SureCall®
RAISE YOUR BARS

Force5 2.0™

Voice and 4G LTE Cellular Booster Kit with Built-in Sentry

Thank you for purchasing SureCall's Force5 2.0 voice and 4G LTE cellular booster kit with built-in Sentry. Force5 2.0 was specifically designed to eliminate frustrations over dropped calls and slow 4G data along with the ability to monitor and adjust booster performance off site.

If you have any questions during setup, please reach out to our US-based experienced support technicians:

Call: 1-888-365-6283
Email: support@surecall.com
Or, **chat:** www.surecall.com, 7:00 am – 5:00 pm PST, Monday – Friday

Watch installation, optimization and troubleshooting techniques in our SureCall University YouTube channel

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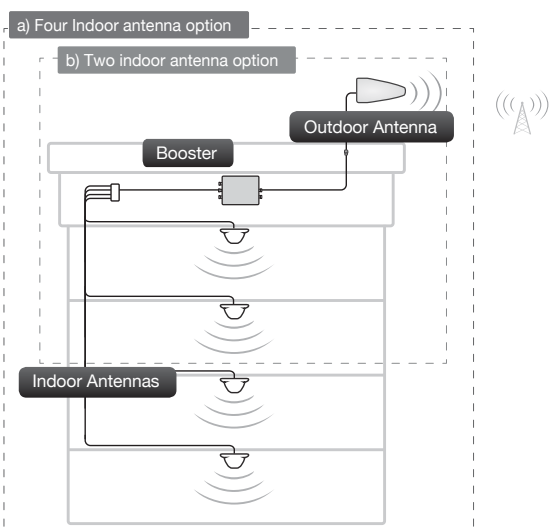
Stay up to date with all things SureCall

How It Works

SureCall's Force5 2.0 cellular boosting function uses a high-quality bidirectional signal booster that enhances signals to areas that are prone to weak cellular coverage. It works with two types of antennas:

1) An outdoor antenna that communicates with the cell tower.
2) A set of Indoor antennas that communicate with your mobile devices.

Signals sent from a cell tower are received by the outdoor antenna, amplified by the booster and then sent to your phone via the indoor antennas. When your phone transmits, the signal is sent to the indoor antennas, and then sent to the cell tower via the outdoor antenna.



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Package Contents

1. Unpack all package contents. For missing or damaged items, contact your reseller. Keep the carton and packing material to store the product in case you need to return it.
2. Turn over the signal booster and record the model and serial number for reference:

Serial #: _____

Purchase Date: _____

Kit Options

Force5 2.0 signal booster kits:

	QTY	Description	
Included in kit 1			
Ⓐ	1/ea	SureCall Force5 2.0 booster and power supply	
Ⓑ	1	Outdoor Yagi antenna	
Ⓒ	1	30 ft. length of SC-400 coax cable (connects booster to outdoor antenna)	
Ⓓ	1/ea	Lightning protector and 2 ft. SC-400 NN cable (connects to Lightning protector)	
Ⓔ	1	20 ft. cable to connect to splitter	
Ⓕ	1	4-Way splitter	
Ⓖ	4	75 ft. length of SC-400 coax cable (connects the booster to the indoor antennas)	
Ⓗ	4	Indoor dome antennas	

Included in kit 2			
A	1/ea	SureCall Force5 2.0 booster and power supply	
B	1	Outdoor Yagi antenna	
C	1	30 ft. length of SC-400 coax cable (connects booster to outdoor antenna)	
D	1/ea	Lightning protector and 2 ft. SC-400 NN cable (connects to Lightning protector)	
E	1	20 ft. cable to connect to splitter	
F	1	2-Way splitter	
G	2	75 ft. length of SC-400 coax cable (connects the booster to the indoor antennas)	
H	2	Indoor dome antennas	

Before Installation

Before installation, make note of these important factors:

- ***A "soft install" is recommended for each section of your installation before permanent placement of parts.***
- The booster will need to be close enough to an existing electrical outlet.
- A minimum of 50 ft. of separation between the outdoor antenna and indoor antennas is recommended.
- There will need to be sufficient cable length between planned outdoor antenna location and booster connector.
- There will need to be sufficient cable length between planned indoor antenna location and booster connector. Additional cable may be purchased if needed.

Installation Overview

1. Find the outside area that has the strongest signal. (See page 7).
2. Install the outdoor antenna in the area identified in step 1. (See page 7).
3. Install the indoor antennas where increased signal is needed. (See page 10).
4. Mount the signal booster, connect the outdoor and indoor antenna cables to the signal booster, and connect the booster to an AC power source. (See page 12).

FCC 27.5 (d)(4) Statement: Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band as well as mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands 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. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

Section 1: Booster Installation

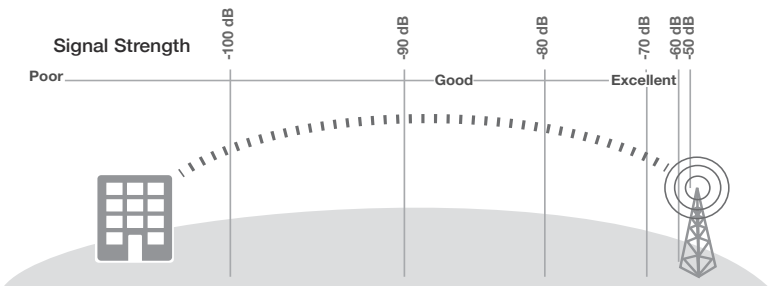
Step 1. Find the Area Outside with the Strongest Signal

Finding Your Strongest Cellular Signal

To send and receive cell phone calls you need to have an adequate cellular signal. This usually means having to be somewhat close to a cell phone tower. Your cellular signal is measured in decibels (dB), which represents the power of the signal. Signal readings appear as a negative number, for example -85 dB. The stronger your signal is the closer it gets to zero. As the illustration below shows a -50 dB signal reading is very strong while a signal reading of -100 dB and above is very weak.

How to Determine Your dB Signal Reading

- Using an iPhone: Dial *3001#12345#*, a Field Test screen will appear press down on the home button for a few seconds so your dB reading will appear in the upper left hand corner.
- Using an Android: Download the “Network Signal Info” within the Google Play store. Once installed, you will be able to view your dB strength.
- Internet: Go to: www.speedtest.net to test your 3G and 4G data rates.



Step 2. Install the Outdoor Antenna

The Force5 2.0 kit comes with one directional outside Yagi cellular antenna - however an outside omni antenna may also be used.

A **directional Yagi antenna** works best when facing the direction of the nearest cellular tower being used by your carrier

An **omni antenna** receives and sends signals in a 360º radius.

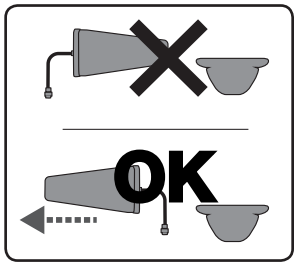
Before proceeding, please note:

- For both antenna options, mount the outside antenna in the location identified in step 1 and as high as possible. Ensure that the mounting area has at least a 12-inch radius clear of obstructions and other radiating elements.

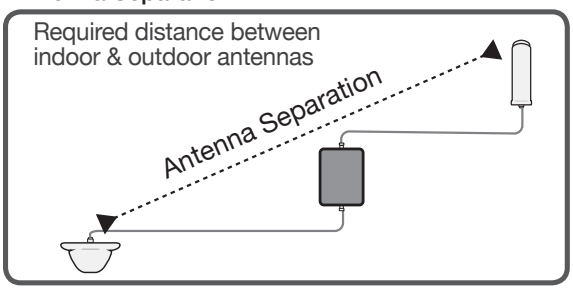
Booster Installation

- For best performance, place the outside antenna at least 50 feet from the inside antenna (see graphic “Antenna Separation”).
- Always orient directional antennas to point away from other system antennas (see illustration, “Antenna Aiming”).
- Note that if the mounting area is prone to weak cellular signals or if dense building materials partially block the signal, the booster will operate at its default gain setting.

