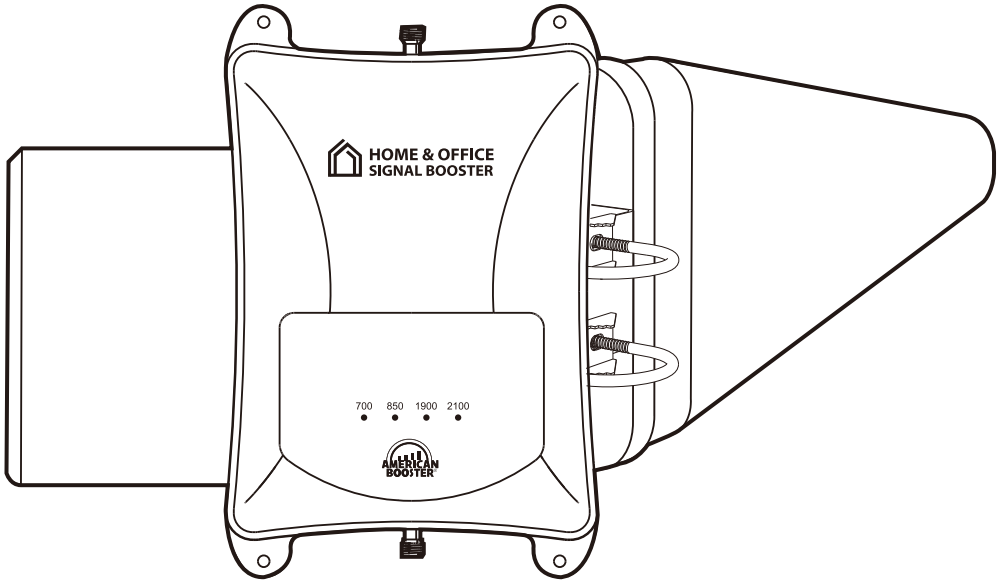
AMERICAN BOOSTER®

www.americanbst.com
Technical Support : 913 469 6699

AMERICAN BOOSTER®

HOME 7500
User Guide



HOME Cellular Signal Booster

This publication provides instructions for installing **Cellular Signal Booster Home 7500.**

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Revision History

Date	Version	Changes
2019, January	Version 1.0	Original

Certification
This equipment complies with the FCC / IC directives.

SDoC statement

Supplier's Declaration of Conformity
47 CFR § 2.1077 Compliance Information

Unique Identifier: HOME 7500
Responsible Party – U.S. Contact Information

FCC Compliance Statement (e.g., products subject to Part 15)
This device complies with Part 15 of the FCC Rules. Operation is subject to the following 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.

130 E Covey Run, Union, WA 98592
Technical Support : 913 469 6699 www.americanbst.com

WARRANTY

Opening or tampering with the Signal Booster will void all warranties.
American Booster provides a 2-year warranty with all of its equipment.
Every product of American Booster is guaranteed to be free of material defects or component malfunctions.

This warranty does not cover any Signal Boosters that have been exposed to any misuse, abuse, physical damage or inadequate maintenance.
Products returned by customers must be in their original, unmodified condition, shipped in the original packaging with proof of purchase documentation enclosed, and a Return Merchandise Authorization (RMA) number printed on the outside of the shipping box.
To repair or replace damaged Signal Boosters we may include refurbished American Booster's products.

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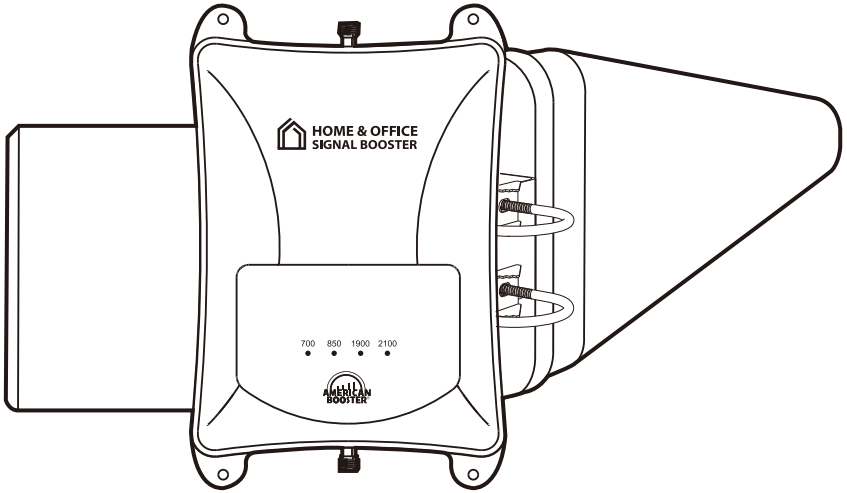
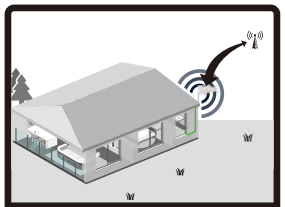
HOME 7500



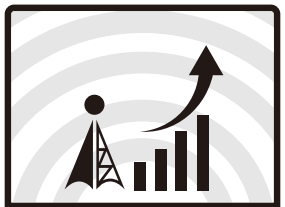
American Booster® Home 7500 has been designed to provide an advanced solution for boosting your signal and increasing the cellular data speeds in your house or office.

