

# 4 Channel Long Range Wiegand Radio Receiver – Up to 60m

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WRR-4



Quick Start Guide

Please read these instructions carefully before operating the unit  
and keep for further reference.

genie

This Quick Start Guide is intended for experienced installing technicians. It is a basic reference to ensure all connections are properly made. Installation and wiring of systems must be in accordance with the National Electrical Code, ANSI/NFPA 70.

The contents of this manual are subject to change without notice.

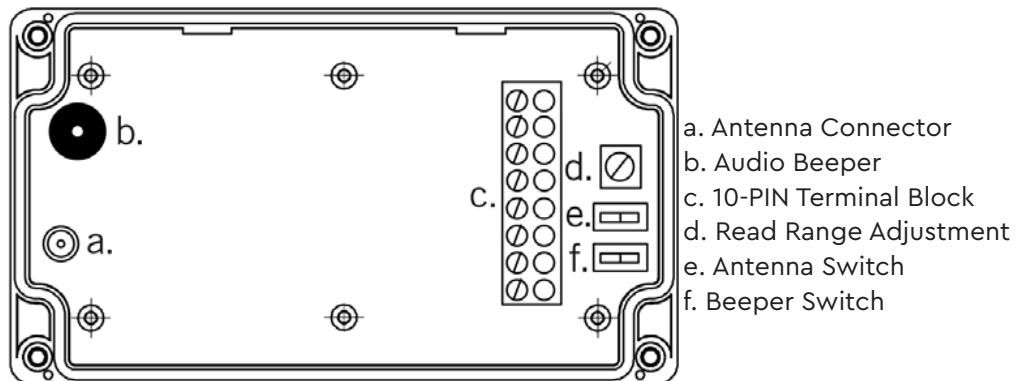
1.1 Product Features.....	4
1.2 Product Layout.....	4
1.3 Specification.....	4
1.4 Cable Requirements.....	5
1.5 Output Formats.....	5
1.6 Grounding .....	5
1.7 Power.....	5
1.8 Mounting .....	5
1.9 Read Range .....	5
1.10 External LED Indicator .....	5
1.11 Antenna Switch.....	6
1.12 Beeper Switch.....	6
1.13 10-Pin Terminal Block .....	6
1.14 Connection.....	6
1.13 Troubleshooting.....	6

The Genie WRR-4 is a 4 channel long range Wiegand radio receiver that allows interface with a wide range of electronic access control systems by complying with the Wiegand communication protocol.

### 1.1 Product Features

- MAXSecure™ – Unique security feature
- Wiegand output interface
- ETL listed – Independently tested and certified to conform to UL Standard 294
- Wall mount box for box or flat surfaces
- Electronics sealed in a weather resistant enclosure (IP65)

### 1.2 Product Layout



### 1.3 Specification

Frequency	433MHz
Transmission	Rolling code and encryption
IP Rating	IP65
Voltage	DC12V (Nominal)
Current Draw	120mA typical @ DC12V
Read Range	Up to 60m (Installer adjustable)
Cabling	24 AWG minimum, multi-conductor stranded with an overall foil shield
Interface	Wiegand (26 Bit industry standard and custom Wiegand formats)
Audio Tone	Beeper included standard, installer switchable
LED	Four-state standard (Red, Green, Amber, and Off), installer switchable, as well as Power (Blue) and Channel (Green)
Operating Temperature	-40°C to +65°C, 5-95% RH (Non-condensing)
Certifications	FCC, ICC, CE, UL Standard 294
Dimensions	86.4 × 160 × 58.4 mm
Weight	340g

### 1.4 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).

### 1.5 Output Formats

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

### 1.6 Grounding

Shield (drain) continuity must run from the Receiver to the access panel. Further, the shield and Receiver ground must be tied together at the access panel, and must connect to an earth ground at one point only.

### 1.7 Power

Power required is 12 VDC nominal at 120 mA. The Receiver may be powered by the access panel. A linear power supply is recommended for best operation.

### 1.8 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. Use supplied #6 mounting screws, or equivalent security screws, for installation.

### 1.9 Read Range

As shipped, the Receiver is set for the maximum read range, which is nominally up to 200 feet (60 m). 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 and concrete obstructions, as well as magnetic fields and radio transmissions. Further range varies based on the height a Receiver is installed, how a user may hold a Transmitter when being used, and where the Transmitter is being used. Read range may vary for each installation. Read range may be reduced by gently adjusting the Receiver's range pot in the counter-clockwise direction.

### 1.10 External LED Indicator

Refer to the information below for explanation on the Receiver's external LED indicator operation:

LED State	Description
Green	Initial power up
Amber	Normal powered on state
Flash Green	An activated Transmitter button press has been received and processed
Flash Red	A non-activated Transmitter button press has been detected
Off	Receiver is not powered on, or failed to power up successfully

### 1.11 Antenna Switch

As shipped, the Receiver's Antenna Switch is set in the INT (internal) position. Read range can be extended using a separate, external antenna attached to Receiver's on-board 6.19 mm SMA jack connector. If a separate, external antenna is used, then the switch should be set in the EXT (external) position. For installations requiring a separate, external antenna, please refer to the WRR-4 External Antenna Reference Document.

### 1.12 Beeper Switch

As shipped, the Receiver's Beeper Switch is set in the ON position. If the installation technician prefers to disable the beeper and External LED Indicator, then the Beeper Switch should be set in the OFF position.

### 1.13 10-Pin Terminal Block

Refer to the information below for cabling to the Receiver:

AD0: Button One, Wiegand Data 0, Channel A.

AD1: Button One, Wiegand Data 1, Channel A.

BD0: Button Two, Wiegand Data 0, Channel B.

BD1: Button Two, Wiegand Data 1, Channel B.

CD0: Button Three, Wiegand Data 0, Channel C.

CD1: Button Three, Wiegand Data 1, Channel C.

DD0: Button Four, Wiegand Data 0, Channel D.

DD1: Button Four, Wiegand Data 1, Channel D.

GND: Power, 0VDC (Ground).

+VDC: Power, 12VDC Nominal.

NOTE: Apply positive voltage only to the +VDC Pin on the Terminal Block.

### 1.14 Connection

Connection must be done in accordance with NFPA 70. Do not connect to a receptacle controlled by a switch. Connect to a power limited DC voltage source.

### 1.13 Troubleshooting

No data received/Transmitter not enrolled

Transmitter must be clicked twice to be learned by the Receiver upon initial Receiver power up

Access Control Performance Levels Conforming to UL STD 294:

Destructive Attack	Line Security	Endurance	Standby Power
Level I	Level I	Level IV	Level I

Grade Classification Certified to CAN/ULC STD 60839-11-1:

Risk Level	Application	Skill/ Knowledge of Attackers	Typical Examples
Grade 1	Grade 1	Grade 1	Grade 1

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