Antenna Aiming



Antenna Separation



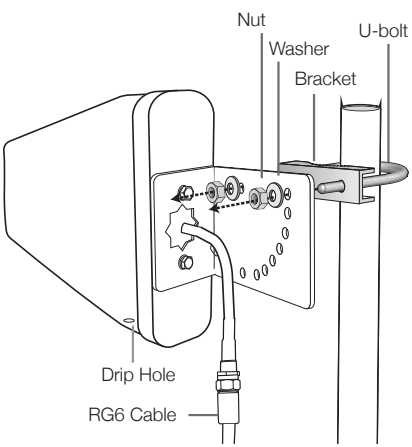
Outdoor/ Indoor Antenna Separation

A minimum of 50 ft. of separation between the outdoor antenna and indoor antennas is recommended for best performance.

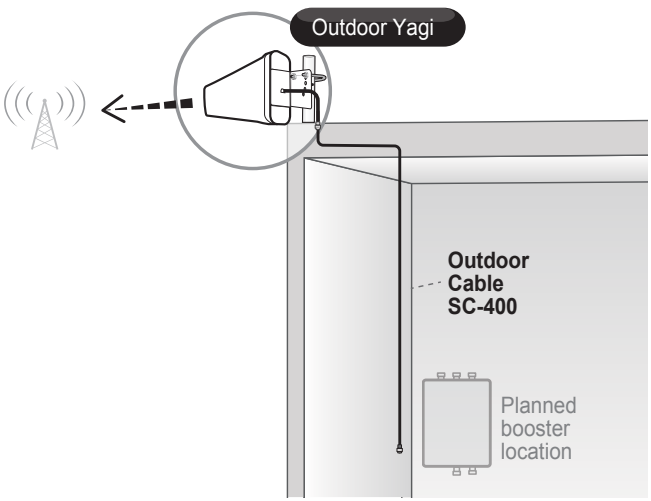
Reducing antenna separation will reduce the coverage provided by the booster and generally, additional separation will provide better performance.

Installing a Yagi Antenna

Before installing a Yagi, or directional antenna, note that the antenna should be mounted on a pole or pipe (not provided), at the highest possible location and mounted horizontally, aimed in the direction of your nearest cell tower. To find the location of your carrier’s closest cell tower, go to www.antennasearch.com.



Outside Antenna Assembly



IMPORTANT: For boosters enhancing T-Mobile’s AWS frequencies, the FCC has stated for consumer signal boosters operating as a fixed station in the 1710 - 1755 MHz uplink 2110 - 2155 downlink bands, the users or installation manual must contain the 30 foot height restriction requirements per FCC 27.50(d)(4).

Ensure that the mounting area has at least a 12-inch radius clear of obstructions and other radiating elements and orient the antenna with the drip hole at the bottom.

Once you have identified your install location, assemble the u-bolt, bracket, nuts and washers onto a pole or pipe (not provided) as shown in the illustration. Keep the connections loose enough to allow the antenna to rotate until the optimum direction is found.

Once the outside antenna is secured to a pipe or pole, connect antenna to cable connector of end of the 30 ft. length of cable and run along route to planned location of your booster.

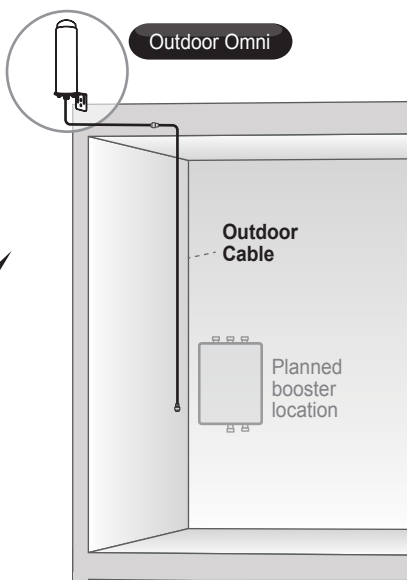
Installing an Optional Omni Antenna

The omni antenna is omni-directional, which receives and sends signals in a 360º radius. The provided hardware allow for either a surface mount or pole-mount. The antenna should be mounted in an upright position. See illustration.

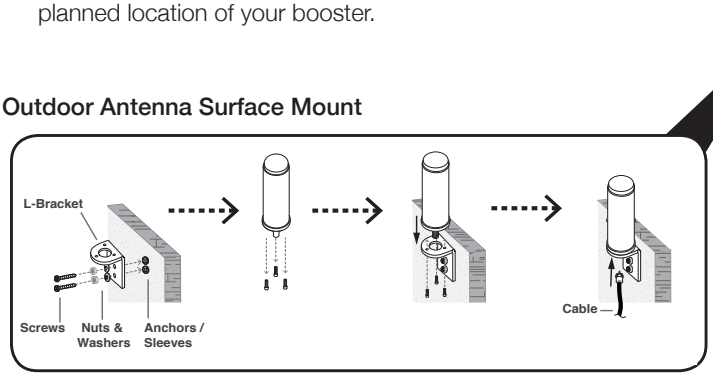
Note: Do not collocate antennas or operate the outdoor antenna with any other antenna or signal booster.

Mount antenna to a vertical surface:

1. Using vertical plate of bracket, mark position of desired placement. The omni antenna should be mounted in an upright position (See illustration)
2. Unscrew nut from end of stucco screw and remove it along with lock washer and regular washer.
3. Place vertical plate into desired location and tap the screws, head first, along with sleeve, into stucco 1/2 to 5/8 inches deep into place.
4. In this order, place washer, lock washer and nut on each screw and tighten until secure. When tightening screw, sleeve will expand to secure plate.
5. Remove screws from antenna base and use to secure antenna onto horizontal plate.
6. Connect antenna to cable connector of end of the 30 ft. length of cable and run along route to planned location of your booster.



Outdoor Antenna Surface Mount



Step 3. Install the Indoor Antennas

Indoor antennas for the Force5 2.0 come with either four or two omni-directional domes. For either kit option, mount on a ceiling in a central location where signal is needed.

The indoor dome multi-band plastic antenna is an omni-directional interior antenna that gathers and sends signals from all sides. Range of antenna is dependent on three factors:

