Warning: This manual contains important safety and operating information. Please read and follow the instructions in this manual. Failure to do so could be hazardous and result in damage to your amplifier.

* The term “IC” before the certification number only signifies that Industry Canada technical specifications were met.

Contents:
- How it Works · · · · · · · · · · · · · · · · · · · 2
- Install Diagrams - Vehicle · · · · · · · · · · 2
- Powering Up a Wilson Amplifier · · · · · 4
- Understanding the Amplifier Lights · · · 4
- Warnings and Recommendations · · · 6
- About Wilson Electronics · · · · · · · · · · 6
- Amplifier Specifications · · · · · · · · · · · · Back Cover

The phone must remain within 2 feet of the cradle for amplification to function properly.
To achieve the best performance, leave the phone in the cradle and use a Bluetooth® headset.
Inside this Package

- U-Booster™ Wireless Amplifier/Cradle
- DC Plug-In Power Supply

Included: if U-Booster® Kit is purchased

- Mini Magnet-Mount antenna
- Vehicle Dash Mounting Brackets

Wilson® Electronics, Inc.
Accessory Antennas & Mounts

Accessory Antenna Options

In addition to the convenient mini magnetic roof mount antenna included with your kit, Wilson Electronics offers a wide variety of outside antennas to help you customize your amplifier for a specific application. All models shown below double the power to the cell site compared to the mini magnet antenna. See your dealer or visit www.wpsantennas.com

301103
12" Magnet Mount Antenna

301101
Trucker Antenna
Designed for mirror mounting on large trucks.
Mounts on Wilson 3/8" mounts: 901104 and 901106

301104
NMO Mount Antenna
For permanent vehicle roof mount on cars and pickup trucks.
Mounts on Wilson NMO style mounts: 901101, 901102, and 901103

301133
RV Antenna
Ideal for mounting on non-metal surfaces.

Accessory Power Supply, Antenna Mounting, Cradle Mounting and Charging Cable Options

209969
AC Power Supply

901128
Antenna Window Mount

901132
Adjustable Suction Cup Cradle Mount

901131
Low Profile Suction Cup Cradle Mount

901130
Cup Holder Cradle Mount

859967- Micro USB to Mini USB
859968- HTC USB to Mini USB
859966- Mini USB to Mini USB

To order accessory items please call 1-877-594-5766 or visit www.wpsantennas.com
General

Your Wilson amplifier has been carefully engineered to significantly improve the performance of your phone. Together with an outside antenna, the amplifier’s state-of-the-art circuitry is designed to increase your phones signal to and from the cell site up to 20 times greater than the phone alone. The U-Booster™ reduces disconnects and dropouts and increases data communication rates on 2G and 3G networks.

How it Works

The outside antenna collects the cell tower signal and sends it through its cable to the amplifier located inside the cradle. The signal is then boosted by the amplifier and sent to the phone via the built-in antenna inside the cradle. When the phone transmits, the signal is picked up by the antenna inside the cradle, boosted by the amplifier and broadcast back to the cell tower via the outside antenna.

The phone must remain within 2 feet of the cradle for amplification to function properly

Before Getting Started

This guide will help you properly install the Wilson U-Booster™ Dual-Band Wireless Amplifier. It is important to read through all of the installation steps prior to actual installation. If you do not understand the instructions contact Technical Support at 877-594-5766.
**Vehicle Installation**

1. **Place Magnetic Roof Top Antenna**
   
   To receive the best cell signal, select a location for the outside antenna that is preferably in the center of the vehicle’s roof, 12 inches away from any other antennas and free of obstructions and at least 8-12 inches from the rear or side windows or sunroof.

   ![Mini Magnet-Mount Antenna Shown](image1)

   The outside antenna must be installed vertically. Signal performance will be degraded if the antenna is not vertical.

   The antenna cable is small yet strong enough that it may be shut in most vehicle doors without damaging the cable.

2. **Attach the Mounting Bracket**
   
   Two mounting brackets are provided for attaching the U-Booster™ to your vehicle’s dash. Choose the appropriate one for your application. See bracket specific mounting options below.