How it works



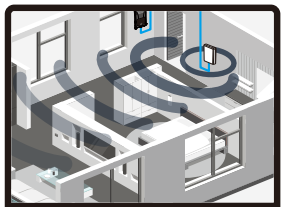
Receives Signal

The signal booster's outside antenna receives voice and data signals from a nearby cell tower.



Boosts Signal

The signal booster receives the signal from the outside antenna and amplifies the voice and data signals.



Distributes Signal

The boosted signals are distributed inside your house/office.

IC Warning Statements

RSS-GEN, Sec. 7.1.2 – (transmitters)

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionneravec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada.
Dans le but de réduire les risques de brouillage radioélectrique à l'intention desautres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotroperayonnée quivalente (p.i.r.e.) ne dépassepas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

RSS-GEN, Sec. 7.1.2 – (detachable antennas)

This radio transmitter (identify the device by certification number, or model number if Category II)has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (identifier le dispositif par son numéro de certification ou son numéro de modèle s'il fait partie du matériel de catégorie I) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste,ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

RF Radiation Exposure

This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of UL : 50cm, DL : 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. RF exposure will be addressed at time of installation and the use of higher gain antennas require larger separation distances.

RSS-102 RF Exposure

L'antenne (ou les antennes) doit être installée de façon à maintenir à tout instant une distance minimum de au moins UL : 50cm, DL : 20cm entre la source de radiation (l'antenne) et toute personne physique. Cet appareil ne doit pas être installé ou utilisé en conjonction avec une autre antenne ou émetteur.

FCC Warning Statements

FCC Part 15.105 statement Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Part 15.21 statement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

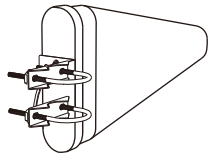
RF Exposure Statement

The antenna(s) must be installed such that a minimum separation distance of at least UL : 50cm, DL : 20cm is maintained between the radiator (antenna) and all persons at all times. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

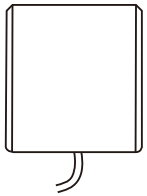
Use of unauthorized antennas, cables, and/or coupling devices not conforming with ERP/EIRP and/or indoor-only restrictions is prohibited.

Package Contents

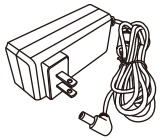
Signal Booster
Code No. : 83689



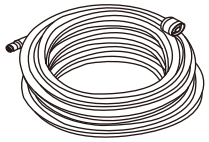
Outside Antenna Kit
Code No. : 83615



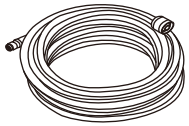
Inside Antenna Kit
Code No. : 83616



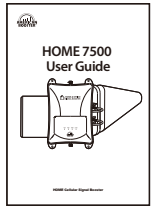
AC/DC Adaptor
Code No. : 835U3



HF-400 Cable, 75 ft.
(N-SMA)
Outside Coaxial Cable
Code No. : 8368H

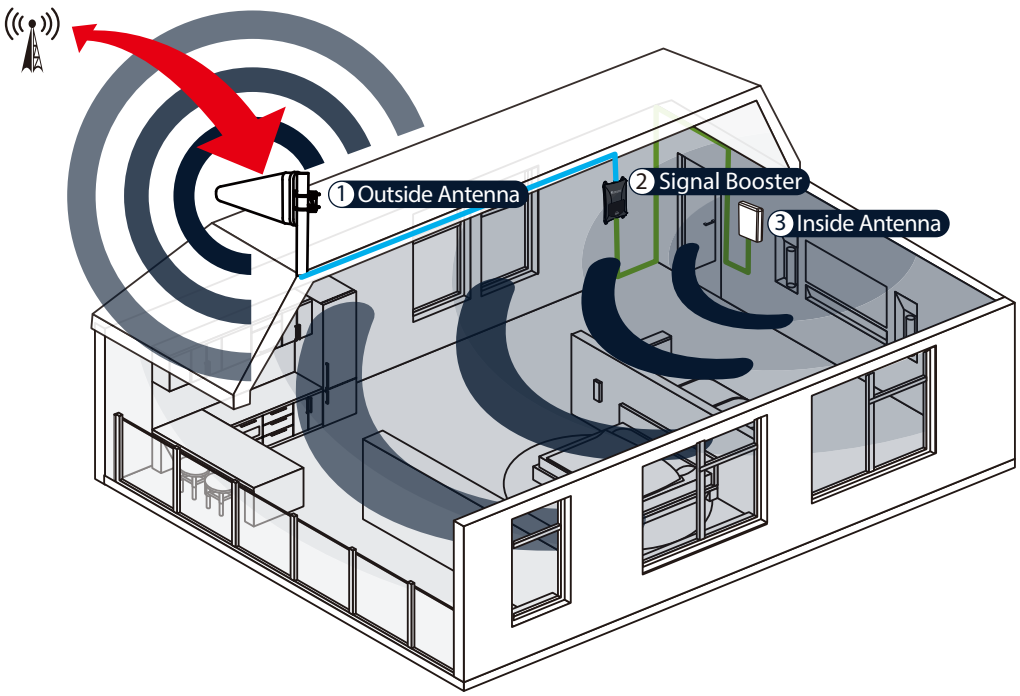


HF-400 Cable, 60 ft.
(N-SMA)
Inside Coaxial Cable
Code No. : 8368L



User Guide

Application Example



⚠ Safety Guidelines

WARNING

ELECTRIC SHOCK

Opening the Signal Booster could result in electric shock and may cause severe injury.

