



Did you know that a cell phone that's constantly looking for signal will waste its battery power? A Cell Phone Signal Booster package is designed to bring the signal that you get outdoors and channel that signal indoors. We understand that Cell Phone Signal Booster installation can be intimidating and complicated, therefore we have created this guide to help you understand how they work and the different parts needed to make it work. Each section will have a brief and simple explanation on what each component does. Keep in mind, this guide should help you get a general grasp on what to do once you have received the package.

In general, if you purchased one of our bundled – ready right-out-of-the-box – items, you will have these items in the package. If you are planning to purchase individual parts and make your own bundles, please make sure you check back with us so that you will receive a fully functional set.

1x Amplifier (see sample picture below – models may vary)



This is the main thing that you would need in the package! The amplifier is the heart and soul of a Cell Phone Signal Booster system. It is the item that amplifies the cell phone signal from outdoors and channel it indoors

1x Power Adapter for the amplifier (see sample pictures below – depending whether it's a car adapter or home adapter) – this item is the main power source for the amplifier.



or

1x (or more) Indoor Antenna (see sample pictures below – model may vary, but generally they are no larger than 15 inches in length) - **dome antenna** or **panel antenna** or **desktop antenna**



or



or



1x Outdoor Antenna (see sample pictures below – model may vary, but generally they are larger than 15 inches in length) - **bi-directional antenna** or **omni-directional antenna**



or



2x (or more) Various-Length Cables (see sample pictures below – length varies depending on strength of amplifier – in general, cables have 2 N Male type connectors)



If you ordered a bundle with 2 or more indoor antennas, usually the package will include:

Cable Splitters – needed when you are working with 2 or more indoor antennas. A splitter essentially splits the output so you can boost the signal in 2 or more different rooms. There are splitters that split the output 2 ways, 3 ways, and 4 ways (*see sample picture below*).



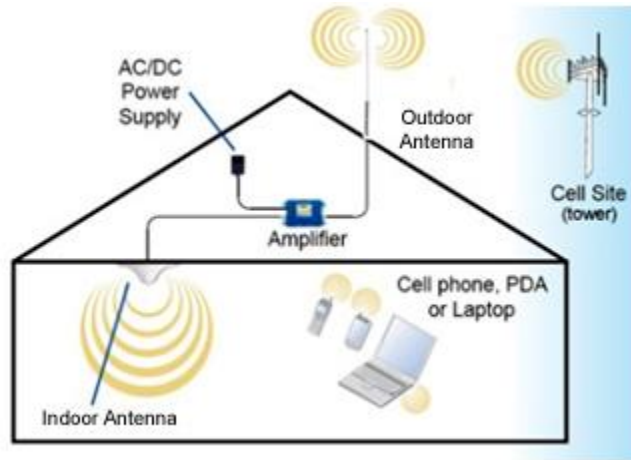
More Cables (all packaged bundles will include enough cables)

Connectors (see sample picture below – model may vary, some connectors are needed to convert cables to a certain type eg. N Male type to FME Female type)



In some bundles, the package will include Outdoor **Antenna Mounting Kits** or **Window Magnetic Mount**

Now that you know what each item is called, let's have a look on our diagram on what a typical set up should look like.



A typical Wireless Cell Phone Signal Booster setup with 1 Indoor Antenna

As you can see on the diagram above, the basic setup for a Wireless Cell Phone Signal Booster is:

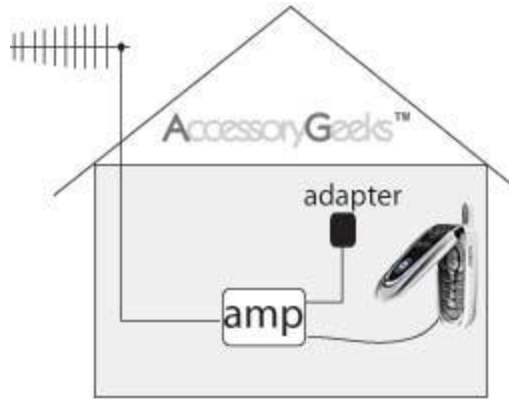
Outdoor antenna → Amplifier → Indoor Antenna → Amplification occurs

