

# **G-Boost** **Cellular Signal Booster**

## **User's Manual**



## Introduction

Many of us are bothered by dropped calls, slow network connections or even denied accesses, etc., in large urban buildings, enclosed space like basement or garage, on moving vehicles, or in some remote areas. Such problem is caused by weak, marginal or spotty coverage of your cell phone service provider, and we now proudly introduce our latest product, G-Boost cellular signal booster, to solve your problem once and for all.

G-booster cellular signal booster is a small size, easy-to-use amplifier that boosts the signals for cellular devices wherever you need. It improves the communication quality of your devices at the minimum cost, prolongs their battery life and, moreover, helps you to build a healthier environment by reducing undesirable radiation exposure on your premise since your devices no longer need to search for signals all the time.

## Cautions

Before you start to install your G-Boost cellular signal booster, please take a minute to go through the following reminders:

G-Boost cellular signal booster is FCC approved, yet you still need to register this device with your wireless network service provider and have your provider's consent before use.

G-Boost cellular signal booster will need a power source of 90~264 V with a 2-pole socket at the minimum, a 110~220 V power source will be preferred. If you need to modify the power source to accommodates the need, please make sure you cut off the general power supply on your premise before such modification.

If your booster needs to be repaired for any reason, you must contact your retailer or a professional telecommunication device maintenance service. Please refrain from opening the shell case of the device in any circumstance.

Please make sure the installation location you intend for the base unit of the G-Boost cellular signal booster is free from excessive heat, humidity or source of electromagnetic emission. Please keep it out of the reach of children. The base unit of the cellular signal booster should be placed indoor ONLY.

G-Boost cellular signal booster is designed to boost the cellular signals on your premise, however, its performance can be impacted by the presence of solid walls or other forms of wireless signal shield around it.

G-Boost cellular signal booster produces minimum radiation, much lower than any type of cellular devices in the market.



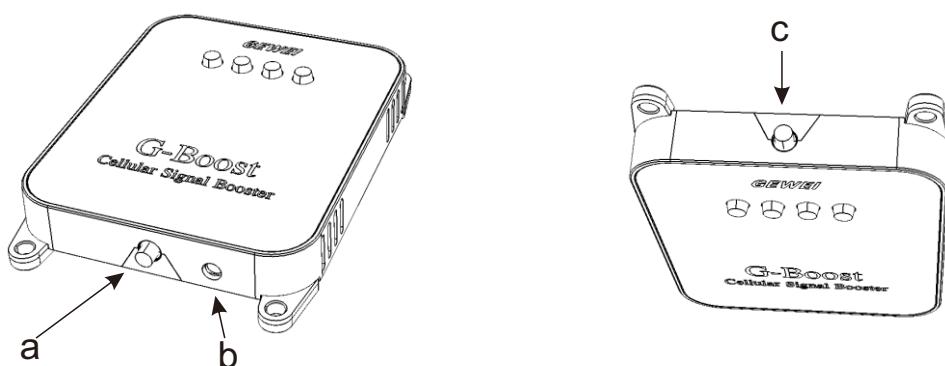
\* The appearance of the product may be subject to change without prior notice.

Please check if you have everything above in the kit you have just purchased. Please contact your retailer if anything from Items 1-6 is missing or damaged.

1. Base unit of the cellular signal booster
2. Outside antenna
3. Outside antenna installation kit (should include a bracket and 3-4 screws)
4. Outside antenna cable
5. Inside antenna
6. Power adaptor

The base unit of G-Boost cellular signal booster has the following interfaces:

- a. Interface for the inside antenna
- b. Power socket
- c. Interface for the outside antenna



# How to Install

## Step 1: Find a location for the base unit.

The base unit should be installed in a location that facilitates the best coverage of your premise. If your premise is too large to be covered by one single repeater alone, please put the booster where the mobile signal coverage is needed the most.

You can simply put the base unit on a table, desk or shelf, or you can mount it against a wall with screws that go through the rings on the 4 corners of the base unit.

The booster coverage can easily be blocked by concrete walls, so please make sure there is no wall between the booster base unit and the place where you want to get good signals.

