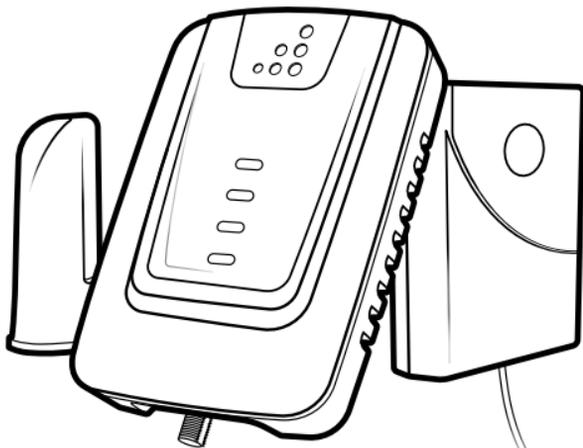


# we:boost

## Installation Guide



**Home Room**  
Cell Signal Booster

Use our **weBoost App** to guide you through the installation. See inside page for more details.

# Download the weBoost App

Use our app to guide you through setting up a weBoost cell phone signal booster in your home, business, or vehicle. Boost every network, including 5G, right away.



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## Package Contents



Home Room  
Booster



Inside  
Antenna



Outside  
Antenna



2-30 ft.  
Cables



Flat Window  
Cable



Power  
Supply



Roof/Pole  
Mount Bracket



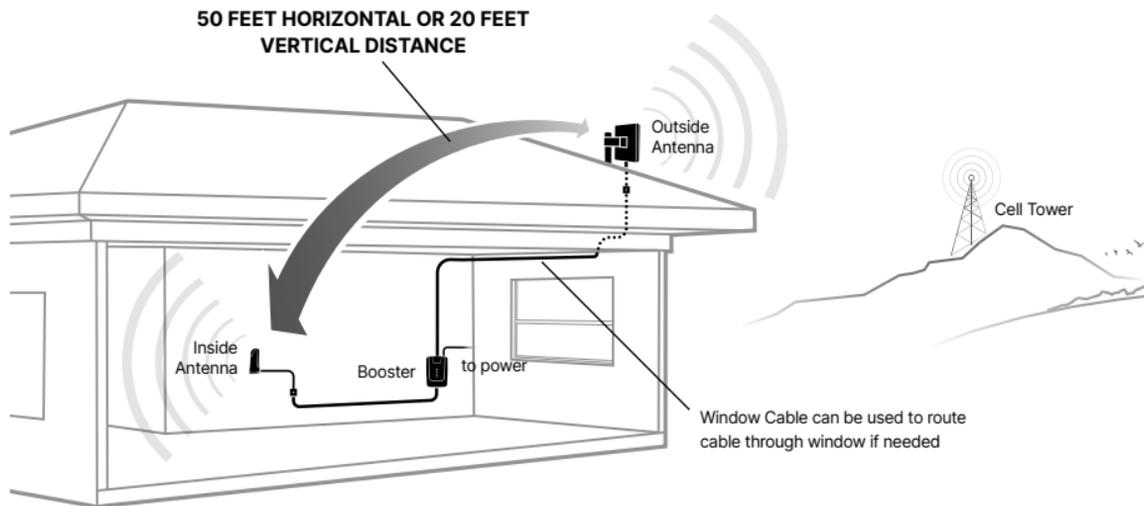
Wall Mount  
Bracket



Cable  
Connector

## Installation Overview

Before finalizing the installation, do a **soft install and optimize the system for best coverage.**



## Preparation

### You Will Need

Make sure the following materials are prepared and ready for your installation. The tools listed below are not included in your booster kit.



1 to 2 hours



2 people (a person to help with antenna calibration)

