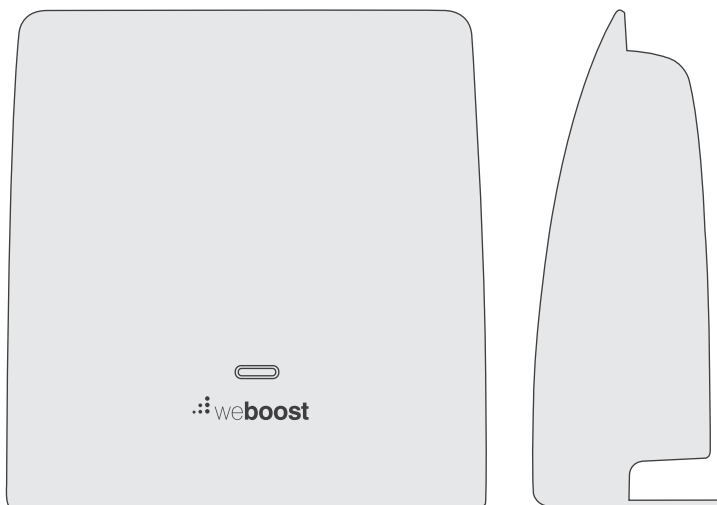




Cell Phone Signal Booster



Installation Guide

NEED HELP?



support.weboost.com



866.294.1660

MON - FRI: 6AM to 7PM MST
SAT - SUN: 8AM to 5PM MST

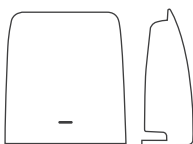
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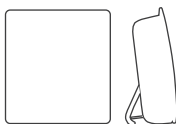
Package Content

Installation Instructions for the Following weBoost Signal Booster:

eqo™ 700 MHz Band 12 & 17
800 / 1900 (Excluding B25) AWS (1700 / 2100)



eqo Booster



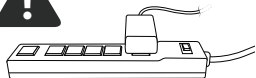
eqo Antenna
+ 15' Cable
(303020)



Power Supply
(859948)



This device may be operated **ONLY** in a fixed location for in-building use. The signal booster unit is designed for use in an indoor, temperature controlled environment (> 150 degrees Fahrenheit)



IMPORTANT NOTICE: Connect your eqo Booster AC Power Supply to a surge protected AC power strip with at least a 1000 Joule rating. Failure to do this will void your warranty in the event of a power surge or lightning strike.



CELL PHONE SIGNAL BOOSTER

Find the Strongest Cellular Signal

Before you install your eqo signal booster, you must determine the location of the best available cellular signal. This will help you maximize performance from your eqo booster.

Use any of the following methods to find the strongest signal in the room where the booster will be installed.

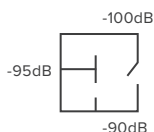
(FIND THE STRONGEST CELLULAR SIGNAL cont.)

How to Find Your Strongest Signal.



WITH 2 PEOPLE - one inside and one outside. The person inside should have the phone in test mode so the numerical signal strength can be read. This is more accurate than the bar indicator. For help in finding the test mode for your phone please go to:

weboost.com/us/test-mode-instructions/



Place calls from several locations outside your building. As you move to different locations, note where you get the best reception.



Check the bar indicator on your cell phone display and note where the signal appears the strongest. Repeat your signal check several times, moving each time to a different location. Remember each time you move to a new location, your phone may require up to 30 seconds to reset and display the new reading.

(Note: cell phone bars are only an approximation of signal strength and vary from phone to phone.)

For additional instructions on finding the strongest cellular signal, watch the installation video at: weboost.com/us/eqovideo.

Quick Installation

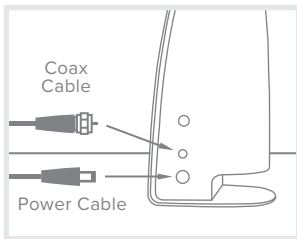
To view an installation video for this booster please visit the following link:

weboost.com/us/eqovideo/



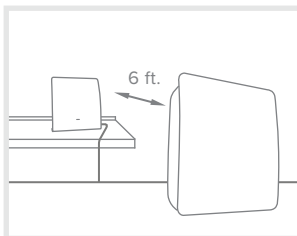
1

Place your **Booster** in the area with the strongest cell phone signal, as identified on the previous page. The LED light should be facing into the room.



