

# Fusion2Go<sup>®</sup> XR OTR

Over-the-Road 5G Signal Booster  
Designed for Semi-Trucks

## User Manual



Fusion2Go XR OTR provides seamless 5G/4G LTE connectivity inside any truck, work van, RV or fleet vehicle. 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



Quickly optimize your antenna separation with the 'SureCall' mobile app that is available in the Google Play or Apple's App Store.

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## OVERVIEW

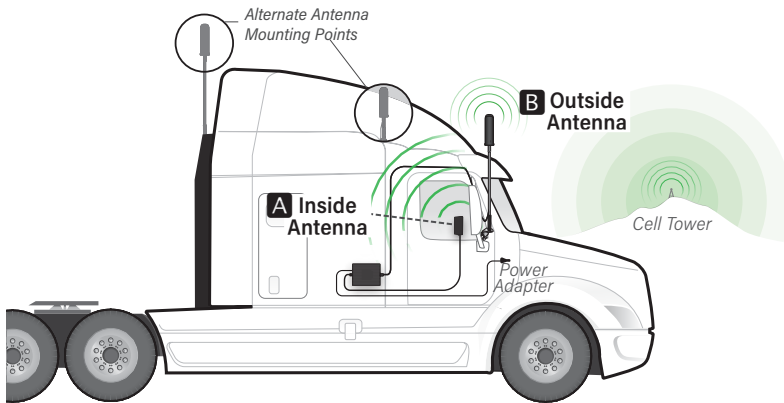
### How It Works

The SureCall Fusion2Go XR OTR is a high-performing bidirectional booster that enhances cellular signals for vehicles.

The Fusion2Go XR OTR works with two antennas:

- A** An inside antenna that communicates with your cell phone.
- B** An outside antenna that communicates with the cell tower.

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



## Package Contents

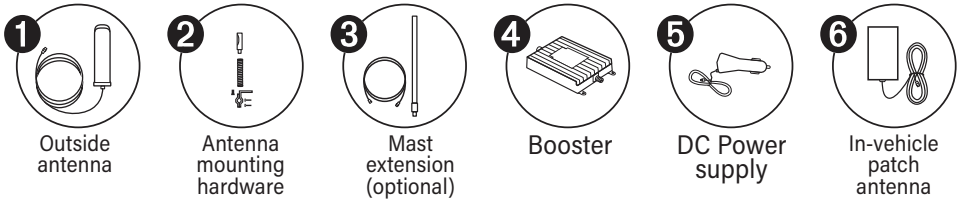
- Unpack all package contents. For missing or damaged items, contact your reseller.
- Turn over the signal booster and record the model and serial number for reference:

Serial #: \_\_\_\_\_

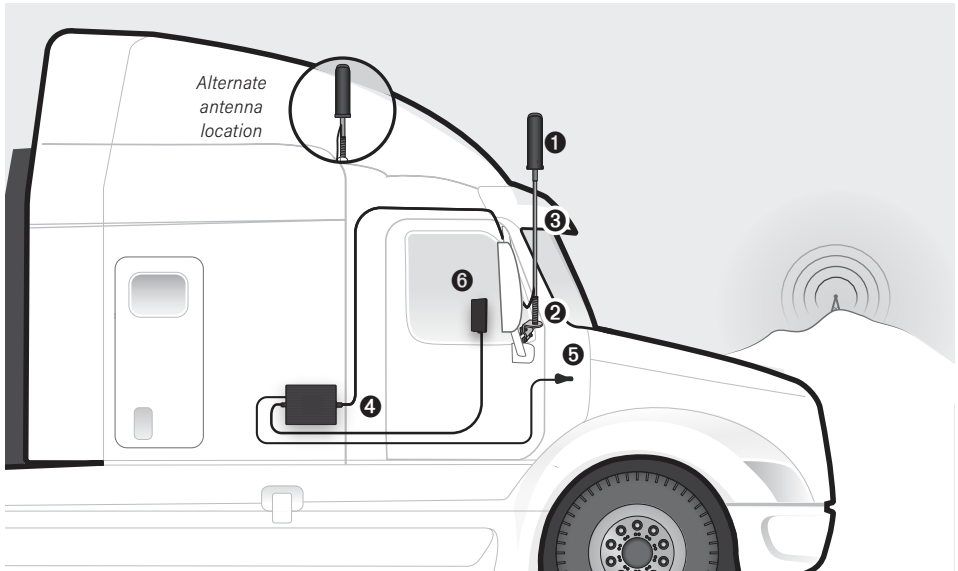
Purchase Date: \_\_\_\_\_

Keep the carton and packing material to store the product in case you need to return it.

