

# weBoost 471410 Drive X RV Signal Booster Installation Guide

Home » Weboost » weBoost 471410 Drive X RV Signal Booster Installation Guide

#### **Contents**

- 1 weBoost 471410 Drive X RV Signal Booster
- **2 Product Usage Instructions**
- 3 Package Contents
- **4 Installation Overview**
- **5 Installation Instructions**
- **6 Using The Optional Cable Entry**

**Accessories** 

- 7 Measuring Booster Performance
- 8 Troubleshooting
- 9 FAQ
- 10 Safety Guidelines
- 11 Specifications
- 12 FCC STATEMENT
- **13 WARRANTY**
- **14 CONTACT**
- 15 Documents / Resources
  - 15.1 References
- **16 Related Posts**



weBoost 471410 Drive X RV Signal Booster



# **Product Usage Instructions**

Determine a suitable location for the outside antenna on your RV, ensuring it is above the roof line and clear of obstructions. Follow these steps:

- Mount the outside antenna to a ladder or pole.
- Insert coax cable through mast extension and side-exit adapter.
- Apply thread locker to thread points and screw mast onto the antenna.
- Connect the 25-foot cable to the outside antenna cable.
- Mount the outside antenna using the provided L-bracket mount and hardware.
- Route the cable into the RV through an existing entry point or by drilling a hole if necessary.

Use our weBoost App to guide you through the installation. See the inside page for more details.

# **Download the weBoost App**

• Use our app to guide you through setting up a weBoost cell phone signal booster in your home, business, or vehicle. Boost every network, including 5G. right away.



# **Package Contents**



Drive X Booster & Bracket



Inside Antenna



Outside Antenna & 25 ft. RG-6 Cable



Mast Extension, Side-Exit Adapter, Spring & Thread Lock Packs



Outside Antenna Ladder Mount



AC/DC Wall Power Supply

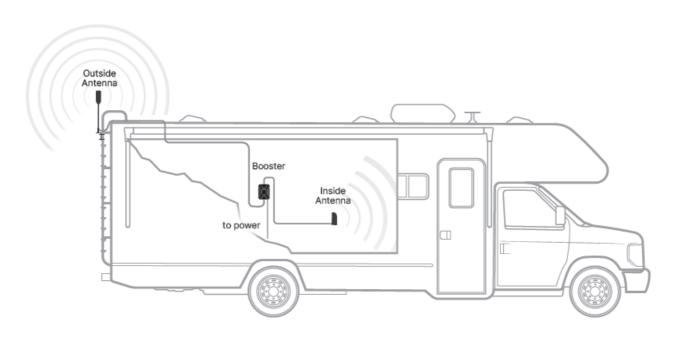


DC/DC Hardwire Power Supply

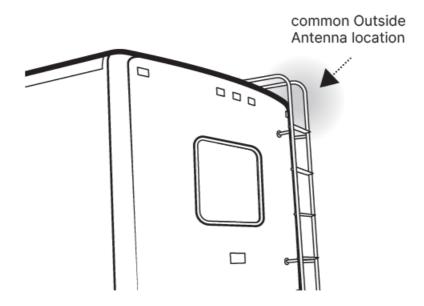


Installation Accessories

# **Installation Overview**



- STEP 1 Select the Mounting Location & Assemble the Outside Antenna
- Determine where you want the outside antenna on your RV. Mount the outside antenna to a ladder or pole so that the entire outside antenna is above the roof line of the RV and clear of other metal obstructions.

