red LED on the receiver will blink rapidly, then extinguish. The receiver is now in the normal mode of operation. This completes the programming instructions. The receiver will retain all of its programming even when power is removed.