

# LONG RANGER

Wireless Remote Transmitter & Receiver

## Applications

The LR-650 & LR-652 are remote control devices consisting of a transmitter (key fob) and receiver that provide long range wireless control. With an operating range up to 450 feet, these devices are used to control a variety of home automation products, including garage door openers, lights, gates, doors and much more. The LR-650 has a single relay output while the LR-652 has two relay outputs that can operate two different functions or devices.

# LR



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## FEATURES

- Receiver operating voltage 11VDC-24VAC/DC with current drain as low as 8mA making it suitable for solar applications
- Form "C" relay output (NO/COM/NC)
- 4-output modes (1 sec, 4 sec momentary, toggle and latch)
- Receiver available in one channel or two channel

### Extended Range Antenna

- 1100 foot max.
- Easily plugs into connector on receiver motherboard
- 9 feet of coax included
- 5 VDC @ 4.0mA current draw
- 315 MHz frequency
- Sensitivity 0.89mV @ -108dBm
- Bandwidth 3.0 MHz (-3dB)
- Works on LR 650-RX and LR 652-RX



LR 650-RX



LR 652-RX



LR 650-  
TX1B/VC



LR 650-  
TX2B/VC



LR 650-  
TX4B/VC



LR 650-TX-P



LR 652-TX

## Technical Data (LR 650 and LR 652 Receivers)

<b>Operating frequency</b>	315 MHz
<b>Operating voltage</b>	11 – 17.5 VDC; 11 – 16 VAC (LR 652), 11 – 24 VDC; 11 – 24 VAC (LR 650)
<b>Operating distance</b>	450 feet open air, 1100 feet with optional dipole antenna (LR-Dipole)
<b>Operating temperature</b>	-4° F to + 162°F (-20°C to + 72°C)
<b>Current draw</b>	8 mA @ 12 VDC (standby) / 60 mA per channel @ 12 VDC (activated) (LR 652) 15 mA @ 12 VDC (standby) / 45 mA @ 12 VDC (activated) (LR 650)
<b>Sensitivity</b>	-87 dBm (typical)
<b>Data format</b>	PWM
<b>RF codes</b>	68 billion
<b>RF channels</b>	1 (LR 650) 2 (LR 652)
<b>Number of stored transmitter codes</b>	15 per channel x 2 (LR 652)
<b>Receiver outputs</b>	Form "C" dry contact (N.O./N.C./Common) x 2 (LR 652) 10A @ 24 VDC
<b>Output modes (programmable)</b>	4 sec momentary (default), 1 sec momentary, toggle or latch
<b>Connectors</b>	Quick connect screw terminals
<b>Case material</b>	High-impact ABS plastic
<b>Approvals</b>	FCC

## Ordering Information

- LR 650-TX One button transmitter
- LR 650-TX-P One button programmable transmitter
- LR 650-RX One channel receiver
- LR 650-RX-4X One channel receiver in NEMA 4 housing
- LR 652-TX Two button transmitter
- LR 652-RX Two channel receiver
- LR 650-TX1B/VC One button visor clip
- LR 650-TX2B/VC Two button visor clip
- LR 650-TX4B/VC Four button visor clip
- LR-DIPOLE Extended range antenna

WARRANTY EMX INC. the product described herein for a period of 2 years under normal use and service from the date of sale to our customer. The product will be free from defects in material and workmanship. This warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products, or damage caused by the purchaser from incorrect connections, or lightning damage. There is no warranty of merchantability. There are no warranties expressed, implied or any affirmation of fact or representation which extend beyond the description set forth herein. EMX Inc. sole responsibility and liability, and purchaser's exclusive remedy shall be limited to the repair or replacement at EMX's option of a part or parts not so conforming to the warranty. In no event shall EMX Inc. be liable for damages of any nature, including incidental or consequential damages, including but, not limited to any damages resulting from non-conformity defect in material or workmanship. Rev 1.1 12/16/14