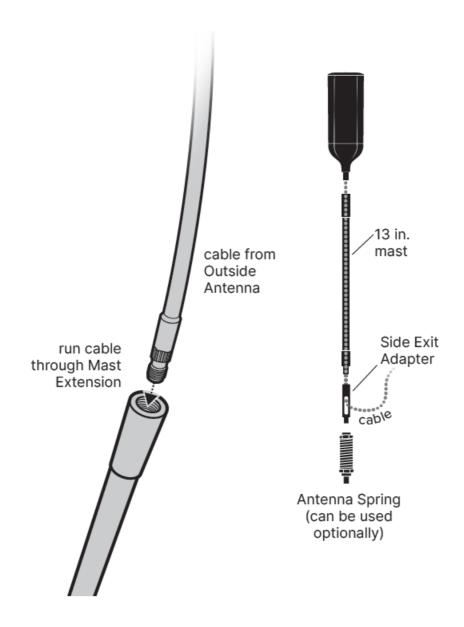


# **Important**

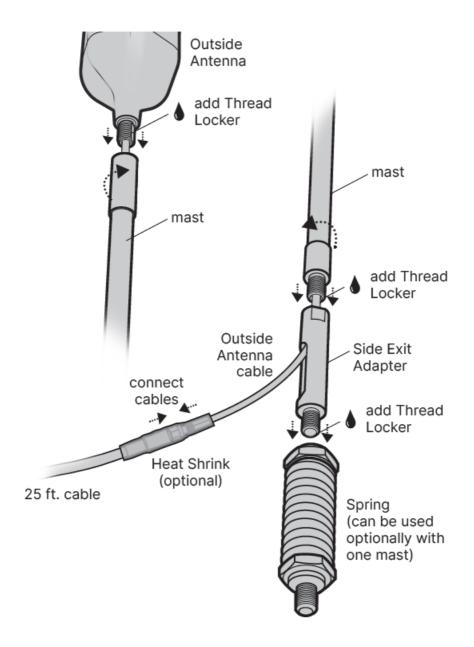
**NOTE:** Keep in mind to stay below the maximum height limit allowed by law, which varies from state to state (generally 14' in western states and 13'6" in eastern states).



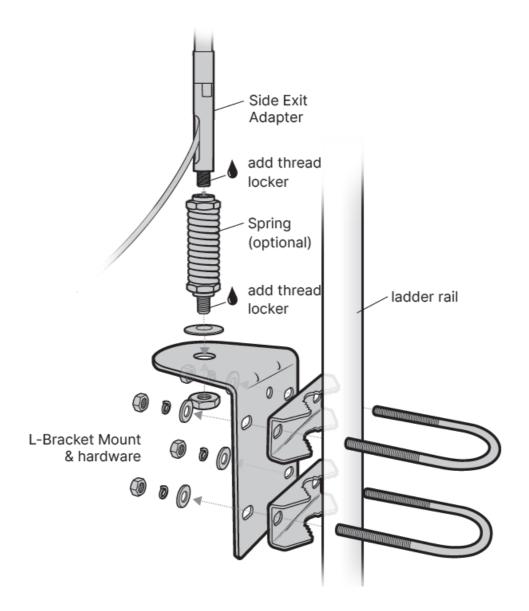
• After determining outside antenna mounting location and assembly is the correct height, insert the coax cable through the mast extension (mast can be used optionally), then through the side-exit adapter.



- Apply the thread locker precisely to thread points only (not the plastic body of the antenna).
- Screw the mast onto the antenna.
- Connect the 25-foot cable to outside antenna cable. A heat shrink tube can be applied to the connection (optional).



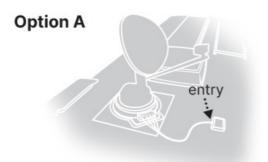
- Mount outside antenna. L-bracket mount and hardware are provided to mount to the ladder or pole. If installed with a spring, the side exit adapter must be used.
- **NOTE:** The outside antenna location must be within reach of the booster with the 25' coax cable. The system performs best with maximum vertical and horizontal separation.



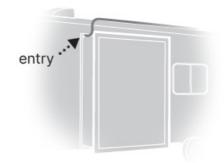
## Route cable into the RV

- Option A: Using existing cable entry point.
- Option B: Through the slider on your RV (using the slider gasket as a seal).
- **Option C:** Drill a hole with the included hole saw bit. WARNING: Be sure to stay clear of any power, pipes, etc. that may be damaged.

