



User Manual

Plus Series

4K Plus 10K Plus

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Package Content

Product Image		All and a second s
Product Name	4K Plus	10K Plus
Model	F10GI-5S-BTW	F15GI-5S-BTW
Outdoor Cable	50ft Low-loss HiBoost 200 Cable	
Outdoor Antenna	Wide-Band Directional Panel Antenna	
Antenna Adapter	SMA-Male to N-Female Adapter	
Available Indoor Antenna Expansion Kits		
HiBoost Omni Antenna Kit	\checkmark	\checkmark
HiBoost Panel Antenna Kit	\checkmark	\checkmark

NOTE: Available accessories can be purchased through HiBoost.com

Warning: Un-authorized antennas, cables, and/or coupling devices are prohibited by new FCC rules. Please contact FCC for details: 1(888)-CALL-FCC

Introduction

Thanks again for purchasing HiBoost's Plus Signal Booster. The Plus Series is a collection of precision-engineered products that improve cellular reception inside of homes and businesses by amplifying incoming and outgoing cell phone signals.

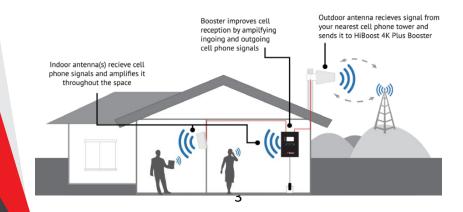
The Plus booster features a built-in indoor antenna so that users can boost signal directly from the unit within minutes of set up. The unit can also provide the flexibility of doubling indoor coverage with a secondary antenna.

HiBoost's exclusive cloud-based Signal Supervisor mobile application and LCD display allow users to monitor the live status of HiBoost cell phone signal boosters directly from the LCD display or remotely from a mobile device anywhere at any time.

If there are any issues while installing a HiBoost cell phone signal booster, please contact the HiBoost technical support team through the following options:

24/7 Online Support: Create a ticket or chat via Signal Supervisor App Phone: (972) 870-5666 (M-F from 9 am – 5 pm) Email: support@hiboostusa.com Website: www.hiboost.com

How Signal Boosters Work



Pre-Installation Instructions

HiBoost's Plus booster unit and antennas must be strategically placed in order to perform and provide maximum coverage.

The Plus booster features a built-in indoor antenna and an expansion indoor antenna port so users can customize their solution.

Note: The Plus booster can split amplified signal twice – please review the antenna expansion methods for more information

The HiBoost Signal Supervisor app will allow users to communicate to the Plus signal booster via Wi-Fi. It will also allow users to communicate with your booster locally via Bluetooth connection. Once registered, the user can install, optimize and remotely monitor the Plus signal booster. If there is no Wi-Fi or Bluetooth connection, please reference the LCD installation method.

Note: Signal Supervisor enabled boosters must have access to a strong Wi-Fi network – If Wi-Fi is not available, users can connect to the booster with Bluetooth.

Professional Installation Tips:

- For a fast and optimize installation, it is strongly recommended that users install HiBoost products using the Signal Supervisor mobile application
- Completely read the user manual and gather all necessary tools, material and accessories before installing the booster
- A "soft installation" is recommended before permanently mounting any equipment – this technique will simplify the installation process by allowing users to identify any potential installation issues beforehand
- The Signal Supervisor App integrates a tool that will help users locate the best location for the outdoor antenna – ensure that there is at least 20 ft of vertical separation between outdoor antenna and indoor antennas (including the plus booster)

Built-in Antenna Method



- 1 -Outdoor wide band Directional antenna
- 2 -50ft (15.2m) Hiboost200 low-loss cable
- 3 -Home Plus with built-in antenna

Optional Antenna Methods



- 1-Outdoor wide band Directional antenna
- 2-50ft (15.2m) Hiboost200 low-loss cable
- 3-You can add an indoor panel antenna and 50ft (15.2m) Hiboost200 low-loss cable to extend the coverage



- 1-Outdoor Wide Band Directional Antenna 2-50ft (15.2m) Hiboost200 Low-loss Cable 3-You can add an indoor panel antenna with
- SMA-N connector to connect 50ft (15.2m) Hiboost200 low-loss cable to extend the coverage (built-in antenna will be automatically disabled)

Signal Supervisor App Setup

Before installing the Signal Supervisor App, please have the booster unit that is powered on and nearby.

