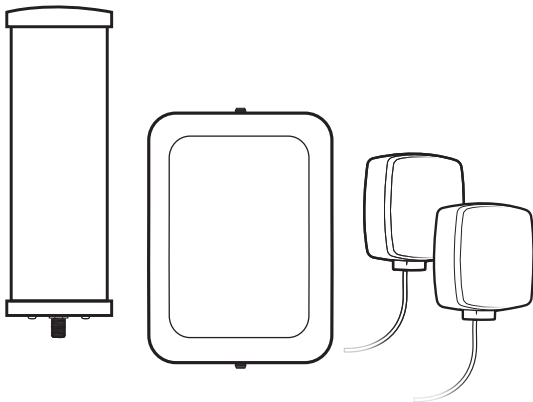




## Installation Guide



### **weBoost RV50** Cellular Signal Booster

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

## Download the weBoost App

Use the 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



Booster



Outside Omni Antenna  
Mounting Hardware



Mini Panel  
Inside Antenna



Coax Cable  
Window Entry Cable



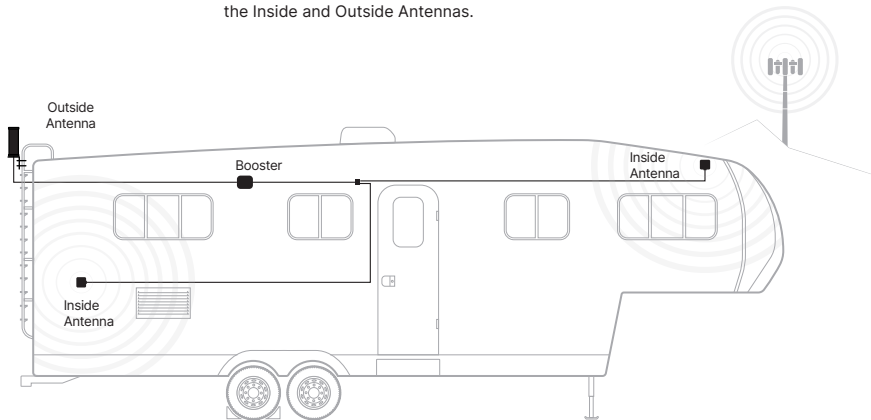
Power Supply



2-Way Splitter

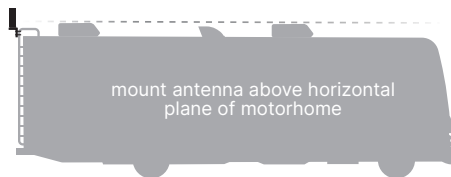
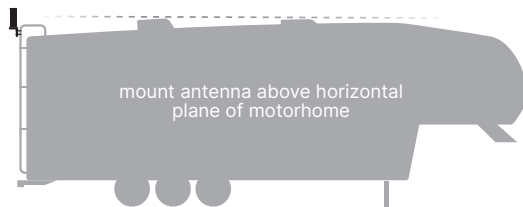
# Installation Overview

For best performance, maximize the separation between the Inside and Outside Antennas.



Works with RVs up to 50 ft. in length.

## Best Outside Antenna Position



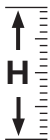
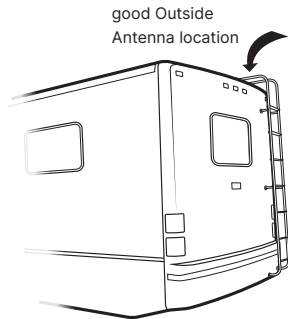
For best performance the outside antenna should be mounted above the horizontal plane of the vehicle and/or above other gear on top of the vehicle.

Pro tip: By mounting the outside antenna toward the rear of your RV, you allow the cables to create separation and thereby increase performance of the booster.

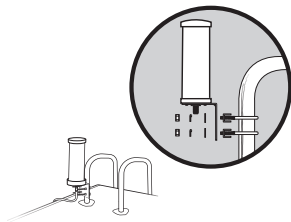
## STEP 1 Select Mounting Location & Assemble the Outside Antenna

**Determine where you want the outside antenna on your RV.** The outside antenna can be mounted to a ladder or pole, or fixed mounted to a secure location on the roof.

Detailed instructions for both options are shown on the following two pages.



