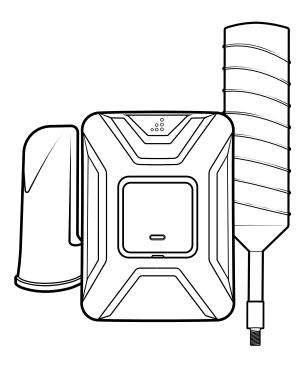


# **DRIVE X RV**

**RV Cell Signal Booster** 

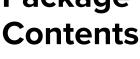


**User Manual** 

# Index

Package	Contents	1		
STEP 1:	Mount Outside Antenna & Route Cable	2		
STEP 2:	Connect Cable To Outside Antenna	4		
STEP 3:	Inside Antenna Location	5		
STEP 4:	Booster Location & Connect Cables	6		
STEP 5 &	6: Power Up The Booster	9		
Jsing Th	e Optional Cable Entry Accessories	10		
_ight Pat	terns	13		
roubleshooting				
Safety Guidelines				
Specifications				

# **Package**





Drive X Booster & Bracket



Inside Antenna



Outside Antenna & 25 ft. RG-6 Cable



Mast Extension, Side-Exit Adapter & Spring



Outside Antenna Ladder Mount



AC/DC Wall Power Supply



DC/DC Hardwire **Power Supply** 

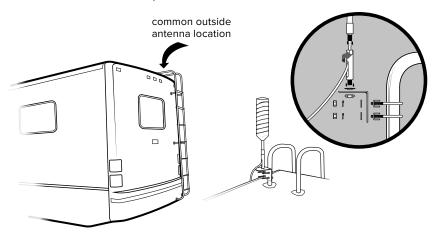


Installation Accessories

# **Step 1:** Mount Outside Antenna & Route Cable

Determine where you want the Outside Antenna on your RV. Mount 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.

NOTE: This must be in a location within reach of the booster with the 25' coax cable (installed in Step 4). The system performs best with maximum vertical and horizontal separation.



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).







(STEP 1: MOUNT OUTSIDE ANTENNA & ROUTE CABLE cont.)

### Determine where you want the cable to enter the RV.

NOTE: With this option, 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 A:** Using existing cable entry point.



**Option B:** Through the slider on your RV (using the slider gasket as a seal).



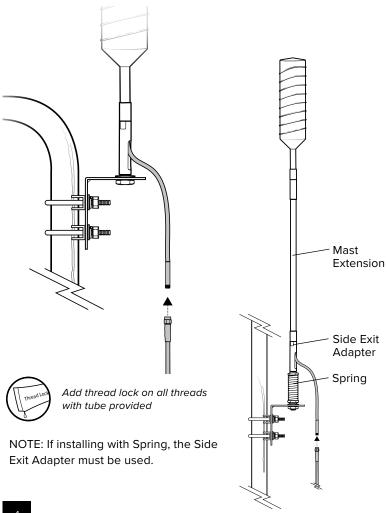
**Option C:** Drill a hole with the included hole saw bit.



WARNING: Be sure to stay clear of any power, pipes, etc. that may be damaged.

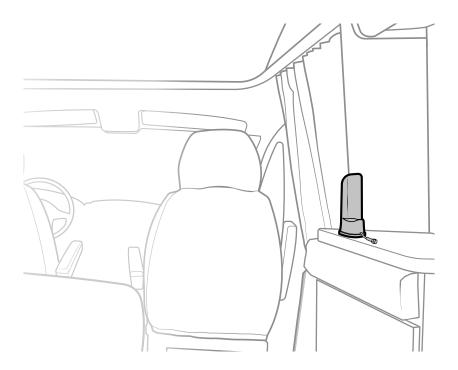
# **Step 2:** Connect Cable To Outside Antenna

Determine where you want the cable to enter the RV, then connect the RG-6 cable to the Outside Antenna.



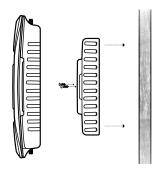
# **Step 3:** Inside Antenna Location

Place Inside Antenna where stronger signal is desired.

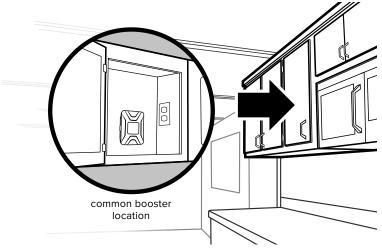


# **Step 4:** Booster Location & Connect Cables

Find a location to place the booster, then mount by removing the bracket from back side of booster and fasten to desired surface. Snap booster back into bracket.

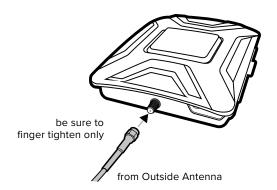


NOTE: We recommend mounting in a cabinet near a power source. Be sure it's in a location that cables from both Inside and Outside Antennas can reach.