## Step 2: Find a location for the outside antenna.

The location for the reception antenna should meet the following criteria:

- 1) It should be an outdoor space with a wall against which the antenna can mount;
- 2) It should be a location where the cellular network signal is the strongest. If you are unsure about it, please check the signal indicator (bars) on your cell phone display around your premise. A desired location for the outside antenna is where your cell phone can get 3 or 4 bars; an acceptable location is where your cell phone can get 1 or 2 bars; the outside antenna will need the signal strength of at least 1 bar to work. The signal bars on your cell phone display may take up to 30 seconds to reset to a new signal reading, so please be patient while you check the signal bar readings.
- 3) It should be separated from the location you choose for the base unit by a solid wall or other kind of solid shield to allow proper functioning of both parts;
- 4) It should be no more than 30 feet away from the location you choose for the base unit, otherwise you will need to get an antenna cable extension (please visit <http://geweimarket.made-in-china.com> for extension options);
- 5) It should be at least 10 feet away from any lightening rode.

## Tips for finding out the exact signal strength in a location:

**Android phone users** (for OS version 6.0 and up): take out your phone, go to “Settings” > “About Phone” > “Status” > “SIM status”, you will see a signal strength value under “Signal strength”, the value is a negative number followed by the measurement unit “dBm”. In most places the value may range from -30 to -110, with -30 indicating a very strong signal and -110 indicating weakest signals. The value refreshes about every 30 seconds, so you may need to stay a while in a place to determine the actual signal strength there.

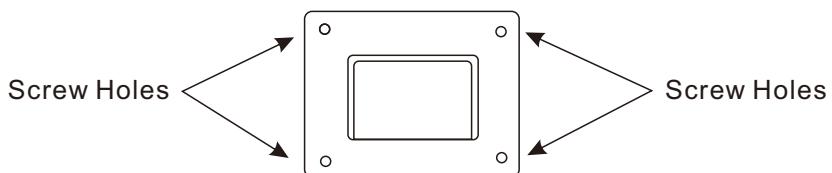
**IOS phone users:** take out your phone, turn off WIFI and LTE networks (you may turn off WIFI in “Settings” > “WLAN” and turn off LTE in “Settings” > “Cellular”), go to your Keypad, press \*3001#12345#\*, then press the Call button, a “Field Test” screen will appear. On the

upper left corner of this screen, you will either see a negative number, or "Back to Phone". The negative number is the signal strength value and the same rules for strong and weak signals as described for Android phone users also apply here. If you see "Back to Phone" instead of a number, just press the power button on your phone to lock your phone and the upper left corner of the lock screen will always show the signal strength value number. To exit the field test mode, simple press the Home button on your phone.

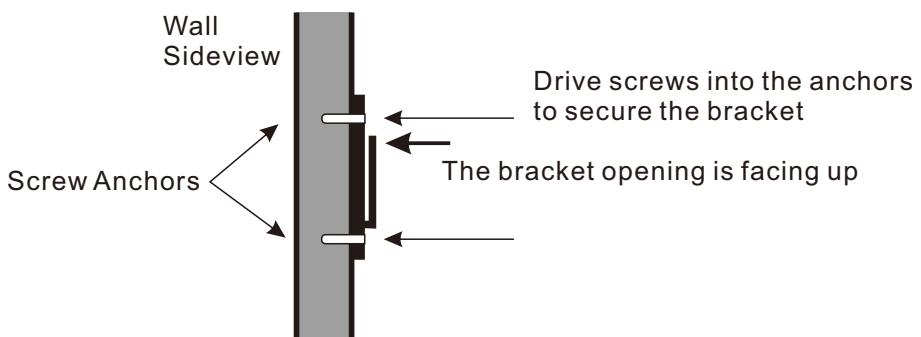
When you have decided the location of the outside antenna, please install it through the steps below.

#### For Panel Antenna:

- 1) Please find a smooth and stable spot on the wall out of the reach of small children or family pet;
- 2) Take the bracket out of the outside antenna installation kit, position the bracket on that spot and mark the 4 screw holes with a pencil;



- 3) Drill 4 holes of 4mm in diameter where you marked;
- 4) Insert the plastic screw anchors that come with the installation kit into the hole, please make sure they are all the way into the wall and leave no part outside;
- 5) Line up the bracket with the screw anchors, mount the bracket against the wall using the 4 screws in the installation kit, make sure the opening of the bracket is facing up;