NOTE: Refer to outside antenna maximum clearance height allowed by law. Generally, western states have a max height of 35.6 cm and eastern states have a max height of 34.5 cm.



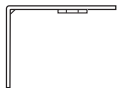
## (STEP 1 cont.)

### Option 1: Mount to Ladder or Pole

A ladder or pole is the easiest and preferred mounting location for the outside antenna.

To attach, first secure the antenna to the L-bracket using the antenna's pre-installed screws, then attach the L-bracket to the ladder or pole using the U-bolts as shown.

#### L-Bracket Hardware



L-Bracket

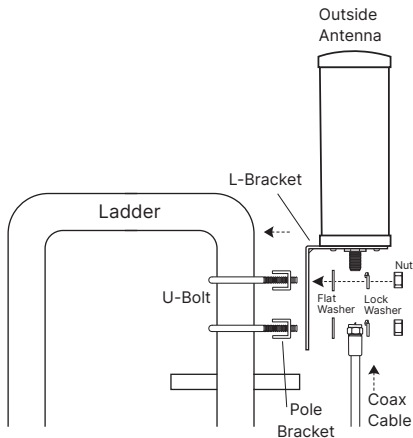


U-Bolt



Pole Bracket

-   2 nuts
-   2 flat washers
-   2 lock washers

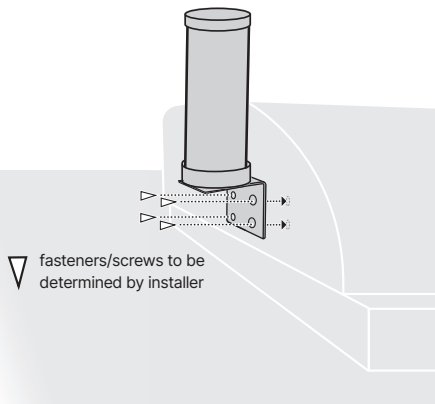


## (STEP 1 cont.)

### Option 2: Mount to Secure Fixed Location

If your vehicle doesn't have a ladder or pole for mounting, the L-bracket can also be mounted to a flat, structurally sound location on your roof.

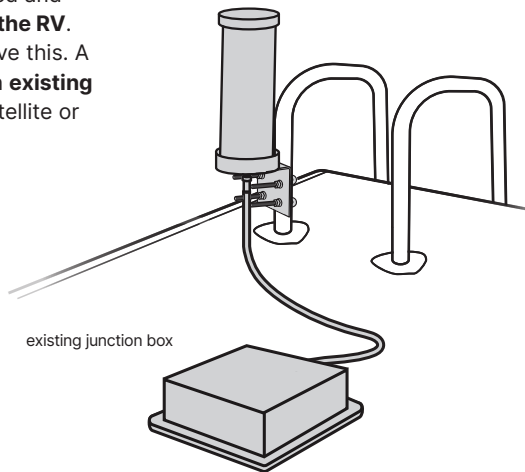
Choose suitable fasteners (e.g., lag screws, well nuts, sheet metal screws, toggle bolts, t-anchors) for attaching the antenna. We recommend sealing any screws or holes with a roof-compatible sealant.



## STEP 2 Route Cable into RV

### Option 1: Using Existing Cable Entry

Once the outside antenna is mounted and secured, **route the coax cable into the RV**. There are different options to achieve this. A good time-saver would be to use an **existing junction box** or cable gland for a satellite or solar panels.



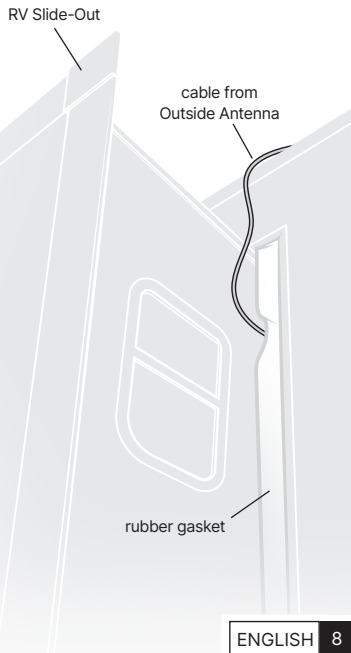
## (STEP 2 cont.)