Your Fusion2Go XR OTR signal booster package includes the following items:



 Includes optional dome stud mount



## Before Installation

Select a location on your vehicle for the outside antenna. Multiple placement and height configurations are available to achieve the best configuration for your specific vehicle needs.

The antenna can be mounted on any truck, with or without an existing antenna mounting point. For vehicles without built-in mounting points, the antenna uses a 3/8 x 24 thread mount designed to accommodate many available 3rd party CB mounts.

A 2-clamp mounting bracket is provided for use on a mirror rail or other existing vehicle rails.

Additionally, an extension pole is also provided. Note, it is needed only to achieve the clearance requirements for the antenna specified below.

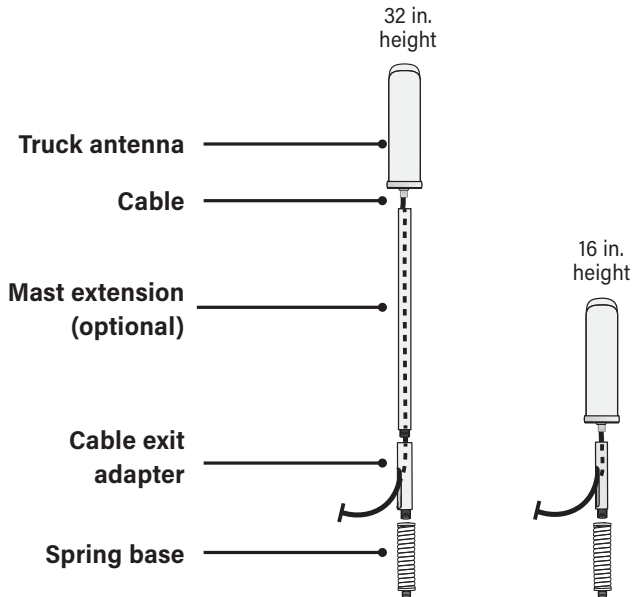
Thread glue is provided with the antenna. It should be applied at each threaded connection only after you have confirmed the proper height configuration as the glue will make the connection permanent.

Keep in mind, the antenna mounting location should:

- (a) allow the antenna to extend above the metal cab
- (b) be at least 6 inches away from any windows
- (c) provide at least a 12-inch radius clear of obstructions and other radiating elements, such as a radio antenna.



A "soft installation" should first be performed by assembling the truck antenna (WITHOUT GLUE) and routing the cable through an open window. After completing the remaining installation steps and successful operation is verified, proceed with permanent installation.



## INSTALLATION

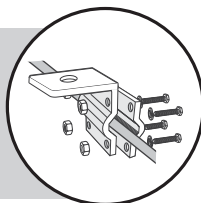
### Step 1: Install the Outside Antenna

Once you have determined the mounting location, assemble the antenna parts by routing the cable through the mast extension (if used) and through the cable exit adapter.

If using the provided mounting bracket, we recommend installing the spring base and mounting bracket before adding the remaining assembly.

#### Install mounting bracket

Secure bracket to vehicle rail as shown using provided hardware. Secure all four bolts in place and secure with a wrench.



#### Secure the assembled antenna to the mounting bracket

Assemble the spring base and mounting bracket by placing the threads through the opening of the mounting bracket as shown in the illustration. Use the provided washers on the bottom side of the bracket opening then add the nut to bottom of the thread to secure in place.