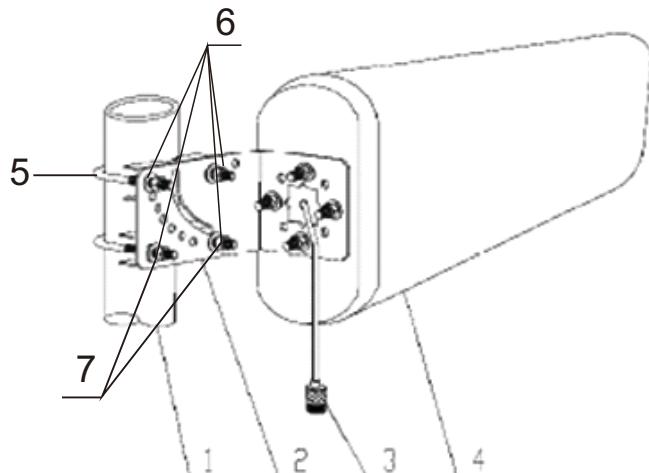


- 6) Mount the outside antenna on the bracket, make sure the cradle plate on the back of the antenna is pressed all the way down the bracket so that the antenna will stay stable;
- 7) Connect one end of the outside antenna cable to the antenna lead cable on the outside antenna;
- 8) Route the outside antenna as desired to the location of the booster base unit and connect the other end of the outside antenna cable to the Interface C on the base unit. If the cable is not long enough, you may purchase an extension cable from <http://geweimarket>.

made-in-china.com, or from any telecommunication device distributor near you (it is recommended that you take the outside antenna cable to the distributor so that you will get the right type of cable).

## For Log-Periodic Antenna:

You may mount the antenna on a pole (recommended).

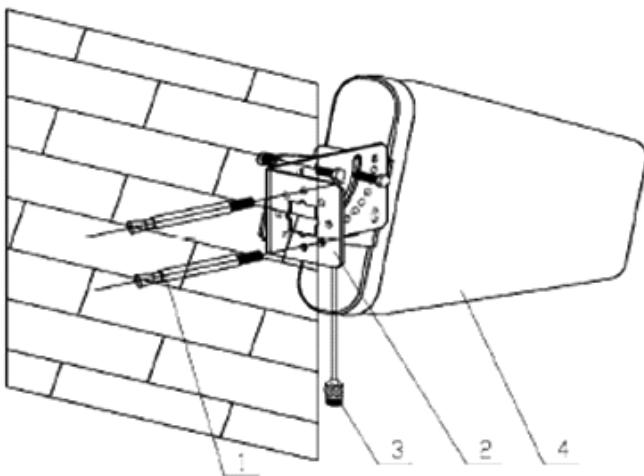


1. Pole (not included in the packaging)
2. Antenna mounting rack
3. Antenna cable
4. Antenna
5. Pole ring
6. Pole ring holder
7. Pole ring nuts (x2)

- 1) Please find or set up a steady pole on your premise, preferably with a diameter of 1.2 - 2 inches.
- 2) Take the pole bracelet and the pole bracelet holder out of the box, take the nuts off the pole bracelet and put the nuts aside for later usage;
- 3) Put the pole bracelet around the pole at your desired height, place the pole bracelet holder on the legs of the pole bracelet and make sure the oval side of the pole bracelet holder is facing the pole;
- 4) Insert the pole bracelet legs into the holes on the reception antenna mounting bracelets, make sure the antenna is placed in a way that the 2 holes on the antenna body are facing DOWN and the antenna is pointing to the nearest cell phone tower or the direction from which you get the best cell phone signals;
- 5) Screw the nuts onto the pole bracelet legs at tightly as you can.

You may also mount the outside antenna on a wall.

- 1) Please make sure the wall on which you want to mount the antenna is solid and stable;
- 2) Drill 2 holes of 5mm on the wall at your desired height, the holes should be at the same height and 2 inches apart from each other;
- 3) Put the reception antenna bolts into the holes on the wall, tap them gently firstly to drive the anchors to the bottom of the holes and then give 2-3 solid blows to compact the lead completely;



1. Reception antenna bolts (Expansion bolts)
2. Reception antenna mounting rack
3. Reception antenna cable
4. Reception antenna

- 4) Place the antenna mounting rack over the bolts in a way that the 2 holes on the antenna body are facing DOWN;
- 5) Screw the nuts onto the bolts tightly.