### Option 2: Using Slide-Out for Cable Entry

If your RV has a slide-out, the cable can be routed through the rubber gasket and into the area where the booster will be placed. A flat entry cable is included and can be used if necessary.

**IMPORTANT:** Do not fully extend the slide out until the cable is routed all the way through.

For toy haulers, the cable can be routed through the back door (flat entry cable included).



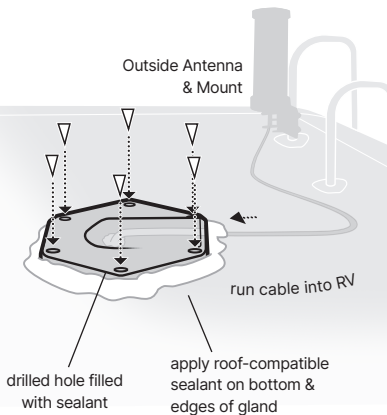
## (STEP 2 cont.)

### Option 3: Installing Cable Entry Cover

Select a suitable location on top of the RV that provides a clear path for the cable. **Drill a hole** that the cable and connector will fit through into the RV. **Insert the cable into hole and apply roof-compatible sealant around the hole and cable.**

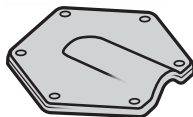
Also apply sealant on the bottom edges of the cable entry cover before securing it to the RV roof with suitable fasteners (e.g., lag screws, well nuts, sheet metal screws, toggle bolts, t-anchors).

When the cable entry cover is secured properly **apply additional sealant around the edges** and check for any gaps to ensure a watertight seal.



#### You Will Need

- ☐ Drill and drill bit    ☐ Roof sealant
- ☐ Mounting hardware



Cable Entry Cover



fasteners/screws to be determined by installer

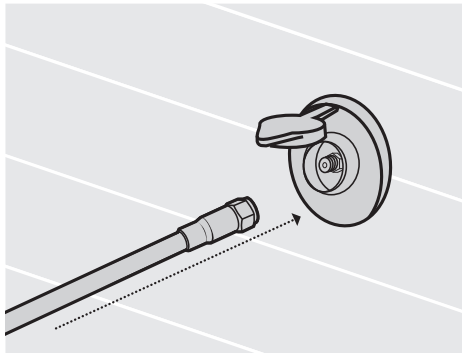
## (STEP 2 cont.)

### Option 4: Using Existing TV/Satellite Input

If available, you can also attach your outside antenna cable to an external cable TV/satellite input port to pass the signal through into the RV.

Because this option uses the coax already installed in the RV, the type, length, and condition of that cable, along with any splitters or connectors in the run, all affect signal quality and will vary by vehicle. A soft install is recommended to verify performance before making anything permanent.

Note: this step requires the second cable included in your kit to connect the interior TV port to your booster, as shown in Step 5.



## (STEP 2 cont.)

### Installation Tips

#### **Pre-Drill Pilot Holes**

Even with self-tapping screws, pre-drilling small pilot holes can help ensure accurate placement and reduce the risk of splitting or damaging the roofing material. Ensure you are not drilling through any existing power lines or cables.

#### **Use Roof Sealant**

Apply a generous amount of roof sealant, like Dicor Lap Sealant, around each screw before and after driving it in. This will help create a watertight seal.

#### **Avoid Over-Tightening**

Over-tightening screws can strip the hole and compromise the hold. Tighten screws just enough to secure the mount firmly without deforming the material.

#### **Check Screw Length**

Ensure the screw length is appropriate for the thickness of your RV roof. Generally, 1-inch screws are suitable, but always confirm the specific roof structure thickness to avoid penetrating through the interior ceiling.

**Only proceed with this installation if you are comfortable with the process. If not, have it installed by a professional.**

## STEP 3 Mount the Inside Antennas

**Identify where to mount the two inside antennas, spreading them apart to cover as much of the RV's length as possible.** Each antenna cable is 13 ft long and runs back to the booster through the splitter, so plan placement around where the booster will sit (Step 5). Each antenna can be mounted to the ceiling or wall using the provided Velcro® adhesive pad.

For best results, place the antennas midline along the ceiling of the RV, which generally provides the best coverage. If you have a high-usage area, one antenna can also be placed directly next to that spot.