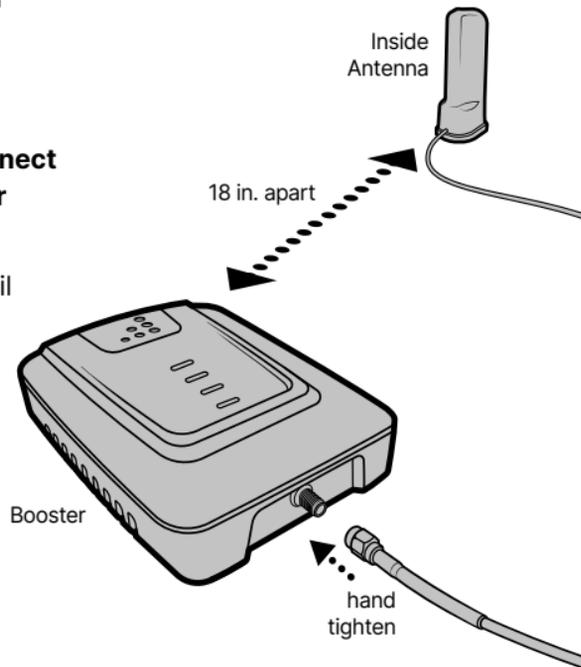


- Ladder
- Phillips-head screwdriver
- 10mm open-end wrench or adjustable wrench
- Drill (if routing cable through wall)
- 1.25"-2" diameter pole (use an existing pole or order #901117)
- Power Strip with surge protection (recommended)

## STEP 1 Connect Inside Antenna to Booster

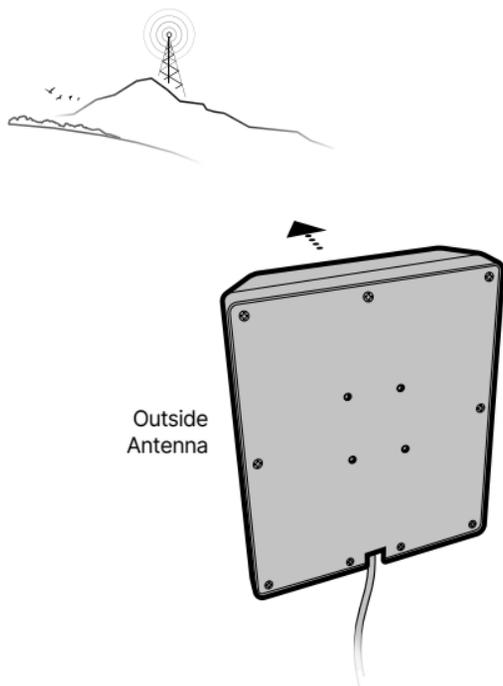
Place **inside antenna** in weak signal area at least **18 inches away from booster and connect inside antenna cable to the port on booster labeled "INSIDE".**

NOTE: Do not connect booster to power until the system is fully installed.



## STEP 2 Mount & Point Outside Antenna Toward Cell Tower

Point the front of the **outside antenna toward the nearest cell phone tower**. To find the nearest tower, use the **weBoost app**. This is a critical step of the installation because it will determine the overall performance of the booster system.

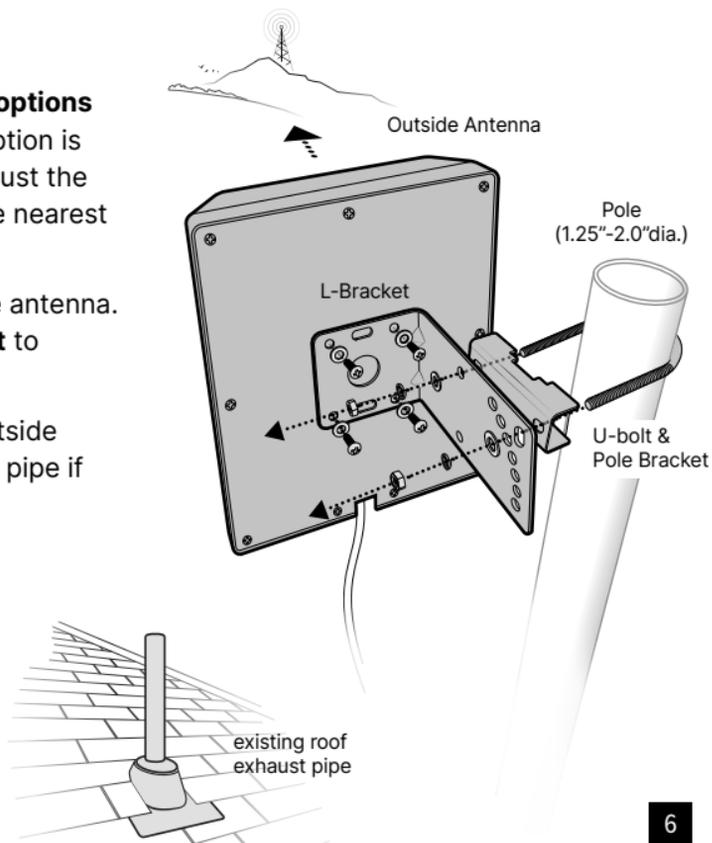


## (STEP 2 cont.)

**Pole mounting and wall mounting options are included.** The pole mounting option is preferred because it is easier to adjust the outside antenna to point toward the nearest cell tower.

