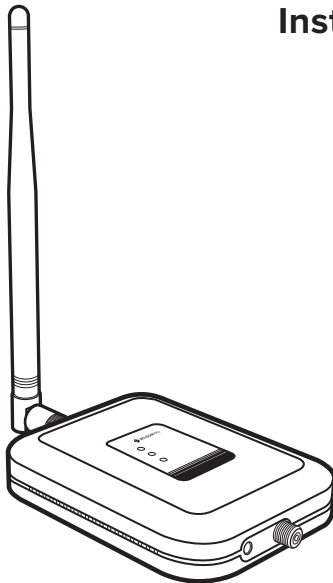




A WILSON ELECTRONICS BRAND

# Installation Guide



**WilsonPro Single Room**  
Cell Signal Booster

# Index

|   |    |
|---|----|
| Package Contents .....  | 1  |
| STEP 1 Attach Booster Antenna to Booster & Place in Desired Location..... | 2  |
| STEP 2 Mount & Point Outside Antenna Toward Nearest Cell Tower.....       | 2  |
| STEP 3 Route & Connect Outside Antenna To Booster .....                   | 4  |
| STEP 4 Power Up The Booster & Optimize The System .....                   | 4  |
| Status Light Patterns .....   | 6  |
| Troubleshooting .....   | 8  |
| Safety Guidelines.....  | 9  |
| Specifications .....  | 11 |
| Warranty.....   | 15 |

## Package Contents



Single Room  
Booster



5 meter  
cable



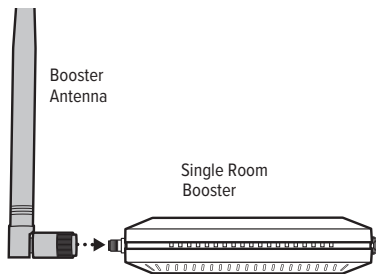
Outside Antenna &  
L-Bracket Antenna  
Mount



Power  
Supply

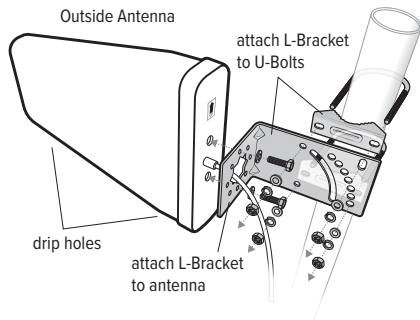
## STEP 1 Attach Booster Antenna to Booster & Place In Desired Location

Attach the Booster Antenna to the Single Room Booster and place in room where stronger cell signal is needed.



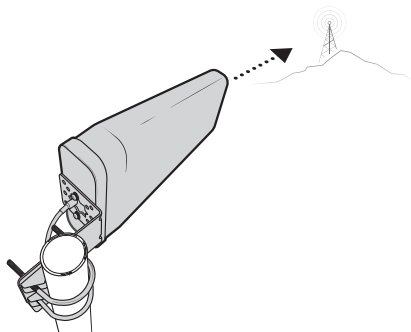
## STEP 2 Mount & Point Outside Antenna Toward Nearest Cell Tower

Pole mounting is preferred because it will be easier to adjust to the direction of the cell tower. Use the U-Bolts to attach the Antenna to a pole or exhaust pipe on roof.



## (STEP 2 cont.)

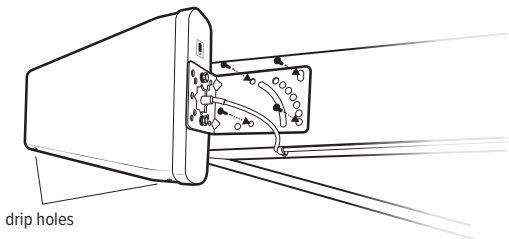
Point the Outside Antenna toward the nearest cell phone tower. To find the nearest tower, use an app such as 'Open Signal'. This is the most critical step of the installation process because it will determine the overall performance of the Booster System.



