

**Mobile 3G™  
Cellular Signal Booster  
460102**

Need help?



[www.WilsonElectronics.com](http://www.WilsonElectronics.com)



**Tech Support 866-294-1660**  
Mon.- Fri. Hours: 7 am to 6 pm MST



THE ALUMINUM CASING OF YOUR SIGNAL BOOSTER WILL ADJUST TO THE TEMPERATURE OF ITS ENVIRONMENT, BUT IS DESIGNED TO PROTECT THE SIGNAL BOOSTER TECHNOLOGY. FOR EXAMPLE, IN THE SUMMER, THE SIGNAL BOOSTER CASE MAY BE AS HOT AS 150 DEGREES INSIDE YOUR VEHICLE. THESE HIGH TEMPERATURES WILL NOT DAMAGE THE SIGNAL BOOSTER, NOR DO THEY POSE A FIRE RISK TO THE VEHICLE. AGAIN, BE SURE TO PLACE YOUR SIGNAL BOOSTER IN A LOCATION WITH ADEQUATE VENTILATION AND AWAY FROM DIRECT SUNLIGHT OR MOISTURE.



THE MOBILE 3G SIGNAL BOOSTER MAY REMAIN ON, IN VEHICLES WHOSE 12V DC POWER SOURCES DO NOT AUTOMATICALLY SHUTDOWN WHEN THE VEHICLE IS TURNED OFF. THIS COULD RESULT IN DISCHARGING THE VEHICLES BATTERY IN ONE TO TWO DAYS.

**Installation Instructions for the Following Wilson Electronics Signal Boosters:**

**Mobile 3G SmarTech III™ Signal Booster**  
 Model # 460002 FCC ID: PWO460002

**Contents**

**Package Contents** . . . . . 3

**Optional Accessories** . . . . . 3

**Before Getting Started** . . . . . 3

**Quick Install** . . . . . 3

**Understanding the Mobile 3G Lights** . . . . . 5

**Additional FAQ** . . . . . 5

**Safety Guidelines** . . . . . 6

**Signal Booster Specifications** . . . . . 7

**Guarantee and Warranty** . . . . . Back Cover



# Package Contents

## KIT CONFIGURATION

Wilson Electronics manufactures a wide variety of antennas to help you customize your Signal Booster for your specific application. See your dealer or visit [www.WilsonElectronics.com](http://www.WilsonElectronics.com) for more information.



Signal Booster



12" Mag Mount  
w/12.5' RG174  
(311125)



Slim Low Profile  
w/10' RG174  
(311152)



Power Supply  
6V / 2A  
(859913)

**Optional Antenna Kits**

Refer to page 6 for additional Antenna Kit Options

Mini-Mag Antenna (301126)

NMO Antenna (314203-5810)

Trucker Antenna (311133)

Marine Antenna (311130-5810)

## Before Getting Started

Before you install your Mobile 3G Booster and start enjoying improved cellular reception please do the following:

1. Read through all the installation steps. This will help you know what to expect from start to finish.
2. Watch the YouTube video demonstrating the Mobile 3G Signal Boost installation at: [wilsonelectronics.com/Mobile3Gvideo](http://wilsonelectronics.com/Mobile3Gvideo).
3. Familiarize yourself with all materials in your product package. This will allow you to know which pieces are referenced in the instructions.

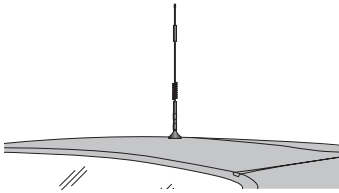
## Quick Install

You can install your Mobile 3G Signal Booster in your vehicle using the following steps. NOTE: Before completing your installation, create a "soft" installation by putting the components of your Mobile 3G Signal Booster in place and testing the operation before mounting equipment.

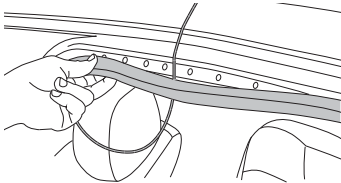
1. Install the Outside Antenna. Select a location on top of the car that is:
  - Near the center of the vehicle's roof.
  - At least 12 inches from any other antennas.
  - Free of obstructions.
  - At least 6 inches from any windows (including sunroofs).
  - At least 8 inches from any people.



The Outside Antenna must be installed vertically on a metallic surface.



2. Run the Outside Antenna cable into the car. The cable is strong enough that it may be shut in most vehicle doors without damaging the cable. For a cleaner look, carefully pull down the door seal, run the cable under the seal, and push the seal back into place. This method reduces wear on the cable as the door opens and closes.



3. Install the Low-Profile Inside Antenna.

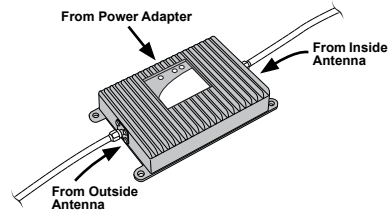
- Identify a place on the right side of the driver's seat to mount the Inside Antenna. The location should be at least 18 inches but no more than 36 inches from where the cellular device will be used.
- Install the Inside Antenna at the same angle as the cell phone when held in use or near the laptop's cellular data card to maximize signal strength.

