



# KX2000



## CELLULAR SIGNAL BOOSTER

### User Manual



## BEFORE YOU START



Read through this manual before installing  
or operating the KING Extend Pro.

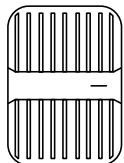
If you have any questions,  
call KING Customer Service at (952) 345-8147.

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## PACKAGE CONTENTS

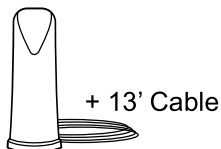
Signal Booster  
with Bracket



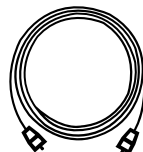
Outside  
Antenna



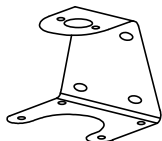
Inside Antenna



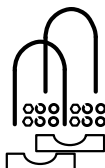
25' Cable



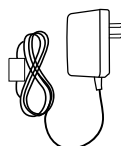
Mounting  
Bracket



Ladder or Pole  
Mounting Hardware



AC/DC  
Power Supply



Instructions



## OVERVIEW

The KING Extend Pro is a cellular signal booster. It requires no additional activation or service. You simply install it and connect power, register it with your provider and it is ready to use.

**For more information on registering your booster with your provider, see:**

**Sprint & T-Mobile:** <https://www.t-mobile.com/support/coverage/register-a-signal-booster>

**Verizon Wireless:** <http://www.verizonwireless.com/wcms/consumer/register-signal-booster.html>

**AT&T:** <https://securec45.securewebsession.com/attsignalbooster.com/>

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

## IMPORTANT POINTS

You will need a drill and drill bit, roof-compatible sealant and appropriate fasteners to install all components and wiring.



The installer is responsible for determining the most appropriate fasteners to secure the antenna bracket to the roof. Depending on the roof material, fasteners such as lag screws, well nuts, sheet metal screws, toggle bolts and T anchors may be used, and should always be used in combination with a roof-compatible sealant.



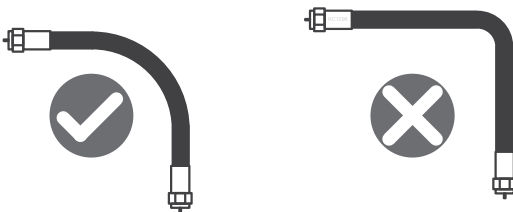
The installer is responsible for properly securing the coax cable to the roof (for example, cable ties and cable tie mounting pads).



The installer is responsible for weatherproofing all holes and fastener heads with roof-compatible sealant.



Do not put sharp bends in coax cables. This can reduce signal strength from the antenna.



Antennas connected to a booster create spheres of signal. When these spheres overlap, a condition called oscillation occurs. Oscillation can be thought of as noise, which causes the booster to scale down its power or shut down to prevent damage. The best way to keep these spheres of signal from overlapping is to maximize separation between the inside and outside antennas.

## COMPONENT LOCATIONS

### TIP

We recommend you do a “soft install” first by placing all components in their chosen locations, completing the setup instructions, and verifying the system works as desired. (Route the cable through an open door or window for the soft install.)