2

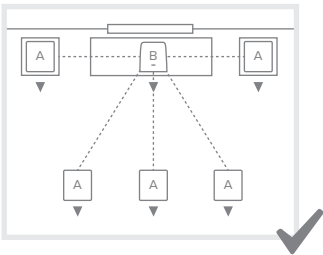
Connect the supplied **Coax Cable** and **Power Supply** on the side of the Booster.



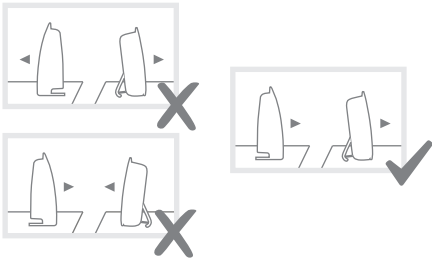
3

Place the **Antenna** where you need to boost your signal, **at least 6 feet away** from the Booster. The Antenna can be mounted on the wall.

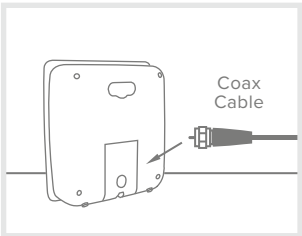
Placement Instructions



The booster and antenna should face the same direction.

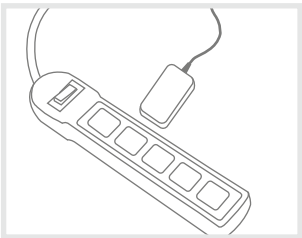


The booster and antenna should never face each other, or be placed back to back. They should be at least 6 feet away from each other.



4

Connect the other end of the Coax Cable to the Antenna.



5

Connect the Power Supply to a surge protected AC power strip with at least 1000 Joule rating*.



IMPORTANT NOTICE: Connect your eqo Booster AC Power Supply to a surge protected AC power strip with at least a 1000 Joule rating. Failure to do this will void your warranty in the event of a power surge or lightning strike.

Specifications

eqo Booster

Product Number	U473020				
Model Number	460032				
FCC ID:	PWO460032				
IC:	4726A-460032				
Connectors	SMA-Female				
Antenna Impedance	50 Ohms				
Frequency	698-716 MHz, 729-756 MHz, 777-787 MHz, 824-894 MHz, 1850-1990 MHz, 1710-1755/2110-2155 MHz				
Passband Gain (nominal)	700 MHz Band 12/17 61	700 MHz Band 13 62	800 MHz Band 5 62	1700/2100 MHz Band 4 68	1900 MHz Band 2 70
20 dB Bandwidth (MHz)	700 MHz Band 12/17	700 MHz Band 13	800 MHz Band 5	1700/2100 MHz Band 4	1900 MHz Band 2
	Typical 31.8	32.1	37.9	79.9	81.9
	Maximum 35.4	35.6	39.0	83.0	85.1
Power output for single cell phone (Uplink) dBm	Maximum Power				
	700 MHz Band 12/17 23.94	700 MHz Band 13 24.19	800 MHz Band 5 23.49	1700 MHz Band 4 24.55	1900 MHz Band 2 23.61
Power output for single cell phone (Downlink) dBm	700 MHz Band 12/17 11.64	700 MHz Band 13 11.92	800 MHz Band 5 12.1	2100 MHz Band 4 11.9	1900 MHz Band 2 9.5
Power output for multiple received channels (Uplink) dBm	Maximum Power				
	No. Tones	700 MHz Band 12/17	700 MHz Band 13	800 MHz Band 5	1700 MHz Band 4
	2	20.7	19.9	23.4	21.2
	3	17.1	16.3	19.9	17.7
	4	14.6	13.8	17.4	15.2
	5	12.7	11.9	15.4	13.3
	6	11.1	10.3	13.9	11.7
Power output for multiple received channels (Downlink) dBm	Maximum Power				
	No. Tones	700 MHz Band 12/17	700 MHz Band 13	800 MHz Band 5	2100 MHz Band 4
	2	12.7	13.3	11.8	11.9
	3	9.2	9.8	8.2	8.4
	4	6.7	7.3	5.7	5.9
	5	4.8	5.4	3.8	4.0
	6	3.2	3.8	2.2	2.4
Noise Figure	5 dB nominal				
Isolation	> 110 dB				
Power Requirements	5V/2.5A				

IC Note #1: The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met.