Attach the **L-bracket** to the outside antenna. Then, use **the U-bolts/pole bracket** to attach the L-bracket to a pole.

NOTE: Save time and mount the outside antenna to an existing roof exhaust pipe if possible.

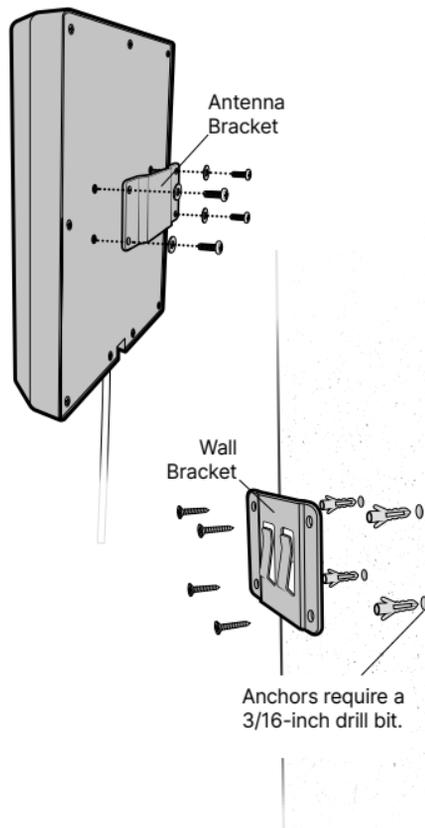


(STEP 2 cont.)

## Wall Mounting Option

If wall mounting option is necessary for mounting the outside antenna, fasten the **antenna bracket to the back of the outside antenna** and secure the wall bracket to a surface facing a cell tower as shown.

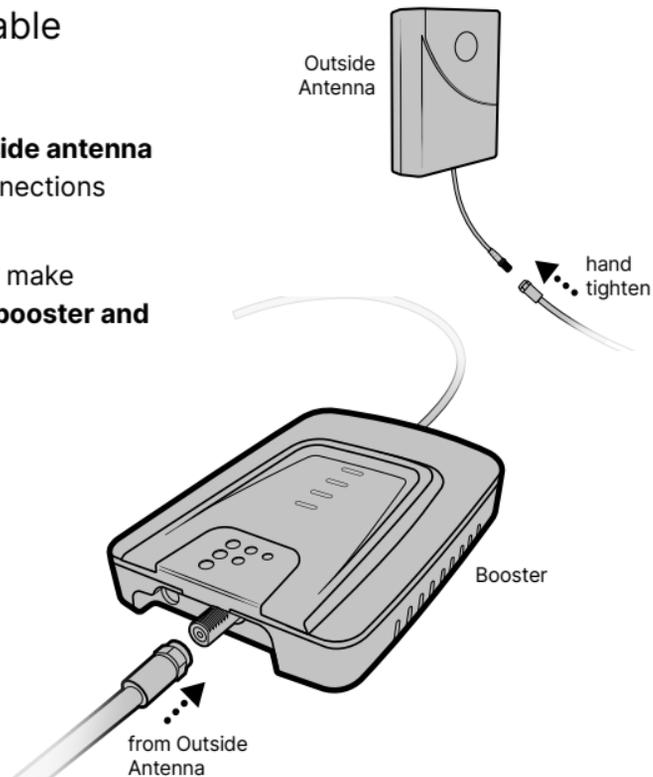
Slide **outside antenna onto wall bracket**. Check that outside antenna is securely fixed in place.



### STEP 3 Route & Connect Cable to System

**Connect the white RG-6 cable to outside antenna and route cable into the home.** All connections should be hand tightened only.

