

WeatherTRAK Yagi Antenna Installation Instructions



800 MHz - 2500 MHz Wide Band Log Periodic
Directional Antenna

Features:

- High-gain
- Directional
- Pipe mounting hardware included
- Easy to install
- Weather resistant
- Wide bandwidth

2 year Warranty

HydroPoint Data Systems Yagi antennas are warranted for 2 years against defects in workmanship and / or materials. Warranty cases may be resolved by returning the product directly to the reseller with a dated proof of purchase.

Antennas may also be returned directly to the manufacturer at the consumer's expense, with a dated proof of purchase and a Returned Material Authorization (RMA) number supplied by HydroPoint Data Systems, Inc. HydroPoint shall, at its option, either repair or replace the product. HydroPoint Data Systems, Inc. will pay for delivery of the repaired or replaced product back to the original consumer.

This warranty does not apply to any antennas determined by HydroPoint Data Systems, Inc. to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties.

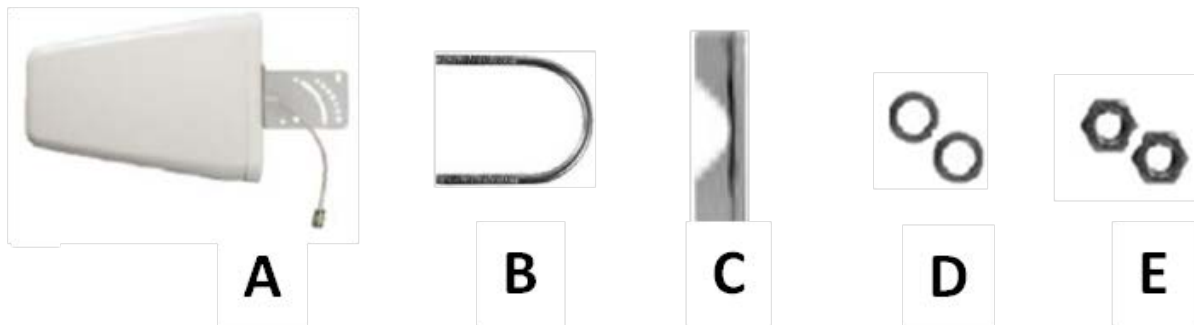
RMA numbers may be obtained by phoning customer Support at (800) 362-8774 or email support@hydropoint.com.

How It Works

HydroPoint's Wide Band Log Periodic Directional Antenna will collect the cell tower signal and send it through the cable to an amplifier or directly to the controller cellular modem. When the controller transmits, the signal is transferred to an amplifier or directly to the antenna and broadcast back to the cell tower.

Package Contents

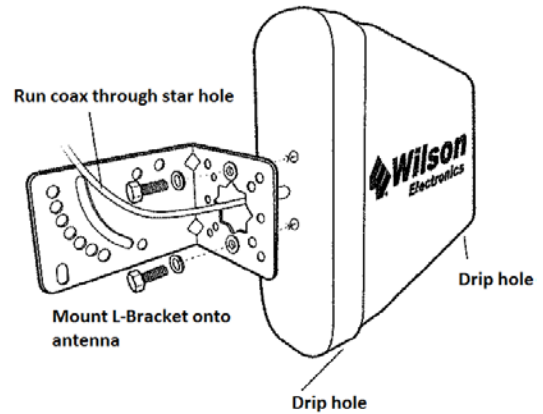
(A) Wide Band Log Periodic Directional Antenna & L Bracket, (B) 2 - U-Bolts, (C) 2 – Pipe Brackets, (D) 4 - 1/4" Split-Lock Washers, (E) 4 - 1/4"-20 nuts.



Disclaimer: The information provided by HydroPoint Data Systems, Inc. is believed to be complete and accurate. However, no responsibility is assumed by HydroPoint Data Systems, Inc. for any business or personal losses arising from its use, or for any infringements of patents or other rights of third parties that may result from its use.

