

# EZ 4G<sup>m</sup> Home Signal Booster Kit User Guide

Thank you for your purchase of the EZ 4G. With this easy set-up guide, this booster can be installed in as little as 10 minutes, so you can enjoy a reliable consistent cellular connection.

SureCall's EZ 4G was specifically designed to eliminate frustrations over dropped calls, limited range and slow data rates by amplifying incoming and outgoing cellular signals in homes and offices.

EZ 4G is a 5-band cellular booster that enhances 2G, 3G and 4G voice and data.

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

#### 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://www.signalboosterregistration.com/

Sprint: https://www.sprint.com/legal/fcc\_boosters.html

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

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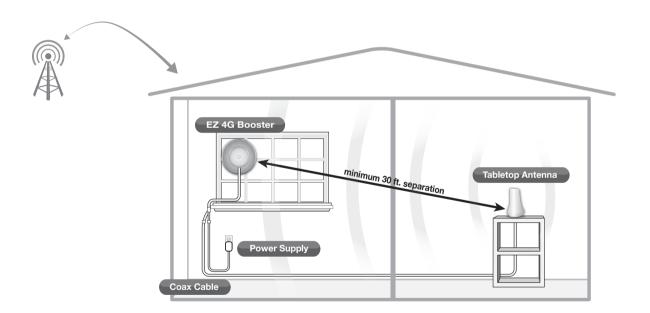
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## How It Works

SureCall's EZ 4G is a high-quality bidirectional signal booster that enhances cellular signals to areas that are prone to weak cellular coverage.

#### How it works

- 1. An antenna built into the back of the booster communicates with the cell tower while it sits in your window.
- 2. The booster amplifies the existing cell signal and sends it to the tabletop antenna.
- 3. The tabletop antenna rebroadcasts the signal indoors to all mobile devices within range.
- 4. The booster amplifies outgoing cell signal back to the tower.



#### PACKAGE CONTENTS

- 1. Unpack all package contents. For missing or damaged items, contact your reseller.
- 2. Turn over the signal booster and record the model and serial number for reference:

Serial #:		
Purchase Date:		

- 3. Keep the carton and packing material to store the product in case you need to return. Your EZ 4G signal booster package includes the following items:
  - · SureCall EZ 4G signal booster
  - Power supply
  - Inside tabletop antenna
  - Cable for connecting the inside tabletop antenna to the signal booster

EZ 4G with built-in antenna and removable stand



**Power Supply** 



Inside Tabletop Antenna



Indoor Cable (50 ft.)



Warning: Unauthorized antennas, cables, and/or coupling devices are prohibited by FCC new rules. Please contact FCC for details: 1-888-CALL-FCC. Changes or modifications not expressly approved by SureCall could void the user's authority to operate the equipment.

#### Before Installation

#### BEFORE INSTALLATION

- 1. Make sure you have positioned the booster close enough to an existing electrical outlet.
- 2. Ensure adequate separation between the planned locations of the booster and inside antenna (at least 30 ft.). A separating wall between the booster and inside antenna is ideal. (See page 8).
- 3. Make sure you have sufficient cable length between the inside antenna location and booster location. The provided cable is 50 ft.

#### Installation Overview

- Step 1. Find the window that has the strongest signal. Note that the EZ 4G and the tabletop antenna should have a separating wall.
  - a) If installing in a two story home or office place the EZ 4G upstairs and install the inside antenna downstairs.
- Step 2. Mount the signal booster, connect the inside antenna cable to the signal booster, and connect the booster to an AC power source.
  - a) For optimum performance, place the EZ in a corner of the window.
- Step 3. Install the inside antenna.
- Step 4: Connect power.

#### **EZ 4G INSTALLATION**

#### Step 1. Find the area with the Strongest Signal

Before installing the booster, find the area in your home with the strongest possible cellular signal.

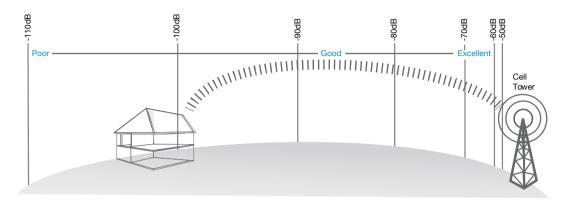
Note: Window films that block UV rays may also block cellular signals. When using a booster in a home comprised of film-coated windows, the booster may perform better when placed against a wall facing the exterior of the home.

The signal booster requires a minimum cellular signal of low -100 dBm to high -90 dBm.

Signal readings usually appear as a negative number (for example, -85). The stronger the EZ signal, the closer it gets to zero. Aim for a signal between -65 and -85 dB. Signals stronger than -50 dB may cause the booster to shut down. Find the area with the strongest cellular signal source from your service provider by following the directions below. You can also go to www.antennasearch.com to find the general location of your carrier's towers.

Select a window sill location away from buildings, walls, trees, hills, and other terrain features that can block or reflect wireless signals with the strongest signal.