DAMAGE TO EQUIPMENT

Use only the power supply provided in this package.
Operating the Signal Booster with antennas in very close proximity facing each other could lead to a severe damage to the Signal Booster.

The installation height of the antenna for AWS band (1700/2100 MHz) operations is limited to 10 meters above ground for compliance with Section 27.50

CAUTION

THE SIGNAL BOOSTER SHOULD BE INSTALLED AS CLOSE AS POSSIBLE TO THE POWER SOURCE.
THIS REPEATER IS FOR INDOOR USE ONLY AND SHOULD BE INSTALLED INSIDE OF THE HOUSE.

FCC ID : U88-HOME7500 **IC : 8137A-HOME7500** **MODEL : HOME 7500**

This is a CONSUMER device

This device complies with Part 15 of the FCC Rules. Operation is subject to the following 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.

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 UL : 50cm, DL : 20cm from (i.e.. **MUST NOT** be installed within UL : 50cm, DL : 20cm of) any person.You **MUST** cease operating this device immediately if requested by the FCC (or ISED in Canada) 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 (i.e may operate in a fixed location only) for in-building use.

For more information on registering your signal booster with your wireless provider, please see below

https://www.sprint.com/en/legal/signal-boosters.html?id16=signal%20booster
https://support.t-mobile.com/docs/DOC-9827
https://www.verizonwireless.com/solutions-and-services/accessories/register-signal-booster/
https://securec45.securewebsession.com/attsignalbooster.com/
https://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp

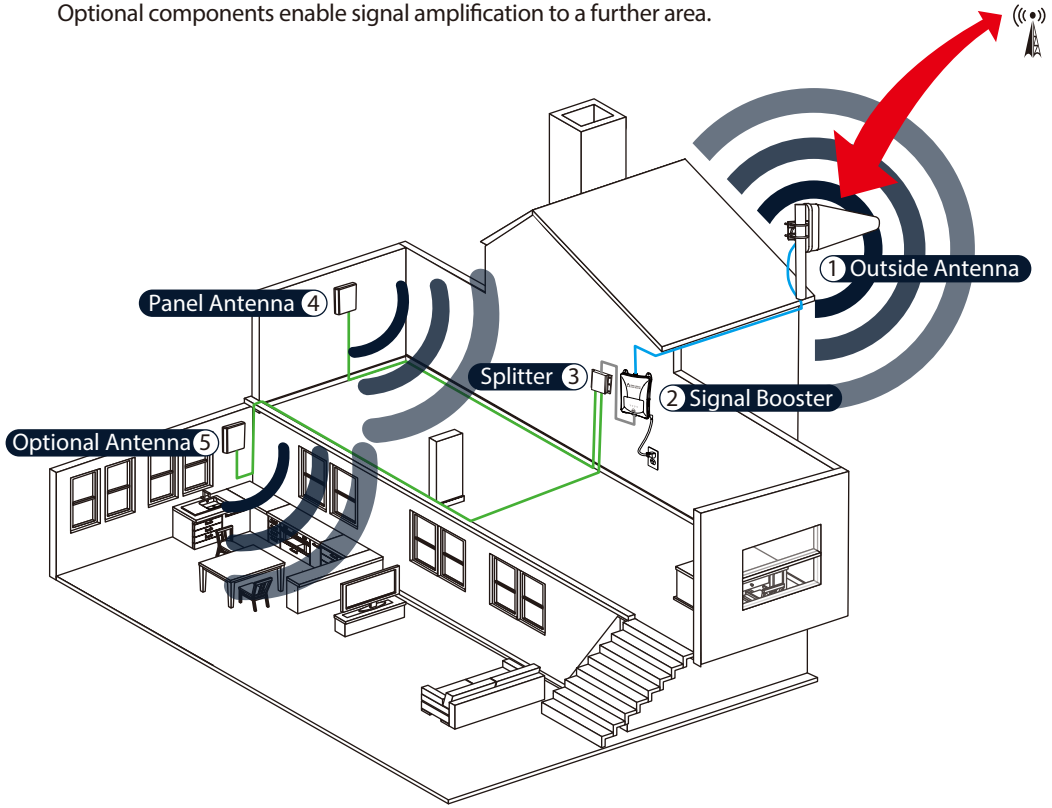
Specifications

Parameter	Downlink	Uplink	Remark
700MHz LTE	734~757MHz	704~716MHz	Band 17 & 13
		776~787MHz	Band 17
850MHz Cellullar	869~894MHz	824~849MHz	Band 5
1900MHz PCS	1930~1990MHz	1850~1910MHz	Band 25
2100MHz AWS	2110~2155MHz	1700~1755MHz	Band 4
Composite Power	7dBm	25dBm	
Maximum Gain	70dB		
Noise Figure	5dB nominal		
Impedance	50 Ohm		
RF Connector	SMA Female		
Power Connector	DC Jack(DC-045B)		
Power	DC 12V/3A Adaptor		
Size, inch	6.92" x 10.63" x 1.65"		W × H × D
Weight, lbs	< 3.2		
Operation Temperature	23 ~ 122°F (-5°C ~ +50°C)		
Humidity	0 ~ 80%		

For a detected oscillation, the device output will turn off within 300 ms for the Uplink and 1 second for the Downlink and remained off for 1 minute.
And, the device will have a maximum of 5 attempts at restart from oscillation before permanently shutting off.
Noise power, gain, and linearity are maintained by the device's microprocessor.