L-Bracket Mounting Instructions

1. Unscrew and remove 3/8" bolts and lock washers from antenna
2. Run the coax cable through L-Bracket (A) and mount using the 3/8" bolts and lock washers (do not over tighten)



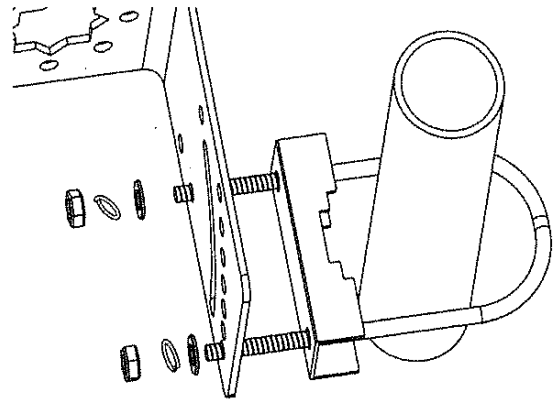
Antenna Mounting Instructions

1. Install U-Bolt (B) on pole
2. Slide Pipe Clamp (C) over U-Bolt (B) flat side away from pipe
3. Slide antenna bracket (A) onto U-Bolt (B) in desired location

Note: Antenna may be installed on a variety of pipe angles, insure antenna is pointing at cell tower and is vertical with the drip hole at the bottom.

4. Install flat washer (D), split lock washer (E) and nut (F), tighten as appropriate

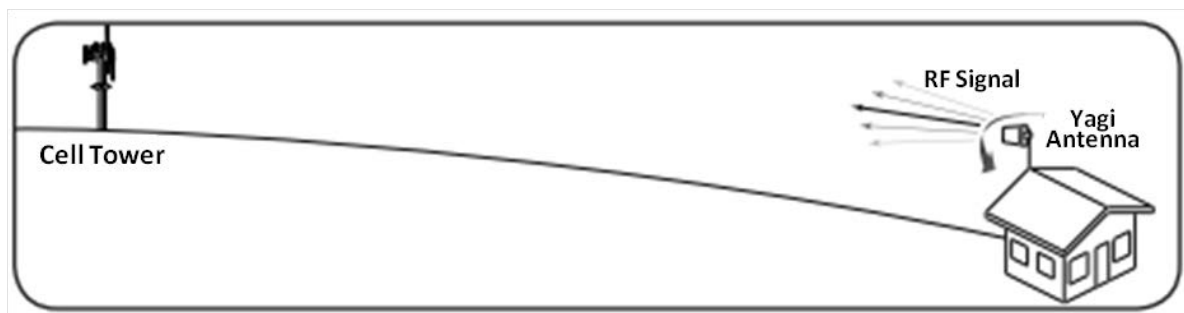
Note: A second U-Bolt assembly has been included to strengthen antenna mounting in windy areas. Repeat steps 1 thru 4 to install



Antenna Installation

The antenna should be mounted as shown in the illustration above. The included mounting bracket is adjustable and will accommodate pipe diameters from 1.25" to 2" (pipe not included). Mount the antenna so that there is at least 3 feet of clearance in all directions around it. Position the antenna so that it has the most unobstructed line of sight to the cellular service provider's strongest signal. If you are using a wireless amplifier, make sure the antenna is not pointing across your own roof.

Warning: Lightning protection is recommended for all installations (Wilson Electronics Part #859902). Take extreme care to ensure that neither you nor the antenna comes near any electric power lines.

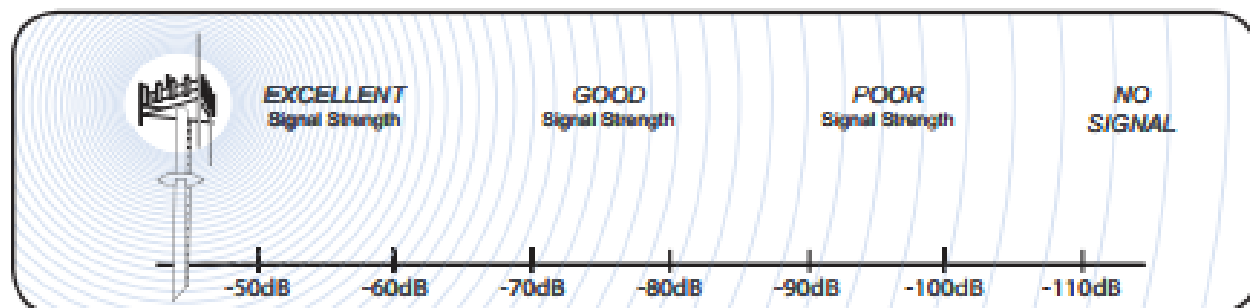


Adjusting the Antenna for Maximum Performance

To adjust the antenna for best performance, connect it to your WeatherTRAK Controller. Turn to the WeatherTRAK signal strength screen and turn the Antenna in 10-degree increments while checking the WeatherTRAK controller signal level. At each point you will need to wait a few seconds as the WeatherTRAK controller updates.

