Home 4G
Cellular Signal Booster

User Manual
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Package Contents

- Home 4G
- Inside Antenna
- Outside Antenna
- 30' Cables Qty. 2
- Window Entry Cable
- Power Supply
- Roof/Pole Mount Bracket
- Wall Mount Bracket
- Cable Connector
Preparation

You Will Need (tools not included)

Make sure the following materials are prepared and ready for your installation.

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

NOTE: These instructions will walk you through a “soft” install process to find the optimal locations for the inside and outside antennas, then through the process of the permanent installation.
Step 1-A & B: Connect Inside Antenna To Booster

Connect Inside Antenna cable to the bottom port on Home 4G booster labeled ‘INSIDE’ and place Inside Antenna in weak signal area at least 18 inches away from booster.

NOTE: Do not connect booster to power until the system is fully installed.
Step 2-A: Point Outside Antenna Toward Nearest Cell Tower

Point the **Outside Antenna** toward the nearest cell phone tower. To find the nearest tower, use an app such as ‘Open Signal’. This is the most critical step of the installation process because it will determine the overall performance of the booster system.

NOTE: The Outside Antenna must be at least **50 feet horizontal or 20 feet vertical** from the Inside Antenna for best performance. Make sure the Inside Antenna and Outside Antennas are setup so they are **facing away** from each other.
Step 2-B: Mount Bracket To Outside Antenna

**Pole Mounting and Wall Mounting Options** are included. The pole mounting option is preferred because it would be easier to adjust to the direction of the cell tower.

Attach the **L-Bracket** to the Outside Antenna and use the **U-Bolts/Pole Bracket** to attach the L-Bracket to a pole.

**NOTE:** Mounting on existing roof exhaust pipe would be a good time-saver option.
(STEP 2-B cont.)

**Wall Mounting Option**

- Drill holes using 3/16 inch bit
- Tap anchors in
- Secure bracket to wall
- Fasten bracket to back of Outside Antenna
- Mounting Outside Antenna on wall bracket
- Sideview
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 Window Entry Cable is provided to help make cable entry easier. Route cable to the **Home 4G booster** and connect to top port labeled ‘OUTSIDE’.
Step 4: Power Up The Booster & Optimize The System

Plug the **Power Supply** into wall outlet then connect to Home 4G Booster and enjoy your boosted cell signal!
After powering up your system, you are now ready to optimize your system. Rotate the **Outside Antenna** in 1/4 turn increments (within the cell towers general location) and each time observing the signal level on your cell phone from the inside antenna’s projected area.

*STEP 2-B cont.*

after each rotation, observe signal level on your cell phone from the inside antenna’s projected area
Measuring Booster Performance

How To Get Signal Strength As A Number

**iPhone®**

Dial *3001#12345#* then press Call.

1. Hold down power button until you see 'Slide to Power Off'.
2. Then release the power button.
3. Hold the Home button until your main screen appears.

If you want to check 3G/1x but your iPhone is picking up 4G/LTE signal, go to Settings>Cellular>Cellular Data Options>Enable LTE>Select Off.

After you system is set up, you can go back to the dots signal by once again dialing *3001#12345#* then pressing call. When the menu comes back up, tap “phone” in the top left corner of your phone.

**Phone**

iOS 11 no longer displays the decibel (dBm) reading in ‘Field Test Mode’. Tip: Using the bar indicator on your cell phone can assist you in finding the strongest signal direction as well as placing calls in different locations. For changes/updates on this issue, periodically go to [weboost.com/signalstrength](http://weboost.com/signalstrength).

**Android™**

Settings > About Phone > Status or Network > Signal Strength or Network Type and Strength (exact options/wording depends on phone model).

iPhone is a registered trademark of Apple Inc. Android is a trademark of Google Inc.

All Other Phones & Alternate Methods

Go to [www.weboost.com/test-mode-instructions/](http://www.weboost.com/test-mode-instructions/)
Having an accurate measurement of signal strength in decibels (dBm) is crucial when installing your system. Decibels accurately measure the signal strength you are receiving.

### Compare Results

Having an accurate measurement of signal strength in decibels (dBm) is crucial when installing your system. Decibels accurately measure the signal strength you are receiving.