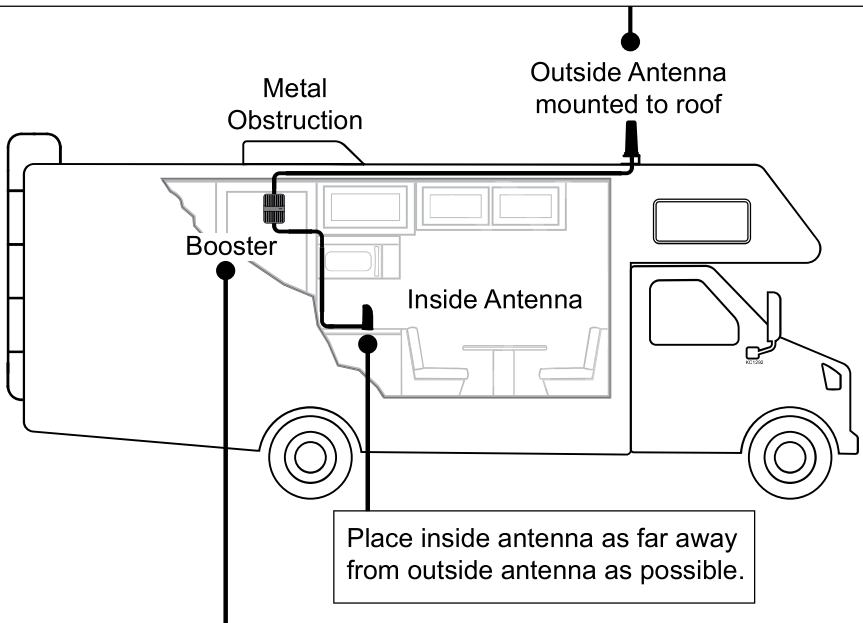
It is up to the installer to determine the best component locations.

The outside antenna must be completely above the roof line.

Make sure the outside antenna does not exceed maximum vehicle height restrictions.

Locate outside antenna as far from metal obstructions as possible.

The mounting bracket allows the outside antenna to be mounted directly to the roof, or to a pole or ladder using the included pole mounting hardware.



Mount booster as far away from outside antenna as possible, but make sure the 25 foot cable will still reach between the two.

A convenient place to mount the booster is to the inside back of a cabinet near a 110 VAC power source. The booster can be oriented in any direction.

## OUTSIDE ANTENNA MOUNTING OPTIONS

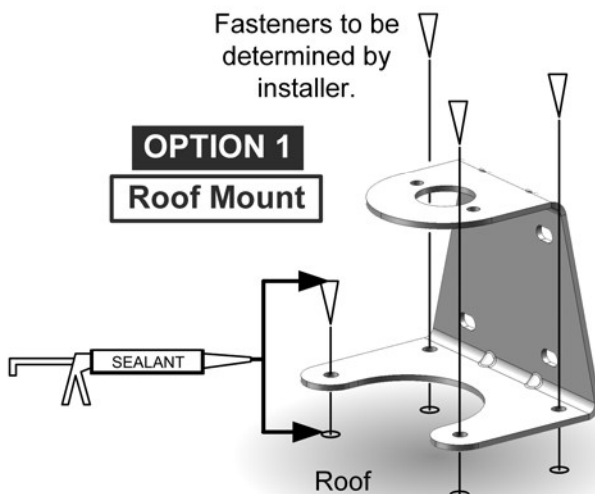
### ANTENNA FASTENS TO BRACKET THE SAME WAY FOR OPTIONS 1 & 2

With either mounting option,  
the antenna fastens to the bracket with  
(2) supplied sets of washers and screws.

Fasteners to be  
determined by  
installer.