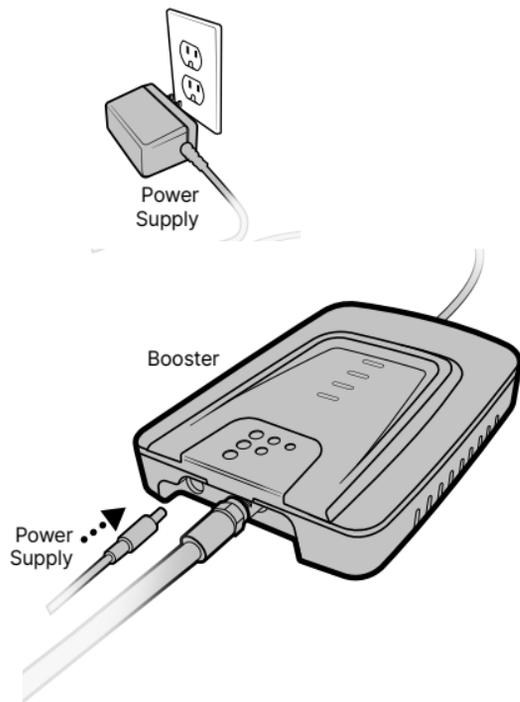
A flat window cable is provided to help make cable entry easier. **Route cable to the booster and connect to port labeled "OUTSIDE".**



## STEP 4 Power Up the Booster & Optimize the System

**Plug the power supply** into wall outlet then **connect to booster.**

NOTE: We strongly recommend using a power strip with surge protection.



## Measuring Booster Performance & Optimizing the System

We've created an easy way to learn your signal strength and compare it before and after a booster. **Download our free weBoost app** to get accurate decibel measurements to help you get the best performance from your system.



## (Measuring Booster Performance & Optimizing the System cont.)

Signal Strength (dBm) with weBoost system powered **OFF**: \_\_\_\_\_  
(dBm here)

Signal Strength (dBm) with weBoost system powered **ON**: \_\_\_\_\_  
(dBm here)

### Compare Results

Compare the decibels (dBm) on the chart below to find what signal strength you fall into.

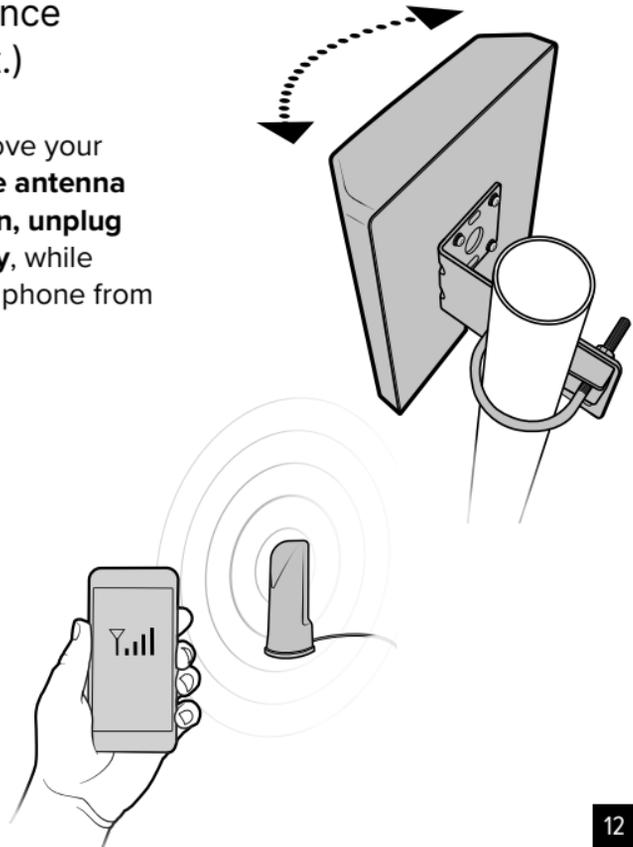
| Signal Strength | Excellent | Good           | Fair            | Poor            | Dead Zone |
|-----------------|-----------|----------------|-----------------|-----------------|-----------|
| 3G/1x           | -70dBm    | -71 to -85dBm  | -86 to -100dBm  | -101 to -109dBm | -110dBm   |
| 4G/LTE          | -90dBm    | -91 to -105dBm | -106 to -110dBm | -111 to -119dBm | -120dBm   |

Did you know a signal increase of just 3dB is 2 times the power and signal amplification!

| Gain Improvement | Signal Improvement   |
|------------------|--|
| 3dB              |  <b>2X</b>    |
| 6dB              |  <b>4X</b>    |
| 10dB             |  <b>10X</b>   |
| 20dB             |  <b>100X</b> |

## (Measuring Booster Performance & Optimizing the System cont.)

You can optimize your system to improve your signal strength by **rotating the outside antenna in 1/3 turn increments. After each turn, unplug and re-plug in booster's power supply**, while observing the signal level on your cell phone from the inside antenna's projected area.