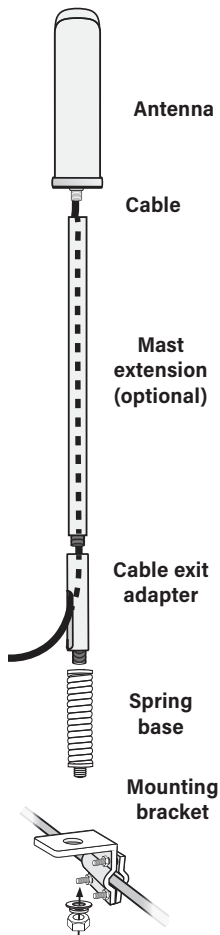
Once complete, connect the assembled antenna and the spring base.

#### Route cable

Once the antenna installation is complete, route the antenna cable inside the vehicle. To hide the cable, Route cable from outside to the inside of the cabin under headliner and trim to the desired booster location on the floor of the vehicle.

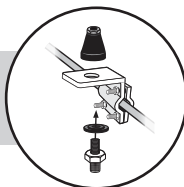
If additional cable length is needed, optional 5 ft extension cable has been provided.

Note: The outside antenna must not be collocated or operating with any other antenna or booster.



#### ALTERNATIVE MOUNT

Includes optional dome stud mount for the OTR antenna with 3/8-24 thread

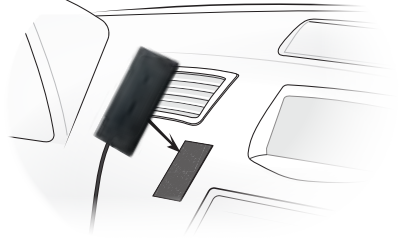


## Step 2: Install the Inside Patch Antenna

Identify a location for the inside antenna on or near your front dashboard that is

1. Within 2-3 feet of the typical cell phone location
2. At least 8 inches (20cm) from cellular devices and
3. At least 4 inches (10cm) from metal

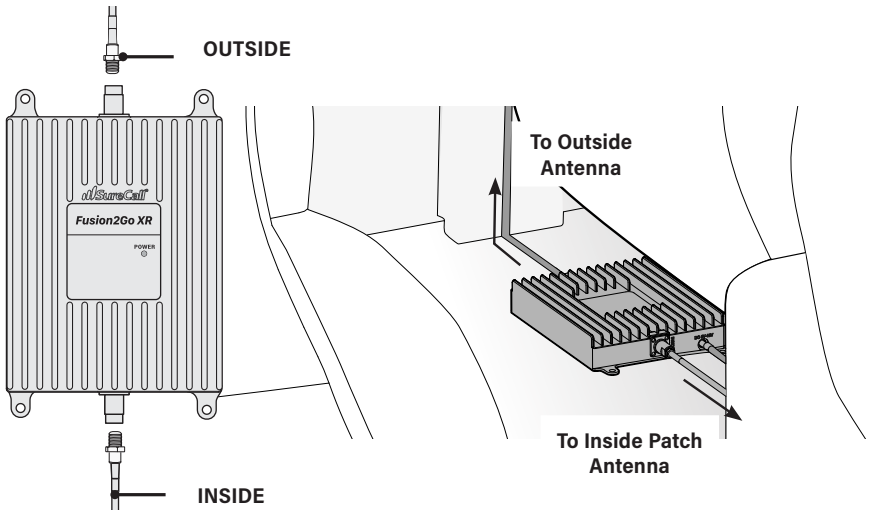
Next, peel Velcro backing and apply to a clean dry surface in your chosen location.



## Step 3: Place Booster and Connect Cables

Select a well-ventilated location for the booster that is away from excessive heat, direct sunlight, and moisture. We often suggest installing beneath a seat or within the front console.

Connect the cable from the outside antenna to the connection marked OUTSIDE and connect the cable from inside patch antenna to the connection marked INSIDE. Tighten the connections and wrap up any loose cable.



### Step 4: Connect Power

Once antenna connections are complete, connect the DC power cord connector to the signal booster. The Power LED on the signal booster will illuminate to indicate it is receiving power and is ready for use.

Note: Fusion2Go XR is also compatible with AC power adapter cable for added versatility - part # SC-AC-59V28A-B.

### Verify Your System is Working

Place a call in a location where you previously experienced poor cell service and confirm that your phone is receiving a boosted signal.