## Side Mounting

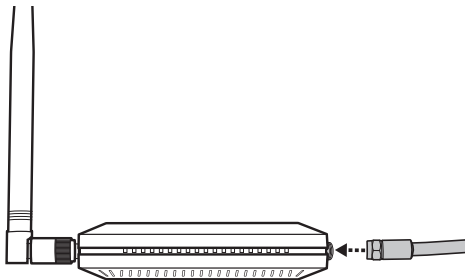
Side mounting is a option if you can still obtain strong signal.

Note: Drip holes should be pointed down towards ground.



### STEP 3 Route & Connect Outside Antenna To Booster

Connect the black Cable to Outside Antenna and route and connect cable to the Single Room Booster. All connections should be finger tightened only.

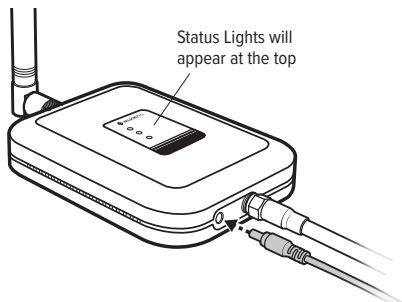


---

### STEP 4 Power Up The Booster & Optimize The System

Plug the Power Supply into wall outlet then connect into end of Booster.

NOTE: We strongly recommend using a power strip with surge protection.

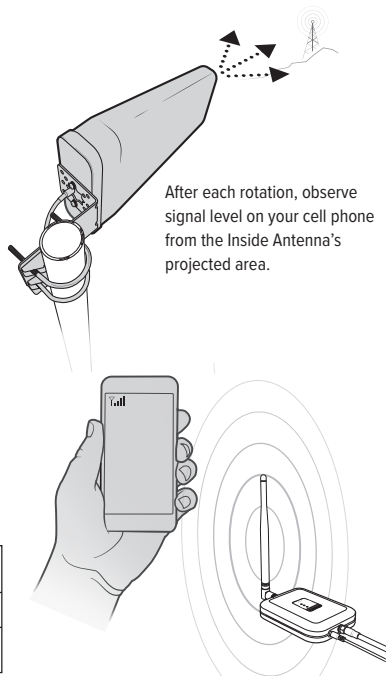


## (STEP 4 cont.)

After powering up your system, check to see how your talk, text, and data rates have improved. If more is desired, you can optimize your system.

Rotate the Outside Antenna in 1/8 turn increments, after each turn, unplug and reconnect the Booster to power while observing the signal level on your cell phone from the Inside Antenna's projected area. When you have determined a direction that gives you the strongest signal, secure the Outside Antenna in place. Below gives you an idea of how much boosted cell signal coverage this system will bring indoors based on how strong the outside signal is.

|   |            |             |            |      |
|---|------------|-------------|------------|------|
| <b>If the cell signal outside your home is:</b> | Strong     | Good        | Weak       | None |
|   | ↓          | ↓           | ↓          | ↓    |
| <b>Your boosted cell signal will cover:</b>     | Large Room | Medium Room | Small Room | None |



## Status Light Patterns

### GREEN

This indicates that your Single Room Booster is functioning properly and there are no issues with installation.

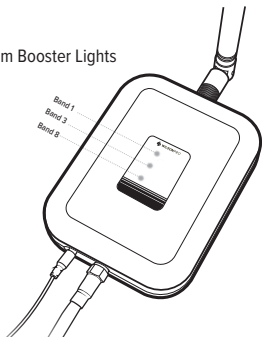
### SOLID RED

Band has shutoff. This is due to a feedback loop condition called oscillation. 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 Troubleshooting section.

### BLINKING GREEN, RED

This indicates that the Booster is operating at a reduced gain to prevent oscillation (feedback). This is a built in safety feature to prevent harmful interference with a nearby cell tower. If you are

Single Room Booster Lights





## (Status Light Patterns cont.)

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.

### BLINKING GREEN, YELLOW

This indicates Band has reduced gain. This indicates that one or more of the Booster bands has reduced power due to overload from nearby cell tower. 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.

### SOLID YELLOW

Band has shutoff due to overload from nearby cell tower. Outside Antenna must be adjusted. Refer to Troubleshooting section.

