



GAMA Electronics, Inc.

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RF Receiver Model # RFR24V1C Instruction Manual

Overview:

The RF24V1C is an RF receiver operating at a fixed frequency of 340 MHz. The receiver operates from 24VDC and provides one isolated form C relay contact (normally open and normally closed contacts with one common). Up to twelve, two button keyfob transmitters (model KF340-2) can be used to activate the receiver's relay. The relay can be configured to function as a latching relay or momentary relay. Each transmitter has a unique address that is transmitted when a button is pressed. A "program" button is provided on the receiver to program the transmitter(s) address into the receiver's memory. The relay mode (latching or momentary) is programmed into the receiver's memory during the programming process. 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 typical operating range between receiver and transmitter is up to 100 feet.

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

When the receiver is configured for "latching" mode, the relay will energize when the "UP" button is pressed on the keyfob. The relay will remain energized until the "DOWN" button on the keyfob is pressed. If multiple keyfobs are used any keyfob can energize the relay and any keyfob can de-energize the relay.

When the receiver is configured for "momentary" mode the relay will energize and remain energized as long as the "UP" button is pressed on the keyfob. The "DOWN" button on the keyfob transmitter has no effect in this mode.

Maximum ratings:

Power for the receiver can be in the range of 21 to 24Vdc. The receiver is reverse polarity protected.

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

The relay contacts are rated at 10 Amps @ 30Vdc or 120/240Vac.

Power consumption:

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

Dimensions:

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

Net weight 2.35 oz.

Programming instructions:

Each keyfob transmitter has its own unique internal address that is transmitted whenever a button on the keyfob is pressed. The receiver needs to be programmed to respond only to keyfob transmitters it is intended to operate with. The following steps configure the receiver to operate with a particular keyfob transmitter(s). Up to twelve keyfob transmitters 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 5 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. To configure the receiver as a latching type relay, go to step 4.
3. To configure the receiver relay to operate in momentary mode press the up button on the keyfob transmitter and verify that the red LED on the receiver extinguishes and then illuminates (blinks once). Release the up button. Proceed to step 5.
4. To configure the receiver relay to operate in latching mode press the down button on the keyfob transmitter and verify that the red LED on the receiver extinguishes and then illuminates (blinks once). Release the down button.



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5. Repeat previous step for additional key fob transmitters that will operate with this particular receiver. The red LED on the receiver will extinguish and illuminate one time for the first transmitter being programmed, twice for the second, three times for the third, four times for the fourth etc. The receiver will not respond to transmitters that have already been programmed. The first keyfob transmitter that is programmed determines the receiver's relay operating mode.
6. After 5-seconds of no switch being pressed on the transmitter(s) the receiver will return to normal operation. 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 it's programming even when power is removed.