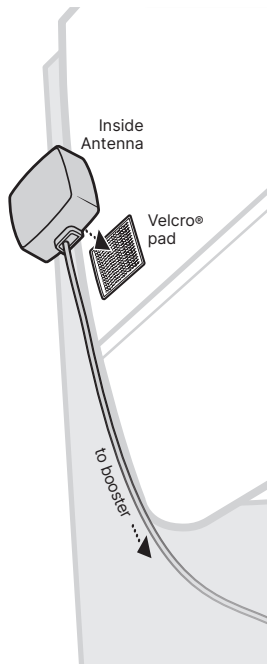
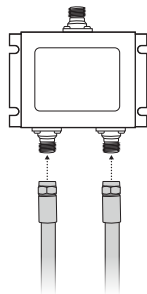


### (STEP 3 cont.)

**Once you've chosen a location for each antenna, mount it using the provided Velcro® adhesive pad.** Keep the two antennas as far apart as practical; placing them too close together reduces the added coverage the second antenna provides.

Connect each antenna cable to one of the two splitter outputs. Hand-tighten only — do NOT use tools. The splitter connects to the booster in Step 5.

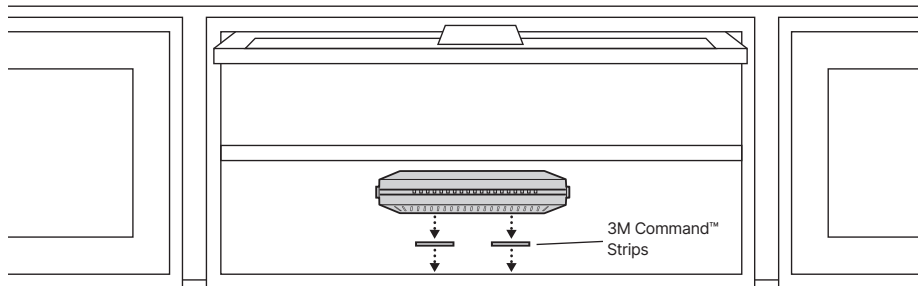
**Note: Do not mount the inside antenna where an airbag will deploy.**



## STEP 4 Booster Location & Connect Coax Cables

### **Find a location inside the RV to place the booster.**

A cabinet near a power source works best. Be sure it's within reach of the 30-foot outside antenna coax cable and the two 13-foot inside antenna cables. Use 3M Command™ Strips to secure the booster in place.



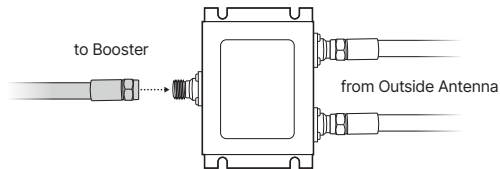
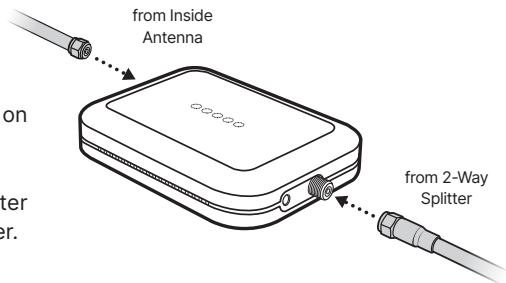
## (STEP 4 cont.)

Connect the white coax cable from the outside antenna to the larger connector on the booster.

Connect the 1 ft cable between the splitter and the smaller connector on the booster.

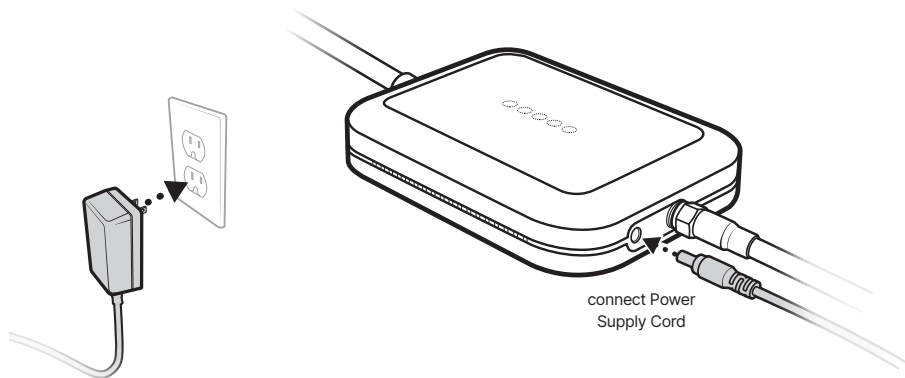
Hand-tighten all connections only — do NOT use tools.