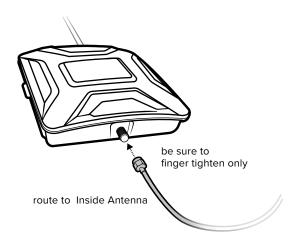


### (STEP 4: BOOSTER LOCATION & CONNECT CABLES cont.)

Fasten the end with smaller SMA connection to the 'Outside Antenna' port on the booster.

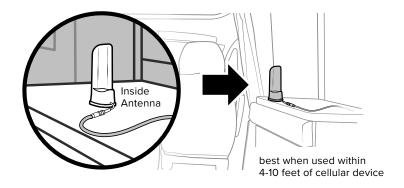


Connect the 13' RG-58 cable to the 'Inside Antenna' port on the booster. Route the cable to the Inside Antenna.



## (STEP 4: BOOSTER LOCATION & CONNECT CABLES cont.)

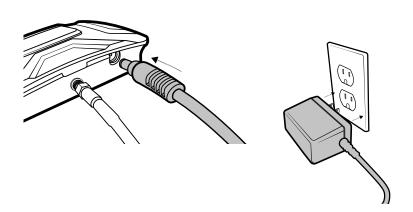
Connect the 13' RG-58 cable to the 'Inside Antenna' port on the booster. Route the cable and connect to the Inside Antenna.



# **Steps 5 & 6:** Power Up The Booster

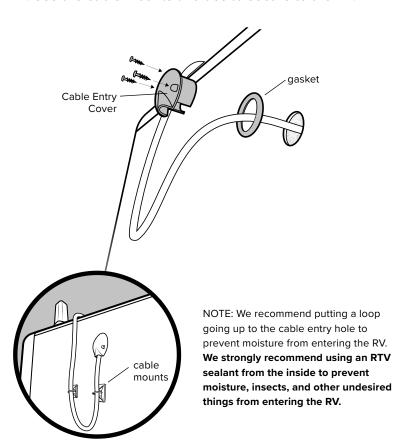
Connect power cable to booster, then into 110V Wall plug and enjoy!

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 cover to side of RV. Use the cable mounts and ties to secure to the RV.



# Measuring Booster Performance

Using signal bars and data speed testing, determine the signal strength inside your RV.

iPhone®
iOS 11 - current

iOS 11 no longer displays the decibel (dBm) reading in 'Field Test Mode'. Tip: Using the bar indicator on your cell phone can assist you in finding the strongest signal direction as well as

placing calls in different locations.

Android™

Settings > About Phone > Status or Network > Signal Strength or Network Type and Strength (exact options/wording

depends on phone model).

iPhone is a registered trademark of Apple Inc. Android is a trademark of Google Inc.

### All Phones:

- Keep track of the network (3G or 4G) phone is connected to.
- Any signal readings you take are valid for that phone's carrier. To get readings from other carriers, you'll need phones from each carrier.

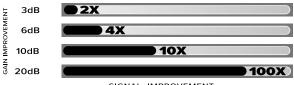
### (MEASURING BOOSTER PERFORMANCE cont.)

## Compare Results

Having an accurate measurement of signal strength in decibels (dBm) is crucial when installing your system. Decibels accurately measure the signal strength you are receiving.

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!



SIGNAL IMPROVEMENT

# **Light Patterns**

### Solid Green

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

## Blinking Red, Then Solid Green

This indicates that one or more of the booster bands has reduced power due to a 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.

### Solid Red

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 below.

## Light Off

If the Drive X 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 SOLID RED ISSUES

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

- 1 Unplug the Booster's power supply.
- Relocate the inside and outside antenna 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 power supply back in.
- 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 desired coverage area is achieved. Note: Horizontal separation of the two antennas typically requires a shorter separation distance than perpendicular separation.
- 5 If you are having any difficulties while testing or installing your booster, contact our weBoost Customer Support team for assistance.

## **Antenna Kit Options**

#### MOBILE

#### Inside Antenna Options

4G Slim Low Profile 314401 - w/10' LMR 100 Desktop 311160 - w/ 13' RG58

#### **Outside Antenna Options**

301126 w/ 12 5 RG174 cable - SMA 12" Mag Mount w/12.5' RG58

4G Trucker Antenna w/15' RG58

4G Marine Antenna w/20' L-195

304420

#### NMO Antenna w/RG58

Kit 311104-5810 800/1900 NMO Antenna 10' RG58 Cable Kit 311112-5810 800/1900 NMO Antenna 10' RG58 Cable Kit 314203-5810

