

## BEFORE YOU BEGIN, NOTE THE FOLLOWING INFORMATION

YOUR EXPECTED BOOSTER PERFORMANCE AND COVERAGE AREA IS DETERMINED BY THE SIGNAL RECEIVED BY YOUR OUTSIDE ANTENNA

Where you position your outside antenna will help overcome weak signals for better performance. Ideally, position the outside antenna up high, aimed towards your nearest cell tower in order to capture the best signal, NOTE; The weaker your outside signal, the more limited your coverage will be indoors.

#### BETTER ANTENNA SEPARATION MEANS BETTER PERFORMANCE

Maintain a distance of at least vertical 25 feet, up to 50 feet of horizontal distance, especially if vertical distance cannot be achieved. Also, make certain the antennas are aimed away from one another.

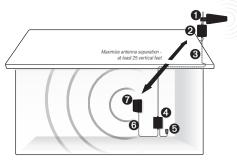
#### YOUR CELL PHONE BARS ARE NOT AN ACCURATE MEASURING TOOL

Cell phone bars are an approximation of your signal that varies by phone and carrier. During installation and testing, always take multiple readings several minutes apart. Also, verify that you can place and hold a call.

#### **INSTALLATION OVERVIEW**

Before installation, review the above information.

In addition to the contents listed below., you will need a ladder, drill, cable clips, and a pole or mast to mount your outside components. A mounting pole is available separately (SC-MOUNT-JBAR), if needed, Prior to securing the location of any booster parts, a "soft install" is recommended as adjustments may be needed to optimize performance.



#### Contents



# FIND AREA OUTSIDE WITH STRONGEST SIGNAL

Identify the outside location with the strongest signal for placement of your outdoor Yagi antenna. This is generally found on the side facing your nearest cell tower and as high as possible -- where the antenna can 'see' your cell

For help locating your closest cell tower, you may utilize an app such as 'Open Signal' or go to www.antennasearch.com.

Questions? call: 1-888-365-6283

Email: support@surecall.com

Visit: www.surecall.com/support and download the user manual for detailed setup instructions

# **Fusion4Home Max Quick Install Guide**

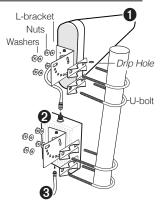
## 2. INSTALL THE OUTSIDE YAGI ANTENNA AND AMPLIFIER

Once you have located the area of strongest signal, mount the antenna to a pole or pipe (sold separately) at the highest possible elevation, clear of obstructions and other radiating elements and orient the antenna horizontally with the drip hole at the bottom.

Assemble the outside antenna and outside amplifier as shown in the illustration.

Keep the connections loose enough to allow the antenna to rotate during testing until the optimum direction is found.

With both components in place, connect one end of the provided 75 ft. coax cable to the outside amplifier and hand tighten the connection.



#### 3. INSTALL THE INSIDE ANTENNA AND HOST AMP

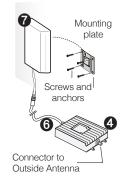
Choose a location for the directional panel antenna that faces the direction signal is needed while also considering the following criteria-

- At least 25 vertical feet of separation from the outside antenna
- Faces in the opposite direction, away from the outside antenna
- Minimal signal obstructions between it and your cellular devices

Install the panel antenna as shown in the illustration.

Place the inside host amp in a convenient location near the inside panel antenna and a working AC outlet. Connect the two components using the provided 20 ft. of coax cable. Connect to the port marked "INSIDE". Hand-tighten the connection.

Next, connect the outside system to the inside system. Route the remaining end of the 75 ft. cable leading from the outside amplifier inside and connect to the location of the inside host amp and connect to the port marked "OUTSIDE".

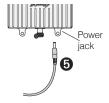


### 4. CONNECT POWER

Connect the AC power cord to the booster and plug into a 110V AC power outlet.

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

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.



#### CHECK AND OPTIMIZE SYSTEM, IF NEEDED

Test system performance by placing a call in locations you have previously experienced poor signal.

Remember, your cell phone bars are NOT an accurate measuring tool. Cell phone bars are an approximation of your signal that varies by phone and carrier. During installation and testing, always take multiple readings several minutes apart. Also, verify that you can place and hold a call.

The gain dials on the booster should always be at maximum level. Additionally, the gain should only be reduced if all other recommended actions do not resolve the issue.

If an issue is indicated by the LEDs, the first action is to increase the antenna isolation between the inside and outside antenna as much as possible and power cycle the booster.