- Verify the two antennas have sufficient separation/isolation from the other another.
- Verify the outside antenna has sufficient clearance above any metal objects and has at least 12 inch radius from other radiating elements, such as a radio antenna.
- Consider: Resolving the issue may require moving the outside antenna further from the vehicle cabin and/or increasing the vertical placement of the outside antenna. If you have not used the optional mast extension, try adding it to achieve additional separation.

### POWER LED

During initialization, the LED will briefly flash YELLOW/RED. This is part of normal operation. Place a call in a location you have previously experienced poor signal and confirm that your phone is receiving a boosted signal. Normal operation is indicated a GREEN LEDs. In the event RED LEDs appear, antenna adjustments may be needed.

LED State	Status	Indication
Solid GREEN	Normal	Normal
Solid RED	Alert - Oscillation detected	Indicates that oscillation has caused the booster to shut off. Antenna repositioning is needed. Verify that there is sufficient separation between the outside and inside antennas, as well as any potentially interfering objects or antennas.

**WARNING:** The booster is rated for 5-15V input voltage. DO NOT use the booster with a higher voltage power supply. This can damage the booster and/or cause personal injury.

## TROUBLESHOOTING

Problem	Resolution
Signal booster has no power	<p>Verify that the Power LED is ON.</p> <p>Connect the power supply to an alternate power source.</p> <p>Verify that the power source is operational and the fuse is intact.</p> <p>If it remains OFF, contact tech support at: 1-888-365-6283 or support@surecall.com</p>
After completing installation, signal has not improved	<p>Verify that cable connections are tightly fitted to the booster.</p> <p>Try further separating the antennas.</p> <p>Ⓢ Note: 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.</p>

## SPECIFICATIONS

Product	Fusion2Go XR OTR
Uplink Frequency Range (MHz):	698-716 / 776-787 / 824-849 / 1850-1915 / 1710-1780
Downlink Frequency Range (MHz):	728-746 / 746-757 / 869-894 / 1930-1995 / 2110-2180
Supported Standards:	5G, 4G LTE cellular standards
Cellular Bands:	12 / 17 / 13 / 5 / 2 / 25 / 4
Input / Output Impedance:	50 Ω
Maximum Gain:	50 dB
Gain Adjustment:	20 dB (Automatic)
Maximum Uplink Power	29.0 dBm
VWSR:	≤ 2.0
DC Power:	6-15V
Maximum Output Power:	1 Watt EIRP
Exterior Cable:	RG-58 / 15 ft
Interior Cable:	302 series / 10 ft
RF Connectors:	FME Male (both ends)
Power Consumption:	≤ 12W
Operation Temperature:	-4° to +158° F
Dimensions:	5.625 x 4 x 1.125 inches
Weight:	1.43 lbs
Certification:	FCC ID: RSN-FUSION2GO5G (Fusion2Go 5G) Contains FCC ID: XPYNINAB1

## Antenna Kitting Information

Component	Prod No. Description	Gain / Loss (dBi / dB)					
		LTE-A	LTE-V	800 MHz	1900 MHz	1700 MHz	2100 MHz
Vehicle (Integrated cable)							
Inside Antenna and Cable	SC-110W and SC-174 (10 ft)	-2.7	-2.7	-3.2	-5.8	-3.98	-5.96
	SC-111W and 302-3 (10 ft)	1.8	1.8	2	3.5	2.2	3
Outside Antenna and Cable	SC209W and LMR100 (12.5 ft)	1.58	1.58	2.58	2.48	2.30	2.20
	SC-550W and RG-58U (10 ft)	1.3	1.3	1	0.7	0.8	0.5
	SC-550W-1 and RG-58U (15 ft)	0.7	0.7	0.3	-0.5	-0.2	-0.9
	SC-200W and SC-174 (10 ft)	-2.3	-2.3	-2.3	-5.8	-3.98	-5.96
	SC-203WN and RG-58U (17 ft)	1.3	1.2	1	1.6	1.7	0.1
	SC-208W and 302-3 (12.5 ft)	-0.95	0	1	1.5	0.3	-0.3