Note: Turn on the Bluetooth feature enabled before attempting to register the booster to the mobile device.

Step 1: Download the Signal Supervisor App

• The application is available for download through Apple's App Store or Google Play

Step 2: Create a New Account and Log-in

- Launch the app on your mobile device
- Select the HiBoost Server
- Log-in with an existing account create a new one

Step 3: Register the Booster by adding a device on the home menu

Go to My Devices > Add a Device > Wi-Fi Network

If you do not have Wi-Fi, continue with the **No Wi-Fi Network** option to connect via Bluetooth.

Note: Connecting to a Wi-Fi network is recommended for this installation because Bluetooth is limited to a range of only 30 feet

Installation – Signal Supervisor Method

Log into the Signal Supervisor app and power on your booster before beginning the installation process.

The "Quick installation Guide" can be found on the app and it will help guide users through a fast and optimize installation.

Access the Quick Installation Guide after registering the booster or go to:

My Devices > Select the Booster > Device Details > Quick Install Guide

Follow the step-by-step instructions while installing and optimizing the booster system.

Note: Please remember that if the booster is connected via Bluetooth, then users are limited to a connection within a 30 feet radius from the booster

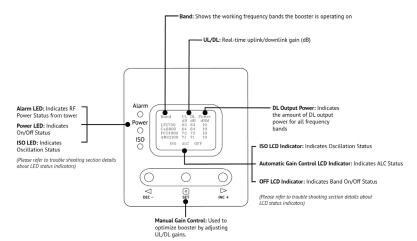
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Installation – LCD Display Method

These are instructions that will allow users to install a Plus cell phone booster using the LCD Display.

Before using this method, please take a moment to become familiar with the LCD display, LED status indicators and control buttons on the booster.



	LED/LCD STATUS INDICATORS	
Alarm LED	Indicates RF Power Status from tower	
Power LED	Indicates ON/OFF Status	
ISO LED	Indicates Oscillation Status	
Manual Gain Control	Used to optimize booster by adjustment of UL/DL	
OFF LCD Indicator	Indicates Band ON/OFF Status	
Automatic Gain Control	Indicates ALC Status	
ISO LCD Indicator	Indicates Oscillation Status	
DL Output Power	Real time Uplink/Downlink Gain In dB	
Bluetooth/Wi-Fi Indicator	Indicates Bluetooth and Wi-Fi are Enabled	
UL/DL	Realtime Uplink and Downlink Gain	
Band	Shows working frequency bands the booster is operating on	

Installation Overview

Before beginning the installation, it is important that users survey and plan the layout of the cell phone signal booster system. Please review the following instructions before attempting to install this system.

In this set up, the user will need to use the outdoor antenna to find the strongest source of nearby cellular signal (generally in the direction of the nearest cell phone tower). This will optimize the system by helping users install the booster and antennas in the best position and direction.

- A. Finding the Strongest Outdoor Signal
- B. Install the Booster
- C. Finalize the Installation

Part A) Finding the Strongest Outdoor Signal

The outdoor signal strength will affect performance. It is important that users install the outdoor antenna in the right position, pointing at the strongest source of signal or cell phone tower from the roof. It may help to narrow down the location of the nearest cell phone tower by visiting www.cellreception.com or www.antennasearch.com.

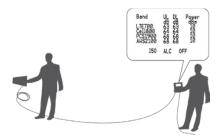
Gaining height may also help if users are in rural areas where cellular signal is generally weaker. Two people may be required for a quick and effective installation.