   **OPTION 1**
   
   **ADHESIVE BRACKET**
   
   1. Clean the area where the bracket is to be mounted with the alcohol wipe provided. Allow to dry.
   2. Peel the backing to expose the adhesive and press the bracket onto the desired location in the vehicle. Note: be sure the tab is positioned **vertically**.
   3. **Allow the adhesive to cure for 24 hours before you attach the U-Booster™**.
   4. Once the cradle is attached, you can adjust the angle of the adhesive bracket by applying gentle pressure to the top or bottom of the U-Booster™. This option is designed to swivel when the knurled nut is loosened, for greater adjustability of the U-Booster™ viewing angle. To lock bracket into position tighten large nut.

   ![Carefully Pull Down Door Seal](image2)

   ![Run Cable Under Seal](image3)

   For a more professional-looking installation, the antenna cable may be run under the door seal. Carefully pull down the door seal. Run the cable under the seal and push the seal back into place. This prevents constant wear and tear on the cable as the door opens and closes. The antenna cable is small enough to easily tuck under the door seal or plastic molding.

   **OPTION 2**
   
   **ADHESIVE/SCREW SWIVEL BRACKET**
   
   This mount allows for adhesive mounting as well as more permanent screw mounting. This option is designed to swivel when the knurled nut is loosened, for greater adjustability of the U-Booster™ viewing angle. **For adhesive mounting, follow steps 1, 2 and 3 in option 1.**

   **For screw mounting**, use an awl to punch through the adhesive and expose the four screw holes in the bracket. You must provide the screws of an appropriate size for your particular application. Using the bracket as a template, mark the locations for the screws as shown, drill pilot holes, attach the bracket with adhesive, and tighten all screws.

3. **Attach the U-Booster™**
   
   Once you have installed your selected mount in the desired location, and **waited 24 hours for adhesive to cure**, attach the cradle by aligning the rectangular hole on its back with the tab on the mount, grasping the sides of the cradle, slide it downward approximately ¼ inch into place.
4. Powering up the Wilson U-Booster™ Amplifier

Make sure the outside antenna cable is connected before powering up the amplifier.

Connect the mini-USB plug on the power cable to the U-Boosters mini USB port located on the bottom of the U-Booster™. Insert the adapter into the cigarette lighter outlet of your vehicle.

The U-Booster™ may remain on all the time. However, leaving the U-Booster™ on in a vehicle when it is not running can discharge the battery in a day or two.

On most vehicles however, the 12 VDC power source is shut off with the ignition key.

Note: With (optional) charging cables the U-Booster™ 5V power supply provides charging current to the phone.

IMPORTANT: Do not power up the amplifier unless the outside antenna cable is attached to amplifier.

WARNING: Use only the supplied Wilson power supply/connector to power your U-Booster™.

Understanding the Amplifier Lights

*Separation of U-Booster™ and the outside antenna is very important.* In a vehicle, the metal roof acts as a barrier and helps shield the two antennas from each other, preventing oscillation.

Oscillation can occur when the roof mounted antenna is too close to the U-Booster™ inside the vehicle. An oscillation (or feedback) in an amplifier is similar to when a microphone is too close to a speaker in a sound system, resulting in a loud whistle. An oscillation in a cellular amplifier, if allowed to occur, can affect nearby cell sites’ ability to handle calls.

If the light turns amber, the amplifier has powered down to protect the cell tower from oscillation. To correct this condition, the outside roof mounted antenna needs to be moved farther from the U-Booster™. In a vehicle installation, move the outside antenna on the roof farther to the rear of the vehicle but at least 8-12 inches from the rear or side windows or sunroof. Remove power from the U-Booster™ and reconnect power - this resets the U-Booster™.

If the light is now green, the U-Booster™ is working properly. If the amber light is still on, move the outside antenna farther away and repeat the process.

In a vehicle, always use a magnet-mount or roof-mount antenna. Do not use a glass-mount antenna, as oscillation may cause continuous shut-down of the U-Booster™.
Installing a Wilson Outside Antenna in a Building

Follow the specific antenna instructions included with the outside antenna (sold separately except for certain kits). These instructions assume that you are using a Wilson magnet-mount or mini magnet-mount antenna and the optional suction-cup window bracket.

To receive the best signal, select a window on the side of your building where your outside signal is the strongest.

Attach the suction-cup bracket to the inside of a window so that the cable will reach the amplifier location. Place the bracket as high on the window as possible for best performance.

