



# QUICK START GUIDE

## 433-MHz RANGER® LONG-RANGE

### WRT-2+/WRT-4+ WIRELESS RADIO TRANSMITTERS

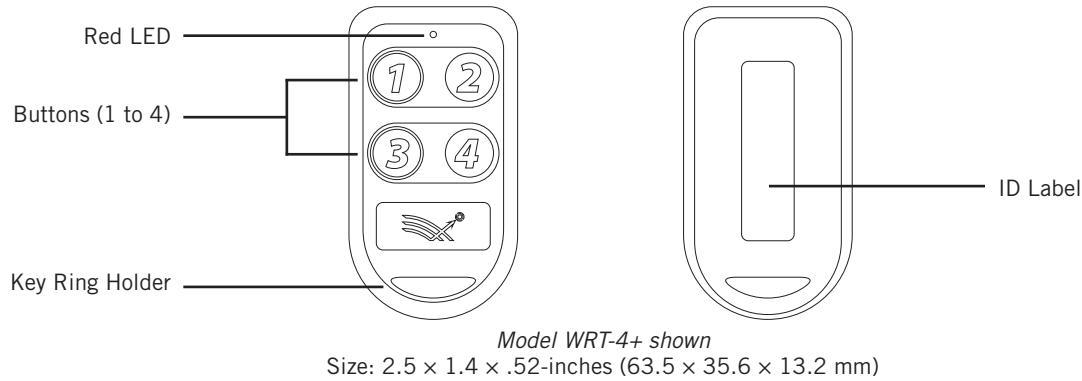
This Quick Start Guide is intended for experienced installation technicians. It is a basic reference to ensure all installations are properly made.

#### 1.0 Description

Wireless Radio Transmitters and Long Range Receivers with an integrated receive antenna comprise Farpointe Data's high frequency, long-range identification solution known as Ranger. Intended for security access control applications, Ranger's wireless communication is based upon a secure, digital, anti-playback routine. Ranger Transmitters are available in either a two- or four-button configuration, with each corresponding to its own Wiegand output on the Ranger Receiver. Each Transmitter includes an integrated red LED, used to indicate both positive button press and battery strength.

They are also equipped standard with a potted proximity or contactless smartcard module allowing the Transmitter to also be used as a close-range access credential. Transmitters ship standard with a proximity module compatible with *Pyramid Series Proximity®* readers. They can be ordered custom with a proximity module compatible with either HID's or AWID's standard 125-kHz proximity readers, or a contactless smartcard module (such as MIFARE® Classic 1K or 4K, as well as DESFire EV1 or EV2) compatible with Delta® Contactless Smartcard Readers.

#### 2.0 Transmitter Layout



#### 3.0 Output Formats

Transmitters are sequentially coded in either the industry standard 26-bit Wiegand format or custom Wiegand formats, with exact number sequences. As a cross reference the Transmitters' internal ID number is printed on the ID label found on the back of the Transmitter. Specific coding details, including format, facility code, and ID range can be found on the Transmitter shipping box, as well as the shipment's packing list.

#### 4.0 Time-Out

Ranger transmitters make use of a time-out feature to preserve battery life and prevent interference with other transmitters on the field. When a button is held down continuously the transmitter will transmit the code once and shutdown and will power up once the button is released.

#### 5.0 Battery Replacement

Transmitters include a replaceable CR2032, 3.3V, lithium battery<sup>1</sup>. The battery should be replaced when a button press does not result in a flash of the LED, reliable read range, and/or an output from the Receiver. To replace the battery, follow the directions below:

1. Using a coin, place it in the gap (2-piece unit) near the key ring holder and twist to pop the transmitter open.
2. Remove the old battery<sup>2</sup>.
3. Insert the new CR2032, 3.3V, lithium battery. Be sure the plus (+) side of the battery is facing up (visible when installed).
4. Snap both pieces together.

# QUICK START GUIDE

## 433-MHz RANGER® LONG-RANGE WRT-2+/WRT-4+ WIRELESS RADIO TRANSMITTERS

### 6.0 Range<sup>3</sup>

Read range between the Transmitter and Receiver depends on the Receiver model being used. Please review the Ranger Receiver datasheet for more information.

### 7.0 Troubleshooting

Issue/Possible Cause	Corrective Action
No data received/Transmitter not enrolled	Transmitter must be clicked twice to be learned by the Receiver upon initial Receiver power up
Short read range/Receiver potentiometer	Adjustable potentiometer should be set to the maximum setting (certain models only)
Some buttons not working/Receiver capability	Receiver Model WRR-22 only works with buttons 1 and 2
Prox insert not working/Compatibility	Support with HID® and AWID® 125-kHz Proximity Protocol readers must be requested on PO
Red LED does not flash upon button press	Check that battery is installed correctly and is not dead (fully discharged)

Should any of the corrective actions mentioned above not improve performance, please contact Farpointe directly.

1. This lithium battery is widely available, and commonly used in electronic devices, including cameras and remote controls.
2. Dispose of the battery according to local requirements. Recycle when possible.
3. For best performance the Transmitter should be used as far from interference sources as possible. These sources may include, but are not limited to, large metal obstructions, such as duct work and appliances, as well as magnetic fields and radio emissions.

Many Farpointe Data 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.

Product can be used without license conditions or restrictions in all European Union countries, 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.

Farpointe Data reserves the right to change specifications without notice.

© 2012-2018 Farpointe Data, Inc. All rights reserved. Farpointe Data®, Pyramid Series Proximity®, Delta®, and Ranger® are the registered U.S. trademarks of Farpointe Data, Inc. MIFARE is a registered trademark of NXP B.V. AWID is a registered trademark of Applied Wireless Identifications Group. HID and the HID logo are registered trademarks of HID Global Corporation, an ASSA ABLOY company. All other trademarks are the property of their respective owners.

### Farpointe Data, Inc.

1376 Borregas Avenue  
 Sunnyvale, CA 94089-1004 USA  
 Office: +1-408-731-8700  
 Fax: +1-408-731-8705  
 support@farpointedata.com