## **Performance Optimization**

The Fusion4Home Max automatically reduces gain (coverage performance) because of insufficient RF Separation between the inside and outside antennas.

Review strategies to improve RF isolation between the inside and outside antennas.

Consider the following options to resolve issues with inadequate antenna isolation.

- Verify that a minimum distance of 25 vertical feet has been achieved. Separation up to 50 ft of horizontal separation may be needed, however, especially where vertical separation is not possible.
- 2. Check for sources of interference such as, cellular modems or hotspots.
- 3. Verify neither antenna is placed near a window.
- Ensure that the antennas are aimed away from one another.

#### **LED Indicators**

The gain dials on the booster should always be at maximum level unless a control light is FLASHING RED-YELLOW. Additionally, they should only be reduced if other recommended actions do not resolve the issue. Visit <a href="www.surecall.com/support">www.surecall.com/support</a> to download the user manual for additional information.

LED Condition	Status/Resolution
Initializing on Power-up	All control lights flash RED & YELLOW for 5 seconds then off for 5 minutes.
GREEN SOLID	Normal Operation.
GREEN FLASHING	Normal Operation.
YELLOW SOLID	Normal Operation, Sleep Mode.
YELLOW FLASHING Slowly	AGC has detected Insufficient separation between the inside and outside antenna automatically reduced gain by 1 - 10 dB for the indicated frequency band.  This may be unavoidable in some situations where distance cannot be achieved.  After 5 minutes the frequency control light will return to SOLID GREEN.
YELLOW FLASHING Quickly	AGC has detected significant antenna isolation issues causing a reduction in gain between 10 and 20 dB for the indicated frequency band(s).  Adjustments should be made to improve your booster's performance by following suggested methods above (Performance Optimization).  After 5 minutes the frequency control light will return to SOLID GREEN.
RED / YELLOW FLASHING Alternately	Extreme gain reduction (greater than 20 dB) resulting from insufficient antenna separation. The frequency band has been disabled.  Adjustments are required to resolve condition. Follow the suggested methods above, under Performance Optimization.
RED SOLID	Indicates the frequency band is manually turned off.

# **Troubleshooting**

Problem	Resolution
Signal booster has no power	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 it remains OFF, contact tech support at: 1-888-365-6283 or support@surecall.com
After completing installation, indoor signal coverage has not improved	Verify that cable connections are tightly fitted to the booster and antenna.  Try further separating the booster and antenna. Verify that there is usable signal where the antenna is placed.  Note: Bars are not a reliable measure of signal. The best way to confirm signal coverage is the ability to place and hold a call.

## 3-Year Warranty

Thank you for your SureCall purchase. Please register your new product at www.surecall.com/activate.

SureCall warranties its products for three years from the date of purchase against defects in workmanship and/or materials.

Products returned by customers must be in their original, un-modified condition, shipped at the customer's expense 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. RMA numbers are obtained by contacting Customer Support.

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.

For complete warranty text, including limitations and liability, see the Fusion4Home Max full user manual, available online.

## **Specifications**

Model	Fusion4Home Max (US and 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 / 2110-2155
Maximum Gain:	72 dB
Supported Standards:	CDMA, WCDMA, GSM, EDGE, HSPA+, EVDO, LTE and all cellular standards
Max Uplink Power:	26.0 dBm
Input Impedance:	50Ω
VSWR	≤2.0
Noise Figure:	<8 dB
AC Input:	Input AC110V, 60 Hz; Output DC 15V
Maximum Output Power:	1 Watt EIRP
Cable:	RG6 (75 ft) / SC-240 (20 ft)
RF Connectors:	N-female (inside) / F-Female (outside)
Power Consumption:	≤25W
Operation Temperature (°F):	-4° to +158° (Outside Amp); -4° to +104° (Inside Host) for optimal performance
Fusion4Home Max Outside Amp	
Dimensions:	7.87 x 4.96 x 1.22 in
Weight:	1.85 lb
Certifications	FCC ID: RSNF4H-MAX; IC: 7784A-F4HMAX
Fusion4Home Max Inside Host	
Dimensions:	8.05 x 5.22 x 1.46 in
Weight:	1.90 lb
Certifications	FCC ID: RSNF4H-MAXS; IC: 7784A-F4HMAXS

#### 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 (i.e., MUST NOT be installed within 20 cm of) any person.

You MUST cease operating this device immediately if requested by the FCC or 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 operate in a fixed location only, for in-building use.

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.