Note: The splitter can be secured using an extra Velcro® pad from the inside antenna kit.



## STEP 5 Connect Power Supply to Booster

Connect the AC power supply into the end of the booster. Plug the power supply into a 120V outlet in the RV.



## Booster Light Patterns

### GREEN

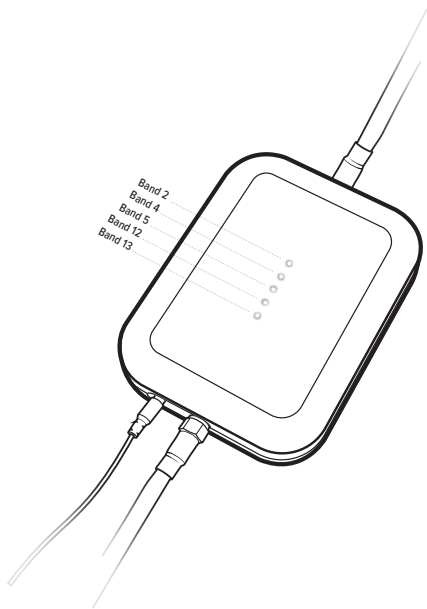
This indicates that your booster is functioning properly and there are no issues with installation.

### SOLID RED

Band has shut off. 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.

### BLINKING GREEN / RED

This indicates that the booster is operating at a reduced gain to prevent oscillation (feedback). This is a built-in safety feature to prevent harmful interference with a nearby cell tower.



## (Booster Light Patterns cont.)

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.

### BLINKING GREEN / YELLOW

This indicates 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.

### SOLID YELLOW

Band has shut off due to overload from nearby cell tower. Outside antenna must be adjusted to a different location. Refer to Troubleshooting section.

### LIGHTS OFF

If the signal amplifier's lights are off, verify your power supply has power.

## How Do I Know If My Booster Is Working?

A solid green light on your booster confirms it is on and amplifying. The next page will show you how to measure exactly how much it's helping, but first, here's what to expect.

### **Your booster is like a hearing aid for your phone.**

It picks up faint signals your phone struggles to detect and makes them loud and clear. Resulting in faster data speeds, clearer calls, and fewer dropped connections. In the most extreme cases it can even mean the difference between SOS-only and a working phone call.

Just like a hearing aid needs some sound to amplify, your booster needs some signal. If there is truly no signal present, there is nothing to boost.

### **How will this work for me?**

| If the distance to the cell tower is:  | SHORT           | MEDIUM                | LONG                | OUT OF RANGE |
|----------------------------------------|-----------------|-----------------------|---------------------|--------------|
|                                        | ↓               | ↓                     | ↓                   | ↓            |
| Your boosted cell signal will provide: | Max Performance | Better Talk/Text/Data | Good Talk/Text/Data | None         |

## How Do I Know If My Booster Is Working? Cont.

### Measure What Actually Matters

Signal bars vary by phone and are not a reliable measure. Your RSRP (Reference Signal Received Power) is the actual signal number your phone reports, measured in dBm. It ranges from about -50 dBm (strong) to -120 dBm (very weak), the closer to -50, the better.

### Record your signal strength (RSRP) with the free weBoost App

1. Turn the booster off, open the app, tap Signal, and record your RSRP in dBm.
2. Turn the booster on, wait 30 seconds, and record your RSRP again.
3. Compare the two numbers. Any improvement confirms your booster is working.

*Android reads automatically. iPhone requires Field Test Mode. The app walks you through this.*

Signal strength is measured on a logarithmic scale, so small changes make a big difference. A 10 dB improvement means 10X stronger signal. A 20 dB improvement, common at the edge of coverage, means 100X stronger signal!