<table>
<thead>
<tr>
<th>SIGNAL STRENGTH</th>
<th>EXCELLENT</th>
<th>GOOD</th>
<th>FAIR</th>
<th>POOR</th>
<th>DEAD ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3G/1x</td>
<td>-70dBm</td>
<td>-71 to -85dBm</td>
<td>-86 to -100dBm</td>
<td>-101 to -109dBm</td>
<td>-110dBm</td>
</tr>
<tr>
<td>4G/LTE</td>
<td>-90dBm</td>
<td>-91 to -105dBm</td>
<td>-106 to -110dBm</td>
<td>-111 to -119dBm</td>
<td>-120dBm</td>
</tr>
</tbody>
</table>

**DID YOU KNOW** a signal increase of just 3dB is 2 times the power and signal amplification!
Light Patterns

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

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.

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.

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.

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

Light Off
If the Signal Booster’s light is off, verify your power supply has power.
Troubleshooting

IF YOU ARE HAPPY WITH THE COVERAGE, THESE LIGHT ISSUES DON'T HAVE TO BE RESOLVED. YOUR CARRIER'S BAND HAS NOT BEEN AFFECTED.

FIXING ANY RED LIGHT ISSUES

This involves Solid Red & Blinking Green/Red lights.

1. Verify Outside Antenna faces away from the Inside Antenna. Un-plug and re-plug in power supply.

2. Verify the Inside Antenna is at least 18” from the Booster and pointed away from the Booster. Unplug and re-plug in power supply.

3. Tighten all cable connections (be sure to handtighten only, do NOT use tools). You may want to undo and redo the connection completely. Unplug and re-plug in power supply.

4. Increase the distance (horizontally or vertically) between the Outside and Inside antenna. Add included cable if needed. Un-plug and re-plug in power supply.

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 (45°) until the light turns green. Unplug and re-plug 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. Un-plug and re-plug in power supply.

**NEED HELP?**

- support.weboost.com
- 866.294.1660
# Antenna Kit Options

The following accessories are certified by the FCC to be used with the Connect 4G-X Booster.

## INSIDE ANTENNA EXPANSION KITS

<table>
<thead>
<tr>
<th>Kit Code</th>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kit 309900-50N</td>
<td>2-Way 50 Ohm 3-Way Splitter</td>
<td></td>
</tr>
<tr>
<td>Kit 309905-50N</td>
<td>3-Way 50 Ohm 3-Way Splitter</td>
<td></td>
</tr>
<tr>
<td>Kit 309902-75F</td>
<td>2-Way 75 Ohm 3-Way Splitter</td>
<td></td>
</tr>
<tr>
<td>Kit 309904-75F</td>
<td>3-Way 75 Ohm 3-Way Splitter</td>
<td></td>
</tr>
<tr>
<td>Kit 301213</td>
<td>Desktop Antenna w/ 5' RG174</td>
<td></td>
</tr>
</tbody>
</table>

## INSIDE ANTENNAS

<table>
<thead>
<tr>
<th>Kit Code</th>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kit 301121-40010</td>
<td>50 Ohm Dome Antenna</td>
<td>10' LMR400</td>
</tr>
<tr>
<td>Kit 301151-0610</td>
<td>75 Ohm Dome Antenna</td>
<td>10' RG66 Cable</td>
</tr>
<tr>
<td>Kit 311155-0630</td>
<td>75 Ohm Wall Mount Panel Antenna</td>
<td>30' RG66 Cable</td>
</tr>
<tr>
<td>Kit 311135-5820</td>
<td>50 Ohm Wall Mount Panel Antenna</td>
<td>20' RG58 Cable</td>
</tr>
<tr>
<td>Kit 311135-40060</td>
<td>50 Ohm Wall Mount Panel Antenna</td>
<td>60' LMR400 Cable</td>
</tr>
<tr>
<td>Kit 301151-1110</td>
<td>75 Ohm Dome Antenna</td>
<td>10' RG11 cable</td>
</tr>
<tr>
<td>Kit 311155-1150</td>
<td>75 Ohm Wall Mount Panel Antenna</td>
<td>50' RG11 cable</td>
</tr>
<tr>
<td>Kit 311155-40060</td>
<td>75 Ohm Wall Mount Panel Antenna</td>
<td>60' LMR400 Cable</td>
</tr>
<tr>
<td>Kit 304419-0610</td>
<td>75 Ohm 4G Dome Antenna</td>
<td>10' RG66 Cable</td>
</tr>
</tbody>
</table>