**NOTE:** We recommend doing a 'soft install' before drilling the hole. Set up the system by routing the cable through an open door or window, completing the setup instructions, verifying the system works as desired, and then drilling the hole.



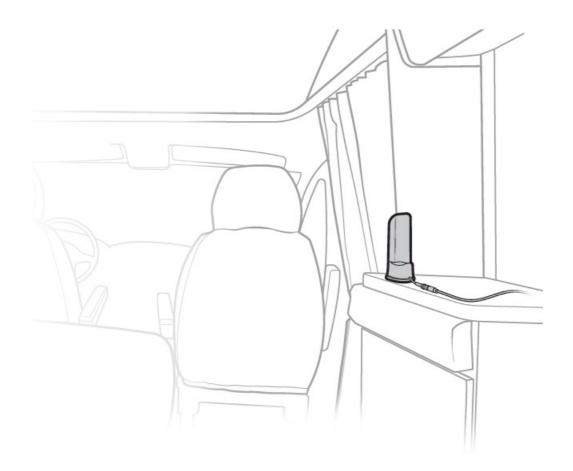
# Option B



# **Option C**



- STEP 2 Select Inside Antenna Location
- Place inside the antenna where a strong signal is desired.



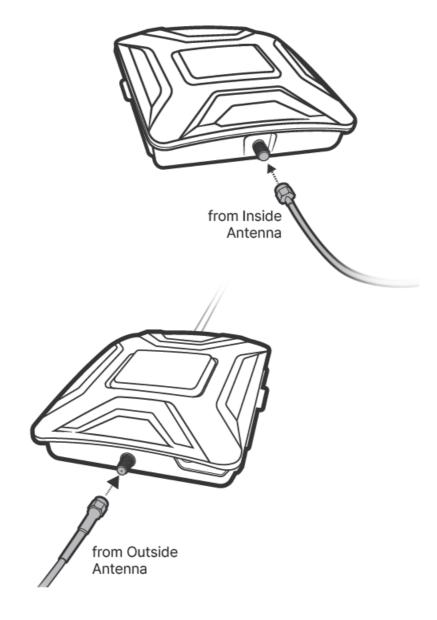
- STEP 3 Select Booster Location
- Find a location to place the booster, then mount it by removing the bracket from the back side of the booster and fasten it to the desired surface. Snap the booster back into the bracket.

**NOTE:** We recommend mounting in a cabinet near a power source. Be sure it's in a location where cables from both inside and outside antennas can reach.

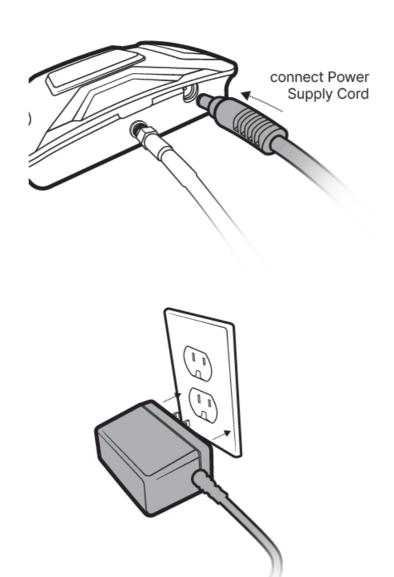


- STEP 4 Connect Coax Cables to Booster
- Connect the coax cable from the inside antenna to the port labeled "Inside Antenna" on the booster. Then connect the cable from the outside antenna to the port labeled "Outside Antenna" on the booster.

Note: All connections should be finger-tightened only.