### **Step 3: Attach the inside antenna.**

- 1) Connect the end of the inside antenna code to Interface A of the base unit;
- 2) Choose a location for the inside antenna: the location should be close to where you want better cellular signals, at least 20 feet away from the outside antenna and at least 20 inches away from the base unit; the location should provide a smooth surface to support the inside antenna;
- 3) Place the inside antenna at the location chosen, make sure that the inside antenna points to the direction where you want better cellular signal and DOES NOT point to either the base unit or the outside antenna. It is recommended that you keep your mobile devices such as your cell phone 6.6 feet away from the inside antenna.

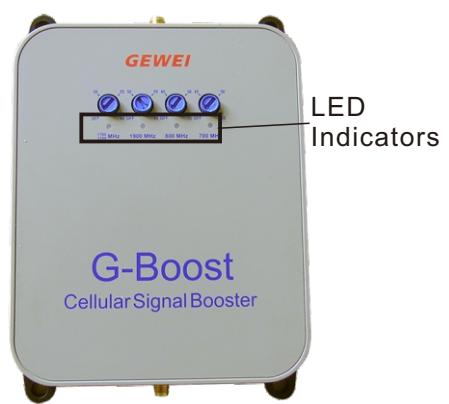
### **Step 4: Plug in the power adaptor.**

The power adaptor should be plugged into a regular home power socket and then attached to the Interface B of the base unit. The whole device will be turned on automatically when you plug in the power code.

The device will need 30 seconds to configure itself every time it is powered on. Please do not use your cell phone in these 30 seconds so as not to interfere with the device.

During the self-configuration process, the 4 LED indicators on the base unit will light up and flash for a few seconds. When the self-configuration is completed, the indicators should be all green.

Now your signal booster is well set up, enjoy the better than ever cell phone reception on your premise.



# Troubleshooting

The booster base unit has 4 LED indicators on the front for 4 different frequency bands that your cell phone service provider may use. You may also contact your cell phone service provider to find out the frequency band(s) used in your area.

The LED indicators are good indications of all most all possible issues you may run into. When the booster is working properly, the indicators should be all green. If one or more indicators turn orange or red, please use the following table to fix the problem:

Indicator Status	Diagnose	Solution
Stay off	No Power	<ol style="list-style-type: none"> <li>1. Connect the power adaptor to an alternate power source;</li> <li>2. Check the power source to make sure it is not switched off;</li> <li>3. Check whether the power adaptor is properly connected to the base unit;</li> <li>4. If the indicators still stay off after the three steps above, please contact our Customer Service for further assistance.</li> </ol>
	The blue control knobs are set to the "Off" position.	Turn the knobs clockwise until the indicators turn green.
Orange	<p><b>When there is no cell phone in use in the area covered by the booster:</b>            The booster is overloaded, i.e., the carrier network signals fed to the booster are too strong for the booster to work properly, hence the booster turns into AGC status.</p>	<ol style="list-style-type: none"> <li>1. Turn the knob straight above the orange LED indicator counterclockwise in small increments until the indicator turns green. Please note that the booster gain and booster coverage will also shrink in the process.</li> <li>2. Alternatively, you may move the outside antenna around until the indicator turns green. This will keep the booster coverage area unchanged.</li> <li>3. If any of the solutions above does not work alone, you may try them together, i.e., turn the knob while moving the outside antenna around until the indicator turns green.</li> <li>4. If the indicator still stays orange after you've tried the three solutions above, please contact our Customer Service for further assistance.</li> </ol>
	<p><b>When a cell phone is being used in close proximity of the booster:</b>            The signals from the cell phone overloads the inside antenna interface of the booster and send the booster into AGC status.</p>	Move the cell phone a few steps away from the inside antenna of the booster when the cell phone is in use.
Red	<p><b>When there is no cell phone in use in the area covered by the booster, and the indicator will turn orange if you turn the knob straight above the indicator counterclockwise by 180 degree and restart the booster:</b>            The booster is overloaded, i.e., the carrier network signals fed to the booster are too strong for the booster to work properly and exceed the AGC range of the booster, hence the booster automatically shuts down.</p>	<ol style="list-style-type: none"> <li>1. Turn the knob straight above the red LED indicator counterclockwise in small increments and restart the booster every time after a turn until the indicator turns green. Please note that the coverage of the booster will shrink after such adjustment.</li> <li>2. Alternatively, you may move the outside antenna around and restart the booster after every move until the indicator turns green. This will keep the booster coverage area unchanged.</li> <li>3. If any of the solutions above does not work alone, you may try them together, i.e., turn the knob while moving the outside antenna around, restart the booster every time after the adjustment until the indicator turns green.</li> </ol>