(SPECIFICATIONS cont.)

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 reduce the gain on that specific band.

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.



Antenna Expansion Kit

Outside Fixed

50 Ohm Outside Antenna Kits

Kit 314453-5825

50 Ohm Pole Mount Panel Antenna
25' RG58 Cable

Kit 314411-5825

50 Ohm Wide Band Directional
25' RG58 Cable

Kit 301111-5850

Yagi Directional Antenna
50' RG58 Cable

Kit 311129-5840

800 MHz Yagi Directional
40' RG58 Cable

Kit 311203-5820

Omni-Directional Antenna
20' RG58 Cable

Kit 311124-5830

1900 MHz Yagi Antenna
30' RG58 Cable

Kit 314411-40075

50 Ohm Wide Band Directional
75' LMR400 Cable

Kit 311203-40020

Omni-Directional Antenna
20' LMR400 Cable

Kit 301111-400170

Yagi Directional w/ N-Female
170' LMR400

Kit 311124-400100

1900 MHz Yagi Directional
100' LMR400 Cable

Kit 311129-400100

800 MHz Yagi Antenna
100' LMR400 Cable

Kit 314453-40075

50 Ohm Pole Mount Panel Antenna
75' LMR400 Cable

Mini Mag

301126 w/ 12.5 RG174 cable- SMA

75 Ohm Outside Antenna Kits

Kit 301111-0675

Yagi Directional Antenna
75' RG6 Cable
N-Male to F-Female adapter

Kit 311201-0620

Omni Directional w/F-Female
20' Rg6 Cable

Kit 311129-0660

800 MHz Yagi Directional
60' RG6 Cable
N-Male to F-Female adapter

Kit 311124-0650

1900 MHz Yagi Directional
50' RG6 Cable
N-Male to F-Female adapter

(ANTENNA EXPANSION KIT — 50 Ohm Outside Antenna Kits CONT)

Kit 314473-0640

75 Ohm Pole Mount Panel Antenna
40' RG6 Cable

Kit 314475-0630

50 Ohm Wide Band Directional
30' RG6 Cable

Kit 311141-0620

Yagi Directional Antenna
20' RG6 Cable

Kit 301111-11140

Yagi Directional Antenna
140' RG11 Cable
N-Male to F-Female adapter

Kit 311201-1120

Omni Directional W/F-Female
20' RG11 Cable

Kit 311129-11110

800 MHz Yagi Directional
110' RG11 Cable
N-Male to F-Female adapter

Kit 311124-1180

1900 MHz Yagi Directional
80' RG11 Cable
N-Male to F-Female adapter

Kit 314473-1175

75 Ohm Pole Mount Panel Antenna
75' RG11 Cable

Kit 314475-1175

75 Ohm Wide Band Directional
75' RG11 Cable

Kit 311141-1120

75 Ohm Grey Brick Antenna
20' RG11 Cable

Inside Fixed

Kit 301211

Desktop Antenna w/5' RG174

Kit 303020 w/15' RG-174

Kit 301121-40010

50 Ohm Dome Antenna
10' LMR400

Kit 301151-0610

75 Ohm Dome Antenna
10' RG6 Cable

Kit 311155-0630

75 Ohm Wall Mount Panel Antenna
30' RG6 Cable

Kit 311135-5820

50 Ohm Wall Mount Panel Antenna
20' RG58 Cable

Kit 311135-40060

50 Ohm Wall Mount Panel Antenna
60' LMR400 Cable

Kit 301151-1110

75 Ohm Dome Antenna
10' RG11 Cable

Kit 311155-1150

75 Ohm Wall Mount Panel Antenna
50' RG11 Cable

Safety Guidelines

Warnings

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 and eqo 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 150 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.