## 50 OHM OUTSIDE ANTENNA KITS

<table>
<thead>
<tr>
<th>Kit Code</th>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kit 314453-5825</td>
<td>50 Ohm Pole Mount Panel Antenna</td>
<td>25' RG58 Cable</td>
</tr>
<tr>
<td>Kit 314411-40075</td>
<td>50 Ohm Wide Band Directional</td>
<td>30' RG58 Cable</td>
</tr>
<tr>
<td>Kit 311129-5840</td>
<td>800 MHz Yagi Directional</td>
<td>40' RG58 Cable</td>
</tr>
<tr>
<td>Kit 314473-0640</td>
<td>75 Ohm Pole Mount Panel Antenna</td>
<td>40' RG66 Cable</td>
</tr>
</tbody>
</table>

## 75 OHM OUTSIDE ANTENNA KITS

<table>
<thead>
<tr>
<th>Kit Code</th>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kit 301111-0675</td>
<td>Yagi Directional Antenna w/ N-Female</td>
<td>170' LMR400</td>
</tr>
<tr>
<td>Kit 311124-40010</td>
<td>1900 MHz Yagi Antenna</td>
<td>30' RG58 Cable</td>
</tr>
<tr>
<td>Kit 311129-400100</td>
<td>800 MHz Yagi Antenna</td>
<td>100' LMR400 Cable</td>
</tr>
<tr>
<td>Kit 311124-40020</td>
<td>Omni-Directional Antenna</td>
<td>20' LMR400 Cable</td>
</tr>
<tr>
<td>Kit 311111-400170</td>
<td>Yagi Directional Antenna</td>
<td>140' RG11 Cable</td>
</tr>
<tr>
<td>Kit 304422-5810</td>
<td>50 Ohm 4G Omni Antenna</td>
<td>10' RG58 cable</td>
</tr>
</tbody>
</table>

## 75 OHM OUTSIDE ANTENNA KITS

<table>
<thead>
<tr>
<th>Kit Code</th>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kit 311201-0620</td>
<td>Omni Directional w/ F-Female</td>
<td>20' RG66 Cable</td>
</tr>
<tr>
<td>Kit 311129-0660</td>
<td>800 MHz Yagi Directional</td>
<td>60' RG66 Cable</td>
</tr>
<tr>
<td>Kit 314473-1175</td>
<td>75 Ohm Pole Mount Panel Antenna</td>
<td>75' RG11 Cable</td>
</tr>
</tbody>
</table>

*May need separate adapter.
Safety Guidelines

To uphold compliance with network protection standards, all active cellular devices must maintain at least six feet of separation distance from Inside Panel and Dome antennas and at least four feet of separation 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 (31'9") 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.

This device may be operated ONLY in a fixed location (i.e., may operate in a fixed location only) for in-building use.

FOR MORE INFORMATION ON REQUIREMENTS SET OUT IN ISED CPC-2-1-05, SEE BELOW:

FOR MORE INFORMATION ON REGISTERING YOUR SIGNAL BOOSTER WITH YOUR WIRELESS PROVIDER, PLEASE SEE BELOW:

T-Mobile/MetroPCS: https://support.t-mobile.com/docs/DOC-9827
AT&T: https://secure445securewebsession.com/attsignalboostercom/
**Specifications**

<table>
<thead>
<tr>
<th>Product Number</th>
<th>U470001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Number</td>
<td>460020</td>
</tr>
<tr>
<td>FCC ID:</td>
<td>PWO460020</td>
</tr>
<tr>
<td>IC</td>
<td>IC: 4726A-460020</td>
</tr>
<tr>
<td>Connectors</td>
<td>SMA-Female on the Inside Antenna / F-Female on the Outside Antenna</td>
</tr>
<tr>
<td>Antenna Impedance</td>
<td>50 Ohms / 75 Ohms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency</th>
<th>698-716 MHz, 746-787 MHz, 824-894 MHz, 1850-1995 MHz, 1710-1755/2110-2155 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power output for single cell phone (Uplink) dBm</td>
<td>700 MHz Band17: 23.94, 700 MHz Band13: 24.19, 800 MHz Band 5: 23.49, 1700 MHz Band 4: 24.55, 1900 MHz Band 2: 23.61</td>
</tr>
<tr>
<td>Power output for single cell phone (Downlink) dBm</td>
<td>700 MHz Band17: 11.64, 700 MHz Band13: 11.92, 800 MHz Band 5: 12.1, 2100 MHz Band 4: 11.9, 1900 MHz Band 2: 9.5</td>
</tr>
</tbody>
</table>

| Noise Figure | 5 dB nominal |
| Isolation    | > 110 dB |
| Power Requirements | AC / DC 5V, 4A, w/2.5x5.5mm Jack |

The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met.

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.

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 weBoost could void the authority to operate this equipment.
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.

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