Measure the strength of the existing cellular signal in various locations



- Apple iPhones: Dial\*3001# 12345#\* and press Call. In the top-left corner, a number appears instead of bars.
- Android devices: download apps such as "Network Signal Info" in the Google Play store to measure signal strength. Search check real signal strength to find other cell signal measurement apps.
- Internet: go to www.speedtest.net

#### Step 2. Install the Signal Booster

Once you have determined the inside location with the strongest signal, place the booster in that location. Choose the appropriate installation method for your application (either the supplied window sill stand or mounting tape if no window sill is present) and connect one end of the provided cable to cable connector on the booster. Note that the EZ 4G booster performs best when placed at a window corner.

Note: Do not expose the signal booster to excessive heat, direct sunlight, moisture, and airtight enclosures.

#### Step 3. Place the Inside Antenna

When placing the inside antenna, note that further separation between the booster and inside tabletop antenna will increase booster performance.

The range of the antenna is dependent on three factors:

Physical obstructions,

**Note:** Where you install your booster in relation to the carrier's cell phone tower also determines signal strength. Although cell phone carriers try to place towers for maximum coverage, local ordinances and terrain features can restrict tower locations, which can limit signal strength at your location.



Option 1: Apply the booster directly to the window (ideally, at a window corner) using the provided adhesive.



Option 2: Use the provided stand to set the booster on the window sill (ideally, at a window corner).

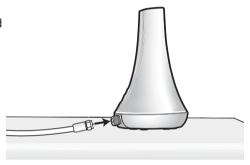
## Installing Your Hardware

- Power generated by booster
- 3. Reception from outside signal received and distributed by EZ 4G

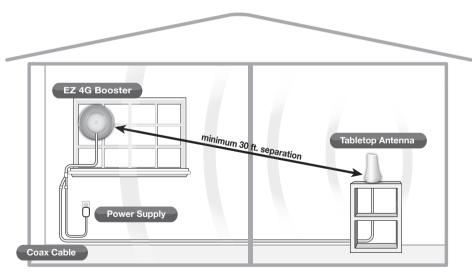
#### Important:

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

Place the inside tabletop antenna in a central location where signal is needed and at least 30 ft. from the booster location. Run the provided cable from the booster to the inside tabletop antenna and hand-tighten.



Placing the Inside Tabletop Antenna



Install Illustration

Ensure adequate separation between the planned locations of the booster and inside tabletop antenna (at least 30 ft.). A separating wall or separating floor is preferable.

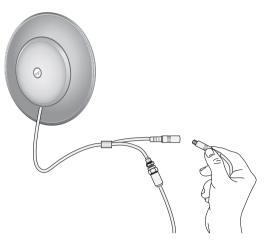
## Installing Your Hardware

#### **Step 4: Connect Power**

Once the booster and inside tabletop antenna are connected and in place, connect the power cord to the signal booster and plug into a power outlet.

Note: If the Power LED does not turn ON or the Alert LEDs continue to flash, see "Troubleshooting" on page 11.

This booster is rated for 5-15V 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.



Connecting the Power Supply

#### Step 5. Enjoy Boosted Cell Signal

Place a call in the room where the inside tabletop antenna is located to confirm that your phone is receiving a boosted signal from the EZ 4G.

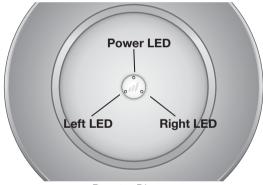
#### IF YOU WANT TO IMPROVE COVERAGE

- Test different booster locations to identify which receives the strongest signal and place the EZ 4G booster in that location.
- · Try relocating one component (booster or antenna) to a separate floor (upstairs or downstairs).
- · Increase the distance between the booster and inside tabletop antenna.

# Troubleshooting

#### **LED INDICATORS**

LED Position	LED Color	LED Condition	Indication
Left	Yellow	Flashing	Automatic Gain Control (AGC) is self-adjusting. This is part of normal operation.
Left	Red	Flashing	The booster is receiving too strong of a signal which could cause the booster to automatically turn off  When this happens: Relocate the EZ 4G to a window location where the signal is weaker.
Right	Red	Flashing	Self-oscillation has been prevented.  When this happens: Increase the separation between the inside antenna and the EZ 4G booster.



Booster Diagram

#### **TROUBLESHOOTING**

In the event you encounter a problem, follow the suggestions below to resolve the issue. To resolve issues indicated by the LEDs, refer to "LED Indicators" on page 10.

Problem	Resolution				
Signal booster has no	Verify that the switch on the power supply is turned on and red LED is ON.				
power	Connect the power supply to an alternate power source.				
	Be sure the power source is not controlled by a switch that can remove power from the outlet.				
	Check the green POWER LED on the signal booster. If it is OFF, return the power supply to SureCall.  Contact tech support at 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 installing your signal	Verify that cable connections are tightly fitted to the booster and antenna.				
booster system, you have no signal or reception	Try further separating the booster and antenna.				
The digital of recopilors	Verify that there is usable signal at the window where the booster is placed.				
	① 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.				