1. Physical obstructions
2. Power generated by booster
3. Signal level received by the outdoor antenna
4. Cable length

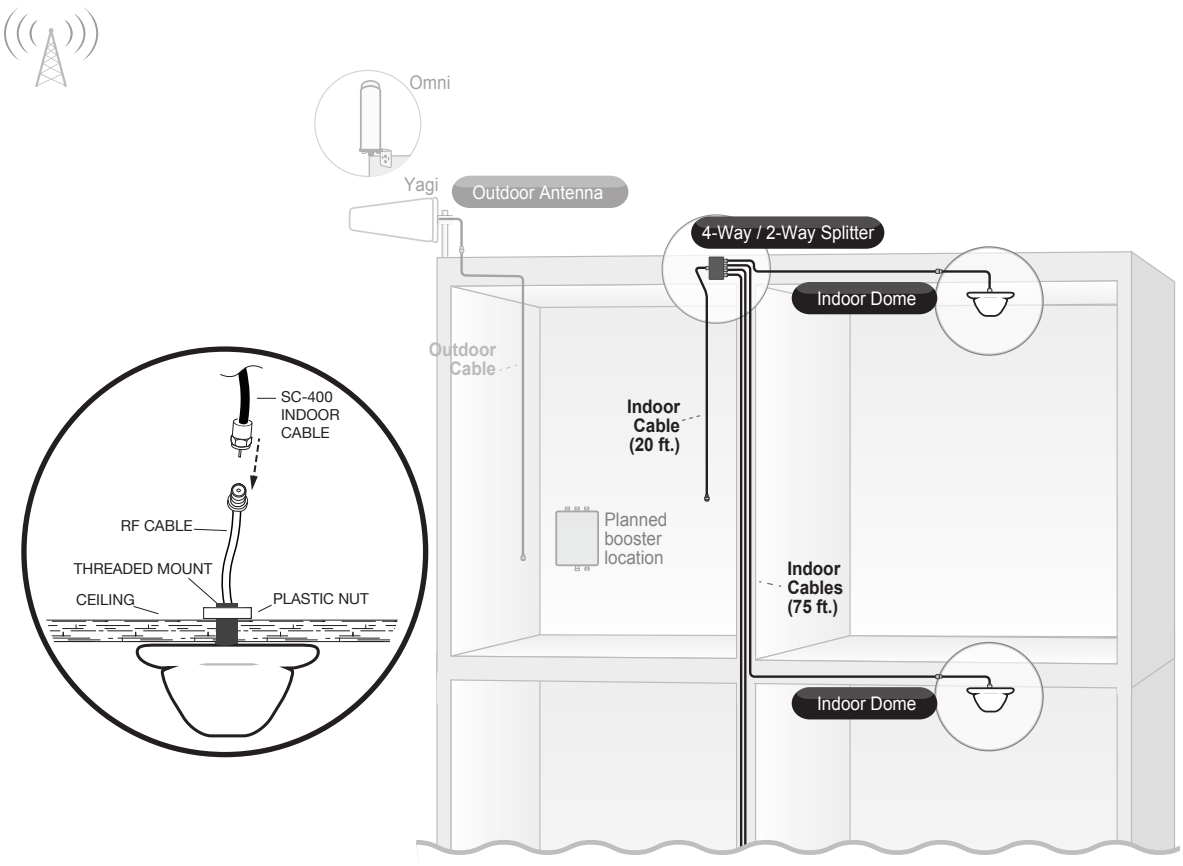
For Each Indoor Dome Antenna:

1. Drill a 20 mm diameter hole in the ceiling. The ceiling thickness should be 20 mm, maximum.
2. Unscrew fixing nut from antenna. Place antenna cable through hole. Screw the fixing nut back onto antenna and cable on crawl space side of ceiling and fasten.
3. Connect antenna to cable connector of one of the two or four 75 ft. lengths of SC-400 cable and run along route to planned location of your booster's 4 way or 2-way splitter. Note: Should there be an excessive length of unneeded cable, optional cable crimpers have been provided in order to shorten the cable.
4. Tighten fixing nut to secure antenna (do not over-tighten).
5. Once all indoor antennas and cables are in place, connect cable runs from indoor antennas to the 4-way or 2-way splitter ports.
6. Connect the provided 20 ft. of SC-400 cable to the remaining end of the splitter and route cable to the planned location of your booster.

Note: Be sure to provide the minimum 50 ft. of separation from outdoor antenna (see table on page 8).

Important:

- Storage and transportation: Store and place in non-extreme room-temperature and dry environment
- This antenna should not be used near open fire or flame.


Omni
Yagi
Outdoor Antenna
4-Way / 2-Way Splitter
Indoor Dome
Outdoor Cable
Indoor Cable (20 ft.)
Planned booster location
Indoor Cables (75 ft.)
Indoor Dome
SC-400 INDOOR CABLE
RF CABLE
THREADED MOUNT
CEILING
PLASTIC NUT

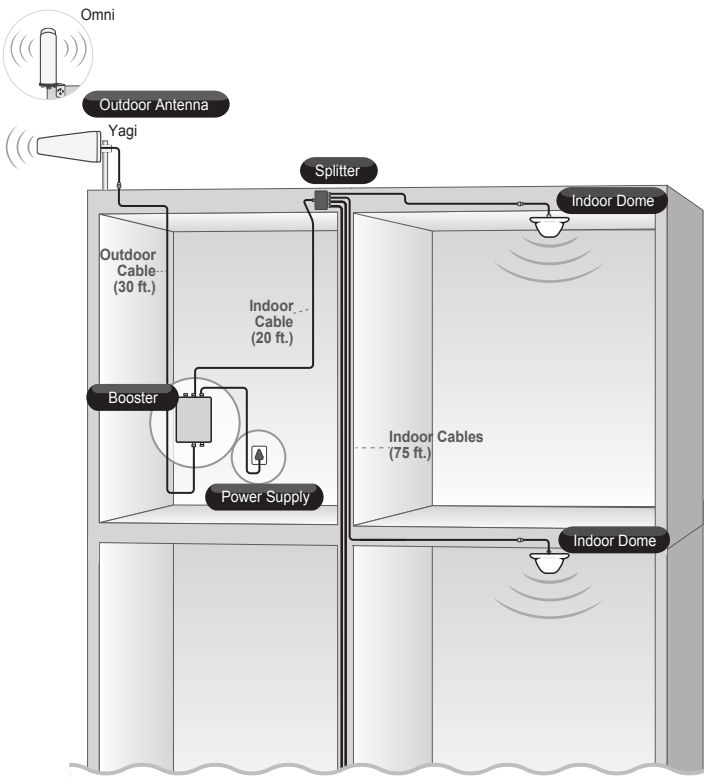
Step 4. Install the Signal Booster

When placing the booster, select a location close to a working AC outlet. Do not expose the signal booster to excessive heat, direct sunlight, moisture, and airtight enclosures.

1. Mount 24 inch x 24 inch, 3⁄4 inch thick sheet of plywood on top of sheetrock into wall studs where the booster is to be placed. Plywood should be flush against wall. Once mounted, screw the booster to the plywood sheet. The top side of the booster with the lights and DIP switches should be facing away from the wall and plainly visible standing near the booster.
2. Connect the outdoor antenna cable to the signal booster connector port marked OUTSIDE and tighten the connection.
3. Connect the cable coming from the indoor antennas' 4-way or 2-way splitter to the booster port marked INSIDE (see page 13) and tighten the connection.
4. Connect the AC power cord to the signal booster.
5. Connect the plug on the other end of the 110V AC power outlet.
6. Turn the booster's power switch on.

Once the booster is powered on:

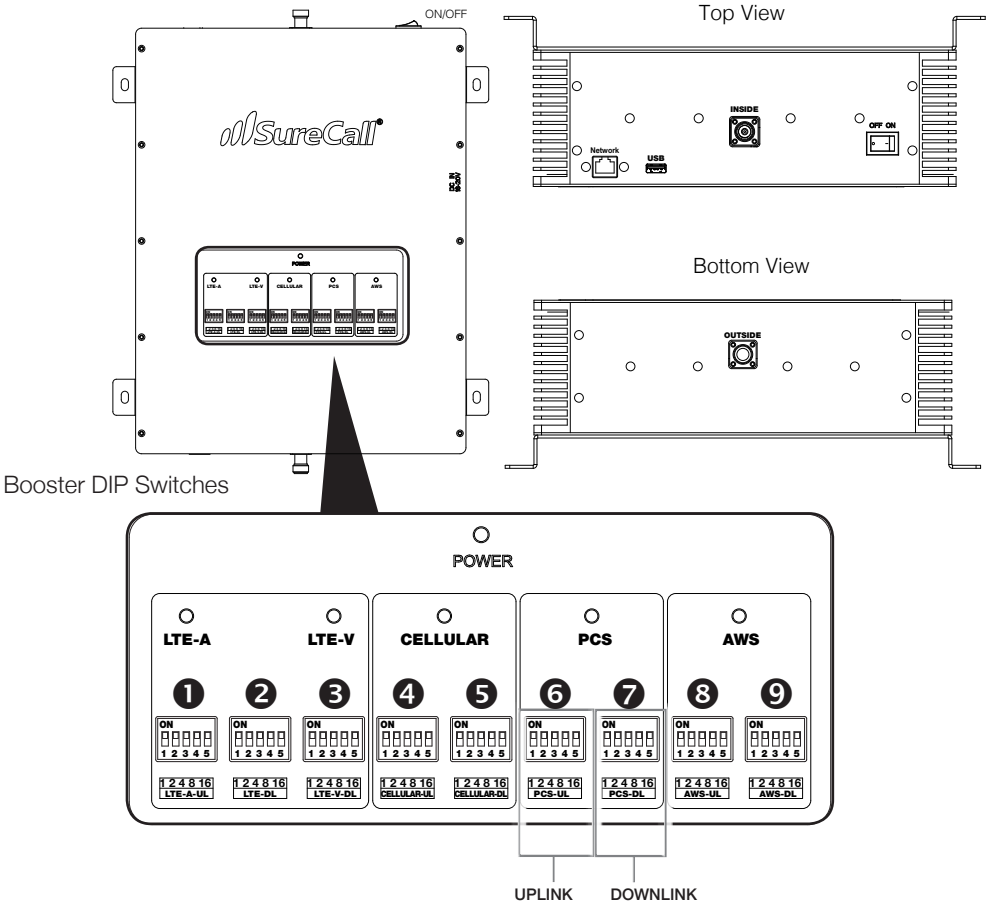
- The green Power light should illuminate.
- The band lights will flash red and yellow for approximately 10 seconds.