Important: If you are using a wireless amplifier, be sure the Antenna is not pointing across the building in which you are trying to get coverage. The antenna should point away from the building to help prevent oscillation (feedback).

Once you have obtained the strongest signal (see below), fully tighten the mounting hardware. After the amplifier and the rest of the system is installed and performing correctly, weatherproof all connections.



Controller Signal Level to Signal Strength Translation Table

Signal Strength [dB]	-50	-60	-70	-80	-90	-100
Signal Strength Indicator [Unit]	31	27	22	17	12	7

Note: Ultra low loss coax is recommended for lengths 20' or greater to prevent significant signal loss.

Antenna Specifications

Part Number	304411					
Frequency Range	Coming Soon 700 MHz	800-915 MHz	915-1710 MHz	1710-1850 MHz	1850-1990 MHz	1990-2500 MHz
Gain	8.0 dBi	8.0 dBi	7.0 dBi	9.0 dBi	10.5 dBi	10.0 dBi
VSWR max	2.0:1	1.5:1	1.6:1	1.3:1	1.3:1	1.4:1
Horizontal Beamwidth	70° to 90°					

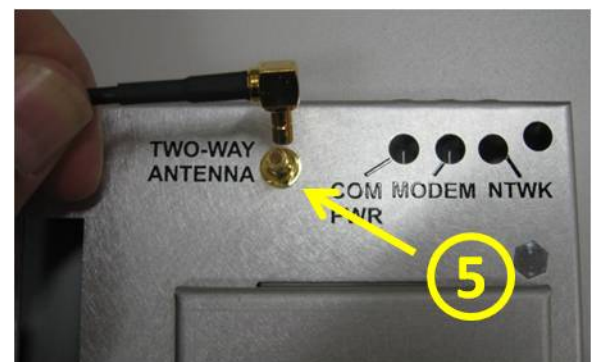
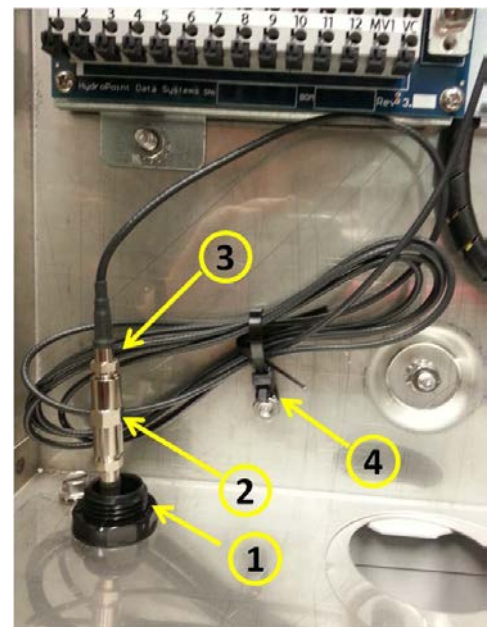
Vertical Beamwidth	85° to 110°	
F/B ratio	>20 dB	
Nominal Impedance	50 ohms	
Polarization	Vertical	
Maximum Power	100 watts	
Connector	N-Female	
Dimension	11.42" x 8.27" x 2.56" In	290 x 210 x 65 mm
Weight	3.31 lbs	1.5 Kg
Temperature Range	-40° to 158° F	-40° to 70° centigrade
Rated Wind Velocity	134 MPH	60 m/s
Lightning Protection	DC grounded	

Connecting Antenna to the Controller

Connect one end of the thick cable to the antenna. Layout antenna cable to the controller location securing the cable with plastic cable mounting clips.

Cable installation inside of the controller enclosure

1. Place cable strain relief cord connector (provided in the kit) in the $\frac{3}{4}$ " opening at the bottom of the controller. Pass through and secure the antenna cable by tightening strain relief assembly.
2. Attached metal FME to FME adapter (provided in the kit) to the cable.
3. Connect thin coax extension cable (provided in the kit) to the adapter on the end of the antenna cable inside the enclosure.
4. Loop excess of the extension coax cable inside the controller enclosure. Secure the loop with a zip-tie and attach to the threaded post on the back of the enclosure.
5. Connect the extension cable to two-way antenna connector on the back of the command module.



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