

Overview

The REC-14 is a general purpose UHF receiver operating on 315MHz, 433MHz and 868MHz. Four single pole double throw (SPDT) outputs are available to control external devices. The receiver is designed for use with Microlatch 1, 2 or 4 channel key fobs. This system uses code hopping technology for secure RF transmissions. The REC-14 IP65 version of the product is supplied in an IP65 rated ABS plastic enclosure which allows installation of the receiver in an external environment with water resistance. Cable entry is via a cable gland at the bottom of the case. The antenna is weatherproof and detachable.

Installation Tips for Best Performance

To ensure best performance from this product DO NOT install the receiver on or next to a metallic surface. If this is unavoidable, the antenna will need to be brought clear of the metal via a coaxial cable. The remote Antenna BNC (ANT-01) connector should be wrapped in self amalgamating tape or the internal pin coated with silicone grease if installed near salt water. If range is poor and interference from another source has been eliminated, try moving or re-orientating the receiver.

Specifications

Operating Voltage:	9 to 24VDC, 9 to 24VAC
Current Consumption @ 12VDC:	Standby 14mA, All relays 56mA
@ 24VDC:	Standby 28mA, All relays 75mA
@ 16VAC:	Standby 28mA, All relays 73mA
Physical Dimensions:	IP65 Case 160mm x 90mm x 55mm Antenna tube 130mm, Case 108mm x 70mm x 34mm
Case Material:	ABS plastic
Output Channels:	4
Output Ratings:	SPDT relay 1 Amp switching maximum @ 24VDC Contacts are voltage free
Reverse Polarity Protection:	Yes (diode)
RF Operating Frequency:	315MHz, 433MHz and 868MHz
RF Signal Type (Data Transfer):	AM/ASK, Keeloq™ Code Hopping
Coding Combinations:	4.2 billion
Learning Capacity (RF Devices):	255 fobs
Country of Manufacture:	China

Warranty

Microlatch Pty Ltd. warrants this product to be free from defects in materials and workmanship for a period of 1 year from date of purchase. In the event of failure, we will repair or replace the product at our sole discretion. This warranty does not apply in the event of accidental damage, abuse, misuse, non approved purpose or act of God. Microlatch reserves the right to change specifications without notice in the interest of product development.

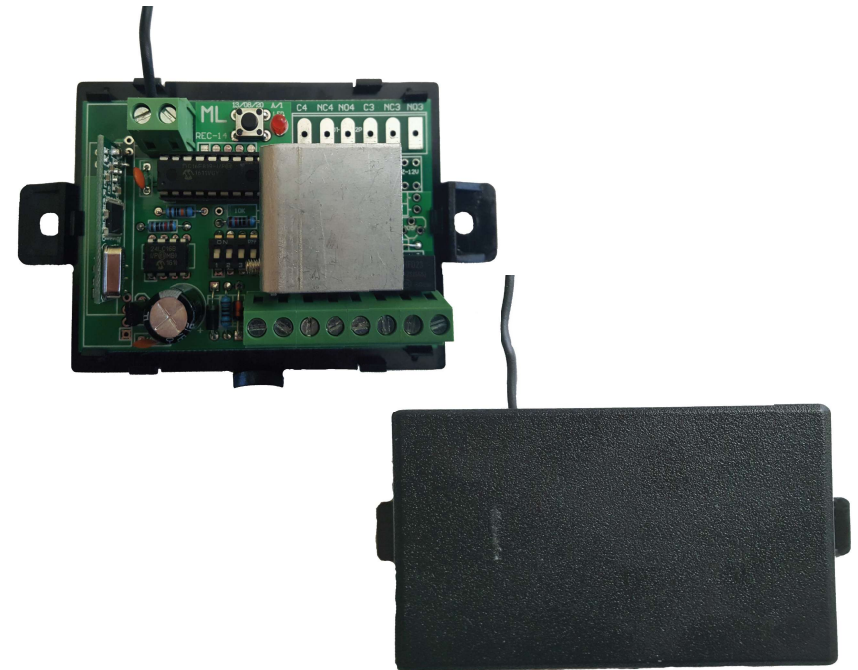
Manufactured By:



