

# Antenna Installation Guide

## Wide-Band Panel Antenna Window, Ceiling, Wall & Outdoor Mounts

### WINDOW

PART# 304452-50 Ohms

PART# 304472-75 Ohms

### CEILING

PART# 304451-50 Ohms

PART# 304471-75 Ohms

### WALL

PART# 301135-50 Ohms

UPGRADE-PART# 301147-50 Ohms

PART#301155-75 Ohms

### OUTDOOR

PART# 301157-50 Ohms

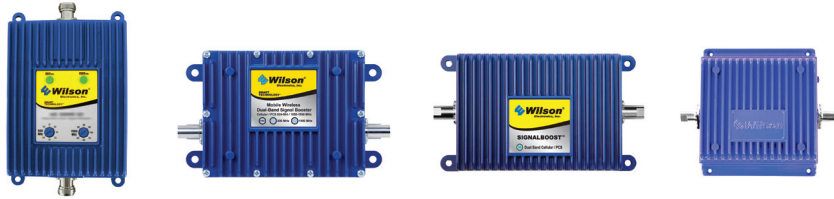


Appearance of device and accessories may vary.

The wide-band panel antenna is vertically polarized. For optimum performance, install the antenna with the cable running from the bottom or the top.

## Wilson Signal Boosters Amplify Coverage

When used in conjunction with your antenna, a Wilson Electronics Signal Booster can improve your cell phone and laptop data card coverage area more than 20 times. Wilson Electronics manufactures a wide range of Wireless, Direct-Connect and Adjustable Gain Signal Boosters for mobile or in-building use. See your dealer for details or visit [www.WilsonElectronics.com](http://www.WilsonElectronics.com).



## Wide-Band Panel Antenna Window, Ceiling, Wall & Outdoor Mounts

### Window Mount:

PART# 304452 PART# 304472



### Ceiling Mount:

PART# 304451 PART# 304471



### Wall Mount:

PART# 301135 UPGRADE-PART# 301147  
PART#301155



### Outdoor Mount:

PART# 301157-50 Ohms



### Optional In-Wall Mount Accessory:



In-Wall Mounting Bracket (901123)

Appearance of device and accessories may vary.

## Window Mount Installation

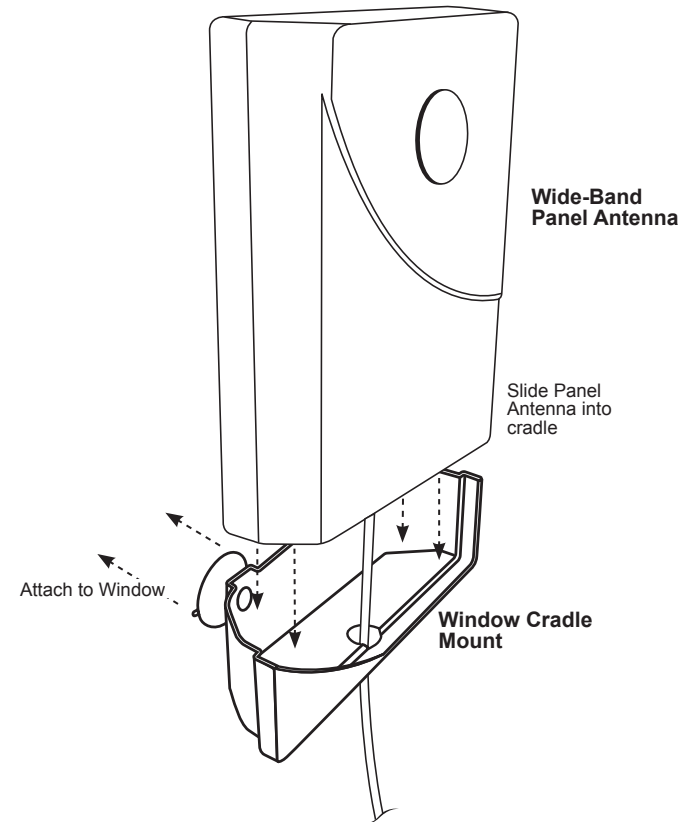
*To be used as your outside antenna which communicates with the cell tower*

Find the window that faces the direction of the nearest cell tower. The signal strength function on your cell phone can help you determine this. See the Technical Support section of Wilson Electronics website, [www.WilsonElectronics.com](http://www.WilsonElectronics.com), for instructions on accessing the signal strength function on your particular phone.

