



## **RF Receiver Model # RFR12V1C Instruction Manual**

**Overview.** The RFR12V1C is a RF receiver operating at a fixed frequency of 340 MHz. The receiver operates from 12-volts DC input power and provides one isolated Form "C" relay contact output (normally open and normally closed contacts with one common). The receiver operates with Model KF340-2 transmitter. Up to 12 transmitters can be stored in the receiver's memory, and are programmed into the receiver's memory during the programming process. A "program" button is provided on the receiver to program the transmitter(s) address into the receiver's memory. A 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 receiver provides five, 1/4" push-on terminals for connecting the input power and output 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 switch is pressed on the transmitter. When the receiver is configured for "momentary" mode the relay will energize and remain energized for as long as the switch is pressed.

**Operating Temperature Range.** 0° F to 160° F

**Maximum Ratings.** Power for the receiver can be in the range of 10 to 15 Volts DC. It is recommended that a 12-volt deep cycle marine battery be used to power the receiver. 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 @ 30 Volts DC or 120/240 Volts AC.

**Power Consumption.** 10 Milliamperes when the relay is de-energized. 45 Milliamperes when the relay is energized.

**Input/output Connections.** 12Volts DC input power connects to the terminals marked "+" and "-" on the top panel of the receiver. For the relay contact connections, 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.** Receiver dimensions are 1.65"W x 1.46"D x 1.04"H. The receiver weighs 2.35 oz.

**Programming Instructions.** Each transmitter has its own unique internal address along with the data as to which button is pressed and transmitted. The receiver needs to be programmed to respond only to the specific transmitter it is intended to operate with. The following steps configure the receiver to operate with a particular transmitter. Up to 12 transmitters can be programmed to one receiver. Please read the entire programming procedure before starting. 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. To configure the receiver for a latching output, go to Step 4.
3. To configure the receiver for momentary output, press and release the UP button on the transmitter and verify that the red program LED extinguishes and then illuminates (blinks once). Proceed to Step 5.
4. To configure the receiver for latching output, press and release the DOWN button on the transmitter and verify that the red program LED extinguishes and illuminates (blinks once).
5. Repeat previous step for additional transmitters that will operate with this particular receiver. The red LED on the receiver will extinguish and illuminate (blink) once for the first transmitter being programmed, twice for the second, three times for the third, etc. The receiver will not respond to transmitters that have already been programmed. The first transmitter that is programmed determines the receiver's relay operating mode.
6. 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.