Omni-Pass Receiver

2 Channel RF Receiver Controller Installation Guide

TPS-REC-14



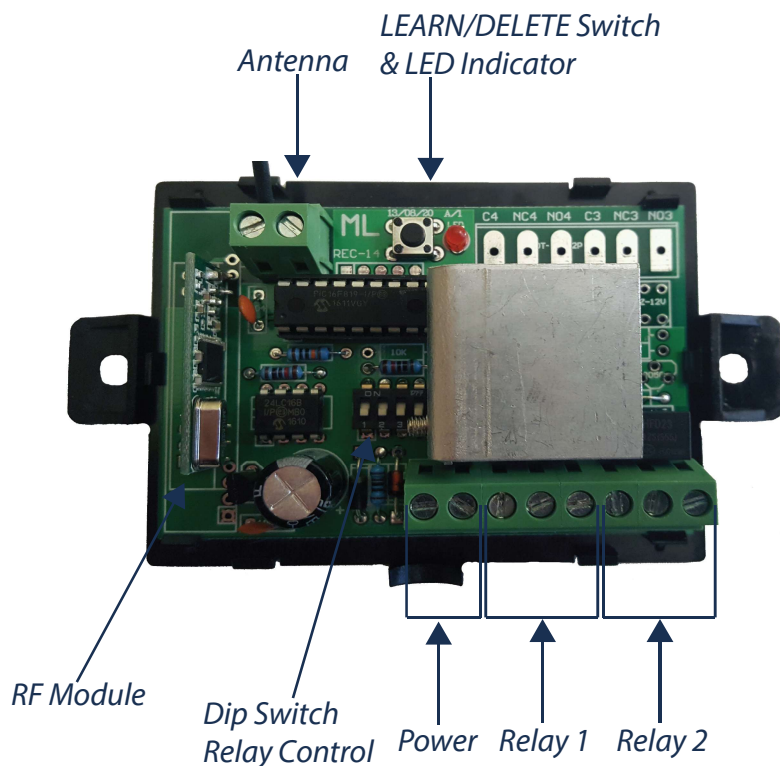
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Installation (Outdoor)

The REC-14 IP65 case should be wall mounted using the four (4) holes at the bottom of the case. These are outside the sealed area of the box so water ingress is minimized. The product is supplied with a seal for the lid of the case. This should be installed into the groove in the lid. Cut off any excess. Push the antenna wire into the tube, slide the antenna tube through the cable gland and tighten, ensuring the rubber seal is in place.

For installations, such as electric gates, the unit should be mounted next to or near the gate control box. If using a different antenna, this may be connected to the terminals on the receiver PCB via the cable gland on the top of the case. The REC-14 should be mounted as high as possible for best reception.



Learning Fobs

This receiver is code learning therefore making the addition of extra transmitters an easy task.

1. If the receiver is being set up for the first time, it is advisable to clear the EEPROM memory. (read Deleting Fobs and Reset Timings)
2. Press the LEARN/DELETE switch briefly. The LED will flash rapidly.
3. LEARN fobs to the receiver by pressing a button on the fob. The LED will stop flashing while a signal is received and then start flashing again once you have stopped pressing the button, indicating a successful learning of the fob. The first learned fob will be marked as the Master Fob.
4. Learn additional transmitters or exit learning mode by pressing the LEARN/DELETE switch once. If you forget to exit learn mode (flashing LED) the receiver will do so automatically after 10 seconds of no activity.

Set Timing

The timings of each relay can be set by any learned fob. The relays are factory set at 1 second. Settings are as follows: button 1 = 1 second, button 2 = 5 seconds, button 3 = 10 seconds, button 4 = 15 seconds

1. Use only pre-learned Microlatch key fobs.
2. Press the LEARN/DELETE switch twice within 4 seconds. The LED will then remain on (no flashing) meaning the receiver is now in Timing mode.
3. Press the learned fob twice to set the timing of each relay: button 1 corresponds to relay 1, button 2 corresponds to relay 2, button 3 corresponds to relay 3 and button 4 corresponds to relay 4.
 - (A) The button pressed first designates the corresponding relay to be timed.
 - (B) The button pressed second defines the timing to the selected relay. For example, if you want relay 2 set at 10 seconds, first press button 2 (relay 2) then press button 3 (timing for 10 seconds).
 - (C) DO NOT press the buttons too quickly and wait for about one second between button presses. The LED will flash once after pressing the button to indicate a successful learning.
4. Press the LEARN/DELETE switch once again to exit the timing setting mode. If you forget to exit this mode (LED remains on) the receiver will do so automatically after 10 seconds of no activity.

Master Fob

The first learned fob will be defined as the Master Fob. This is a useful feature in that new fobs can be learned without having to physically press the LEARN/DELETE on the REC14 circuit board.

To learn a new fob, press buttons one (1) and two (2) of the Master Fob at the same time. REC-14 LED will flash quickly for approximately 10 seconds indicating the device is in learning mode. To learn a new fob, simply press any button on the fob. The device will automatically exit learning mode after 10 seconds.

Deleting Fobs and Reset Timings

Press and hold the Learn/Delete switch. The LED will light up. When the LED turns off (approximately 5 seconds), all codes stored in the EEPROM memory will be erased and all the timings will be reset to 1 second. The LED will flash to indicate the successful deletion.

Relay Setup

Each of the four relays can operate as either momentary (operates while a transmission is received) or latching (changes state with each transmission). The 4 way DIP switch is used to set operation. With the switch corresponding to the relay set to the ON position, the relay will latch. With the switch in the OFF position (default) the relay will operate in momentary mode.

Power

The REC-14 is designed to operate from 9 to 24VDC and 9 to 24VAC. The onboard transistor regulator will get quite WARM when operating in latched mode at 24VAC/DC. This is normal. DO NOT REMOVE THE HEATSINK.