Indicator Status	Diagnose	Solutions
Red	When a cell phone is being used in close proximity of the booster: The signals from the cell phone overloads the inside antenna interface of the booster beyond the AGC range, hence the booster automatically shuts down.	Move the cell phone a few steps away from the inside antenna of the booster and restart the booster.
	The outside antenna and the inside antenna are too close to each other, hence the booster goes into self-oscillation status.	<ol style="list-style-type: none"><li>1. Place the outside antenna and the booster base unit as far away from each other as possible, preferably with a wall between the two antennas, then restart the booster.</li><li>2. You may also turn the control knob right above the red indicator counterclockwise to reduce the gain on the band while increasing the distance between, and restart the booster every time after the adjustment until the indicator turns green.</li><li>3. If the indicator still stays red after you've tried all solutions above, please contact our Customer Service for further assistance.</li></ol>
Green and Flashing	The booster is powered and working properly; however, there is no user in one or more bands (as indicated by the flashing indicators), the booster has sent such bands into Uplink Inactivity mode.	No action needed.
Green and Stable	The booster is powered and working properly.	

## Booster Registration

The following selected information about wireless providers' Consumer Booster registration mechanisms supplements the requirements and information given in §§ 20.21, 22.9, 24.9, 27.9, and the FCC Signal Boosters website (<http://wireless.fcc.gov/signal-boosters/>).

*Sprint Nextel will allow consumers to register their signal boosters by calling their toll-free number. They have already trained their calling center and have designated an engineer to handle inquiries. They may eventually allow consumers to register on their website but they want to gauge how the process works via phone first.*

*T-Mobile online registration link: ([www.T-Mobile.com/BoosterRegistration](http://www.T-Mobile.com/BoosterRegistration)); (<https://saqat.t-mobile.com/sites/SignalBooster#>).*

*Verizon's online registration link: (<http://www.verizonwireless.com/wcms/consumer/register-signal-booster.html>).*

*AT&T will allow online registration and will inform OET Lab with the weblink when it is ready.*

*U.S. Cellular (<http://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp>).*

For other providers, please contact the provider for detailed registration mechanism.

## Customer Service

Please visit our website <http://www.gewei-wh.com> for more details about our products. If you have any question, please send it to [support@zhwei.com](mailto:support@zhwei.com), our customer service team will respond in 24 hours.

# Product Specifications

Supporting Frequency (Band)	700MHz (Band 17)	700MHz (Band 13)	850MHz (Band 5)	2100MHz (Band 4)	1900MHz (Band 25)
<b>Max. Gain</b>	55dB	55dB	55dB	60dB	60dB
<b>Output on the Downlink</b>	-2dBm	-2dBm	-2dBm	-2dBm	-2dBm
<b>Output on the Uplink</b>			18dBm		
<b>Supporting Technologies</b>			GSM / CDMA / WCDMA / FDD-LTE		
<b>Output Power</b>			Comply with FCC requirements		
<b>AGC</b>			≥12dB		
<b>MGC</b>			≥15dB		
<b>Noise</b>			Comply with FCC requirements		
<b>Intermodulation</b>			Comply with FCC requirements		
<b>Out-of-Band Spurious Emission</b>			Comply with FCC requirements		
<b>Conduct Spurious Emission</b>			Comply with FCC requirements		
<b>Power Supply</b>			AC100 - 240V, 50/60Hz		
<b>Base Unit Size</b>			150mm x 113mm x 25 mm		
<b>Total Weight</b>			1.3 Kg		

## Antenna Options

Apart from the antenna included in the packaging list, G-Boost cellular signal booster may also work with following antenna models:

### Outside Antenna Kit Options:

1. Log-periodic antenna with 20' LMR200
2. Log-periodic antenna with 30' LMR200
3. Panel antenna with 20' LMR200
4. Panel antenna with 30' LMR200

### Inside Antenna Kit Options:

1. Panel antenna
2. Panel antenna with 20' LMR200
3. Ceiling antenna
4. Ceiling antenna with 20' LMR200
5. Desktop antenna

**Warning:** Unauthorized antennas, cables, and/or coupling devices are prohibited by FCC new rules. Changes or modifications not expressly approved in G-Boost documentation could void the user's authority to operate the equipment.

## Warning

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.

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

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.

**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.