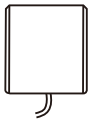
HOME 7500 Optional Kit

Optional components enable signal amplification to a further area.

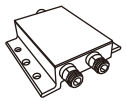


Options

To increase coverage, use additional components.



Panel Antenna Kit
Code No. : 83616



2-Way Splitter

60 ft. Coaxial Cable (N-SMA)
Code No. : 8368L

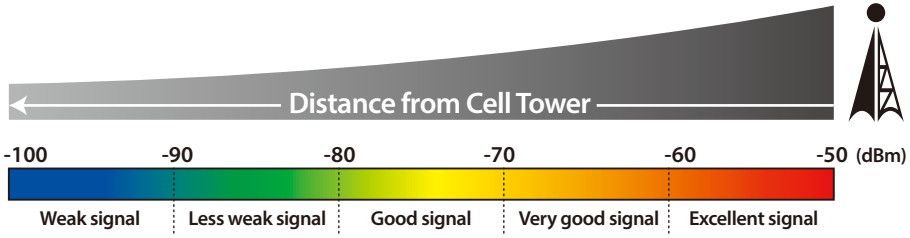
Coaxial Cable 2 ft.
Code No. : 834TK

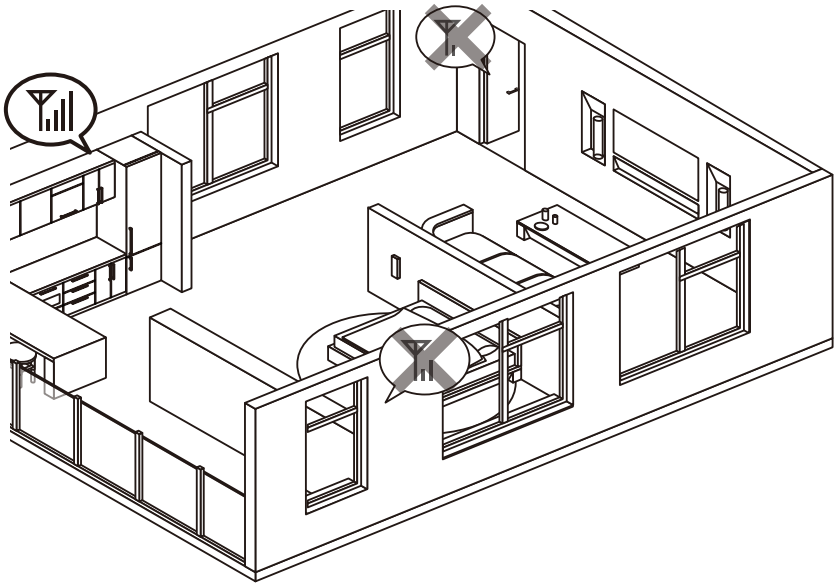
STEP 1. Find the Strongest Signal

1-1. Using an iPhone®
Dial *3001#12345#*, then press Call.

1-2. Using an Android™
Download the 'Network Signal info' from the Google Play store.
After installing, you will be able to view your dB strength.

1-3. Using a Meter
If you have a meter that detects and displays the current signal levels, you can use it.





Instructions to fix flashing or solid red.

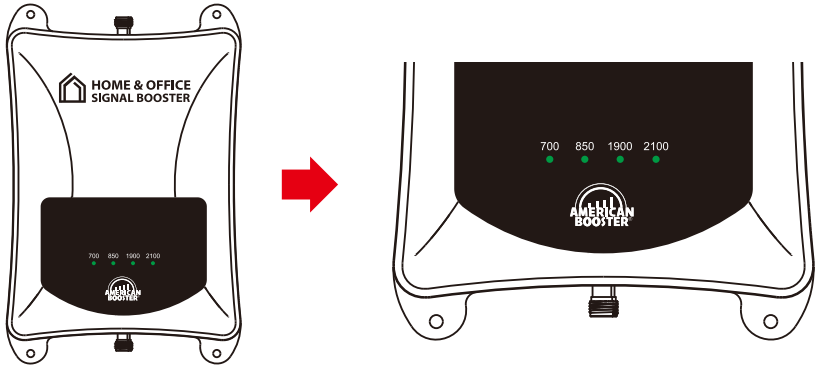
If you have a good voice signal and fast data speeds even though one or two of LEDs are solid red, you may continue to use the Signal Booster as it is.
However, if one of the LED's has flashing or solid red, your voice signal is weak and data speeds are low, Then follow the troubleshooting steps below.

1. Unplug the Signal Booster's power adapter.
2. Check if the outside antenna and inside antenna are located a minimum distance of 20 feet from each other.
3. Plug the Signal Booster into a power source.
4. Check the LED on the Signal Booster. If one or two of the LEDs are still flashing or solid red, then try moving the inside antenna further away from the outside antenna and repeat steps 1 through 3 to see if the additional distance resolves the problem.
5. If you have any difficulties with installation or troubleshooting the Signal Booster, please contact our technical support team for assistance (Tel : 913-469-6699).