For a more professional look, you can install the Inside Antenna underneath a car seat cover or upholstery.

- When you have tested the functionality of your Mobile 3G Signal Booster, mount the Inside Antenna by peeling off the backing of the Velcro® and attach it to your selected location on the seat and secure the Inside Antenna.

4. Place and connect the Mobile 3G Signal Booster.

- Select a location for the Signal Booster that is free from excessive heat, direct sunlight and moisture and that has proper ventilation. Good locations include underneath a seat or under the dashboard.
- Connect the wire from the Outside Antenna to the port labeled "Outside Antenna" on the Signal Booster.



- Connect the wire from the Inside Antenna to the port labeled "Inside Antenna" on the Signal Booster.
- Plug the power adapter into vehicle's 12V DC power supply and attach the cord to the side of Power Booster labeled "Power." **NOTE:** Do NOT connect the power to the Signal Booster until you have connected both the Inside and Outside Antennas.
- Power up your Signal Booster by flipping the switch on the back of the DC power adapter on. A red light should appear on the power adapter.

**Note:** The Mobile 3G Signal Booster may remain on, in vehicles whose 12V DC power sources do not automatically shutdown when the vehicle is turned off. This could result in discharging the vehicles battery in one to two days.

**Note:** Some 12V DC power sources are shut down when the vehicle ignition is turned to off. Refer to your vehicle owners manual for specifics related to your vehicle.

**Note:** The aluminum casing of your Signal Booster will adjust to the temperature of its environment, but is designed to protect the



Signal Booster technology. For example, in the summer, the Signal Booster case may be as hot as 150 degrees inside your vehicle. These high temperatures will NOT damage the Signal Booster, nor do they pose a fire risk to the vehicle. Again, be sure to place your Signal Booster in a location with adequate ventilation and away from direct sunlight or moisture.

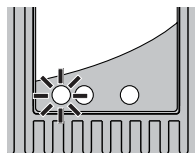
## Understanding the Mobile 3G Signal Booster Lights

The lights on the top of the Mobile 3G Signal Booster indicate whether the system is working or if there are problems. The light on the left is the power light. The other two lights indicate the operation of 800 MHz and 1900 MHz signals, respectively. Take the following steps based on the indicator light color when using the Mobile 3G Signal Booster.

**Lights off:** If the lights are not on:

- Check connections on the power supply to see that it is firmly plugged into both the Mobile 3G Signal Booster and the power source.
- If using a DC power supply in your vehicle, ensure the power supply is properly inserted. Then check the 12 volt power from the car socket and the fuse. Replace the fuse if necessary.

**Red light:** A red light indicates oscillation is occurring. Oscillation is similar to feedback between a microphone and speaker. When oscillation occurs, the Signal Booster will power down to protect the cell tower. To eliminate oscillation, the Outside Antenna needs to be moved farther from the Inside Antenna. Move the Outside Antenna on the roof to the rear of the car, but at least 8 to 12 inches from the rear or side windows. Disconnect the power from the Signal Booster, then reconnect the power to reset the Signal Booster.



**Blinking Red:** If one or more of the lights on the Signal Booster are blinking red, this means that the Signal Booster has shutoff due to close proximity to the mobile device. Increase the distance between the mobile device and the Inside Antenna until the light is no longer flashing red. Contact Wilson Electronics Technical Support Team for assistance.

**Green light:** A green light indicates the Mobile 3G Signal Booster is working properly.

If you have additional questions about the operation of your Mobile 3G Signal Booster, please contact the Wilson Electronics technical support team at 866-294-1660 or email [tech@wilsonelectronics.com](mailto:tech@wilsonelectronics.com).

## Additional FAQ:

### What hours can I contact tech support?

Technical Support can be reached from 7:00am to 6:00pm MST, by calling (866-294-1660), or by email, at [tech@wilsonelectronics.com](mailto:tech@wilsonelectronics.com)

### How does weather affect the performance of my outside antenna?

Water vapor (e.g. rain, fog, snow or other precipitation) creates an effective filter to cellular signal. In times of heavy precipitation, you may see less performance.

### What's the difference between the 800 MHz and the 1900 MHz bands? How do I know which MHz band my cell phone uses?

The Mobile 3G works with all major North American cellular providers on the 800 & 1900 MHz frequencies. Traditionally, 800/1900MHz are associated with voice and 3G data; while 700MHz and 1700/2100MHz are associated with 4G data. For more detail, refer to [wirelessadvisor.com](http://www.wirelessadvisor.com).

---

## United States Carrier Frequency Use

We recommend visiting [www.wirelessadvisor.com](http://www.wirelessadvisor.com) for information regarding the frequency band used by your cell service provider in a specific geographical location.