Choose an **inside** window location where the antenna will be hung. Clean the window and the suction cups with glass cleaner.

It is important that the small tabs on each suction cup be facing outward so they may be used to remove the antenna from the window if desired. Use firm and even pressure to attach the antenna to the window without breaking the glass. Avoid excessive or sudden pressure against the glass.

Refer to Signal Booster instructions for separation requirements.



## Ceiling Mount Installation

Select a location on the ceiling that you can access from above to run the antenna cable. Verify that your chosen location allows for the necessary separation between the Inside and Outside Antenna (see Signal Booster installation instructions for antenna separation requirements).

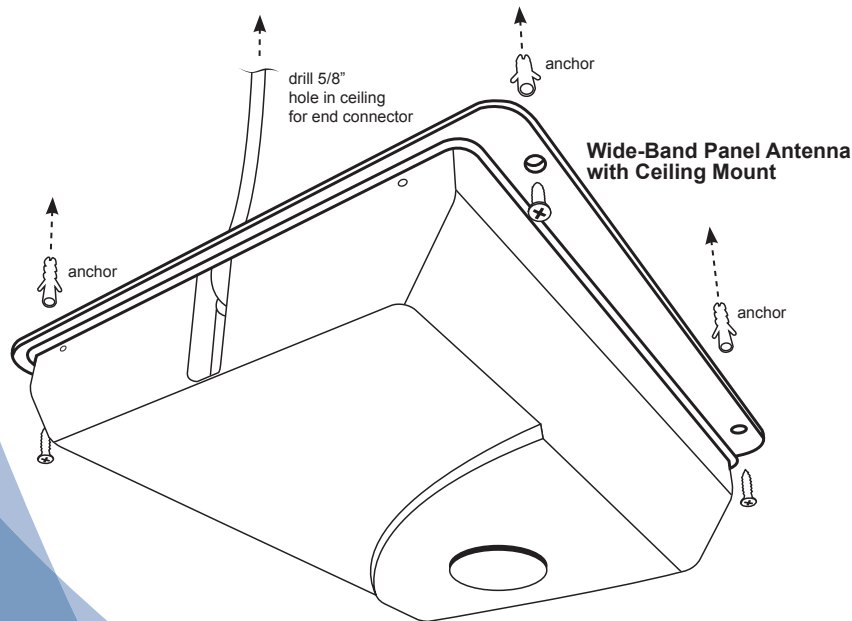
Use the antenna as your template in your predetermined location.

**Note:** Ensure that the cable connector location is NOT below a ceiling rafter.

Drill a hole large enough to accommodate the dimension of the connector on the location you have marked for the cable. Hold the antenna to the ceiling and mark the locations for the screws and then drill a 3/16" hole and tap anchors into the pre-drilled screw holes.

Attach the Signal Booster "Inside Antenna" cable to the connector on the Ceiling Mount Antenna. Place the antenna flush against the ceiling, and then screw the antenna into place (screws and anchors provided). Be careful not to over-tighten.

If you have any questions about the installation procedure, please contact our Technical Support Team toll free at 866-294-1660 or email [tech@wilsonelectronics.com](mailto:tech@wilsonelectronics.com).