 Connect the outdoor antenna to the booster using the coaxial cable included in the kit – push the cable firmly into the jack on both the antenna and the booster, then turn the connector sleeve clockwise until the connectors are tight



- Place the booster in a location where it will be potentially installed and make sure that the booster is turned on – ensure that there is at least 20 ft of separation between the Plus booster and outdoor antenna
- 3. Carry the outdoor antenna to the highest point on the roof to begin testing

Note: Do not connect any additional indoor antenna to the booster while trying to find strongest source of outdoor signal

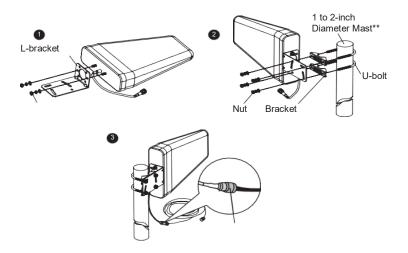


4. While pointing the antenna towards the horizon, slowly rotate around in a 360-degree circle and find the position that shows the highest maximum power output (dBm) and DL gain (dB) on the right-hand column on the LCD display

Note: Maximum power and downlink gain for the 4K Plus is 10dBm/65dB and 10K Plus is 12dBm/72dB

Professional Tips:

- Keep in mind that it is normal for the output values may vary dynamically between 1-3 dB
- To optimize the signal for one carrier, point the outdoor antenna towards the closest cell phone tower designated to that carrier
- To optimize the signal for more than one carrier, point the outdoor antenna between multiple towers
- Make sure to slowly turn the antenna while taking the readings so the booster has time to adjust the reading
- Test and install the antenna at the same height where power outputs and gain values reach the boosters maximum capacity



 After narrowing down the best location for the outdoor antenna, finalize installation by using the hardware included in this kit and permanently mount it onto a mast

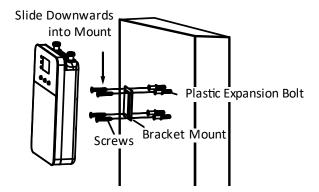
Note: Write down the maximum power output and downlink gain values – this will be important when installing the booster and any additional external indoor antennas

Part B) Install the Booster

While choosing a location for the booster, please keep in mind that there must be at least 20 ft of vertical separation between the outdoor and indoor antenna.

- Connect the outdoor antenna to the booster using the coaxial cable included in the kit – push the cable firmly into the jack on both the antenna and the booster, then turn the connector sleeve clockwise until the connectors are tight
- Move the booster around to compare the final values from the antenna test results in Part A – the values roughly the same with the indoor antenna connected

 Mount the signal booster in a dry and cool area that is easily accessible for maintenance (it should be located near a power outlet)



Note: If the gain and power output values decreased, there may be some oscillation issues with the set up – below are some ways to reduce oscillation:

- Increase the distance in-between the outdoor and indoor antennas
- Ensure that the indoor and outdoor antennas are not facing each other
- Use metal barriers between the indoor and outdoor antennas

Part C) Finalize the Installation

Finalize the booster, antenna and coaxial installation by using the mounting hardware included in this kit.

1. Loosely run the coaxial cable from the indoor and outdoor antenna to the signal booster and secure all connections in the correct port

Professional tips

- Be careful while routing and bending cable protect the connector by wrapping and securing a towel around the end of the cable
- Keep horizontal cables straight and secure with zip-ties every 3-5 feet
- Keep vertical cables straight and secure with zip-ties every 6-8 feet
- Avoid water damage by using the waterproof tape provided in the kit on the connector attached to the outdoor antenna transmission cable
- Be careful and avoid damaging the pins in the center of the connectors while attaching cables
- 2. Carefully plug in the power supply to the booster port marked 'DC 12V'

Note: For safety purposes, it is recommended to use a 1,000 Joule surge protector between the booster's power supply and AC power outlet

- 3. Check to see if all LED indicators are green and that all the following parameters are met:
 - There are at least 20 feet worth of vertical separation in between the indoor and outdoor antennas
 - The front of the outdoor antenna is NOT facing towards the front of the indoor antenna
 - All coaxial cable connections to the antennas and booster are properly connected

Optional Indoor Expansion Kit

The port labeled **Indoor1** allows users to double their indoor coverage using an external indoor antenna while also using the internal antenna built into the booster unit.