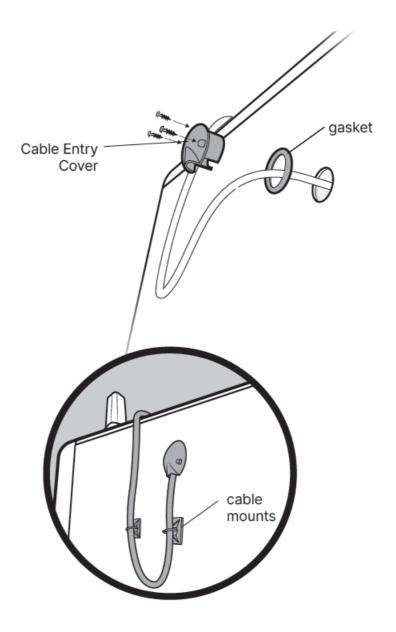
- STEP 5 Connect Power Supply to Booster
- Connect the power cable to the booster, then into the 110V wall plug, and enjoy!
- NOTE: A fused 12V hardwire power supply is also included.



# **Using The Optional Cable Entry Accessories**

• Skip if you used Option A or B in STEP 1. Pull the RG-6 cable through the rubber gasket, then place the cable entry cover into the entry hole (as shown below) and fasten the cover to the side of the RV. Use the cable mounts and ties to secure the RV.

**NOTE:** We recommend putting a loop going up to the cable entry hole to prevent moisture from entering the RV. We strongly recommend using an RTV sealant from the inside to prevent moisture, insects, and other undesired things from entering the RV.



# **Measuring Booster Performance**

- We've created an easy way to learn your signal strength and compare it before and after a booster.
- Download our free weBoost app to get accurate decibel measurements to help you get the best performance from your system.



• Signal Strength (dBm) with weBoost system powered OFF: (dBm here)

• Signal Strength (dBm) with weBoost system powered ON: (dBm here)

• Compare the decibels (dBm) on the chart below to find what signal strength you fall into.

Signal Strength	Excellent	Good	Fair	Poor	Dead Zone
3G/1x	-70dBm	-71 to -85dBm	-86 to -100dBm	-101 to -109dBm	-110dBm
4G/LTE	-90dBm	-91 to -105dBm	-106 to -110dBm	-111 to -119dBm	-120dBm

• Did you know a signal increase of just 3dB is 2 times the power and signal amplification?



#### **Booster Light Patterns**

#### **SOLID GREEN**

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

#### **SOLID RED**

- The band has shut off. 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 the Troubleshooting section.

# **BLINKING RED, THEN SOLID GREEN**

- This indicates that one or more of the booster bands have 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.

## **LIGHT OFF**

• If the signal booster's light is off, verify your power supply has power.

**NOTE:** The signal booster can be reset by disconnecting and reconnecting the power supply. After troubleshooting, you must initiate a new power cycle by disconnecting and then reconnecting power to the booster.

## **Troubleshooting**

#### FIXING BLINKING OR RED LIGHT ISSUES

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

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

**Note:** Horizontal separation of the two antennas typically requires a shorter separation distance than vertical separation.

#### **FAQ**

- Q: How can I contact customer support?
- A: Customer Support can be reached Monday through Friday by calling 1-866-294-1660, or through our support site at <u>support.weboost.com</u>.
- Q: Why do I need to create distance between the outside antenna and the inside antenna?
- A: 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.

## **Safety Guidelines**

- Use only the power supply provided in this package. Use of a non-weBoost product may damage your equipment.
- The signal booster unit is designed for use in an indoor, temperature-controlled environment (less than 150 degrees Fahrenheit). It is not intended for use in attics or similar locations subject to temperatures over that range.
- The desktop antenna must have at least 3' of separation distance from all active users. All inside panel and dome antennas must have at least 6' of separation distance from all active users, and low profile antennas must have at least 1.5' separation distance from all active users.
- Connecting the signal booster directly to the cell phone with the 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.
- AWS Warning: The outside antenna must be installed no higher than 32 feet 9 inches (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.

- In Canada, BEFORE USE you must meet all requirements set out in ISED CPC-2-1-05.
- 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 ISED in Canada) or licensed wireless service provider.
- WARNING. E911 location information may not be provided or may be inaccurate for calls served by using this
  device.