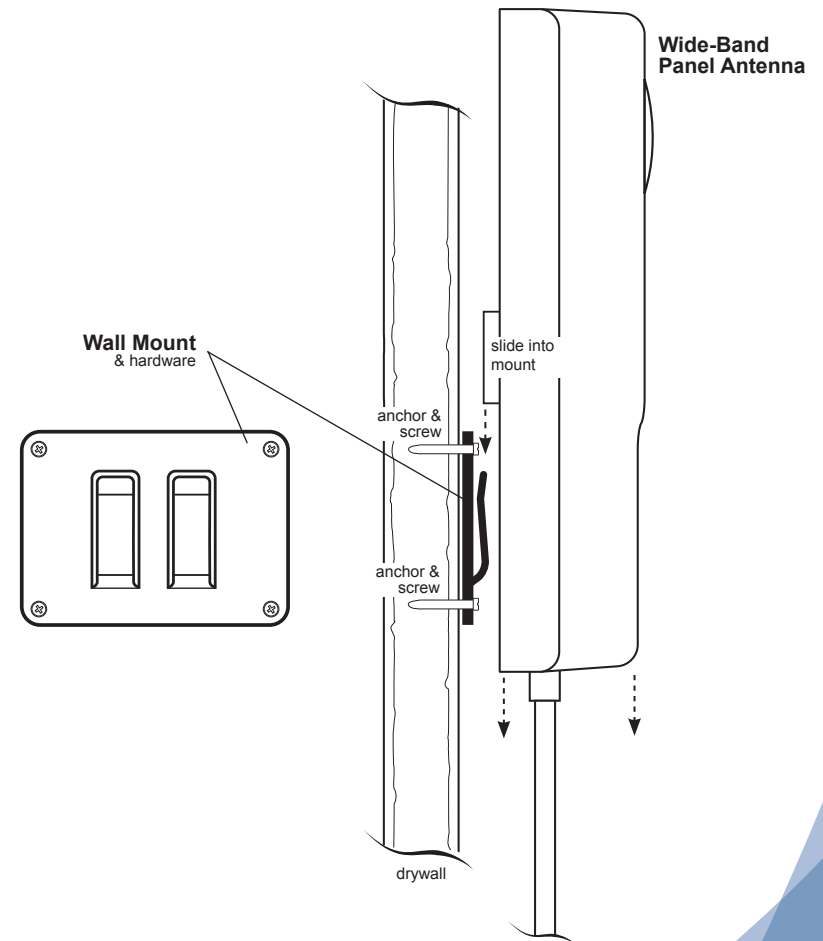


## Wall Mount Installation

Find the desired location for the Panel Antenna. Verify that the Panel Antenna and the Outside Antenna have the necessary separation (see Signal Booster instructions for requirements).

For optimum results, the antenna should be mounted a minimum of 6 feet from the floor.

Utilize Wall Mount Bracket (see diagram below) as your template. Drill out the four holes for the screws in the wall, using a 3/16 size drill bit, following your template. Tap in wall anchors provided and place the mounting bracket over the wall anchors, insert the screws and tighten. Slide the Panel Antenna onto the wall mount bracket (see diagram below).

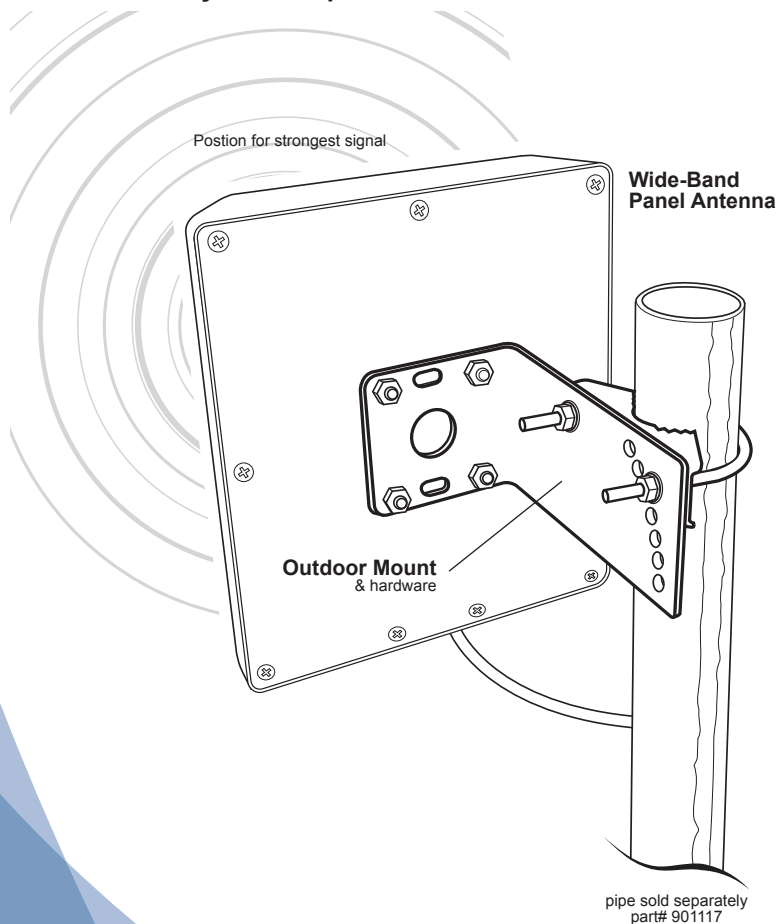


## Outdoor Mount Installation

The antenna should be mounted as shown in the illustration below. The included mounting bracket is adjustable and will accommodate pipe diameters from 1.25" to 2" (pipe sold separately part# 901117). Mount the antenna so that there is at least 3 feet of clearance in front and sides. 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 Signal Booster, make sure the antenna is not pointing across your own roof.