Installing the Wilson U-Booster Amplifier in a building

The Wilson U-Booster™ may be placed in any convenient indoor location, such as a desk or tabletop.

Attaching the Antenna

Once you have selected the location for the U-Booster™, run the cable from the outside antenna and attach it to the SMA connector on the bottom of the U-Booster™. Note: the U-Booster™ and the outside antenna must have a minimum separation distance of 8 feet to prevent oscillation.
**WARNINGS AND RECOMMENDATIONS**

⚠️ **Warning:** Do not plug in the power supply until the outside antenna cable is attached to the U-Booster.

⚠️ **Warning:** RF Safety: The U-Booster™ cradle/amplifier must be installed with a separation of at least 8 inches from all persons and must not be located in conjunction with any other antenna or amplifier.

⚠️ **Warning:** RF Safety: The “outside antenna” requires at least an 8 inch separation distance from all persons. Other outside antennas may be used provided that (a) they are not within a building, structure, or vehicle (b) they are located with at least a 30 inch separation distance from all persons, (c) their gain less cable loss does not exceed 15 dBi, and (d) they are not operating in conjunction with any other antenna or amplifier.

*Separation of U-Booster™ and outside antennas is very important. In a vehicle, the metal roof acts as a barrier and helps shield the two antennas from each other, preventing oscillation.*

If the vehicle has a sunroof, it is important to keep the outside antenna at least 8 inches from the edge of the sunroof. This prevents the amplifier from oscillating.

**ABOUT WILSON ELECTRONICS**

Wilson Electronics, Inc. has been a leader in the wireless communications industry for nearly 40 years. The company designs and manufactures amplifiers, antennas and related components that significantly improve cellular telephone signal reception and transmission in a wide variety of applications, both mobile and in-building.

With extensive experience in antenna and amplifier research and design, the company’s engineering team uses a state-of-the-art testing laboratory, including an anechoic chamber and network analyzers, to fine-tune antenna designs and performance. For its amplifiers, Wilson uses a double-shielded RF enclosure and cell site simulators for compliance testing.

All products are engineered and assembled in the company’s 55,000-square-foot headquarters in St. George, Utah. Wilson has product dealers in all 50 states as well as in countries all over the world.
Amplifier Specifications

<table>
<thead>
<tr>
<th>Dual Band 800/1900 MHz Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Number / Part Number</td>
</tr>
<tr>
<td>Connectors</td>
</tr>
<tr>
<td>Impedance (input/output)</td>
</tr>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>1) Passband Gain (nominal)</td>
</tr>
<tr>
<td>2) 20 dB Bandwidth (nominal)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Power output for single cell phone (uplink)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>3) Power output (uplink) for multiple cell phones:</td>
</tr>
<tr>
<td>Number of cell phones</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>Power output for single received channel (downlink)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>4) Power output for multiple received channels (downlink), The maximum power is reduced by the number of channels:</td>
</tr>
<tr>
<td>Number of channels</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>Noise Figure (typical)</td>
</tr>
<tr>
<td>Isolation</td>
</tr>
<tr>
<td>Power Requirements</td>
</tr>
</tbody>
</table>

Notes:
1. Nominal gain is the maximum gain at any frequency in the passband.
2. Nominal bandwidth is the difference between two frequencies that are adjacent to the frequencies that are adjacent to the passband where the amplification is 20 dB lower than the passband amplification. One of the frequencies is lower than the passband and the other is higher.
3. The Manufacturer’s rated output power of this equipment is for single carrier operation. For situations when multiple carrier signals are present, the rating would have to be reduced by 3.5 dB, especially where the output signal is re-radiated and can cause interference to adjacent band users. This power reduction is to be by means of input power or gain reduction and not by an attenuator at the output of the device.
4. The maximum power for 2 or more simultaneous signals will be reduced by 6 dB every time the number of signals is doubled.

30-Day Money-Back Guarantee

All Wilson Electronics products are protected by Wilson’s 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.

1-Year Warranty

Wilson Electronics amplifiers are warranted for one (1) year against defects in workmanship and / or materials. Warranty issues may be resolved by returning the product directly to the reseller with a dated proof of purchase.

Amplifiers 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 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 within the continental United States.

This warranty does not apply to any amplifiers 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 877-594-5766.

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 undesired operation of this device.

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. Copyright © 2008 Wilson Electronics, Inc. All rights reserved.