Note: If the Power LED does not turn ON or the Alert LEDs continue to flash, (see "Troubleshooting" on page 17).This booster is rated for 5-20V input voltage. DO NOT use the booster with a higher voltage power supply. This can damage the booster, cause personal injury and void your warranty.

Booster Configuration

The Force5 2.0 has 9 DIP switches and the frequency bands they utilize for attenuation. Below the image is a general attenuation guide.



DIP Switches and Lights

By default, your booster ships with all DIP switches turned OFF to provide maximum gain in all channels. This should always be your starting point whenever installing or reinstalling the booster. When the booster is turned on, the band lights will flash red and yellow for approximately 10 seconds.

1. AWS-UL (2100 MHz) DIP switches control AWS uplink (switch 1-5)
2. AWS-DL (2100 MHz) DIP switches control AWS downlink (switch 1-5)
3. PCS-UL (1900 MHz) DIP switches control PCS uplink (switch 1-5)
4. PCS-DL (1900 MHz) DIP switches control PCS downlink (switch 1-5)
5. LTE-UL AT&T (707 MHz) DIP switches control LTE uplink (switch 1-5)
6. LTE-DL (728-757 MHz) DIP switches control LTE downlink (switch 1-5)
7. LTE-UL Verizon (781 MHz) DIP switches control LTE uplink (switch 1-5)
8. CELLULAR-UL (800 MHz) DIP switches control Cellular uplink (switch 1-5)
9. CELLULAR-DL (800 MHz) DIP switches control Cellular downlink (switch 1-5)

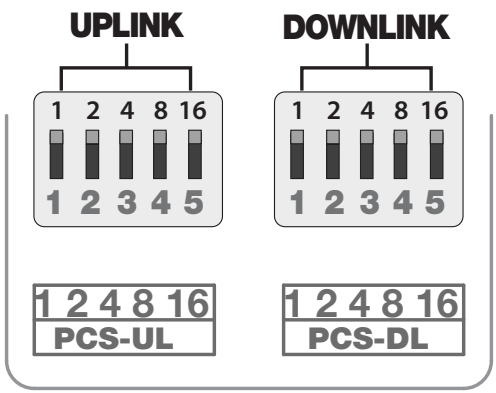
Switch 1 (1 dB) + Switch 2 (2 dB) = 3 dB attenuation
Switch 1 (1 dB) + Switch 2 (2 dB) + Switch 3 (4 dB) = 7 dB attenuation
Switch 1 (1 dB) + Switch 2 (2 dB) + Switch 3 (4 dB) + Switch 4 (8 dB) = 1 5 dB attenuation
Switch 1 (1 dB) + Switch 2 (2 dB) + Switch 3 (4 dB) + Switch 4 (8 dB) + Switch 5 (16 dB) = 31 dB attenuation

Adjusting Booster Cellular Attenuation

By default, all switches are turned OFF, meaning all frequency bands are operating at full gain.

- Turning a switch OFF increases booster gain for the selected channel.
- Turning a switch ON adds attenuation (reduced amplification) for the selected channel.

Switches should remain in the OFF position unless red flashing lights occur for a channel or channels. Red flashing lights indicate that the system has detected oscillation for the corresponding channel(s) and turn off if adjustments are not made.



ATTENUATION: Reduced amplification

Keep in mind when adjusting the booster: Full power is not always the best option. Your goal is to obtain a usable cellular signal in as many areas of the building as possible. A successful installation means that you can make calls without dropping and/or have a reliable data connection.

Each bank of DIP switches contain five switches. From left to right, the DIP switches in each bank provide 1, 2, 4, 8, and 16 dB of attenuation (reduced amplification). These switches are cumulative, meaning that the total amount of attenuation for a channel is equal to the combined dB of all ON DIP switches in the corresponding bank.

Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1 dB	2 dB	4 dB	8 dB	16 dB

Example:

- Turning all switches OFF = 0 dB attenuation (booster is at full gain).
- Turning ON Switch #1 in a bank = 1 dB attenuation (booster maximum gain is reduced by 1 dB).
- Turning ON Switches #1, 3, and 5 in a bank = 1+4+16 dB attenuation = 21 dB attenuation.
- In an 80 dB booster, this means the selected channel would be reduced to 59 dB (80 dB -21 dB).
- Turning ON all switches in a bank = 1+2+4+8+16 dB attenuation = 31 dB attenuation

In an 80 dB booster, that means that the selected channel would be reduced to 49 dB (80 dB-31 dB).

Testing

Once the booster is powered on and no Warning lights are illuminated, walk around the entire area to test the voice and/or data signal. Refine the antenna locations and/or gain levels as needed, and then complete the permanent installation once the system is working as desired.

Remember: Bars are not always a reliable measure of signal. The best way to confirm signal coverage is the ability to place and hold a call.

Section 2: Booster Operation and Troubleshooting

Please note the following information:

- As highlighted in the table below, all of the following conditions indicate normal operation: lights off, flashing yellow, or solid yellow.
- Only the presence of red LEDs indicate an unresolved issue.
- The booster gain switches should always be at maximum level unless the control light for a specific frequency band is flashing red or flashing red-yellow. In either case, only reduce gain via switches if other recommended actions do not resolve the issue.
- Avoid exceeding 25 dB of attenuation as this could cause affected frequency band to stop amplifying.

LED Color	LED Condition	Indication
Yellow	Solid	Indicates that the frequency band is not being used. After a period of time, if there's no activity, that band will go into sleep mode. Light is off while band is active. **This is part of normal operation.**
Yellow	Flashing	Indicates that the Automatic Gain Control (AGC) is self-adjusting. **This is part of normal operation.**
Red	Flashing	Indicates that the booster is receiving too much signal which could cause the affected frequency band to turn off. If this happens: 1. For kits using an OMNI outside antenna, relocate the outside antenna to a location where the signal is weaker. 2. For kits using a DIRECTIONAL outside antenna, turn the antenna in short increments away from the signal source. 3. Add an inline attenuator to the cable coming into the outside port of the booster. 4. Though not desirable as amplification will not be optimum, lower the dB gain setting in small increments until the light turns off or flashes yellow.
Red	Solid	The frequency band is off. If a red light has been flashing for an extended time due to too much signal, that frequency band will display a solid red light indicating that the circuitry for that frequency band has been turned off. If this happens: First, power cycle the booster. If, after power cycling, you observe Red Flashing LEDs, follow the steps outlined for Red Flashing condition until overpowering has been corrected. Note: This may happen if attenuation greater than 25 dB has been made.
Red/ Yellow	Alternately Flashing	Self-oscillation has been detected and to prevent it, one or more of the frequency bands have shut off. If this happens: First, try increasing the vertical/horizontal separation between the outside antenna and inside antennas. If your booster kit uses two directional antennas (examples: outside Yagi antenna or inside panel antenna), ensure that they are facing away from one another (see "Antenna Aiming" on page 8). If condition continues, lower the dB gain setting in small increments until the light turns off or flashes yellow.