1. To add a secondary antenna, connect the indoor antenna and coaxial cable to the port labeled **Indoor1**.

Note: Ensure that the indoor antenna is not facing the front of the booster unit – the booster has a built-in antenna that will oscillate with the secondary antenna if facing towards each other

The port labeled **Indoor 2** allows users to double their indoor coverage using two indoor antennas with the booster unit.

Note: Extending indoor coverage with two external indoor antennas will shut down the booster's internal antenna

- 1. Connect the first indoor antenna and cable to Indoor1
- 2. Connect the second indoor antenna and cable to **Indoor2** use the indoor antenna adapter included in the Plus booster kit
- 3. Walk around and check the gain and power output values

Note: If the values decreased, there may be some oscillation issues with the set up – below are some ways to reduce oscillation:

- Increase the distance in-between the outdoor and indoor antennas
- Ensure that all indoor and outdoor antennas are not facing each other
- Use metal barriers between the indoor and outdoor antennas

Note: Make sure that the gain and power output values did not change significantly before mounting the second antenna

Quick Troubleshooting Guide

Eliminate Flashing ISO LCD Display Indicator and Quick Flashing Green, Quick Flashing Red ISO LED Indicator problems:

- 1. Adjust the outdoor antenna direction, keeping it away from the indoor antenna restart the booster
- 2. Increase the vertical or horizontal distance between the outdoor antenna and the indoor antenna restart booster.
- Use metal or wall barriers to increase the isolation between the indoor and outdoor antennas – restart booster
- 4. Change the indoor antenna type to an antenna with a more directional antenna pattern orient the indoor antenna and the outdoor antenna so they are not pointing at each other

The ISO issues are solved when the ISO LED is "Green" or "Slow Flashing Green" or no flashing ISO legend

Eliminate poor coverage problems when Power "---" legend on LCD and Alarm LED is Green

- 1. If the signal has not been improved, please check below:
 - A weak downlink signal leads to the low output signal level change the direction or position of the outdoor antenna
 - Try replacing the outdoor antenna with a higher gain antenna to increase the amount of signal being received
 - Check to see if it is necessary to add more indoor antennas barriers such as walls can block the signal indoors
 - Check the booster to make sure the output power is maximized the user may need to replace the booster with a more powerful one if the amount of outdoor signal available is limited
- If the signal in a small section of the building hasn't been improved, try the following:
 - Check to see if the indoor antenna is installed correctly try moving and adjusting the indoor antenna to improve coverage
 - Purchase a HiBoost Expansion kit to extend coverage in specific areas (only applicable to 10K SL and 15K SL)

Other Troubleshooting Issues

LED STATUS INDICATORS		
LED	STATUS	INDICATION
Alarm LED	GREEN	Below full output power
	SLOW FLASHING GREEN	Full output power
	QUICK FLASHING GREEN	Output power is too high
	QUICK FLASHING RED	Booster will automatically shut off due to excessive DL signal from tower
Power LED	GREEN	Normal
	OFF	DC Power Problem
ISO LED	GREEN	Indicates oscillation status
	SLOW FLASHING GREEN	Slight loop back or self-oscillation
	QUICK FLASHING GREEN	Deep loop back or self-oscillation
	QUICK FLASHING RED	Booster is automatically shutting off

Reference the chart below to identify the current status of the booster.