LED's Off

1. If none of the LEDs on the Home 7500 Signal booster are lit, verify that the signal booster is connected properly to the AC/DC power adapter cord and then verify that the power adapter is plugged into a live AC outlet in the house.
2. Check if there is any damage in the power cable.
3. Check if there is any damage in the Signal Booster's connector.

LED Indicators



Flashing Green

After the Signal Booster is powered on, flashing green will last for 20 seconds.
It means that the Signal Booster is being set up for optimal performance.
The Signal Booster will need a few minutes to adapt to the network environment and start boosting the signal at the highest power.
The Signal Booster provides a real-time self-diagnosis, so in case of flashing or solid red, refer to the Troubleshooting instructions on the next page.

Solid Green

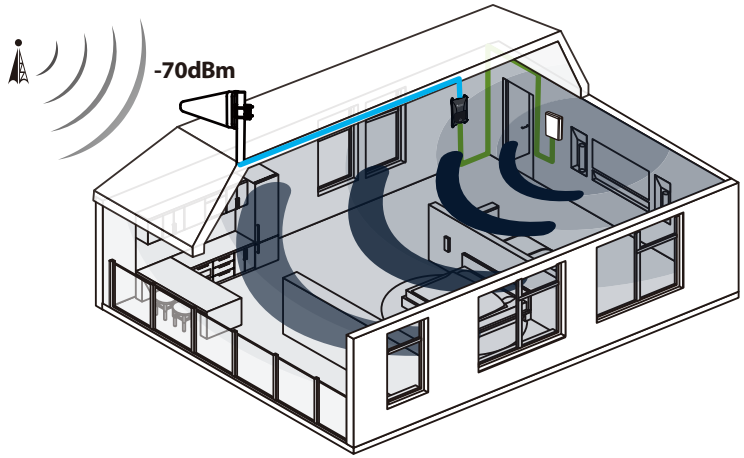
This indicates that the Signal Booster has been installed and works properly.

Flashing & Solid Red

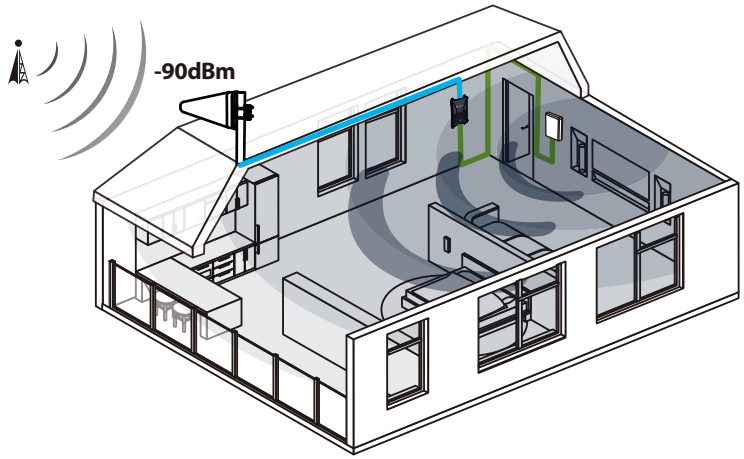
If one or more of the LEDs is flashing or solid red, this indicates that the input signal from the nearby cell tower is too strong.
After flashing red for 10 seconds the solid red will appear.
Signal Booster will stop amplifying signals of the frequency with a solid red indicator automatically to prevent the Booster from any damage.
If the rest of LEDs are green and you have a strong signal and fast data speeds on your cell phone or tablet, then troubleshooting is not needed.

STEP 1. Find the Strongest Signal

Note The stronger signal you receive from the base station, the better coverage you will have inside your house/office.



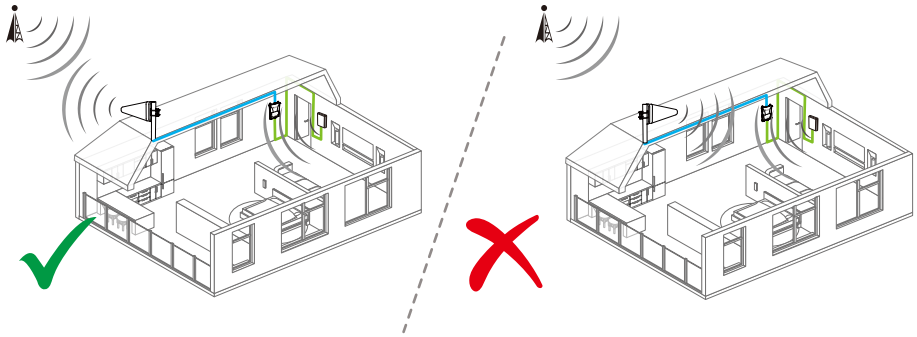
If you have -70dBm outside signal, then you will have an excellent signal inside your house or office.



If you have -90dBm outside signal, then you will have a good signal inside your house & office.

