

GAMA ELECTRONICS

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LRF240V-2PR1L Instruction Manual



Included in this Kit:

- (1) LRF240V-2PR1L Receiver
- (1) Keyfob Transmitter
- (1) Long Range Antenna LRA340

Available accessories:

- Extra Long Range Antenna LRA-340
- Additional Transmitter RFT340-2PR1L
- Waterproof Transmitter RFT340-2PR1L-WP
- Rechargeable Transmitter RFT340-2PR1L-WPTX
- Package of 6 A23 12V Alkaline Batteries A23-6
- Clear Protective Transmitter Pouch ZLB-67

The LRF120V2PR1L is an RF receiver operating at a fixed frequency of 340 MHz. It operates from 240VAC and provides two polarity reversing output for use with a four/six lead AC motor. The receiver has provision for two normally-closed limit switches, one for either direction for each motor output. The receiver is not designed to operate with any existing hand or drum switch. The receiver is equipped with a manual toggle switches. An additional latching output is available for connecting to a 240VAC light. Up to thirty, transmitters can be used to activate the receiver's relays. The receiver has a terminal block for connecting the power and relay contacts. 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. An LED on the receiver indicates the receiver's programming status and illuminates when the receiver is energized. The receiver is encased in a waterproof enclosure. The operating range is approximately 500 ft. Operating temperature range is 0°F to 160°F.

Polarity Reversing Outputs: The transmitter has two buttons assigned to each motor output. The up (^) button runs the motor in one direction and the down (v) button runs the motor in the opposite direction. The reversing function accomplished by reversing the phase on two of the four motor connections at the receiver output. Using the ALL buttons will operate both motors simultaneously

Manual Switches: The receiver is equipped with 2 manual switches. This switch replaces any hand or drum switch previously connected to the motor.

Limit Switches: The receiver is equipped with 2 limit switch provisions for each motor. This switch allows the user to stop the motor using a normally closed limit switch on either direction. *NOTE: The system is shipped with the limit switches disabled. To use the limit switches you will need to remove the jumper wire between the switch inputs.

Light Output: The light output is activated using the light button on the transmitter. Press the light button once to latch this output on. Press the light button again to turn the light output off.

Maximum Ratings: Power for the receiver can be in the range of 100VAC to 132VAC. The relay contacts are rated at 20 Amps. Two separate AC inputs are provided, one for each motor.

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 30 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.

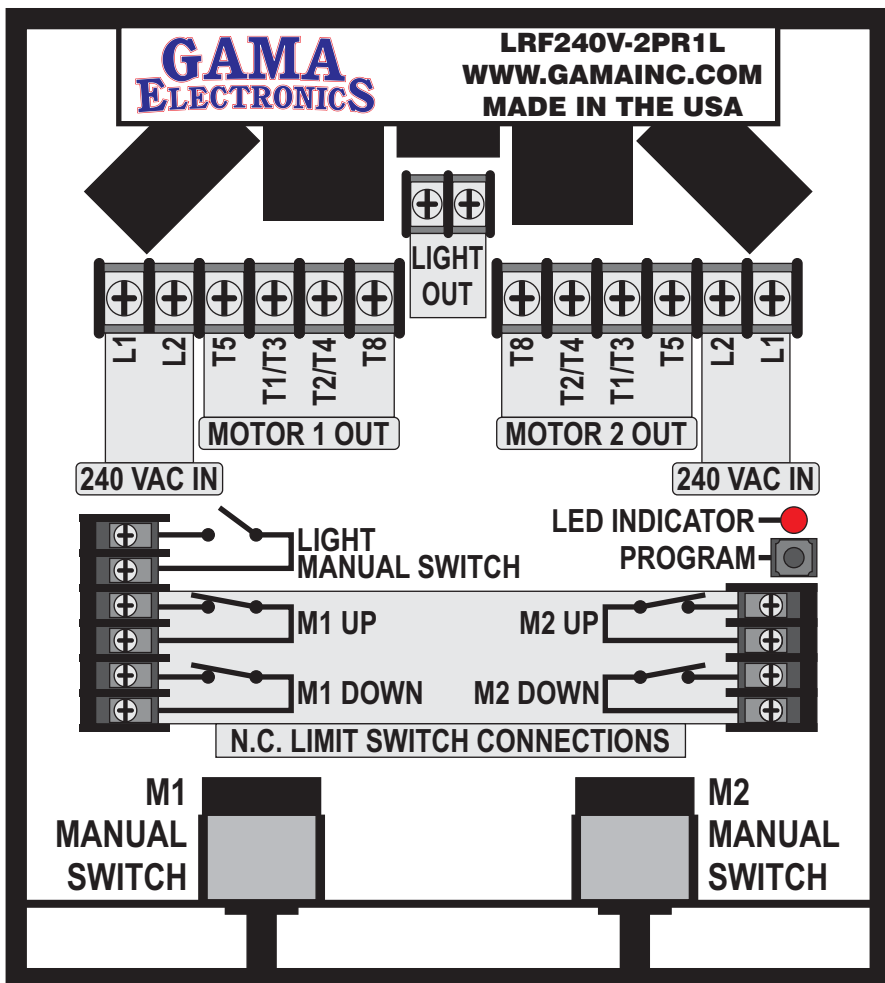
1. Locate the pushbutton labeled "LEARN" on the receiver. Press and hold this button until the red LED next to the program button illuminates (approximately 3 seconds). The receiver is now in the transmitter program mode. Release the button. At this point all previously programmed transmitter addresses are erased from the receiver's memory.
2. To configure the receiver for momentary output, press and release the UP or DOWN button on the transmitter ONCE and verify that the red program LED extinguishes and then illuminates. Proceed to Step 3.
3. 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 each transmitter being programmed. The receiver will flash the LED rapidly to transmitters that have already been programmed. The last transmitter that is programmed determines the receiver's relay operating mode (momentary or latching).
4. 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.