If there are any issues while installing a HiBoost cell phone signal booster, please contact the technical support team through the following channels:

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Authorized Accessories List

The following are FCC approved accessories:

Outdoor Antenna & Cable Kit Options

Kit 9-5050 Yagi 9dbi Antenna & 50' 5D Cable Kit 11-100400 Yagi 11dbi Antenna & 100' 400 Cable Kit 11-7550 Yaqi 11dbi Antenna & 75' 5D Cable Kit 11-100500 Yagi 11dbi Antenna & 100' 5D Cable Kit 10-3050 Panel 10dbi Antenna & 30' 5D Cable Kit 10-50400 Panel 10dbi Antenna & 50' 400 Cable Kit 10-5050 Panel 10dbi Antenna & 50' 5D Cable Kit 10-75400 Panel 10dbi Antenna & 75' 400 Cable Kit 10-100400 Panel 10dbi Antenna & 100' 400 Cable Kit 10-7550 Panel 10dbi Antenna & 75' 5D Cable Kit 10-10050 Panel 10dbi Antenna & 100' 5D Cable

Kit 9-50400 Yagi 9dbi Antenna & 50' 400 Cable Kit 9-75400 Yaqi 9dbi Antenna & 75' 400 Cable Kit 9-100400 Yagi 9dbi Antenna & 100' 400 Cable Kit 9-7550 Yaqi 9dbi Antenna & 75' 5D Cable Kit 9-10050 Yagi 9dbi Antenna & 100' 5D Cable Kit 7-3050 Panel 7dbi Antenna & 30' 5D Cable Kit 7-50400 Panel 7dbi Antenna & 50' 400 Cable Kit 7-5050 Panel 7dbi Antenna & 50' 5D Cable Kit 7-75400 Panel 7dbi Antenna & 75' 400 Cable Kit 7-100400 Panel 7dbi Antenna & 100' 400 Cable Kit 7-7550 Panel 7dbi Antenna & 75' 5D Cable Kit 7-10050 Panel 7dbi Antenna & 100' 5D Cable Kit 5-30400 Omni 5dbi Antenna & 30' 400 Cable Kit 5-3050 Omni 5dbi Antenna & 30' 5D Cable Kit 5-50400 Omni 5dbi Antenna & 50' 400 Cable Kit 5-5050 Omni 5dbi Antenna & 50' 5D Cable Kit 5-75400 Omni 5dbi Antenna & 75' 400 Cable Kit 5-10400 Omni 5dbi Antenna & 100' 400 Cable Kit 5-7550 Omni 5dbi Antenna & 75' 5D Cable Kit 5-10050 Omni 5dbi Antenna & 100' 5D Cable

Indoor Antenna & Cable Kit Options

Kit 72-5050-50

2 Panel 7dbi Antenna with50' 5D N male & 2-Way Splitter Kit 52-5050-50 2 Whip 5dbi Antenna &50' 5D Cable & 2-Way Splitter Kit 102-5050-50 2 Panel 10dbi Antenna with50' 5D N male & 2-Way Splitter Kit 103-7550-50 3 Panel 10dbi Antenna & 75' 5D Cable & 3-Way Splitter Kit 104-7550-50 4 Panel 10dbi Antenna & 75' 5D Cable & 3 2-Way Splitter Kit 73-7550-50 3 Panel 7dbi Antenna & 75' 5D Cable & 3-Way Splitter kit 74-7550-50 4 Panel 7dbi Antenna & 75' 5D Cable & 3 2-Way Splitter Kit 3-30400 Omni 3dBi Antenna with 30' 400 Cable Kit 3-5050 Omni 3dBi Antenna & 50' 5D Cable Kit 3-7550 Omni 3dBi Antenna & 75' 5D Cable Kit 3-10050 Omni 3dBi Antenna & 100' 5D Cable Kit 3-30400 Omni 3dBi Antenna with 30' 400 Cable Kit 3-50400 Omni 3dBi Antenna & 50' 400 Cable Kit 32-50400-50 2 Omni 3dBi Antenna & 50' 400 Cable & 2-Way Splitter Kit 33-50400-50 3 Omni 3dBi Antenna & 50' 400 Cable & 3-Way Splitter Kit 34-50400-50 4 Omni 3dBi Antenna & 50' 400 Cable & 3 2-Way Splitter

FCC and IC Statements FCC RF EXPOSURE STATEMENT

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instruction for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

IC RF EXPOSURE STATEMENT

The device is compliance with RF exposure limits. The minimum distance from body to use the device is 20 CM.

