



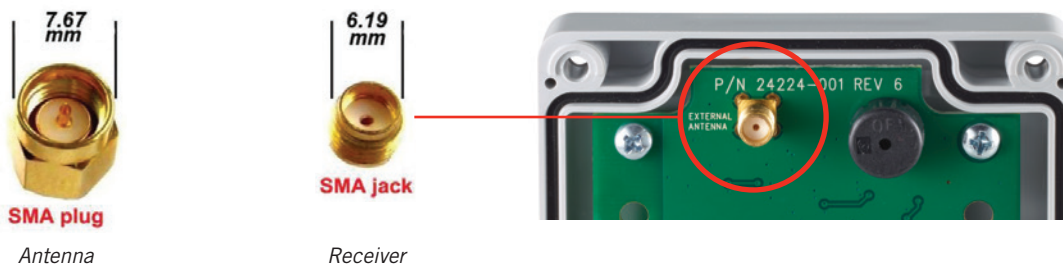
REFERENCE DOCUMENT

WRR-44 EXTERNAL ANTENNA

The WRR-44 Receiver supports being retrofitted with an external antenna separate from its internal, integrated trace antenna. Typical purposes of an external antenna are to increase the Receiver’s read range beyond the nominal read range of up to 200 feet (61 m), as well as to support directivity, a characteristic of the Receiver in which the read range is made to be more concentrated in a specific orientation. This Reference Document provides suggestions and notes on retrofitting the WRR-44 with an external antenna. Before adapting an external antenna to a WRR-44 Receiver, verify that the maximum read range from the built-in trace antenna is not sufficient. Read range varies between installations and actual observed range may be more than 200-feet (61 m).

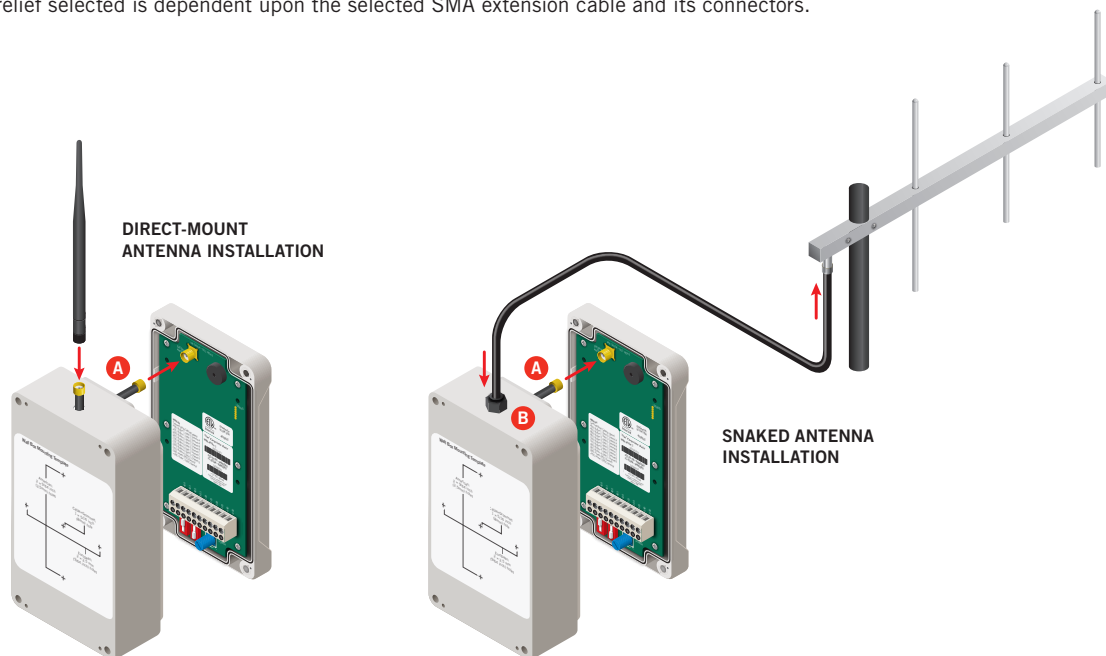
1.0 Antenna Connectors

The WRR-44 Receiver is equipped standard with a female, 6.19 mm SMA jack. Connecting a 433-MHz external antenna will require a male, 7.67 mm SMA plug connector.



2.0 Cabling

When fitting a WRR-44 Receiver with an external antenna, a penetration will need to be made in the Receiver enclosure. Through this penetration, will pass the SMA extension cable (see **A** in diagrams below). Position the penetration such that the SMA extension cable will not interfere with the Receiver’s SMA connector or its 10-Pin Terminal Block. Diameter of the penetration will depend upon the diameter of the selected SMA extension cable, its connectors, the specific strain relief and local site considerations. Length of the SMA extension cable is dependent upon the installed distance between the external antenna and Receiver. Use of a strain relief (see **B** in diagrams below) is recommended to protect both the SMA extension cable, its connection to the Receiver and the water-resistance of the Receiver enclosure. Specific strain relief selected is dependent upon the selected SMA extension cable and its connectors.




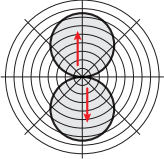

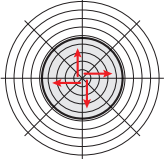

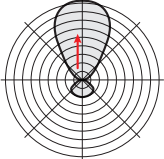




3.0 Configuration

After the WRR-44 is fitted with an external antenna, deactivate the internal, integrated trace antenna. To accomplish this toggle the switch labeled “ANTENNA” from the standard position labeled “INT” to the position labeled “EXT”. Next, reduce the read range to the desired distance by gently adjusting the Receiver’s range pot in the counter-clockwise direction¹.



REFERENCE DOCUMENT
WRR-44 EXTERNAL ANTENNA

4.0 Potential External Antennas and Accessories²

Item / Web Link	Supplier	Manufacturer Part Number	Image	Directivity
Dipole Antenna	Mouser	ANT-433-MHW-SMA-L		
Whip Antenna	Digi-Key	FLEXI-SMA-433-ND		
Yagi Antenna	COMTELCO	MobileMark		
SMA Extension Cable – 1 ft (304.8 mm)	Digi-Key	RFC-RMRF-1F		N/A
SMA Extension Cable – 10 ft (3 m)	Digi-Key	CANRSM120WRSMF		N/A
Right Angle SMA Connector	Digi-Key	ADP-SMAM-SMAF90		N/A
Strain Relief/Cable Gland³	Digi-Key	PNC1/2W BK080		N/A

1 The ability to adjust the read range with the on-board read range knob is still active with an external antenna.
 2 All connections should be snug and free of debris.
 3 Specific size of the strain relief used is dependent upon the thickness of the selected SMA extension cable and its connectors.

Farpointe Data reserves the right to change specifications without notice.

© 2020 Farpointe Data, Inc. All rights reserved. Farpointe Data®, *Pyramid Series Proximity*®, *Delta*®, *Ranger*®, and *CONEXT*® are the registered U.S. trademarks of Farpointe Data, Inc. All other trademarks are the property of their respective owners.

Farpointe Data, Inc.
 2195 Zanker Road
 San Jose, CA 95131 USA
 Office: +1-408-731-8700
 Fax: +1-408-731-8705
 support@farpointedata.com

