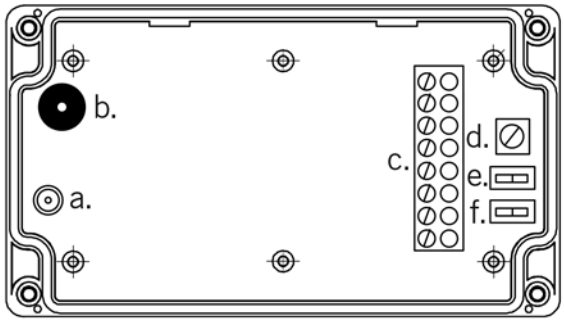
# QUICK START GUIDE
# AWRR44 LONG-RANGE 433-MHz RECEIVER

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.

**1.0 Introduction**

Long-Range Transmitters and Receivers with an integrated receive antenna comprise this high frequency, long-range identification solution. Intended for security access control applications, AWRR44's wireless communications are based upon a secure, digital, anti-playback routine. The four-channel Receiver (Channels A, B, C & D), model AWRR44, allows Transmitter data to be sent over four separate Wiegand outputs. Formatting of the Wiegand output is dependent upon the data encoded on each individual Transmitter.

**2.0 Receiver Layout**




Legend:

a. Antenna Connector
b. Audio Beeper
c. 10-PIN Terminal Block
d. Read Range Adjustment
e. Antenna Switch
f. Beeper Switch

**3.0 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).

**4.0 Output Formats**

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

**5.0 Grounding**

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

**6.0 Power**

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

**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. Use supplied #6 mounting screws, or equivalent security screws, for 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 External LED Indicator**

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

**10.0 Antenna Switch**

As shipped, the Receiver's Antenna Switch is set in the INT position. Read range can be extended using a separate dipole antenna attached to Receiver's on-board SMA connector. If a separate antenna is used, then the switch should be set in the EXT position.

**11.0 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.

**12.0 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.

**13.0 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.

Many Speco Technologies readers carry the following certifications:

FCC Compliance Statement: This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Changes or modifications not expressly approved could void the user's authority to operate the equipment.

Product can be used without license conditions or restrictions in all European Union coun-tries, including Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden, United Kingdom, as well as other non-EU countries, including Iceland, Norway, and Switzerland.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause unde-sired operation of the device.

Cet appareil est conforme à Industrie Canada exempts de licence standard RSS (s). Le fonctionnement est soumis aux deux conditions suivantes : (1) ce dispositif ne peut pas provoquer d'interférences et (2) ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement du dispositif.

*Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.*

P/N: 01672-101 . Rev. 09.19