Le présent appareil est conforme aux conformité ou aux limites d'intensité de champ RF. La distance minimale du corps à utiliser le dispositif est de 20 CM.

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 least 20 cm (8 inches) from (<u>i.e.</u>, **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 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 (<u>i.e., may operate in a fixed</u> location only) for in-building use.

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:

- Re-orient 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

Changes or modifications not expressly approved by HiBoost could void the user's authority to operate the equipment. For a complete list of antennas and cables approved for use with these boosters see Authorized Kitting Options

FCC 27.50(d)(4) Statement: Fixed, mobile, and portable (handheld) stations operating in the 1710-1755 MHz band are limited to 1-watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground.

FURTHER INFORMATION ON SIGNAL BOOSTER END-USE REGISTRATION

The following links are the currently active contacts for booster registration with U.S. wireless providers:

https://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp https://www.sprint.com/legal/fcc_boosters.html

https://www.verizonwireless.com/solutions-and-services/accessories/register-signalbooster/ https://support.t-mobile.com/docs/DOC-9827

https://securec45.securewebsession.com/attsignalbooster.com/

IC Statement: This device complies with Innovation, Science and Economic Development Canada ICES-003 Compliance Label: CAN ICES-3 (B)/ NMB-3(B). Le présent appareil est conforme Innovation, science et développement économique Canada ICES-003 Étiquette de conformité: CAN ICES-3 (B) / NMB-3 (B).

Please follow the link to access the CPC-2-1-05:

http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08942.html

Technical Specifications

Model No.	4K Plus	10K Plus	
Working Bands	69 -716 / 776-787 / 824-849 / 1850-1915 / 1710-1755		
UL Frequency Range	728-746 / 746-757 / 869-894 / 1930-1995 / 110-2155		
DL Frequency Range	Band 12 / Band 13 / Band 5	/ Band 25-2 / Band 4	
Supported Standards	CMDA, WCDMA, GSM, EDGE, HSPA+, EVDO, LTE and all other cellular standards		
Maximum Gain	65 dB	72 dB	
Maximum Output Power	DL 10 dBm	DL 12 dBm	
MGC (Step Attenuation)	\geq 25 dB / 1 dB step		
I/O Port	N-Female		
Impedance	50 ohm		
Environment Condition	IP40		
Dimensions	6 in x 9.7 in x 1.4 in / 152 mm x 246 mm x 36 mm		
Weight	≥ 5.0 lb / 2 kg		
Power Supply	Input AC 100~240 V, 50/60 H	z, Output DC 12 V/3 A	

Return and Warranty Policies

30-Day Money-Back Guarantee: If for any reason the performance of any product is not acceptable, the product may be returned to the reseller within 30-days with proof of purchase. Please contact the HiBoost customer support.

3-Year Warranty: HiBoost signal boosters and kits are warranted for 3 years. HiBoost will repair or replace the unit and will cover the cost of delivery for consumers located within the continental U.S and Canada.

Customers can choose to return the signal boosters and kits directly to the manufacturer at the purchaser's expense with a dated proof of purchase and a Returned Material Authorization (RMA) number supplied by HiBoost. RMA numbers may be obtained by contacting customer support at 972-870-5666 or support @hiboostusa.com

This warranty does not apply to any signal boosters or kits determined by HiBoost to have been subjected to tampering, misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties.

HiBoost is not liable for any Signal Supervisor application network connectivity issues. The cell phone signal booster relies on a strong, continuous and reliable connection to the internet in order to communicate with the cell phone application. For all Signal Supervisor Application related issues, please check your network strength and call our technical support.

Failure to use a surge-protected AC power strip with at least a 1000 Joule rating will void your warranty. Damage caused by lightning is not covered by this warranty.

All HiBoost products that are packaged with other HiBoost accessory products are intended for resale and used as a single integrated system. Such product kits are required to be sold to the end-users or subsequent reseller as packaged.



HiBoost 6210 N Beltline Rd. #110 Irving, TX 75063 (972) 870-5666 support@hiboostusa.com www.hiboost.com