#### OPTION 1

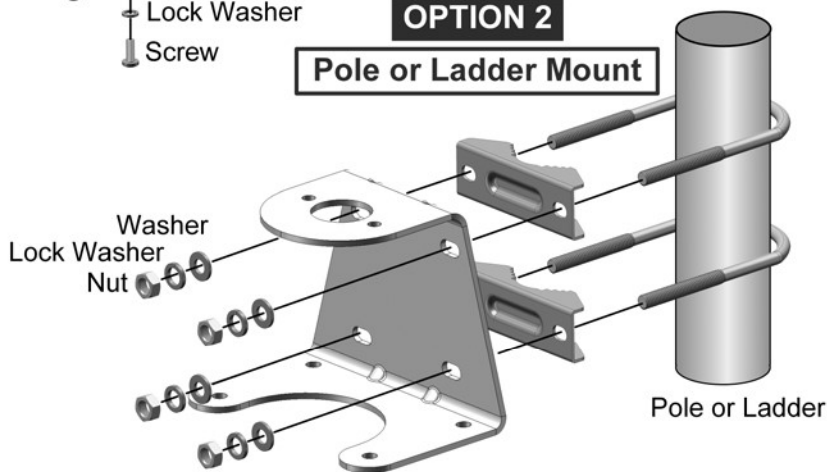
##### Roof Mount



**All roof holes and fastener  
heads must be sealed with  
roof-compatible sealant.**

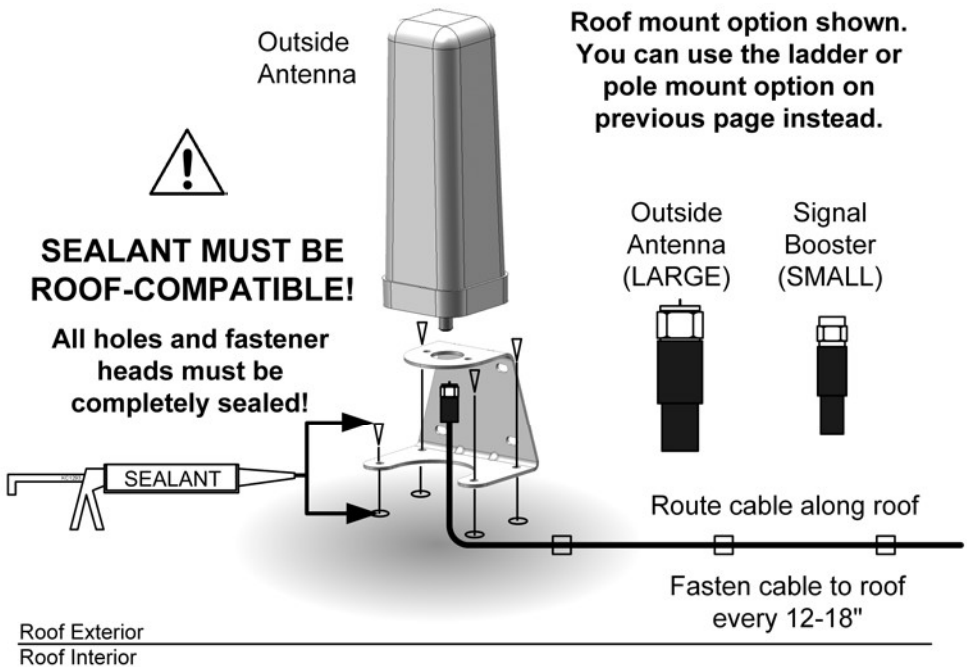
#### OPTION 2

##### Pole or Ladder Mount

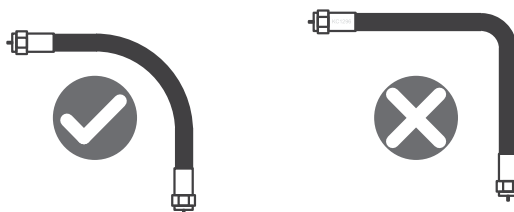


## INSTALLATION

1. Fasten the outside antenna to the mounting bracket with the supplied screws and washers (see page 5).
2. Connect the separate 25' cable to the antenna (**LARGE CONNECTOR**).
3. Apply roof-compatible sealant around the areas where the bracket fasteners will penetrate the roof.
4. Fasten bracket to roof. Make sure fastener holes and fastener heads are properly sealed.



## AVOID SHARP BENDS WHEN ROUTING COAX!



5. Route the cable to where it will enter the vehicle.



Make sure to avoid any cabling, pipes, etc. that may be damaged by drilling.

6. Drill an appropriately sized hole and feed the cable into the vehicle.

7. Seal the roof hole so it is completely waterproof (inside and outside).  
Fasten cable to roof every 12-18 inches.

8. Inside, place the booster in desired location or install the booster to a wall.  
Connect cable to the booster.

9. Connect inside antenna cable to booster. Place inside antenna in position  
as far from outside antenna and booster as possible.