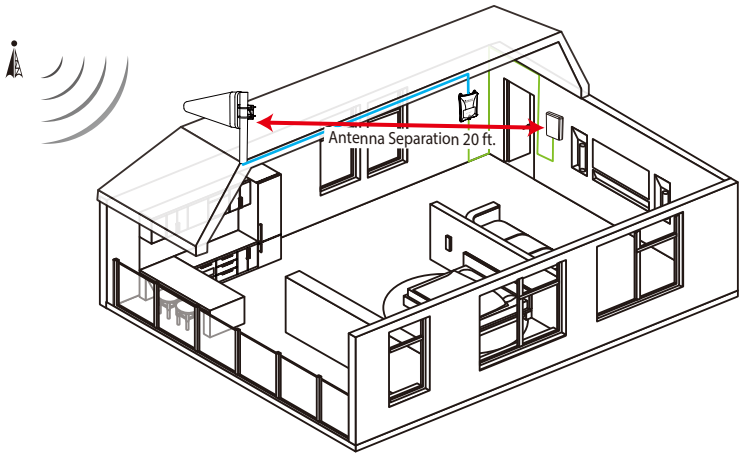
STEP 2. Install the Outside Antenna

The outside antenna is shaped like a triangle. This antenna must be mounted as high as possible on the exterior of the house or office. Mount the outside antenna on the side of the house where you detected the strongest cell phone signal. The point of the antenna triangle should be pointed towards the location of the strongest cell phone signal (which should also be the direction of the closest cell tower) and away from the expected placement of the inside antenna.

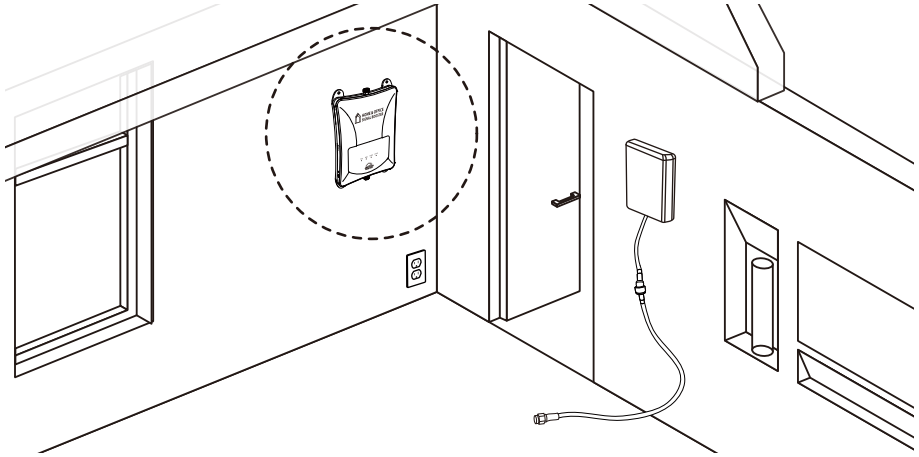


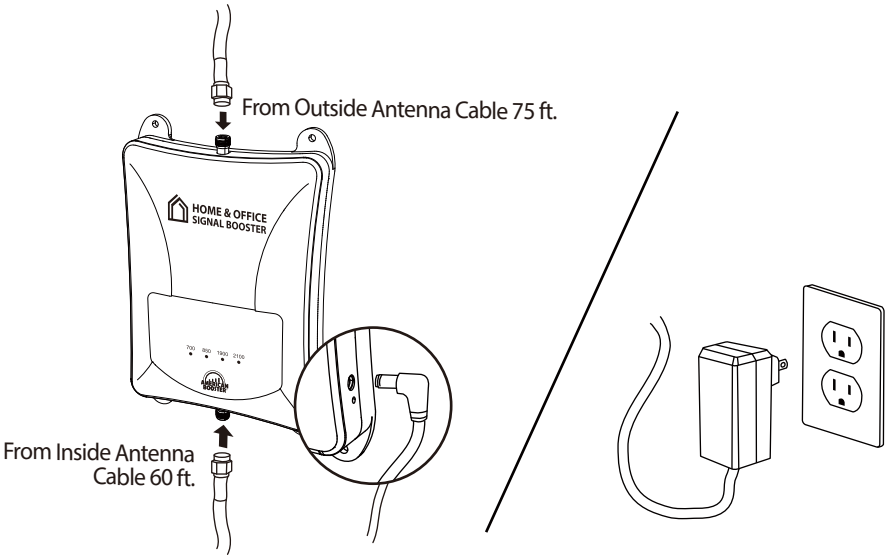
Separation Between Outside Antenna and Inside Antenna

For the best performance, the outside antenna and the inside antenna should be a minimum distance of 20 ft. apart from each other. A bigger separation between outside antenna and inside antenna will provide a stronger signal and better coverage.



