

REC-21 Antenna Installation

The REC-21 is supplied with the antenna tube removed from the IP65 case. Slide the tube with the rubber seal down over the antenna wire and into the cable gland ensuring that it seats correctly. Tighten the cable gland nut to ensure a watertight fit. If an external antenna is being fitted, the tube should be removed and the coaxial cable fed through the cable gland to the terminal block to ensure a proper seal around the cable.

Operating Voltage:	9 to 24VDC
Current Consumption @ 12VDC:	10mA maximum
Physical Dimensions:	85mm (L) x 65mm (W) x 32mm (H)
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:	433.92 MHz
RF Signal Type (Data Transfer):	AM/ASK, Keeloq™ Code Hopping
Wiegand Outputs:	Conforms to Wiegand Standard
Indicators:	On Keeloq™ Reception - RED LED On Wiegand Transmission - GREEN LED
Output Options:	Shunt Selectable
INT:	10k Pull-ups to 5 Volt DC
REMOVED:	Open Collector
EXT:	+5 Volt output active for user selectable external Pull-ups
FCC Registration:	90891

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 Controller

4 Channel 26 Bit Wiegand Controller

Installation Guide

TPS-REC-20/21



TPS-REC-20
Indoor Receiver



TPS-REC-21
IP65 Outdoor Receiver

Proudly Distributed By:



TPS Technology Group

Overview

This product is designed to provide a convenient, high security RF interface to an access control system which recognizes the Wiegand 26 bit protocol. The REC-20/21 may operate in one of two modes.

Mode 1

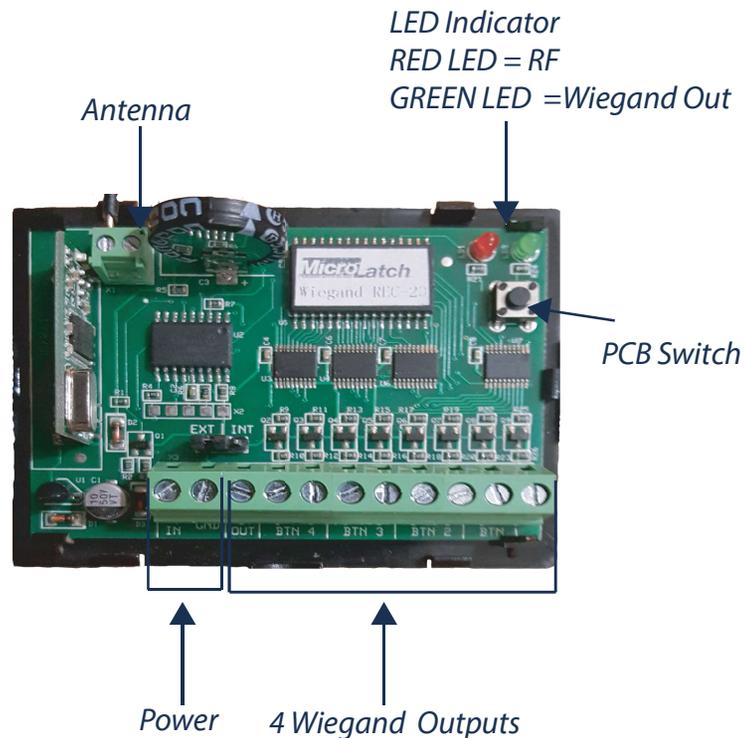
The received signal is decoded into a 26 bit Wiegand number and the output corresponding to the button pressed on the fob (1, 2, 3, 4) transmits information for input to the access control system. In this mode, up to 4 entry/exit points may be controlled from the one receiver.

Mode 2

The received signal is decoded into a 26 bit Wiegand number and output on "BTN 1". Each button on the fob increments the user number by one. For example, if the fob is programmed as site 123 with button 1 outputting user 456, button 2 will then be user 457, button 3 user 458 and button 4 user 459.

Note: The above modes of operation are determined by the fob programming in the factory. The REC-20/21 can manage up to 32,000 fobs in an active users database. Inactive users are automatically deleted. The REC-20/21 will only function with Microlatch fobs programmed with Wiegand.

The REC-20/21 has an onboard 4Mb super capacitor backed RAM which manages all fobs. The super capacitor will provide a minimum 24 hour backup in hostile (high temperature) environments. In normal operating conditions (77° F) backup in excess of 7 days can be expected.



Installation and Set Up

1. Choose a location for the receiver. This location should be clear of metallic objects as much as possible. The antenna should be exposed, not in an enclosure. In the case of the REC-21 being mounted on a metal gate post, the antenna should be brought clear of the post. It is best practice to also install a REC-20 at the location in which the end user will add fobs to the system.

Note: An external 434Mhz antenna may be connected to the small terminal block in place of the wire aerial. This connection should be made using a RG58 50 Ohm coaxial cable. Connect the center conductor to "A" and the shield to "G".

2. Connect receiver to a DC power source (9-25VDC) and connect the Wiegand outputs of the receiver to the access system.
3. The REC-20/21 has 3 pins just above the terminal block. This set of pins allows different configuration of the Wiegand outputs to suit different access systems. With the jumper in the "EXT" position (default) the D0/D1 lines are not connected to a voltage source and the internal 5 volt supply is routed through to the terminal marked "+5V OUT". This will suit most applications where the access system provides the voltage source. With the jumper in the "INT" position, the D0/D1 lines are connected to the internal +5V through 10K Ohm resistors. If the REC-20/21 is not reporting the correct site/user to the access system, the INT jumper position should remedy this. If the REC-20/21 is required to source +5V, but the internal 10K Ohm resistors are insufficient, with the jumper in the "EXT" position, resistors may be wired externally from each D0/D1 terminal to the +5V OUT terminal.
4. Power up the receiver and press the PCB switch three (3) times, holding down on the third press. After 4 seconds the RED and GREEN LEDs will flash together for approximately 15 seconds. This function is clearing the RAM memory. Once the flashing stops, the GREEN LED will be lit. Press the PCB switch once and the LEDs will turn off.
5. The REC-20 is now ready to "LEARN" fobs. Simply press a button on the fob and observe the LEDs on the receiver. On the first press, the RED LED will light up indicating RF reception of a valid signal. Press the same button again and the RED LED will light up as before, followed by the GREEN LED indicating output of a Wiegand transmission.
6. Perform the steps required by your access control system to add a fob. When ready, press the button on the transmitter twice to read into the access system.
7. Save the transmitter and grant access rights per your access control system.
8. Test operation.

Note: When using a separate receiver for programming, you will need to perform step 5 at all receiver locations. The second button press is only required for initial configuration and should be performed after programming as the fob is tested for functionality.