Troubleshooting

In the event you encounter a problem, follow the suggestions below to resolve the issue.

Problem	Resolution
Signal booster has no power	Verify that the booster switch is turned on. Connect the power supply to an alternate power source. Verify that the power source is not controlled by a switch that has removed power from the outlet. If the POWER LED on the signal booster is OFF, return the power supply to SureCall. Contact tech support to receive an RMA at: 1-888-365-6283 or support@surecall.com, or go to www.surecall.com 7:00 am – 5:00 pm PST, Monday – Friday to chat with a representative.
After completing installation, indoor signal coverage has not improved	Check the installation of your outdoor antenna. Ensure that the mounting area is clear of obstructions and other radiating elements. Check the outdoor signal strength at the site the outdoor antenna (see instructions on page 7). For kits that use a directional Yagi antenna, verify that the antenna is properly aimed in the direction of your carrier's closest cell tower (see "Installing a Yagi Antenna" on page 8). Verify that all cable connections are tightly fitted to the booster and antennas. ⓘ **Remember:** Bars are not always a reliable measure of signal. The best way to confirm signal coverage is the ability to place and hold a call.

Section 3: Built-in Sentry

For remote monitoring, your Force5 comes with Sentry, SureCall's software that allows users to adjust the attenuation to control:

- Over-Powering
- Oscillation
- Attenuation

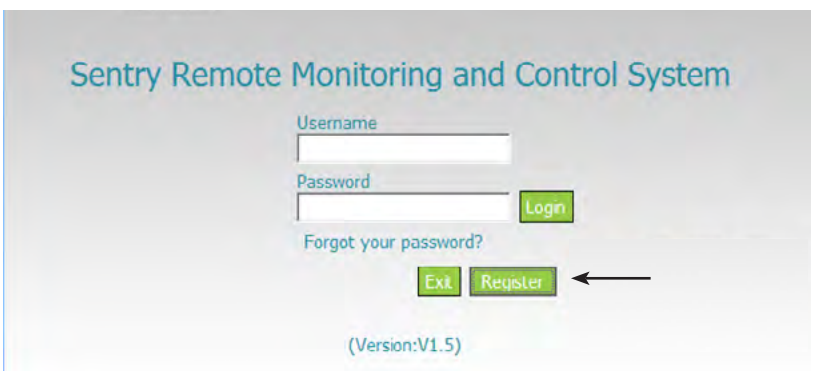
Sentry Hardware Installation

Step 1: Connect the USB cable (provided) to the Sentry's USB port then connect the other end of the USB cable to the USB port on your computer. The USB is only needed for configuration and may be disconnected once complete.

Step 2: Connect an Ethernet cable (not provided) to the booster's WAN port and connect the other end to your router.

Sentry Software Installation

User Registration:



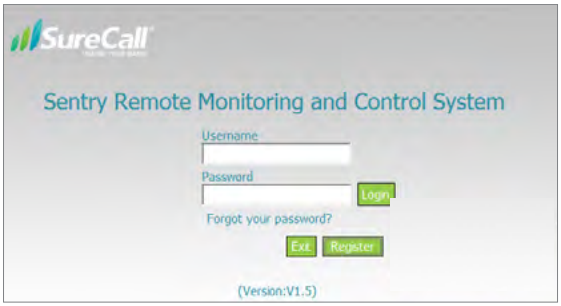
Step 1: Download the software at surecall.com/support/sentry

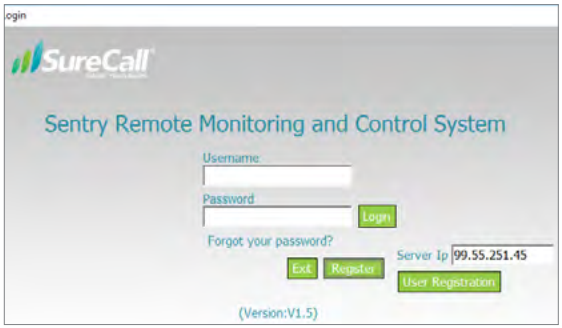
Step 2: Install the software on the computer that you will be using for remote monitoring. Run as admin.

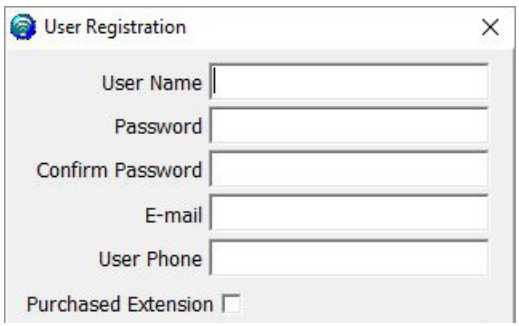
Step 3: Enter SureCall's Server IP address, 99.55.251.45 in the Registration Window.

Step 4: Fill in the User Registration form and choose a user name, password, email and user phone. Once completed, click the Register button.

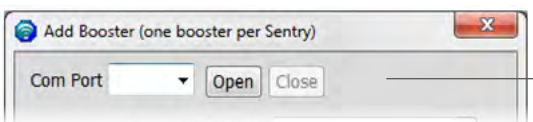
Step 5: Login to Sentry

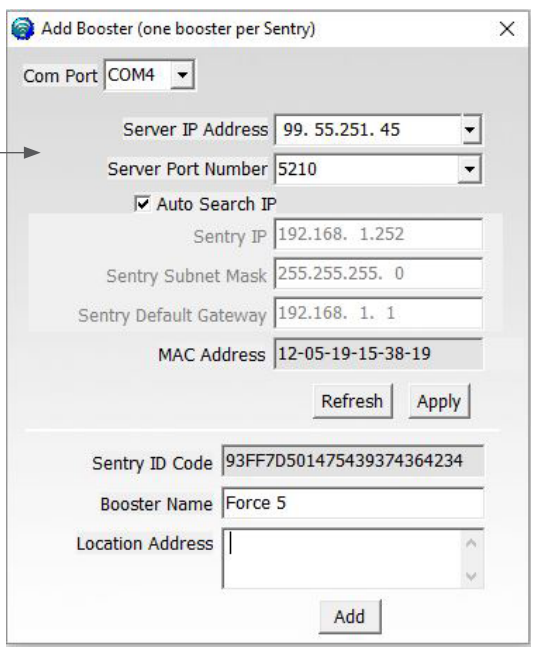






Select Com Port and Open



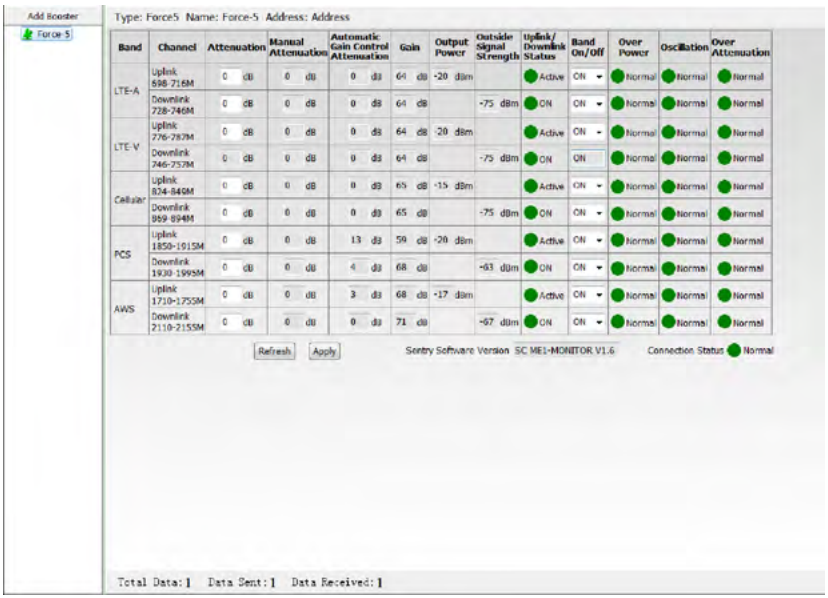


- Once the correct port has been chosen, other fields will autopopulate except for booster name and location address
- Verify that the server IP address is 99.55.251.45. If not, select the new IP address and click "Apply"
- Next, enter a Booster Name, a Location Address is optional
- Once complete, you may click "Add" and close the window

Adding a Booster

When a booster is connected to Sentry, it will automatically identify the model of the booster and show the corresponding interface.