**Download the weBoost App**



## Troubleshooting

**This section applies only if the booster's light is blinking green/red, blinking green/yellow, solid red, or solid yellow, and you are not experiencing the desired signal boost.**

Fixing Blinking Green/Red, Blinking Green/Yellow, Solid Red, and Solid Yellow Lights

- 1 Unplug the booster's power supply.
- 2 Tighten all cable connections. Hand-tighten only — do NOT use tools. Fully disconnecting and reconnecting each cable can help it seat properly.
- 3 Move the inside antenna further from the outside antenna to increase the separation distance between them. Plug the power supply back in.
- 4 Watch the indicator lights. If any of these conditions reappear after a few seconds of power-on, repeat steps 1 through 3. Continue increasing the separation distance until the condition clears and the desired coverage is achieved.

NOTE: Horizontal separation between the two antennas typically requires less distance than vertical separation.

If you are having any difficulties while testing or installing your booster, contact the weBoost Customer Support team for assistance.

## (Troubleshooting cont.)

### 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](https://support.weboost.com).

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

Antennas connected to a booster create spheres of signal. When these spheres overlap, a condition called oscillation occurs. Oscillation can be thought of as noise, which 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

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

Connecting this signal booster directly to the cell phone with use of an adapter will damage the cell phone.

RF Safety Warning: Any antenna used with this device must be located at least 20 cm (8 in.) from all persons.

AWS Warning: The Outside Antenna must be installed no higher than 10 meters (31'9") 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.

(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 Studio Cell Signal Boosters.

This radio transmitter 4726A-460066 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.

| HOME STUDIO                                                | BAND 2 | BAND 4 | BAND 5 | BAND 12 | BAND 13 |
|------------------------------------------------------------|--------|--------|--------|---------|---------|
| Outside antenna maximum permissible antenna gain (dBi) 50Ω | 6.1    | 5.8    | 4.5    | 4.9     | 4.9     |

| INSIDE ANTENNA INFO |           |        |              |    |
|---------------------|-----------|--------|--------------|----|
| #                   | Coax Type | Ln(ft) | Antenna Type | Ω  |
| 311236              | NONE      | 0      | Omni         | 50 |
| 310004              | D302      | 13     | Omni         | 50 |

| OUTSIDE ANTENNA INFO |           |        |              |    |
|----------------------|-----------|--------|--------------|----|
| #                    | Coax Type | Ln(ft) | Antenna Type | Ω  |
| 314475               | RG-6      | 30     | Directional  | 75 |
| 314473               | RG-6      | 30     | Panel        | 75 |
| 304421               | RG-6      | 30     | Omni         | 75 |
| 304423               | RG-6      | 30     | Omni         | 75 |

# Specifications

| Home Studio Cell Signal Booster                          |                                                                                            |                            |                           |                            |                            |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------|---------------------------|----------------------------|----------------------------|
| <b>Model</b>                                             | 460066                                                                                     |                            |                           |                            |                            |
| <b>FCC</b>                                               | PWO460066                                                                                  |                            |                           |                            |                            |
| <b>IC</b>                                                | 4726A-460066                                                                               |                            |                           |                            |                            |
| <b>Connectors</b>                                        | F-Female / SMA Female                                                                      |                            |                           |                            |                            |
| <b>Antenna Impedance</b>                                 | 75 Ohms / 50 Ohms                                                                          |                            |                           |                            |                            |
| <b>Frequency</b>                                         | 698-716 MHz, 728-756 MHz, 777-787 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>23.3                                                              | <b>700 MHz B13</b><br>22.2 | <b>800 MHz B5</b><br>23.3 | <b>1700 MHz B4</b><br>22.1 | <b>1900 MHz B2</b><br>21.8 |
| <b>Power output for single cell phone (Downlink) dBm</b> | 9.4                                                                                        | 9.6                        | 7.0                       | 11.8                       | 13.8                       |
| <b>Noise Figure</b>                                      | 5.0 dB (nominal)                                                                           |                            |                           |                            |                            |
| <b>Isolation</b>                                         | > 90 dB                                                                                    |                            |                           |                            |                            |
| <b>Power Requirements</b>                                | 4.2V, 2.5A                                                                                 |                            |                           |                            |                            |

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 warrantied 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.

[illegible]

✉ [support@weboost.com](mailto:support@weboost.com)

# we:boost



1444 E Venture Dr, St. George, UT



1-866-294-1660



[www.weboost.com](http://www.weboost.com) or [www.weboost.ca](http://www.weboost.ca)



[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

GDE000720-001-081726