\*All equivalent antennas and cables are suitable for use with the Fusion2Go 5G

Component	Prod No. Description	Gain / Loss (dBi / dB)					
		LTE-A	LTE-V	800 MHz	1900 MHz	1700 MHz	2100 MHz
Marine (Non-integrated cable)							
Inside Antenna	SC548W	5	5	6	7	7	7
	SC302W	2.5	2.5	3	5	4	5
Inside Cable	SC240-20FN (20 ft)	-2.06	-2.06	-2.29	-3.56	-3.36	-3.76
Outside Antenna	Galaxy 5412-P	3	3	3	4	4	4
	SC588W	3	3	3	4	4	4
Outside Cable	SC240-40FN (40 ft)	-3.52	-3.52	-3.98	-6.52	-6.12	-6.92
	SC240-20FN (20 ft)	-2.06	-2.06	-2.29	-3.56	-3.36	-3.76
Desktop / RV (Non-integrated cable)							
Inside Antenna	SC120W	1.2	1.2	1.2	3	3	3
Inside Cable	SC240-40FN (40 ft)	-3.52	-3.52	-3.98	-6.52	-6.12	-6.92
Outside Antenna	SC588W	3	3	3	4	4	4
Outside Cable	SC240-40FN (40 ft)	-3.52	-3.52	-3.98	-6.52	-6.12	-6.92

\*All equivalent antennas and cables are suitable for use with the Fusion2Go 5G

**WARNING:** The booster is rated for 5-15V input voltage. DO NOT use the booster with a higher voltage power supply. This can damage the booster and/or cause personal injury.

## SureCall Fusion2Go XR OTR

Frequency (MHz)	PreAGC			PreAGC		
	Pulse GSM			4.1 MHz AWGN		
	Input (dBm)	Output (dBm)	Gain (dB)	Input (dBm)	Output (dBm)	Gain (dB)
Uplink: 698-716	-21.9	26.4	48.3	-22.1	25.0	47.1
Uplink: 777-787	-20.2	27.5	47.7	-20.7	25.7	46.4
Uplink: 824-849	-19.5	26.6	46.1	-19.1	25.2	44.3
Uplink: 1710-1780	-20.6	25.8	46.4	-20.2	25.0	45.2
Uplink: 1850-1915	-19.4	25.9	45.3	-18.2	25.2	43.4
Downlink: 728-746	-41.0	4.8	45.8	-42.8	2.9	45.7
Downlink: 746-757	-43.5	3.3	46.8	-45.1	1.5	46.6
Downlink: 869-894	-43.4	3.7	47.1	-44.2	2.2	46.4
Downlink: 2110-2180	-39.6	5.7	45.3	-41.8	3.8	45.6
Downlink: 1930-1995	-39.8	5.3	45.1	-41.4	3.7	45.1

## CONSUMER GUIDELINES

### This is a CONSUMER device

**BEFORE USE**, you **MUST REGISTER THIS DEVICE** with your wireless provider and have your provider's consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. If you are unsure, contact your provider.

You **MUST** operate this device with approved antennas and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20 cm (8 Inches) from any person.

You **MUST** cease operating this device immediately if requested by the FCC or a licensed wireless service provider.

**WARNING:** E911 location information may not be provided or may be inaccurate for calls served by using this device.

Register your cellular booster with your wireless carrier 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](https://www.sprint.com/legal/fcc_boosters.html)

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

**FCC 15.105 Statement** 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.

**Warning:** Unauthorized antennas cables and/or coupling devices are prohibited by FCC rules. Please contact FCC for details 1-888-CALL-FCC. The antenna, cables, and other accessories of the booster kits shall not be modified without the approval of the Cellphone-Mate Inc., otherwise it shall deemed invalid.

**FCC 27.50(d)(4)** : 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.

When used with any mobile device utilizing the 1710-1755 MHz band, the FCC limits booster equipment placement to a maximum of 10 meters above ground level. Installation of this equipment which does not comply with federal requirements may subject the owner to FCC enforcement action.

## THREE-YEAR PRODUCT WARRANTY

### Register at [www.surecall.com/activate](http://www.surecall.com/activate)

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.

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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