# Antenna Kit Options

## INSIDE ANTENNA OPTIONS

### Slim Low Profile

301152 - w/ 10' RG174

### Low Profile

311106 - w/ 10' RG58

## OUTSIDE ANTENNA OPTIONS

### Mini-Mag

301126 w/ 12.5 RG174 cable- SMA

301113 w/ 12.5 RG174 cable - FME

### 12" Mag Mount

311103 w/ 12.5' RG174

311125 w/ 12.5' RG174

311128 w/ 12.5' RG174

314202 w/ 12.5' RG174

### Trucker Antenna

311101 w/10.5' RG58

311701 w/10.5' RG58

### Trucker Antenna

311119 w/13.5' RG58

311133 w/13.5' RG58

### Marine Antenna

311130-5810 w/10.5' RG58

### Glass Mount

311102 w/14' RG58

311114 w/14' RG58

### NMO Antenna

Kit 311104-5810

- 800/1900 NMO Antenna
- 10' RG58 Cable

Kit 311112-5810

- 800/1900 NMO Antenna
- 10' RG58 Cable

Kit 314203-5810

- 800/900/1900 NMO Antenna
- 10' RG58 Cable

Kit 311104-17410

- 800/1900 NMO Antenna
- 10' RG174 Cable Kit 311104-40015

Kit 311112-17410

- 800/1900 NMO Antenna
- 10' RG174 Cable

Kit 314203-17410

- 800/900/1900 NMO Antenna
- 10' RG174 Cable

## Safety Guidelines



Warning:

In a wireless installation, do not plug the Signal Booster directly into the cell phone or cellular data card using an antenna adapter. It will damage the Signal Booster, cell phone or cellular data card.



Warning:

Do not plug in the DC power supply until the Outside and Inside Antenna cables are attached to the Signal Booster.



Warning:

The Inside Antennas must have a 1.5 feet of separation distance from all active users.



Warning:

RF Safety: Any antenna used with this device must be located at least 8 inches from all persons.



Warning:

Use only the power supply provided in this package. The power supply must be 6 V DC Output.

### This is a CONSUMER device.

**BEFORE USE**, you **MUST REGISTER THIS DEVICE** with your wireless provider and have your provider's consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. If you are unsure, contact your provider.

You **MUST** operate this device with approved antennas and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20 cm (8 inches) from any person.

You **MUST** cease operating this device immediately if requested by the FCC or a licensed wireless service provider.

**WARNING.** E911 location information may not be provided or may be inaccurate for calls served by using this device.

This device complies with Part 15 of FCC rules. Operation is subject to 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. Changes or modifications not expressly approved by Wilson Electronics could void the authority to operate this equipment.



## Signal Booster Specifications

<b>Mobile 3G</b>		
<b>Model Number</b>	460002	
Connectors	SMA	
Impedance (input/output)	50 ohms	
Dimensions	6.2 x 3.6 x 1.3 inch or 15.7 x 9.1 x 3.3 cm	
Weight	1.2 lbs or 0.54 kg	
Frequency	824-894 MHz / 1850-1990 MHz	
<b>Power output for single cell phone (dBm)</b>	<b>800 MHz</b>	<b>1900 MHz</b>
Uplink	23.4	23.4
Downlink	-3.1	-0.9
Noise Figure (typical)	3 dB nominal	
Isolation	> 90 dB	
<b>Power Requirements</b>	<b>6 V, 0.5 A - 1.5 A (subject to uplink power)</b>	
<b>Signal Booster Usage</b>		

Each Signal Booster is individually tested and factory set to ensure FCC compliance. The Signal Booster cannot be adjusted without factory reprogramming or disabling the hardware. The Signal Booster will amplify, but not alter the incoming and outgoing signals in order to increase coverage of authorized frequency bands only. If the Signal Booster is not in use for five minutes, it will reduce gain until a signal is detected. If a detected signal is too high in a frequency band, or if the Signal Booster detects an oscillation, the Signal Booster will automatically turn the power off on that band. For a detected oscillation the Signal Booster will automatically resume normal operation after a minimum of 1 minute. After 5 (five) such restarts, any problematic bands are permanently shut off until the Signal Booster has been manually restarted by momentarily removing the power from the Signal Booster. Noise power, gain, and linearity are maintained by the Signal Booster's microprocessor.



### 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.

### 2-Year Warranty

Wilson Electronics Signal Boosters are warranted for two (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.

Signal Boosters 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 if located within the continental U.S.

This warranty does not apply to any Signal Boosters determined by Wilson Electronics to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties.

Failure to use a surge protected AC Power Strip with at least a 1000 Joule rating will void your warranty.

RMA numbers may be obtained by contacting Technical Support at 866-294-1660.

**Disclaimer:** The information provided by Wilson Electronics, LLC is believed to be complete and accurate. However, no responsibility is assumed by Wilson Electronics, LLC 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 © 2014 Wilson Electronics, LLC All rights reserved.

U.S. Patent Nos. – 7,221,967; 7,729,669; 7,486,929; 7,409,186; 7,783,318; 8,583,034; 8,583,033; D565,021



3301 East Deseret Drive, St. George, UT 84790  
web: [www.WilsonElectronics.com](http://www.WilsonElectronics.com) | email: [tech@wilsonelectronics.com](mailto:tech@wilsonelectronics.com)  
phone: 866-294-1660 | local: 435-673-5021 | fax: 435-656-2432

You Tube  