10. Plug booster into power source.

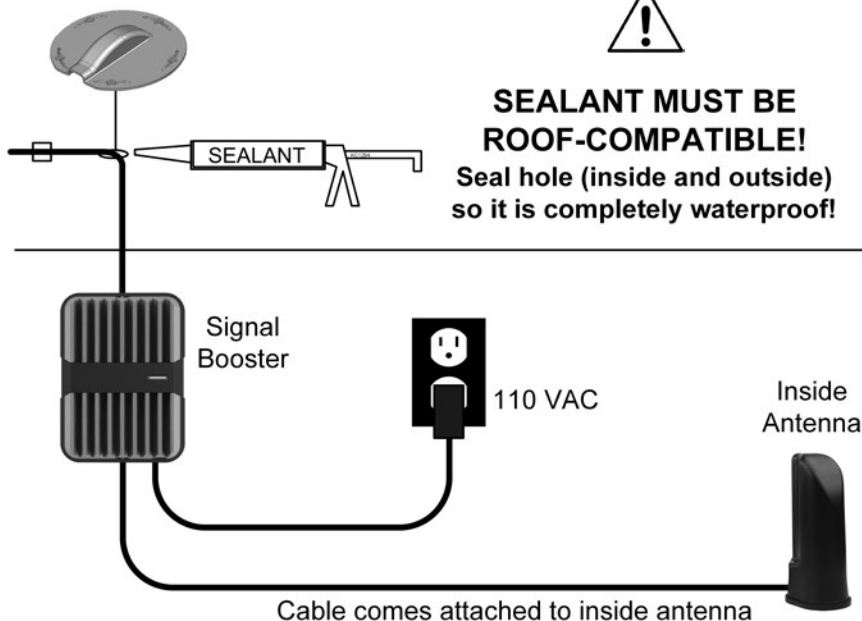
**TIP**

If using the included booster mounting bracket, remove the booster from the bracket. Fasten bracket to wall, then snap booster back into bracket.

The KING Cable Entry Cover provides additional protection against water intrusion.  
See the satellite accessories page at [kingconnect.com](http://kingconnect.com)

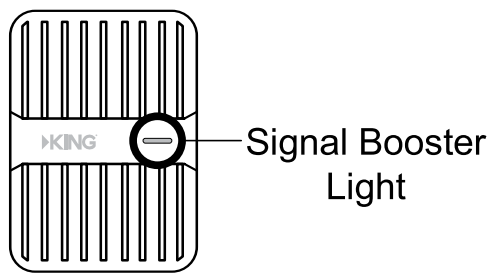


**SEALANT MUST BE ROOF-COMPATIBLE!**  
Seal hole (inside and outside)  
so it is completely waterproof!



# SIGNAL BOOSTER LIGHT

After making all connections, the signal booster will automatically power on and the light will be green.



## SOLID GREEN

This indicates your booster is functioning properly and there are no issues with installation.

## BLINKING RED, THEN SOLID GREEN

This indicates one or more of the booster bands has reduced power due to a minor feedback loop condition called oscillation. This is a built-in safety feature to prevent harmful interference with a nearby cell tower. If you are already experiencing the desired signal boost, then no further adjustments are necessary. If you are not experiencing the desired boost in coverage, then refer to the troubleshooting section on the next page.

## SOLID RED

This is due to a major oscillation (feedback) loop. This is a built-in safety feature that causes a band to shut off to prevent harmful interference with a nearby cell tower. Refer to the troubleshooting section on the next page.

## LIGHT OFF

If the signal booster light is off, verify your power supply is plugged into a known good power source.



# TROUBLESHOOTING

## FIXING BLINKING OR SOLID RED ISSUES

**This section is only applicable if the signal booster light is red or blinking red and you are not experiencing the desired signal boost.**

1. Unplug the signal booster's power supply.
2. Relocate the inside and outside antennas further away from each other. The objective is to increase the separation between them, so that they will not create the feedback condition discussed on page 3.
3. Plug power supply back in.
4. Monitor the indicator light on your signal booster. If after a few seconds of "power on", a solid blinking red light appears, repeat steps 1 through 3. Increase the separation distance until the condition is corrected and/or desired coverage area is achieved.