STEP 6. Power up the Booster

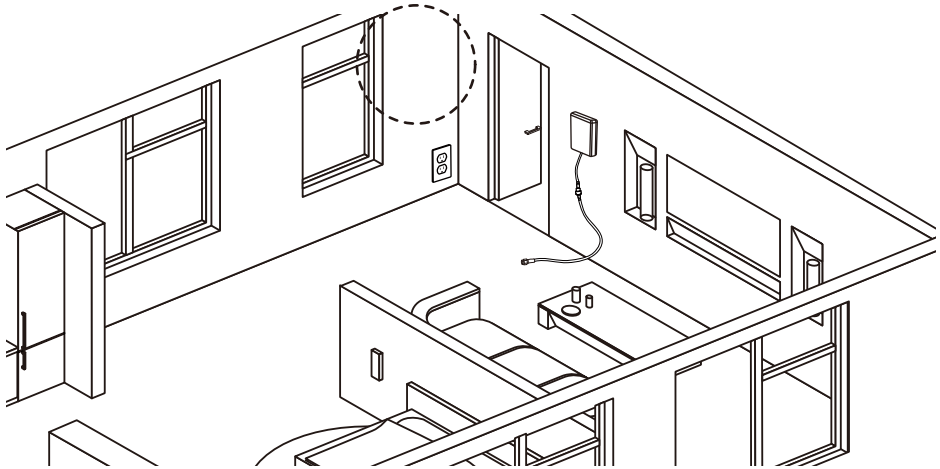


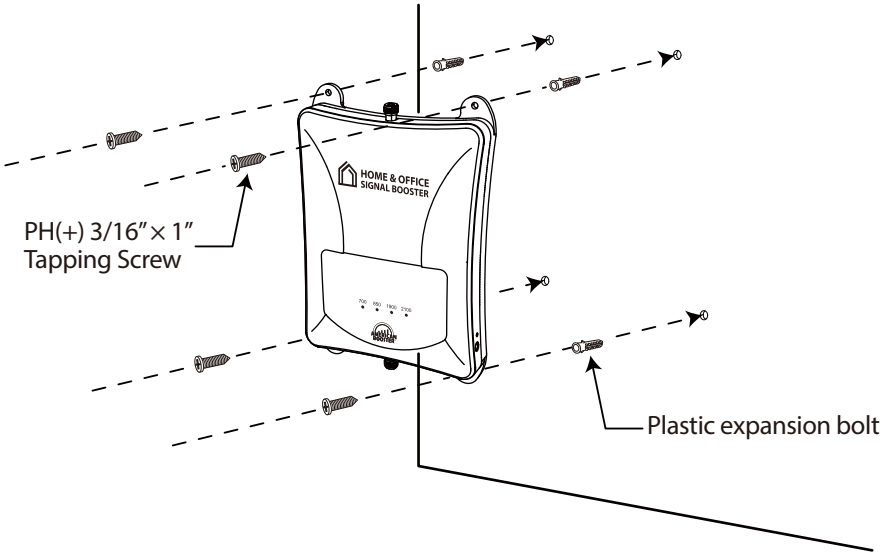


Connect the AC/DC power adaptor to the booster and plug into a power source. The power LED will light, indicating that the signal booster is ready for use.

STEP 5. Install the Signal Booster

Choose a location for the signal booster, preferably away from excessive heat, direct sunlight, moisture and free from high temperatures. Do not place the signal booster in an air-tight enclosure. Attic installations may expose the booster to high heat.

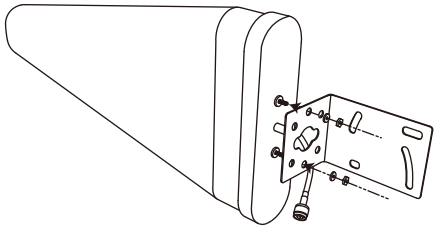




STEP 2. Install the Outside Antenna

Install the outside antenna in a location where you can receive the strongest signal according to the instructions described in STEP 1.
Make sure outside antenna is installed with the point of the triangle facing toward the cell tower.

❶



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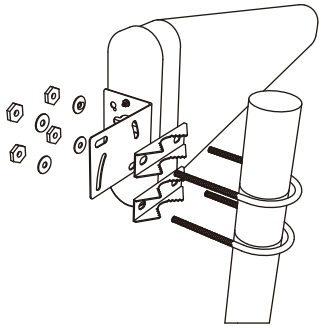

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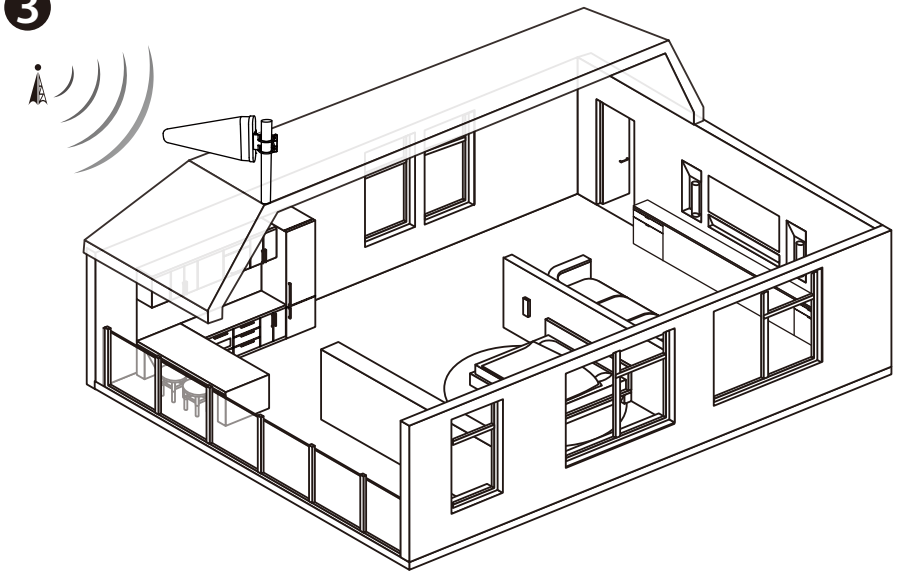