800/900/1900 NMO Antenna 10' RG58 Cable 314405

4G NMO Antenna

#### INSIDE FIXED

### Inside Antenna Expansion Kit

Kit 309900-50N

2 - Wall Panel antennas 1 - 50 ohm 3-Way Splitter

Kit 309905-50N 3 - Wall Panel Antennas

3 - 2-Way 50 Ohm Splitters 20' RG174

Kit 309902-75F

2 - Wall Panel Antennas 1 - 3-Way 75Ohm Splitter Kit 309903-75F

3 - Wall Panel Antennas

3 - 2-Way 75Ohm Splitters Kit 309904-75F

1 - Wall Panel Antenna

1 - 2-Way 75 Ohm Splitter

#### Inside Antenna Kits

Kit 311155-0630

75 Ohm Wall mount Panel Antenna 30' RG6 Cable

Kit 311135-5820

50 Ohm Wall mount Panel Antenna

20' RG58 Cable

Kit 311135-40060

50 Ohm Wall mount Panel Antenna

60' Wilson 400

Kit 311155-1150

75 Ohm Wall mount Panel Antenna

50' RG11 cable

Kit 311155-40060

75 Ohm 4G Dome Antenna

60' Wilson 400 cable

Kit 304412-40010

50 Ohm 4G Dome Antenna 10' Wilson 400 cable

Kit 304412-5810

50 Ohm 4G Dome Antenna

10' RG 11 cable

Kit 304419-1110

75 Ohm 4G Dome Antenna

10' RG11 cable

Kit 304419-17410

75 Ohm 4G Dome Antenna 10' RG174 cable

May need separate adapter Kit 304419-1610

75 Ohm 4G Dome Antenna 10' RG6 cable

#### **OUTSIDE FIXED**

#### 50 Ohm Outside Antenna Kits

Kit 314453-5825

50 Ohm Pole Mount Panel Antenna 25' RG58 Cable

Kit 314411-5825

50 Ohm Wide Band Directional 25' RG58 Cable

Kit 301111-5850

Yaqi Directional Antenna 50' RG58 Cable

Kit 311203-5820

Omni-Directional antenna 20' RG58 Cable

Kit 314411-40075

50 Ohm Wide Band Directional

75' LMR400 Cable

Kit 311203-40020

Omni-Directional antenna

20' LMR400 Cable

Kit 301111-400170

Yagi Directional w/ N-Female

170' LMR400

Kit 314453-40075

50 Ohm Pole Mount Panel Antenna 75' LMR400 Cable

Kit 304422-40020

50 Ohm 4G Omni Antenna

20' Wilson400 cable

Kit 304422-5810

50 Ohm 4G Omni Antenna

10' RG58 cable

Kit 304422-1120

50 Ohm 4G Omni Antenna 20' RG11 cable May need separate adapter

#### 75 Ohm Outside Antenna Kits

Kit 301111-0675

Yaqi Directional Antenna

75' RG6 Cable

N-Male to F-Female adapter

Kit 314473-0640

75 Ohm Pole Mount Panel Antenna

40' RG6 Cable

Kit 301111-11140 Yagi Directional Antenna

140' RG11 Cable

N-Male to F-Female adapter

Kit 314473-1175

75 Ohm Pole Mount Panel Antenna

75' RG11 Cable

Kit 314475-0630

75 Ohm Wide Band Directional

30' RG6 Cable

Kit 314475-1175

75 Ohm Wide Band Directional 75' RG11 Cable

Kit 304421-17410

75 Ohm 4G Omni Antenna

10' RG174 cable

Kit 304421-0610

75 Ohm 4G Omni Antenna

10' RG6 cable Kit 304421-5810

75 Ohm 4G Omni Antenna 10' RG58 cable

May need separate adapter Kit 304421-1120

75 Ohm 4G Omni Antenna

20' RG 11 cable

## 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 in excess of 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 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.

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 licensed wireless service provider.

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

# **Specifications**

Drive X RV

Product Number	U470010							
Model Number	460021							
FCC ID:	PWO460021							
IC:	4726A-460021							
Connectors	SMA-Female							
Antenna Impedance	50 Ohms							
Frequency	699-716 MHz, 729-756 MHz, 777-787 MHz, 824-894 MHz, 1850-1995 MHz, 1710-1755 MHz/2110-2155 MH							
	Maximum Power							
Power output for single cell phone (Uplink) dBm	700 MHz Band 12/17 24.84	700 MHz Band 13 24.35	800 MHz Band 5 23.4	1700 MHz Band 4 21.3	1900 MHz Band 2 24.43			
Power output for single cell phone (Downlink) dBm	700 MHz Band 12/17 2.87	700 MHz Band 13 2.79	800 MHz Band 5 2.8	2100 MHz Band 4 2.0	1900 MHz Band 2 1.92			
Noise Figure	5 dB nominal							
Power Requirements	6V 2A / 12V DC 110-240 V AC, 50-60 Hz, 8 W							

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 detects and operation after a minimum of 1 minute. After 5 (five) such automatic restarts, any problematic bands are permanently shut off until the Signal Booster will be 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: (f) 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.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-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.