## Booster Light Patterns

### SOLID GREEN

This indicates that your booster is functioning properly, and there are no issues with installation.

### SOLID RED

Band has shutoff. This is due to a feedback loop condition called oscillation. This is a built in safety feature that causes a band to shut off to prevent harmful interference with a nearby cell tower. Refer to Troubleshooting section.

### SOLID ORANGE

Band has shutoff due to overload from nearby cell tower. Outside antenna must be adjusted. Refer to Troubleshooting section.

### BLINKING GREEN, THEN RED

Band has reduced gain. This indicates that one or more of the booster bands has reduced power due to a feedback loop condition called oscillation. This is a built in safety feature to prevent harmful interference with a nearby cell tower. If you are already experiencing the desired signal boost, then no further adjustments are necessary. If you are not experiencing the desired boost in coverage, then refer to the Troubleshooting section.

## (Booster Light Patterns cont.)

### BLINKING GREEN, ORANGE

Band has reduced gain. This indicates that one or more of the booster bands has reduced power due to overload from nearby cell tower. This is a built in safety feature to prevent harmful interference with a nearby cell tower. If you are already experiencing the desired signal boost, then no further adjustments are necessary. If you are not experiencing the desired boost in coverage, then refer to the Troubleshooting section.

### LIGHT OFF

If booster's light is off, verify your power supply has power.

NOTE: The booster can be reset by disconnecting and reconnecting the power supply.

After troubleshooting, you must initiate a new power cycle by disconnecting and then reconnecting power to the booster.

# Troubleshooting

## FIXING RED LIGHT ISSUES

(This involves solid red & blinking green/red lights)

**If you are happy with the coverage, these light issues don't have to be resolved. Your carrier's band has not been affected.**

- 1 Verify outside antenna faces away from the inside antenna. Unplug and replug in power supply.
- 2 Verify the inside antenna is at least 18 inches from the booster and pointed away from the booster. Unplug and replug in power supply.
- 3 Tighten all cable connections (be sure to hand tighten only, Do NOT use tools). You may want to undo and redo the connection completely. Unplug and replug in power supply.
- 4 Increase the distance (horizontally or vertically) between the outside and inside antennas. Add included cable if needed. Unplug and replug in power supply.

If you are having any difficulties while testing or installing your booster, contact our weBoost Customer Support team for assistance at 1-866-294-1660.

## (Troubleshooting cont.)

### FIXING ANY ORANGE LIGHT ISSUES

(This involves solid orange & blinking green/orange lights)

**Outside antenna must be adjusted. Wait 10 seconds between adjustments for the lights to reset.**

Pole Mount Option: Rotate the outside antenna away from the strongest cellular signal in small increments (1/3 turn) until the light turns green. Unplug and replug in power supply.

Wall Mount Option: Change mount location. Move the outside antenna to a wall outside the building to see if the lights turn green. Unplug and replug in power supply.

### FREQUENTLY ASKED QUESTIONS

#### **How can I contact customer support?**

Customer Support can be reached Monday through Friday by calling 1-866-294-1660, or through our support site at [support.weboost.com](http://support.weboost.com).

#### **Why do I need to create distance between the inside antenna and the outside antenna?**

Antennas connected to a booster create spheres of signal. When these spheres overlap, a condition called oscillation occurs. Oscillation causes the booster to scale down its power or shut down to prevent damage. The best way to keep these spheres of signal from overlapping is to maximize separation between the inside and outside antennas.

## Safety Guidelines

To uphold compliance with network protection standards, all active cellular devices must maintain at least six feet of distance from Inside Panel and Dome Antennas and at least four feet of distance from Desktop Antenna.

Use only the Power Supply provided in this package. Use of a non-weBoost product may damage your equipment.

The signal booster unit is designed for use in an indoor, temperature-controlled environment (less than 100 degrees Fahrenheit). It is not intended for use in attics or similar locations subject to temperatures in excess of that range.

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

**AWS Warning:** The Outside Antenna must be installed no higher than 10 meters (31 feet 9 inches) above ground.

### **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.

In Canada, **BEFORE USE** you must meet all requirements set out in ISED CPC-2-1-05.