Wiring Instructions

Prior to this, verify that there is no power at any of the motor terminals.

1. Disconnect or turn off the circuit breaker to remove power (if a hand or drum switch is connected to the motor it will need to be disconnected). Take notes before disconnecting the switch in the unlikely event it will need to be reconnected.
2. See motor connections using the tables on pages 6-15 . Reference page 4 for directions to terminal connections specific to the motor.
3. 240VAC power is connected to the L1 and L2 terminals of the receiver. Each motor requires an independent 240V source.

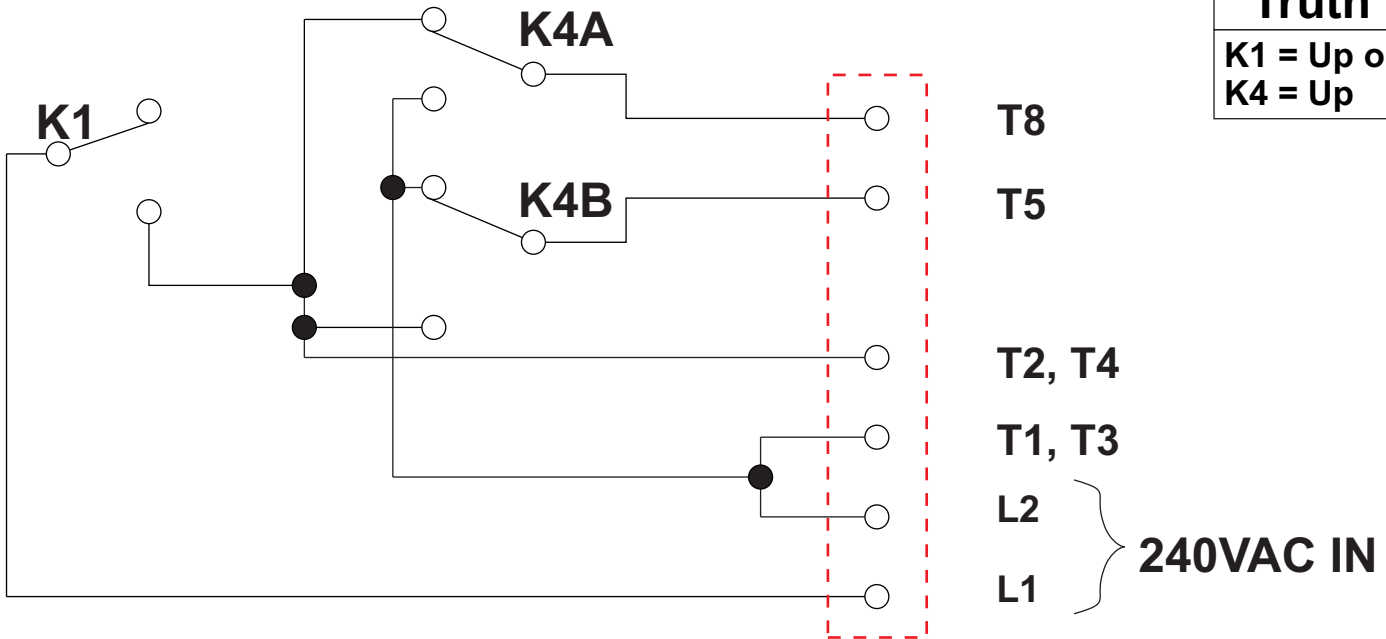
NOTE: After completing the installation, if the motor goes the wrong direction, simply swap the wires connected to T5 and T8 on the receiver. The motor will now rotate in the correct direction. The 240VAC light connects between “common” and “light” terminals on the receiver.



NOTE: The unit is shipped with the limit switches bypassed. To use the limit switches, remove the wire between the limit switch terminals and connect normally closed limit switches as shown.

Schematic

One of Two Motor Circuit Shown



Truth Table

K1 = Up or Down
K4 = Up

Relays shown in off position

Troubleshooting

All remote-control systems shipped by GAMA Electronics are 100% functionally tested just prior to shipment.

If your RF remote control system does not work out of the box, stops working or functions intermittently please take the following steps to resolve common issues. Please note that you must be 2-3 feet away from the receiver when operating the remote control. Operating within 2-3 feet may result in no operation or intermittent operation.

1. Replace the A23 12V Battery in the transmitter

- The remote control can activate during shipping and drain the battery that is installed in the control. We send a replacement battery with the system if this occurs.

2. Check the voltage supply at the receiver

- The receiver is designed to function at 200-277VAC. Voltage on the L1 and L2 terminals on the control should be within this range.

3. Check the limit switch connections

- If normally closed limit switches are not connected to the control, there should be a jumper wire between the 2 limit switch connections for each function.

4. Reprogram the remote control

- If the system is non-functional try to reprogram the remote control. The program may not have taken during the programming process or the program button may have been pressed. If the program button is pressed the memory of the remote controls programmed to the receiver are erased.

5 Listen and look for functionality on the receiver.

- The LED that is used for programming the system will illuminate when the receiver is activated. You will also hear a “click” when the internal relays engage. If you can see the LED illuminate and you hear the relay “click” the issue is most likely in the wiring or device being controlled.

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Motor Name	Figure
STANDARD MOTOR WITH "T" NUMBERS	See Figure 1
STANDARD MOTOR WITH COLORED WIRE	See Figure 2