Increasing vertical separation between antennas typically improves isolation better than increasing horizontal separation.

**Need help? KING Customer Service: (952) 345-8147**

## SAFETY GUIDELINES

**Use only the power supply provided with this product. Use of any other power supply may damage your equipment.**

All inside antennas must be at least 18 inches from all active users.

Connecting the signal booster directly to the cell phone with use of an adapter will damage the cell phone.

RF Safety Warning: Any antenna used with this device must be located at least 8 inches from all persons.

**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 8 inches from any person.

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

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

# SPECIFICATIONS

Model	470061				
FCC	PWO460061				
Connectors	SMB-Jack				
Antenna Impedance	50 Ohms				
Frequency	698-716 MHz, 728-756 MHz, 777-787 MHz, 824-894 MHz, 1850-1995 MHz, 1710-1755/2110-2155 MHz				
Power output for single cell phone (Uplink) dBm	700 MHz Band 12/17 25.4	700 MHz Band 13 25.6	800 MHz Band 5 25.6	1700 MHz Band 4 26.7	1900 MHz Band 25/2 26.9
Power output for single cell phone (Downlink) dBm	4.8	4.8	4.8	4.6	4.5
Noise Figure	5 dB (nominal)				
Isolation	>90 dB				
Power Requirements	5 V, 4.5 A				

PG-1006

Each signal booster is individually tested and factory set to ensure FCC compliance. The signal booster cannot be adjusted without factory reprogramming or disabling the hardware. The signal booster will amplify, but not alter incoming and outgoing signals in order to increase coverage of authorized frequency bands only. If the signal booster is not in use for five minutes, it will reduce gain until a signal is detected. If a detected signal is too high in a frequency band, or if the signal booster detects an oscillation, the signal booster will automatically turn the power off on that band. For a detected oscillation the signal booster will automatically resume normal operation after a minimum of one minute. After five such automatic restarts, any problematic bands are permanently shut off until the signal booster has been manually restarted by momentarily removing power from the signal booster. Noise power, gain, and linearity are maintained by the signal booster's microprocessor.

This device complies with Part 15 of FCC rules. Operation is subject to 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. Changes or modifications not expressly approved by weBoost could void the authority to operate this equipment.

## LIMITED WARRANTY

The KING Extend Pro is warranted for two (2) years against defects in workmanship and/or materials. Should any trouble develop during the warranty period, contact KING at (952) 345-8147. You must contact KING before the warranty period expires. The customer must supply proof of purchase (such as a dated sales receipt) when requesting warranty service. If the customer cannot supply proof of purchase, warranty period shall start 30 days after date of manufacture.

Warranty claims for KING Signal Boosters are processed by Wilson Electronics ("Wilson") according to the warranty policy outlined below.

Warranty cases may be resolved by returning the product directly to the reseller with a dated proof of purchase. Signal Boosters may also be returned directly to the manufacturer at the consumer's expense, with a dated proof of purchase and a Returned Material Authorization (RMA) number supplied by Wilson. KING and Wilson shall, at their option, either repair or replace the product.

This warranty does not apply to any Signal Boosters determined by KING or Wilson to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties. Replacement products may include refurbished Wilson products that have been recertified to conform with product specifications. RMA numbers may be obtained by contacting KING Customer Support at (952) 345-8147.

In no event shall KING or Wilson be liable for any indirect, incidental, or consequential damages from the sale or use of the product. This disclaimer applies both during and after the term of this warranty.

KING disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose," after the term of this warranty.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

**DISCLAIMER:** The information provided is believed to be complete and accurate. However, no responsibility is assumed by KING or Wilson for any business or personal losses arising from its use, or for any infringements of patents or other rights of third parties that may result from its use.



**Simply better, by design.™**

This product is covered by U.S. patent(s) and pending application(s).  
For patents go to: [weboost.com/us/patents](http://weboost.com/us/patents).

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