### LIGHTS OFF

If the Signal Amplifier's light is off, verify your Power Supply has power.

## Troubleshooting

### FIXING RED LIGHT ISSUES

*This involves Solid Red & Blinking Green/Red lights.*

- Tighten all cable connections (be sure to handtighten only, do NOT use tools). You may want to undo and redo the connection completely. Unplug and replug in Power Supply.
- Increase the distance (horizontally or vertically) between the Outside and Inside Antennas. Add included cable if needed. Unplug and replug in Power Supply.

### FIXING ANY YELLOW LIGHT ISSUES

*This involves Solid Yellow & Blinking Green/Yellow lights.*

- **Outside Antenna must be adjusted.** Disconnect and reconnect power between adjustments. Wait at least 10 seconds between adjustments for the lights to reset.  
**Pole Mount Option:** Rotate the Outside Antenna away from the strongest cellular signal in small increments (1/8 turn) until the light turns green. Unplug and replug in Power Supply. **Mounting On Side Of Roof Option:** Change mount location. Move the Outside Antenna to location of the home/building to see if the lights turn green. Unplug and replug in Power Supply. Then secure in place.

## Safety Guidelines

Verify that both the Outside Antenna and the adapter extension cable are connected to the Signal Amplifier before powering up the Signal Amplifier.

Use only the Power Supply provided in this package. Use of an incorrect Power Supply may damage your equipment.

RF Safety Warning: Any antenna used with this device must be located at least 20cm from all persons.

AWS Warning: The Outside Antenna must be installed no higher than 10 meters above ground.

### **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 **ICASA** 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 be operated **ONLY** in a fixed location for in-building use.

## Antenna Info

The following accessories are certified by the ICASA to be used with the Single Room Cell Signal Boosters.

| INSIDE ANTENNA INFO |              |    |
|---------------------|--------------|----|
| #                   | Antenna Type | Ω  |
| BT50206             | Omni         | 50 |

| OUTSIDE ANTENNA INFO |              |    |
|----------------------|--------------|----|
| #                    | Antenna Type | Ω  |
| BT974884             | Directional  | 50 |
| BT974877             | Omni         | 50 |

# Specifications

| Single Room Cell Signal Booster                   |   |    |    |
|---|---|----|----|
| Model   | 520001  |    |    |
| ICASA   | 2017-2867   |    |    |
| Connectors  | N-Male  |    |    |
| Antenna Impedence                                 | 50 Ohms   |    |    |
| Frequency   | 880-915 / 925-960 1710-1785 / 1805-1880 1920-1980 / 2110-2170 |    |    |
| Power output for single cell phone (Uplink) dBm   | 30  | 30 | 30 |
| Power output for single cell phone (Downlink) dBm | 15  | 17 | 20 |
| Power Requirements                                | 5 V / 3 A   |    |    |

Each Signal Booster is individually tested and factory set to ensure ICASA 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 1 minute. After 5 (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 ICASA 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 WilsonPro could void the authority to operate this equipment.









## ✔ 1 YEAR WARRANTY

WilsonPro Signal Boosters are warranted for one year against defects in workmanship and/or materials. 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 WilsonPro shall, at its option, either repair or replace the product.

This warranty does not apply to any Signal Boosters determined by WilsonPro to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties.

Replacement products may include refurbished WilsonPro products that have been recertified to conform with product specifications.

RMA numbers may be obtained by contacting Customer Support.

**DISCLAIMER:** The information provided by WilsonPro is believed to be complete and accurate. However, no responsibility is assumed by WilsonPro 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.



JT Business Park, 5 Rydal Ln, Loriglake, Johannesburg, 1609

📞 011 749 3085 🌐 [www.boltontechnical.co.za](http://www.boltontechnical.co.za) ✉ [sales@boltontechnical.co.za](mailto:sales@boltontechnical.co.za)

Copyright © 2020 WilsonPro. All rights reserved. WilsonPro products covered by U.S. patent(s) and pending application(s)

NOT AFFILIATED WITH WILSON ANTENNA

GDE000364\_001\_11.30.20