#### FCC, IC AND SAFETY INFORMATION

#### **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.

#### **Industry Canada:**

La puissance de sortie nominale indiquée par le fabricant pour cet appareil concerne son fonctionement avec porteuse unique. Pour des

## **Specifications**

appareils avec porteuses muliples, on doit réduire la valeur nominale de 3,5 dB, surtout si le signal de sortie est retransmis et quil peut causer du brouillage aux utilisateurs de bandes adjacentes. Une telle réduction doit porter sur la puissance d'entrée our sur le gain, et ne doit pas se faire au moyen d'un atténuateur accordé

À la sortie du dispositif.

This Class A digital apparatus meets all requirements of the Canadian Interference

Causing Equipment Regulations. Operation is subject to the following two conditions; (1) this device digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. 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.

Cet appariellage numérique de la classe A répond a toutes les exigencies de l'interférence canadienne causant des réglements d'équipment. L'opération est sujette aux deux conditions suivantes; (1) ce depositif peut nes pas causer l'interférence nocive, et (2) ce dispositif doit accepter n'importe quelle interférence qui peut causer l'opération deu desirée.

The Manufacturer's rated output power of this equipment is for single carrier operation For situations when multiple carrier signals are present, the rating would have to be reduced by 3.5dB, especially where the output signal is re-radiated and can cause interference to adjacent band users. This power reduction is to be by means of input power or gain reduction and not by an attenuator at the output of the device. Product Specifications

#### **EZ 4G SPECIFICATIONS**

	U.S.	Canada				
Uplink Frequency Range (MHz):	698-716 / 776 – 787 / 824-849 / 1850-1915 / 1710-1755					
Downlink Frequency Range (MHz):	728-746 / 746 – 757 / 869-894 / 1930-1995 / 21	728-746 / 746 – 757 / 869-894 / 1930-1995 / 2110-2155				
Donor/Server Port Impedance:	50 ohm / 75 ohm					
Maximum Gain:	72 dB	65.5				
Noise Figure:	7 dB					
VSWR:	≤2.0					
Supported Standards:	CDMA, WCDMA, GSM, EDGE, HSPA+, EVDO, L	CDMA, WCDMA, GSM, EDGE, HSPA+, EVDO, LTE and all cellular standards				
AC Input:	110V	110V				
Maximum Output Power:	1 Watt EIRP	1 Watt EIRP				
Cable:	RG6 (50 ft.)	RG6 (50 ft.)				
RF Connectors:	Donor port: Integral, Server port: F Female	Donor port: Integral, Server port: F Female				
Power Consumption:	<10W	<10W				
Weight:	3 lb. 2 oz.					
Dimensions:	13 in. Diameter					
FCC ID / IC:	RSNEZ4G 7784A-EZ4G					
Coverage:	1-2 Rooms					

# Specifications

		GSM CDMA			WCDMA		
Frequency (MHz)	Bandwidth (MHz)	Gain (dB)	Meanpower (dBm)	Gain (dB)	in (dB) Meanpower (dBm)		Meanpower (dBm)
Uplink: 698-716	24.73	58.1	15.25	58.7	11.83	57.3	7.62
Uplink: 776-787	25.6	55.6	16.75	55.6	11.39	55.4	7.97
Uplink: 824-849	36.83	55.4	14.75	55.7	9.68	54.3	6.32
Uplink 1710-1755	72.3	65.5	17.89	64.9	17.63	63.8	15.22
Uplink: 1850-1915	76.8	65.2	21.32	65.5	20.24	65.2	17.5
Downlink: 728-746	33.33	56.8	-0.23	56.5	-7.45	56.2	-11.02
Downlink: 746-757	34	55.7	-2.27	55.6	-8.52	55.6	-12.13
Downlink: 869-894	36.5	56.5	10	56	-5.86	56	-9.24
Downlink: 2110-2155	84	63.3	9.57	62.6	7.52	61.5	5.54
Downlink: 1930-1995	75	62	12.99	61.3	11.38	61	10.07

Indoor impedance: 75 Ohm Outdoor impedance: 50 Ohm

#### **Kitting Information**

Component	Product number	Gain/Loss					Note
		LTE-A	LTE-V	800 MHz	1900 MHz	1700 / 2100 MHz	
Outdoor Antenna*	SC-500W	4 dBi	4 dBi	6 dBi	7 dBi	7 dBi / 8.5 dBi	
Inside Cable*	SC-RG6-50	3.32 dB	3.32 dB	3.75 dB	6.42 dB	6.22 dB / 6.68 dB	50 Feet or longer
	SC-249W	7 dBi	7 dBi	7 dBi	10 dBi	10 dBi / 10 dBi	
Inside Antenna*	SC312W	2.5 dBi	2.5 dBi	3 dBi	5 dBi	4 dBi / 5 dBi	

<sup>\*</sup> All equivalent antennas and cables are suitable for use with the EZ 4G booster

## Warranty



#### **Three-Year Product Warranty**

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

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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