On the main interface screen, select the booster located in the left column, this will automatically populate the fields with the booster's parameters.

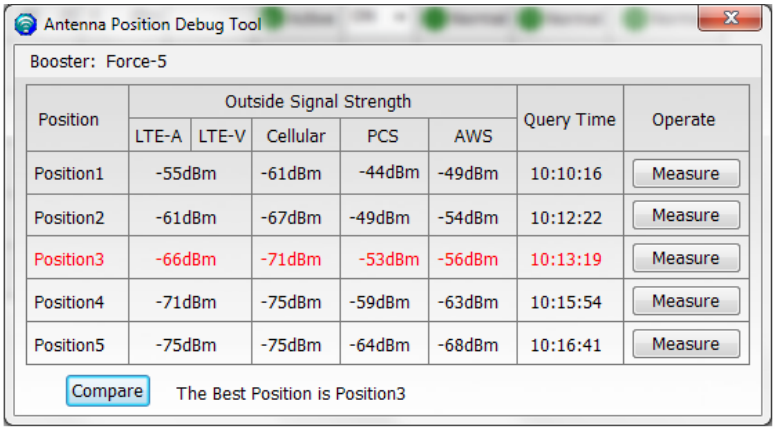


Using Optional Antenna Placement Tool

This tool aids the installer in locating the best location for an outside antenna.

To test for the best location, the booster and outside antenna must be connected by coax cable.

Place the antenna in a position you'd like to test and click on the measure button.



This tool will identify the optimum location for the outdoor antenna. The “Position” fields will automatically populate with the dB measurement from various locations by clicking on the measure button at each possible location. You can test up to 5 positions. Once you have entered all locations, click on the “Compare” button to find the best location. Keep in mind that a signal of less than -65 dB can over-power the booster. Aim for a range of -60 to -80 dB. The signal strength can be adjusted to a weaker signal by:

- Moving the outside antenna to a different location
- Adding an inline attenuator to the cable connecting to the booster
- Lowering the dB gain with the DIP switches on the booster or through the Attenuation column in the Sentry

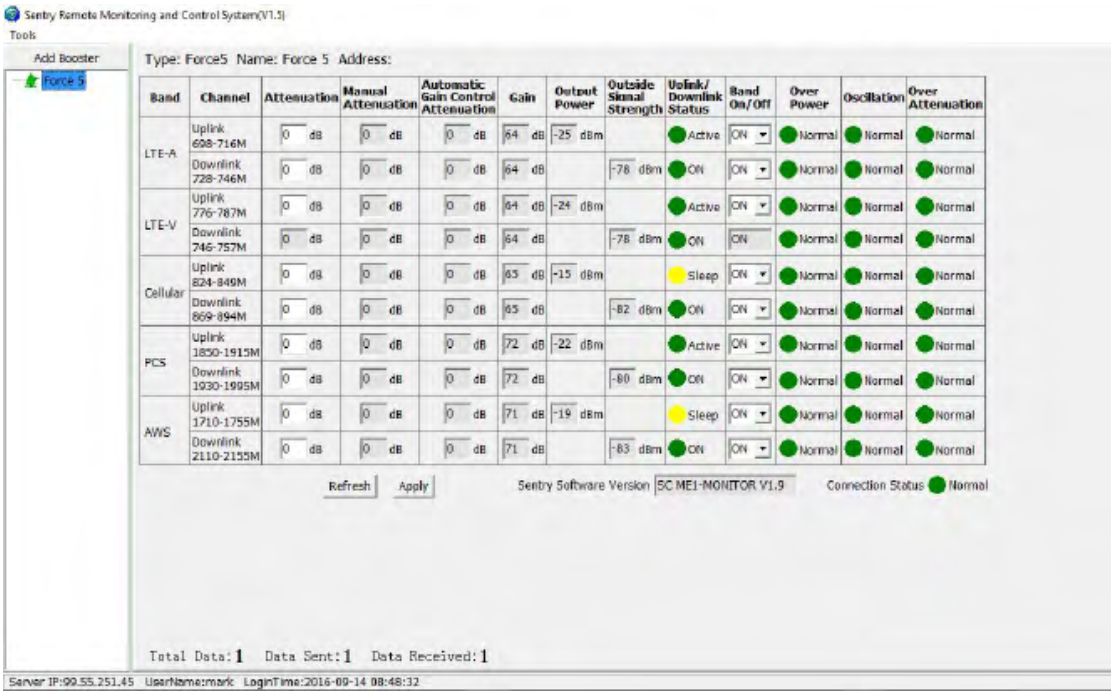
Configure Gain Settings

Attenuation:

If the “Over Power” alert is red, the signal coming into the booster from the cellular tower is too strong which will shut down the affected band. There are three possible solutions:

1. Add an inline 5 dB or 10 dB attenuator (parts: SC-ATNR-5 and SC-ATNR-10) to the cable coming into the booster.
2. Relocate the outdoor antenna to a location where the signal is weaker. Or, If using a Yagi outside antenna, turn in small increments away from cell tower until Red alert is resolved.
3. Lower the dB gain in small increments on the Sentry booster dashboard under the Attenuation column until the Over Power alert is resolved.

ATTENUATION THROUGH CLIENT SOFTWARE IS CUMULATIVE WITH THAT OF DIP SWITCHES.



Sentry Dashboard

From the dashboard above you can manually adjust the attenuation dB to resolve problems with oscillation and overpowering issues. You can also turn off individual bands.

Column Definitions:

Attenuation: Adjusts the amount of gain reduction.

Manual Attenuation: Indicates the reduced gain through the booster's DIP switches.

Automatic Gain Control: Indicates when the booster is automatically reducing the gain due to a strong outdoor signal or close indoor/outdoor antenna proximity.

Gain: Indicates the current gain on the amplifier.

Output Power: Indicates the power output level of the booster in dBm.

Uplink/Downlink Status: Indicates whether a band is asleep, turned on or turned off.

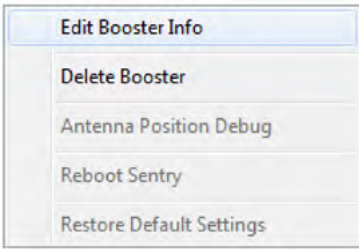
ATTENUATION CAN BE LOWERED TO A MAXIMUM OF 30 OR 31 DB, DEPENDING ON THE BOOSTER MODEL AND A MAX OF 25 DB THROUGH SENTRY SOFTWARE.

