



WatchNET Access Integrated Security Management Software

WAR HAM LRW Long Range Reader User Manual



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Revision History

Revision	Date	Author	Description of Changes
1.0	08/14/2014	Octavio Colantonio	Manual Created.
2.0	01/18/2016	Peter Punzalan	Updated Manual.

Section 1: Installation

1.0 Description

WatchNET WAR Series Long Range Receivers are ideal for long range access control applications, such as gates, raising and lowering barriers, arming and disarming alarm systems, as well as those applications calling for emergency duress. The Receiver was designed to output Wiegand data and install similar to standard proximity readers making for easy integration with most access control systems. WAC Transmitters are available in either a two or four-button configuration and are equipped standard with a potted proximity or contactless smartcard module. This allows the Transmitter to also be used as a presentation-style access credential. For example, a button may be pressed to access a long range application such as a gated parking structure, and then the Transmitter may be presented to an access control reader to allow entry to the building.

1.1 Technical Specifications:

Technology: Long Range

Frequency: 433 MHz

Mounting: USA/EU wall box or flat surface

Dimensions (H x W x D): 6.3 x 3.4 x 2.3" (160 x 82.4 x 58.4 mm)

Transmission: Rolling code + encryption

Weight: 9.3 oz. (289g)

Certifications: FCC, ICC, CE

IP Code: IP65

Voltage: +8 - 24 VDC

Current Draw: 80 mA typical @ 12VDC

Read Range: Up to 150 feet (46 m), Installer adjustable

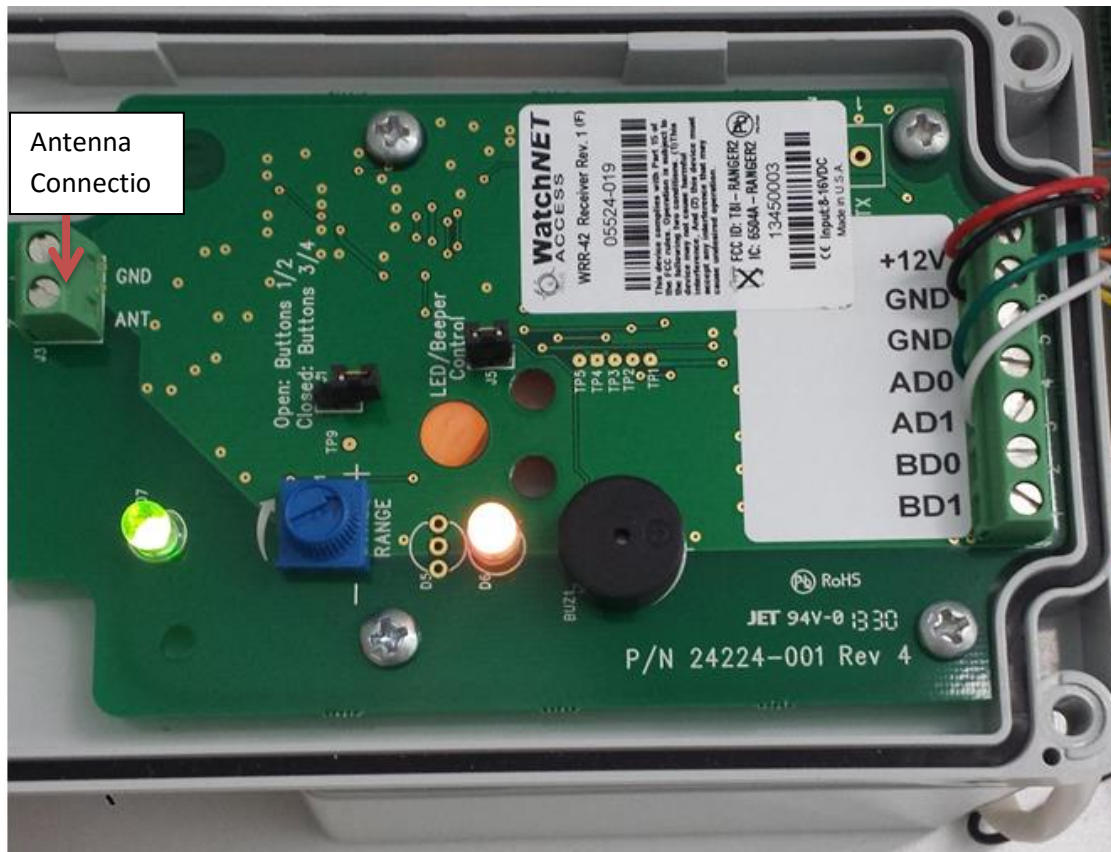
Cabling: 24 AWG min, multi-conductor stranded with an overall foil shield

Interface: Wiegand (26 bit standard and custom formats)

Operating Temp.: -40° F to 149° F (-40° C to +65° C)

- Enclosure Color:** Off-white plastic enclosure
- Audio Tone:** Beeper Standard
- LED:** Four-state standard (red, green, amber & off)
- Installation:** Indoor & Outdoor
- Sealed in weather/tamper-resistant epoxy potting
- Warranty:** 12 months

2.0 Receiver Layout



3.0 Wiring Diagram

Reader Connection

Reader Terminal Block	Description
+12V	+8 – 12VDC
GND	Ground 1
GND	Ground 2
AD0	Data 0 for garage door 1
AD1	Data 1 for garage door 1
BD0	Data 0 for garage door 2
BD1	Data 1 for garage door 2

Connection to WAC Panel

From WAC-HAM-LRW	To WAC Panel
+12V	+12V
N/A	N/A
AD0/BD0	D0
AD1/BD1	D1
GND	GND
N/A	N/A

4.0 Cable Requirements

24 AWG minimum, multi-conductor stranded with an overall foil shield, for example Belden 9540 or similar. Per the SIA's Wiegand specification, maximum cable length is 500-feet (152.4 m).

5.0 Output Formats

Wiegand (industry standard 26-bit Wiegand and custom Wiegand formats)

6.0 Power

Power required is 12 VDC nominal at 120 mA.

7.0 Mounting

The Receiver may be mounted indoors or outdoors. The base of the enclosure includes a drill template providing mounting provisions to a wall box (standard North American and European), as well as pre-drilled holes in the four corners allowing mounting to a flat surface.

Caution: Bonding between conduit connections is not automatic, and must be provided as part of the installation.

8.0 Read Range Adjustment

As shipped, the Receiver is set for the maximum read range, which is nominally up to 200-feet (61 m). This may be reduced by adjusting the range pot in the counter-clockwise direction. Additionally, for optimal read range it is important that the Receiver be mounted as far from potential interference sources as possible. These sources may include, but are not limited to, large metal obstructions, as well as magnetic fields and radio transmissions. Note for each installation, read range may vary.

9.0 Button compatibility



WAC HIT WT2 WAC HIT WT4
WAC AIT WT2 WAC AIT WT4
WAC MIT WT2 WAC MIT WT4

WAC Transmitters are available in either a two or four-button configuration and are equipped standard with a potted proximity or contactless smartcard module. This allows the Transmitter to also be used as a presentation-style access credential. For example, a button may be pressed to access a long range application such as a gated parking structure, and then the Transmitter may be presented to an access control reader to allow entry to the building. These units are rated to typically provide more than 250,000 button presses under normal conditions.