(SAFETY GUIDELINES cont.)

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 may be operated **ONLY** in a fixed location for in-building use.

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.

Light Patterns

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

BLINKING ORANGE, THEN SOLID GREEN — This is due to strong cell signals from a nearby tower (which may not be from your carrier). This is a built in safety feature that causes a band to reduce its power in order to prevent harmful interference with a nearby cell tower. This may or may not affect your coverage area. 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 area then refer to the Troubleshooting section.

SOLID ORANGE — This indicates one or more of the booster bands has shut off due to strong signals, which caused your booster to overload. These strong cell signals are from a nearby tower (which may not be from your carrier). This is a built in safety feature that causes a band to shut off in order 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 area then refer to the Troubleshooting section.

(LIGHT PATTERNS cont.)

BLINKING RED, THEN SOLID GREEN — This indicates that one or more of the booster bands has shut down due a feedback loop condition called oscillation. This same condition causes the screeching sound when a public address system microphone gets too close to a speaker. This is a built in safety feature that causes the booster to reduce it's power to prevent harmful interference with a nearby cell tower. Refer to the Troubleshooting section.

SOLID RED — This is due to a feedback loop condition called oscillation. This same condition causes the screeching sound when a public address system microphone gets too close to a speaker. 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 the Troubleshooting section.



Troubleshooting

Fixing Blinking or Solid Orange Lights

This section is only applicable if the booster is orange or blinking orange and you are not experiencing the desired signal boost.

1. Unplug the power cable from the booster.
2. Redirect the booster antenna to point in another direction. Typically, we recommend turning the booster 5-10 degrees at a time.
3. Plug power cable back in to booster.
4. Monitor the indicator lights on your booster. If, after 5 seconds of 'power on', a solid or blinking orange light appears, repeat steps 1 through 4.
5. If the solid or blinking orange light persists, and you are not experiencing the desired signal boost, more advanced troubleshooting may be necessary through weBoost Customer Support (866.294.1660).

Fixing Blinking or Solid Red Issues

This section is only applicable if the booster is orange or blinking orange and you are not experiencing the desired signal boost.

1. Unplug the power cable from the booster.
2. Relocate the booster and antenna further from each other. The objective is to increase the separation distance between them, so that they will not create this feedback condition discussed before.

(TROUBLESHOOTING cont.)

3. Plug power cable back in to booster.
4. Monitor the indicator lights on your booster. If, after 5 seconds of 'power on', a solid or blinking red light appears, repeat steps 1 through 4. Increase the separation distance until the condition is corrected and/or desired coverage area is achieved. Note: Parallel separation of the two antennas typically requires a shorter separation distance than perpendicular separation. If possible, try placing the antenna directly in front of the location of the booster. A combination of vertical and horizontal separation distance also works to prevent oscillation.
5. If you are having any difficulties while testing or installing your booster, contact our weBoost Customer Support team for assistance (866.294.1660).

Light Off

If the eqo Signal Booster's light is off verify power to your surge protected power strip.

NOTE: The Signal 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.

ALWAYS disconnect and reconnect power from the wall adapter, NEVER from the Booster.

NEED HELP?



support.weboost.com



866.294.1660

MON - FRI: 6AM to 7PM MST
SAT - SUN: 8AM to 5PM MST



CELL PHONE SIGNAL BOOSTER

Frequently Asked Questions

What hours can I contact customer support?

Customer Support can be reached from Monday through Friday 6:00am to 7:00pm MST, and Saturday and Sunday from 8:00am to 5:00pm MST by calling **866.294.1660**, or through our support site at support.weboost.com

Why do I need to create distance between the booster and the 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 shut down to prevent damage. The best way to keep these spheres of signal from overlapping is to maximize separation between the Booster and Antenna. ALWAYS orient the Booster and Antenna as shown on p. 5.

Warranty



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.

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 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.

NEED HELP?



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For patents go to: weboost.com/us/patents