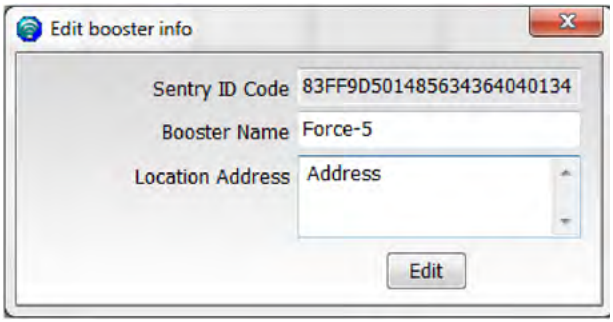
Email Alerts

Email alerts will be sent in the event of booster overpowering, over-attenuation, or if oscillation is detected.

Changing your Booster Information

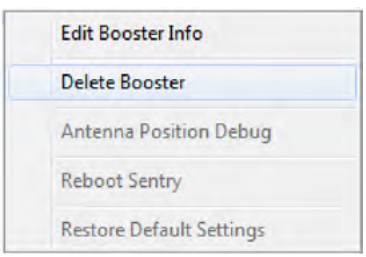
If you wish to change your Booster information, click on Edit Booster Info within the left hand navigation

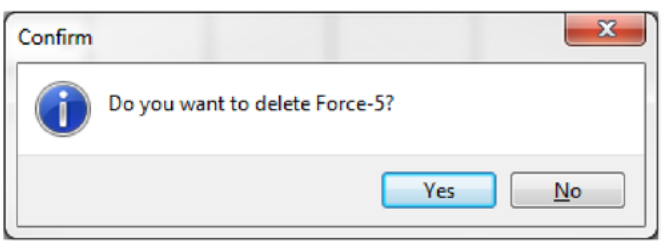




Deleting a Booster

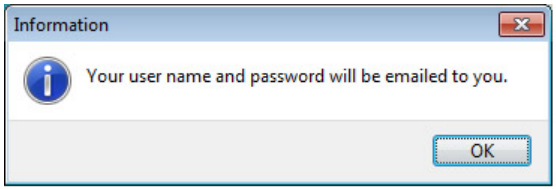
If you wish to delete a booster in order to add a new one, right click on the specific booster in the left hand navigational field first, then click on “Delete Booster” within the navigation window, click on and confirm the deletion. See below.





Forget your Password?

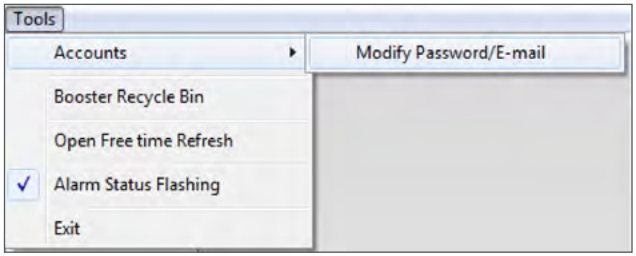
On the login page, type in the email address that you entered when you first registered and click on “Forgot your Password”. Your password will be emailed to you.

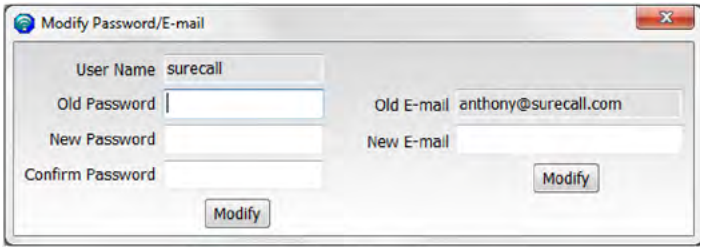


Modifying your password:

To change your password, choose Tools in the top navigation and select the Accounts menu and select Modify Password/E-mail from the drop-down menu.

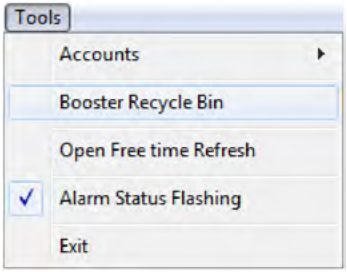
Enter the Old Password, choose a new password, confirm the new password and click on modify.

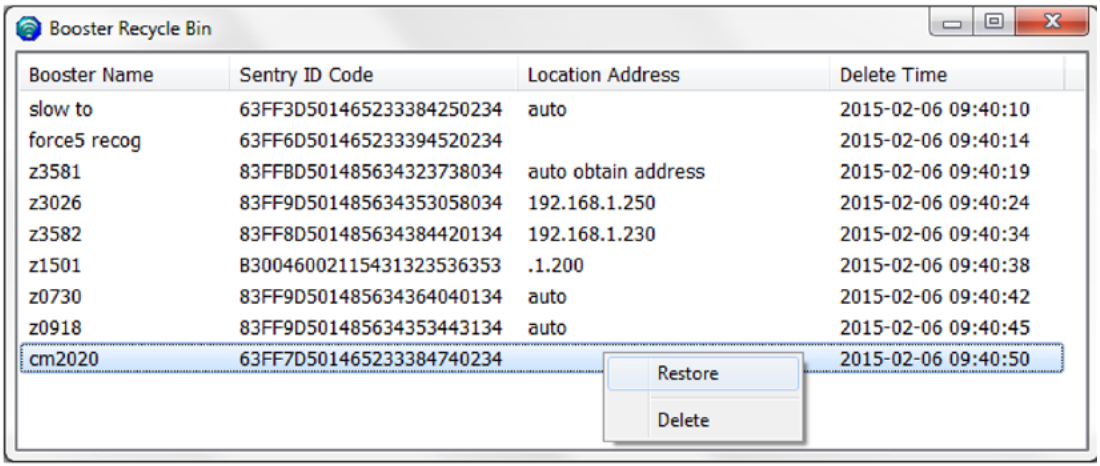




Archiving Booster Information

To temporarily change boosters, choose Tools in the top navigation and select “Booster Recycle Bin”. Information for this booster will be saved. Should you like to switch back to this booster or delete it, go back to “Booster Recycle Bin” where you will be given the option to restore or delete the booster.




Booster Recycle Bin
Booster Name
Sentry ID Code
Location Address
Delete Time
slow to
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auto
2015-02-06 09:40:10
force5 recog
63FF6D501465233394520234
2015-02-06 09:40:14
z3581
83FFBD501485634323738034
auto obtain address
2015-02-06 09:40:19
z3026
83FF9D501485634353058034
192.168.1.250
2015-02-06 09:40:24
z3582
83FF8D501485634384420134
192.168.1.230
2015-02-06 09:40:34
z1501
B3004600211543132353635 3
.1.200
2015-02-06 09:40:38
z0730
83FF9D501485634364040134
auto
2015-02-06 09:40:42
z0918
83FF9D501485634353443134
auto
2015-02-06 09:40:45
cm2020
63FF7D501465233384740234
2015-02-06 09:40:50
Restore
Delete

Section 4: Specifications

Force5 2.0 Specifications	
Cellular Uplink Frequency Range (MHz):	698–716 / 776–787 / 824–849 / 1850–1915 / 1710–1755 (G Block Included)
Cellular Downlink Frequency Range (MHz):	728–746 / 746–757 / 869–894 / 1930–1995 / 2110–2155 (G Block Included)
Supported Cellular Standards:	CDMA, WCDMA, GSM, EDGE, HSPA+, EVDO, LTE and all cellular standards
Input Impedance:	50 Ω
Maximum Gain:	Cellular 72 dB
Noise Figure:	5 dB
VSWR:	≤2.0
AC Input / Output:	Input AC 110 V, 60 Hz / Output DC 15-20 V
Maximum Output Power:	1 Watt EIRP
Cable:	SC-400
RF Connectors:	N Female
Power Consumption:	<65W
Operation Temperature:	-4° F to +158° F
Dimensions:	14.5 x 11 x 3.5 inches
Weight:	19.5 lbs
FCC:	RSNFORCE5S