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 (i.e., **MUST NOT** be installed within 20 cm of) any person.

You **MUST** cease operating this device immediately if requested by the FCC (or ISED in Canada) or 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 may be operated **ONLY** in a fixed location for in-building use.

(Safety Guidelines cont.)

**FOR MORE INFORMATION ON REGISTERING YOUR SIGNAL BOOSTER WITH YOUR WIRELESS PROVIDER IN THE U.S., PLEASE GO TO THE LINK BELOW:**

<https://www.weboost.com/carrier-registration>

## Antenna Info

The following accessories are certified by the FCC to be used with the Home Room Booster.

This radio transmitter 4726A-460020 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

|  | BAND 12/17 | BAND 13 | BAND 5 | BAND 4 | BAND 25/2 |
|--|------------|---------|--------|--------|-----------|
| Outside antenna maximum permissible antenna gain (dBi) 50Ω | 4.50       | 4.20    | 4.90   | 3.71   | 4.92      |
| Inside antenna maximum permissible antenna gain (dBi) 50Ω  | 4.16       | 4.16    | 3.73   | 3.49   | 6.60      |

### FIXED INSIDE ANTENNA KIT OPTIONS

| Kit #  | Coax Type | Ln(ft) | Antenna Type             | Ω  |
|--------|-----------|--------|--------------------------|----|
| 304412 | RG-58     | 10     | 4G Dome                  | 50 |
| 311135 | RG-58     | 50     | Wall Mount Panel Antenna | 50 |
| 301211 | RG-174    | 5      | Desktop Antenna          | 50 |

# Specifications

| Home Room Cell Signal Booster                            |   |                             |                            |                             |                             |
|--|---|-----------------------------|----------------------------|-----------------------------|-----------------------------|
| <b>Model</b>   | 460020  |                             |                            |                             |                             |
| <b>FCC</b>   | PWO460020   |                             |                            |                             |                             |
| <b>IC</b>  | 4726A-460020  |                             |                            |                             |                             |
| <b>Connectors</b>  | SMA-Female on the Inside Antenna / F-Female on the Outside Antenna            |                             |                            |                             |                             |
| <b>Antenna Impedance</b>                                 | 50 Ohms / 75 Ohms   |                             |                            |                             |                             |
| <b>Frequency</b>   | 698-716 MHz, 746-787 MHz, 824-894 MHz, 1850-1995 MHz, 1710-1755/2110-2155 MHz |                             |                            |                             |                             |
| <b>Power output for single cell phone (Uplink) dBm</b>   | <b>700 MHz B12/17</b><br>23.94  | <b>700 MHz B13</b><br>24.19 | <b>800 MHz B5</b><br>23.49 | <b>1700 MHz B4</b><br>24.55 | <b>1900 MHz B2</b><br>23.61 |
| <b>Power output for single cell phone (Downlink) dBm</b> | 11.64   | 11.92                       | 12.1                       | 11.9                        | 9.5                         |
| <b>Noise Figure</b>                                      | 5 dB (nominal)  |                             |                            |                             |                             |
| <b>Isolation</b>   | > 110 dB  |                             |                            |                             |                             |
| <b>Power Requirements</b>                                | AC / DC 5V, 4A, w/2.5x5.5mm Jack  |                             |                            |                             |                             |

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 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 automatic restarts, any problematic bands are permanently shut off until the Signal Booster has been manually restarted by momentarily removing power from the Signal Booster. Noise power, gain, and linearity are maintained by the Signal Booster's microprocessor.

The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met. This device complies with Part 15 of FCC rules. This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). 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 the device. Changes or modifications not expressly approved by weBoost could void the authority to operate this equipment.

## ✔ 2 YEAR WARRANTY

weBoost 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 weBoost. weBoost shall, at its option, either repair or replace the product.

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

Replacement products may include refurbished weBoost products that have been recertified to conform with product specifications.

RMA numbers may be obtained by contacting Customer Support.

**DISCLAIMER:** The information provided by weBoost is believed to be complete and accurate. However, no responsibility is assumed by weBoost 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.







# we:boost



3301 East Deseret Drive, St. George, UT

 1-866-294-1660  [www.weboost.com](http://www.weboost.com)  [support@weboost.com](mailto:support@weboost.com)

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For patents go to: [weboost.com/us/patents](http://weboost.com/us/patents)

NOT AFFILIATED WITH WILSON ANTENNA

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