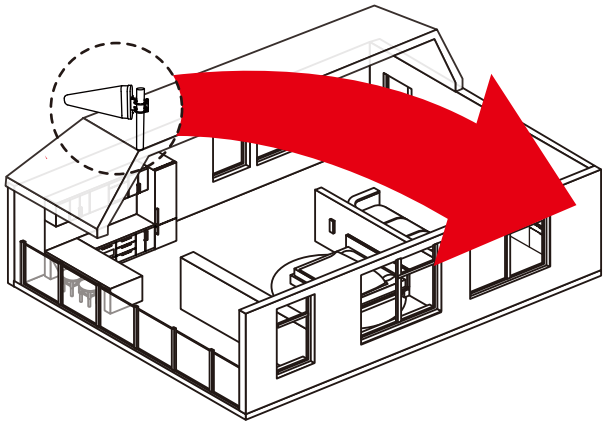
STEP 3. Run the Outside Antenna Cable

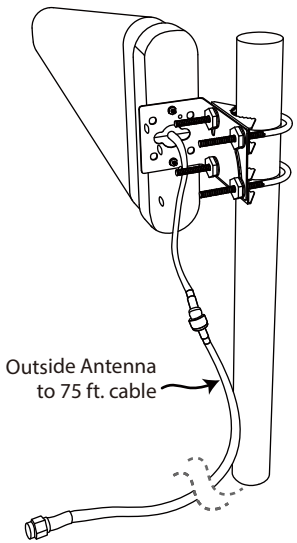
When mounting the outside antenna to the outside wall of your building, the easiest way is to run the cable on the outside of the wall and attach it to the exterior of your house or office.

Then drill a hole through the wall which will allow the cable to appear on the inside of the building. To avoid any potential harm or damage, make sure that there are no electrical outlets, sewer water pipes, or electrical wiring in the wall before drilling.

Note TV cables already being used for other purposes can not be shared with the cell booster during installation.

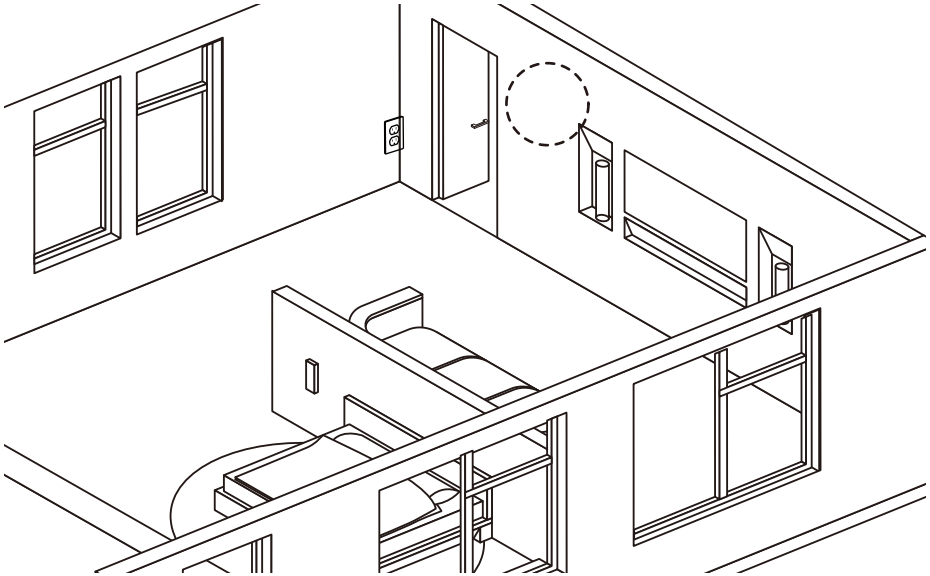
After drilling the required hole, run the cable through and seal it.
In some instances, it may be possible to run the cable up into the fascia of the attic overhang. In this circumstance, the cable will be accessible in the attic further routing.

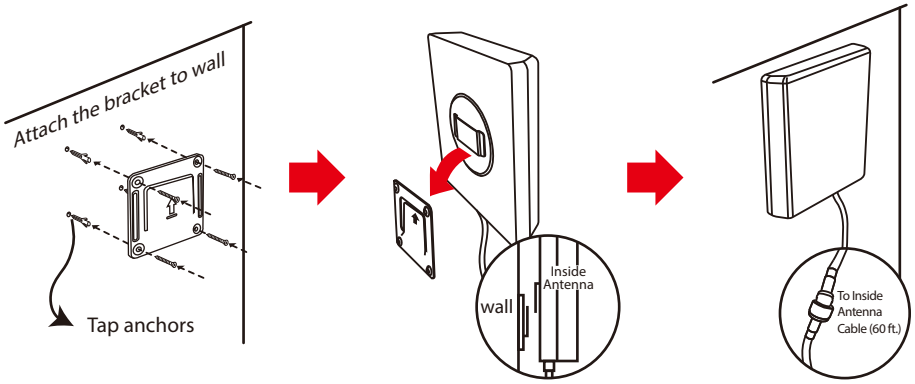




STEP 4. Install the Inside Antenna

Inside Panel Antenna is directional, so the signal will be distributed from its front side in one direction. We would not recommend to install the Inside Antenna close to the floor.





Mount the Inside Antenna with the included screws and bracket as shown in the picture.

Note The inside antenna should be installed a minimum distance of 20 ft. from the outside antenna.