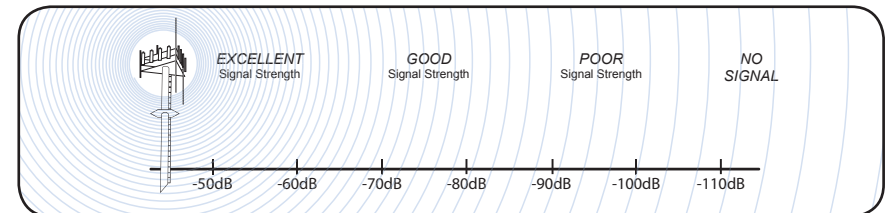
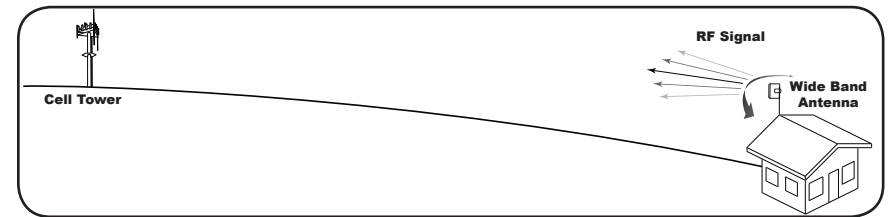
Refer to Signal Booster instructions for separation requirements.

**Warning:** Lightning protection is recommended for all installations, sold separately (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 cell phone with an external adapter and a length of cable. External Antenna Adapters and cables are sold separately. Put the cell phone in test mode and turn the antenna in 10-degree increments while checking the cell phone's signal level. At each point you may need to wait a few seconds as your cell phone updates. To find your phone's test mode, visit [www.WilsonElectronics.com](http://www.WilsonElectronics.com).



Signal readings usually appear as a negative number (for example, -86). The larger the number, the more powerful the signal (-75 is stronger than -84). See graph above.

Once you have obtained the strongest signal, fully tighten the mounting hardware. After the Signal Booster and the rest of the system is installed and performing correctly, weatherproof all connections.

**Important:** If you are using a wireless Signal Booster, 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).

Ultra low loss cable is recommended for lengths 20' or greater to prevent significant signal loss. Wilson Electronics offers WILSON 400 cable in several lengths from 20-100 feet. Wilson Electronics also offers a wide range of phone adapters to connect your cell phone to a Signal Booster or directly to the antenna. To find the adapter for your phone, visit [www.WilsonElectronics.com](http://www.WilsonElectronics.com) or call toll free 866-294-1660.

### 30-Day Money-Back Guarantee

All Wilson Electronics products are protected by Wilson Electronics 30-day money-back guarantee. If, for any reason, the performance of any product is not acceptable, simply return the product directly to the reseller with a dated proof of purchase.

### 90-Day Warranty

Wilson Electronics antennas are warranted for ninety (90) days 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 Wilson Electronics. Wilson Electronics shall, at its option, either repair or replace the product. Wilson Electronics 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 Wilson Electronics 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 Technical Support at 866-294-1660.

Disclaimer: The information provided by Wilson Electronics, Inc. is believed to be complete and accurate. However, no responsibility is assumed by Wilson Electronics, 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.

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## Antenna Specifications

Part Number	301134	301135	301147	304451	304452	301157	301155	304471	304472
Frequency Range	700-800 MHz / 824-894 MHz / 880-960 MHz / 1710-1880 MHz 1850-1900 MHz / 2110-2170 MHz								
Impedance	50 ohms						75 ohm		
Gain	5.2 dBi 700-800 MHz / 4.4 dBi 824-894 MHz / 4.2 dBi 880-960 MHz / 10.1 dBi 1710-1880 MHz / 10.6 dBi 1850-1990 MHz / 8.2 dBi 2110-2170 MHz								
Polarization	Vertical								
Beamwidth Horizontal Plane	70 / 60 Deg								
Beamwidth Vertical Plane	50 / 45 Deg								
Max Power	50 watts								
Connector	N-Female						F-Female		
Dimension	8.27 x 7.09 x 1.73 (inch) / 21 x 18 x 4.39 (cm)								
Weight	1.32 lbs / 0.6 kg								



3301 East Deseret Drive, St. George, UT 84790

For additional Technical Support visit [www.WilsonElectronics.com](http://www.WilsonElectronics.com)

or email at: [tech@wilsonelectronics.com](mailto:tech@wilsonelectronics.com)

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