Kitting Information

Component	Product Number / Description / Note	Gain / Loss				
		LTE-A	LTE-V	Cellular 800 MHz	PCS 1900 MHz	AWS 1700 / 2100 MHz
Outdoor Antenna	SC-288W: Omni	3 dBi	3 dBi	3 dBi	4 dBi	4 / 4 dBi
	SC-288W-L: Omni	5 dBi	5 dBi	6 dBi	8 dBi	8 / 8 dBi
	SC-230W: Yagi	10 dBi	10 dBi	10 dBi	10 dBi	10 / 10 dBi
	SC-510W	5 dBi	5 dBi	7 dBi	10 dBi	10 / 10 dBi
Outdoor Cable	SC-400-30 NN, 30 ft, — Use 30 ft or longer	2.05 dB	2.05 dB	2.12 dB	2.83 dB	2.68 / 2.98 dB
Indoor Cable	SC-400-75 NN, 75 ft, — Use 75 ft or longer	4.22 dB	4.22 dB	4.41 dB	6.17 dB	5.8 / 6.54 dB
Indoor Antenna	SC-222W: Dome	3 dBi	3 dBi	3 dBi	6 dBi	6 / 6 dBi

The Force5 2.0 booster is suitable for use with all equivalent and lower gain antennas and cables

Included in kit 1

Component	Product	Qty	Notes
Outdoor Antenna	SC-230W: Yagi	1	
Outdoor Cable	SC-400-30 NN, 30 ft	1	Use 30 ft or longer
Indoor Cable	SC-400-20 NN, 20 ft	1	Use 20 ft or longer
Splitter	SC-WS-4	1	
Indoor Cables (to Antennas)	SC-400-75 NN, 75 ft,	4	Use 75 ft or longer
Indoor Antennas	SC-222W: Dome	4	

Included in kit 2

Component	**Product**	**Qty**	**Notes**
Outdoor Antenna	SC-230W: Yagi	1	
Outdoor Cable	SC-400-30 NN, 30 ft	1	*Use 30 ft or longer*
Indoor Cable	SC-400-20 NN, 20 ft,	1	*Use 20 ft. or longer*
Splitter	SC-WS-2	1	
Indoor Cables (to Antennas)	SC-400-75 NN, 75 ft,	2	*Use 75 ft or longer*
Indoor Antennas	SC-222W: Dome	2	

*This Force5 2.0 booster is suitable for use with all equivalent and lower gain antennas and cables.

Important: Unauthorized antenna cables and/or coupling devices may not be used. Changes or modifications not expressly approved by the Surecall could void the user's authority to operate the equipment.

Section 5: FCC & Safety Information

SureCall has made a good faith effort to ensure the accuracy of the information in this document and disclaims the implied warranties of merchantability and fitness for a particular purpose and makes no express warranties, except as may be stated in its written agreement with and for its customers. SureCall shall not be held liable to anyone for any indirect, special or consequential damages due to omissions or errors. The information and specifications in this document are subject to change without notice.

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48346 Milmont Drive
Fremont, California 94538, USA
888.365.6283
www.surecall.com

Important: Before installing your booster you need to register it with your carrier. You can do so online at the following urls:

Verizon: http://www.verizonwireless.com/wcms/consumer/register-signal-booster.html

AT&T: https://securec45.securewebsession.com/attsignalbooster.com/

T-Mobile: https://support.t-mobile.com/docs/DOC-9827

Sprint: https://www.sprint.com/legal/fcc_boosters.html

U.S. Cellular: http://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp

FCC Information:

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.

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

WARNING: E911 location information may not be provided or may be inaccurate for calls served BY USING THIS DEVICE.

Note: 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.

15.19 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.

Section 6: Three-Year Product Warranty

Register at www.SureCall.com

SureCall warrants its products for three years from the date of purchase against defects in workmanship and/or materials. Specifications are subject to change. The three-year warranty only applies to products meeting the latest FCC Certification Guidelines stated on 2/20/2013 and going into effect April 30, 2014. A two-year warranty applies to any products manufactured before May 1, 2014.

Products returned by customers must be in their original, un-modified condition, shipped in the original or protective packaging with proof-of-purchase documentation enclosed, and a Return Merchandise Authorization (RMA) number printed clearly on the outside of the shipping container.

Buyers may obtain an RMA number for warranty returns by calling the SureCall Return Department toll-free at 1-888-365-6283. Any returns received by SureCall without an RMA number clearly printed on the outside of the shipping container will be returned to sender. In order to receive full credit for signal boosters, all accessories originally included in the signal booster box must be returned with the signal booster. (The Buyer does not need to include accessories sold in addition to the signal booster, such as antennas or cables.)

This warranty does not apply to any product determined by SureCall to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages the product's physical or electronic properties.

SureCall warrants to the Buyer that each of its products, when shipped, will be free from defects in material and workmanship, and will perform in full accordance with applicable specifications. The limit of liability under this warranty is, at SureCall's option, to repair or replace any product or part thereof which was purchased up to THREE YEARS after May 1, 2014 or TWO YEARS for products purchased before May 1, 2014, as determined by examination by SureCall, prove defective in material and/or workmanship. Warranty returns must first be authorized in writing by SureCall. Disassembly of any SureCall product by anyone other than an authorized representative of SureCall voids this warranty in its entirety. SureCall reserves the right to make changes in any of its products without incurring any obligation to make the same changes on previously delivered products.

As a condition to the warranties provided for herein, the Buyer will prepay the shipping charges for all products returned to SureCall for repair, and SureCall will pay the return shipping with the exception of products returned from outside the United States, in which case the Buyer will pay the shipping charges.

The Buyer will pay the cost of inspecting and testing any goods returned under the warranty or otherwise, which are found to meet the applicable specifications or which are not defective or not covered by this warranty.

Products sold by SureCall shall not be considered defective or non-conforming to the Buyer's order if they satisfactorily fulfill the performance requirements that were published in the product specification literature, or in accordance with samples provided by SureCall. This warranty shall not apply to any products or parts thereof which have been subject to accident, negligence, alteration, abuse, or misuse. SureCall makes no warranty whatsoever in respect to accessories or parts not supplied by it.

Limitations of Warranty, Damages and Liability:

EXCEPT AS EXPRESSLY SET FORTH HEREIN, THERE ARE NO WARRANTIES, CONDITIONS, GUARANTEES, OR REPRESENTATIONS AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHER WARRANTIES, CONDITIONS, GUARANTEES, OR REPRESENTATIONS, WHETHER EXPRESSED OR IMPLIED, IN LAW OR IN FACT, ORAL OR IN WRITING.

SURECALL AGGREGATE LIABILITY IN DAMAGES OR OTHERWISE SHALL NOT EXCEED THE PAYMENT, IF ANY, RECEIVED BY CELLPHONE-MATE, INC. FOR THE UNIT OF PRODUCT OR SERVICE FURNISHED OR TO BE FURNISHED, AS THE CASE MAY BE, WHICH IS THE SUBJECT OF CLAIM OR DISPUTE. IN NO EVENT SHALL SURECALL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, HOWSOEVER CAUSED.

All matters regarding this warranty shall be interpreted in accordance with the laws of the State of California, and any controversy that cannot be settled directly shall be settled by arbitration in California in accordance with the rules then prevailing of the American Arbitration Association, and judgment upon the award rendered may be entered in any court having jurisdiction thereof. If one or more provisions provided herein are held to be invalid or unenforceable under applicable law, then such provision shall be ineffective and excluded to the extent of such invalidity or unenforceability without affecting in any way the remaining provisions hereof.

48346 Milmont Drive
Fremont, California 94538, USA
888.365.6283
www.surecall.com

FCC 27.50(d)(4) Statement: Fixed, mobile and portable (hand-held) stations operating in the 1720-1755 MHz band are limited 1 Watt EIRP. Fixed stations operating in this band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in this band must employ a means for limiting power to the minimum necessary for successful communications.