FOR MORE INFORMATION ON REGISTERING YOUR SIGNAL BOOSTER WITH YOUR WIRELESS PROVIDER IN THE U.S., PLEASE GO TO THE LINK BELOW: <a href="https://www.weboost.com/carrier-registration">https://www.weboost.com/carrier-registration</a>

#### **Antenna Info**

The following accessories are certified by the FCC to be used with the Drive X Booster.

This radio transmitter 4726A-460021 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

	BAND 12/17	BAND 13	BAND 5	BAND 4	BAND 25/2
Outside antenna maximum permissib le antenna gain (dBi) 50Ω	4.5	4.2	4.6	3.81	4.74
Inside the antenna maximum permissible antenna gain (dBi) 50Ω	4.16	4.16	6.09	6.66	9.77

MOBILE INSIDE ANTENNA KIT OPTIONS					
Kit #	Coax Type	Ln(ft)	Antenna Type	Ω	
314401	LMR-100	10	Low Profile In-Vehicle SMA	50	

MOBILE OUTSIDE ANTENNA KIT OPTIONS					
Kit #	Coax Type	Ln(ft)	Antenna Type	Ω	
311229	LMR195	15	OTR Antenna Truck Edition	50	
301126	LMR-100	10	Mini-Mag Antenna SMA	50	
314405	RG-58	14	NMO Vehicle Antenna	50	
311125	RG-174	12.5	12" Mag Mount	50	

# **Specifications**

## **Drive X-Cell Signal Booster**

Model	460021						
FCC	PWO460021						
IC	4726A-460021						
Connectors	SMA-Female						
Antenna Impedance	50 Ohms						
Frequency	699-716 MHz, 729-756 MHz, 777-786 MHz, 824-894 MHz, 1850-1995 MHz, 1710- 1755 MHz/2110-2155 MHz						
Power output for single cell phone (Uplink) dBm	700 MHz B12/ 17 24.84	700 MHz B13 24.35	800 MHz B5 23.4	1700 MHz B4 21.3	1900 MHz B2 24.43		
Power output for single cell phone (Downlink) dBm	2.87	2.79	2.8	2100 MHz B4 2.0	1.92		
Noise Figure	5 dB (nominal)						
Power Requirements	6V 2A / 12V DC 110-240 V AC, 50-60 Hz, 8 W						

#### **FCC STATEMENT**

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 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.

The term "IC" before the radio certification number only signifies that Industry Canada's technical specifications were met. This device complies with Part 15 of FCC rules. This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

- 1. This device may not cause interference, and
- 2. This device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by weBoost could void the authority to operate this equipment.

#### WARRANTY

#### **2 YEAR WARRANTY**

- weBoost Signal Boosters are warranted for two (2) years 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 weBoost. weBoost shall, at its option, either repair or replace the product.
- This warranty does not apply to any Signal Boosters determined by weBoost to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties.
- Replacement products may include refurbished weBoost products that have been recertified to conform with product specifications.
- RMA numbers may be obtained by contacting Customer Support.

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

## **CONTACT**

- 3301 East Deseret Drive, St. George, UT 1-866-294-1660
- www.weboost.com
- support@weboost.com
- Copyright © 2019 weBoost.
- All rights reserved. weBoost products covered by U.S. patent(s) and pending application(s) For patents go to:
   weboost.com/us/patents

NOT AFFILIATED WITH WILSON ANTENNA GDE000590\_Rev01\_03.26.24

## **Documents / Resources**



<u>weBoost 471410 Drive X RV Signal Booster</u> [pdf] Installation Guide 471410 Drive X RV Signal Booster, 471410, Drive X RV Signal Booster, RV Signal Booster, Signal Booster, Booster

## References

- # SUPPORT CENTER
- wb Cell Phone Signal Boosters for Home, Cars, & More weBoost
- wb Carrier Registration Register Your weBoost
- User Manual

#### Manuals+, Privacy Policy