A more detailed way to view this diagram:

Outdoor antenna → Cable → Connector → Amplifier → Connector → Cable → Indoor Antenna → Amplification occurs

**in most cases, the connectors are not needed since the amplifier usually have N Female type connectors while cables have N Male type connectors (more on cable connector type later)*

***in a Non-wireless Cell Phone Signal Booster situation, replace the Indoor Antenna with a direct cable connection to your cell phone or whatever device you are trying to amplify.*



A typical Wired Cell Phone Signal Booster setup

Important: In order for a proper signal amplification to occur, a certain length of separation is needed between the outdoor and indoor antenna. Think of it as a microphone giving a feedback to the speakers when they are placed too close to each other. The length of separation varies according to the strength of the amplifiers. In general, the following rule is implied: *(dB size should be described/posted on the actual amplifiers or the product page)*

Amplifier Type	Distance of Separation	Best Application
40dB	5-10 feet	Car or desk space
45dB	5-15 feet	Car, truck, or desk space
50dB	40-45 feet	Small office, 1 room in the house, trailers, or boat
55dB	45-55 feet	Small office, 1 room in the house, trailers, or boat
60dB	50-60 feet	Office, large room, small warehouse
65dB+	70-100 feet	Large office, mansions, or warehouse

Types of Cable Connectors:

Cable connectors are needed, as the name implies, to connect certain cables to another cable that has a different connector. In general, there are 3 types of connectors with each having a Male and Female versions. If you are not familiar with the Male and Female term on cables, think of them as the human counterparts where the Male part can only connect to Female part. The 3 types of connectors are:

FME connectors – they are usually the smallest out of the 3 and typically found on the smaller dB amplifiers.



Male FME connector



Female FME connector

SMA connectors – very little size difference with the FME.



Male SMA connector

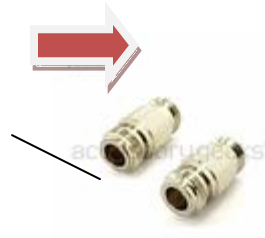


Female SMA connector

N connectors – the largest size and typically is the most common size of connector on the amplifier and the cable itself.



N Male connector



N Female Connector

Cables:

Accessory Geeks has various brands of various length co-axial cables available at our store. **As a general rule, the longer the cable, the more signal loss you are getting.** As an example, an amplifier that are getting a 40dB gain total (everything combined) uses two 20 feet cables (each has a 1dB loss), then the total dB gain an area would have is only 38 ($40-1-1 = 38$).

As mentioned before, different strength amplifier needs different length of separation between the indoor antenna and the outdoor antenna. **Make sure you get enough cable length to cover that separation.** As an example, a 65dB amplifier needs 70 feet + separation. You would probably need two 50 ft cables to cover that separation.

50ft

50ft _____

Please contact one of our Geeky specialists @ 1-866-GEEKS-93 (1-866-433-5793) to find out what is the best length for your Cell Phone Signal Booster set up.

Outdoor antenna:

We have 2 types of outdoor antennas available: **Omni-directional and Bi-directional** antennas (Yagi antenna).

- Omni-directional antennas, can pick up signal from any direction but usually are less powerful (in terms of dB gain) than the bi-directional antennas.
- Bi-directional antennas are harder to set up (you have to find the direction of the signal tower) than the omni-directional antennas, but the dB gain is superior to the latter.

Indoor antenna:

There are several different types of indoor antennas available: **patch antenna, desktop antenna, mini antenna, dome antenna, and panel antenna.**

- **Patch antenna** usually comes with the wireless amplifier and generally used in cars, trucks, or office desks due to its limited reach.
- **Desktop antennas** are usually used on office desks or certain corners of the house where you pick up your calls.
- **Mini antennas** have the same usage/placement as the desktop antenna plus you can also use it in the car or truck.
- **Dome antennas** are installed on the ceiling (usually for warehouses, home, and offices) and they have cone-shaped coverage.
- **The panel antennas** have a bi-directional cone-shaped coverage and are usually installed in long hallways, boats, or trailers.

