



ROVER DUO

CROSS COUNTRY

Installation Guide

info@solidsignal.com

Powered by **we:boost**

877-312-4547

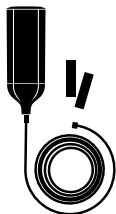
Index

Package Contents	1
Installation Overview	2-3
Overland Installation	4-19
Vehicle Installation	20-27
Troubleshooting	28
Antenna Info	30
Specifications	31
Safety Guidelines	32
Warranty	34

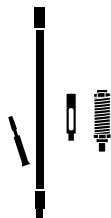
Package Contents



Drive Reach Signal
Booster



Outside Antenna,
14 ft. Cable & Heat
Shrink Tubes



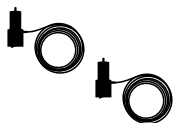
13 in. Mast Ext.,
Side-Exit Adapter, Spring
& Thread Lock Pack



(2) In-Vehicle
Antennas



Outside Antenna &
Adhesive Disk (for use on
aluminum vehicles)



(2) Power Supplies



Overland Mounting
Bracket & Mounting
Hardware



Stabilizer Arm &
Zip Ties

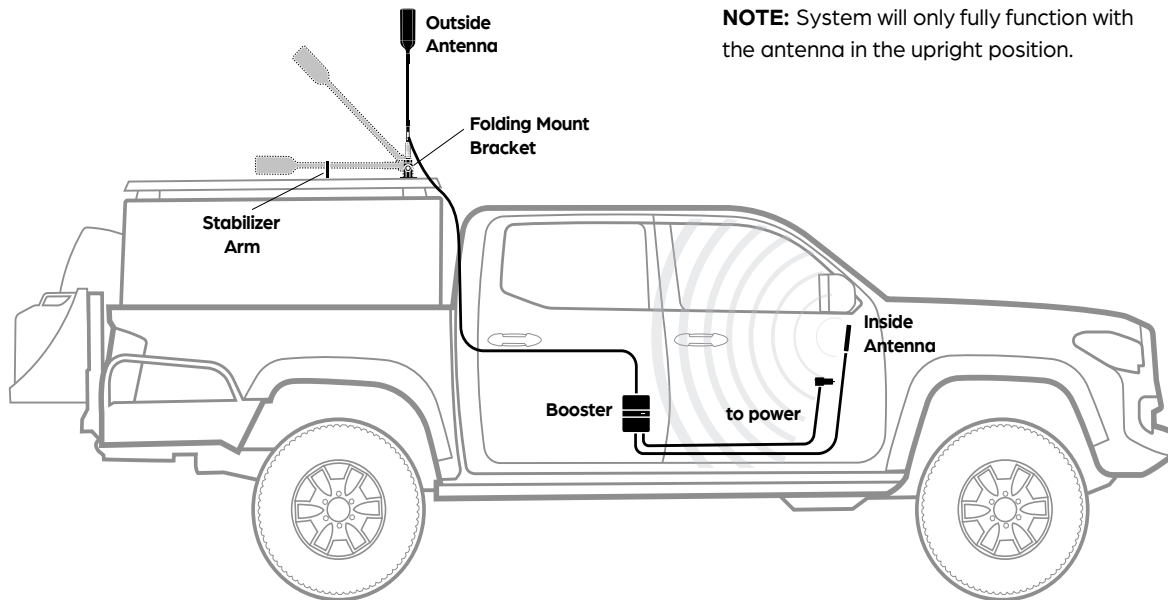


(2) Adapters

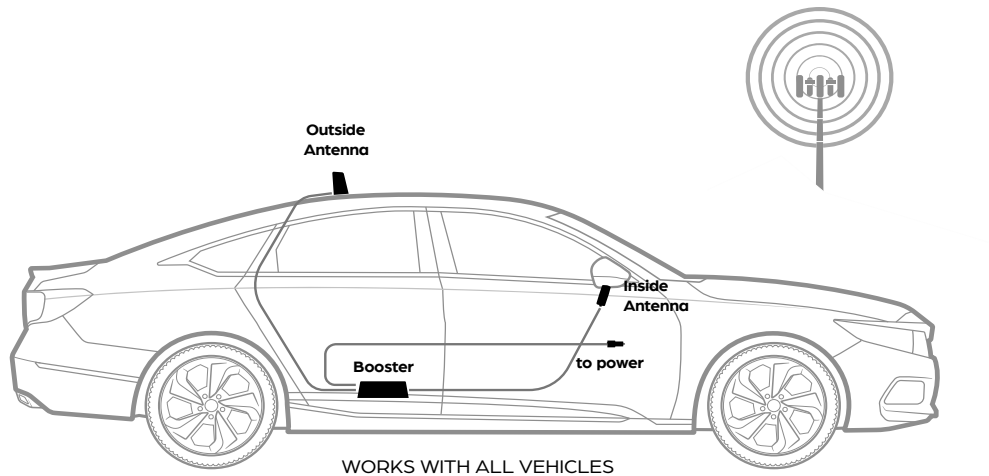
Installation Overview – Overland Setup

Use stabilizer arm to secure antenna when laid in the horizontal position.

NOTE: System will only fully function with the antenna in the upright position.



Installation Overview – Vehicle Setup



NOTE: For aluminum roofs, an adhesive disk is included to mount the outside antenna (do not use if outside antenna will magnetize to the top of your vehicle).

Overland Installation

Contents Required



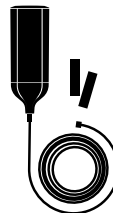
Drive Reach
Signal Booster



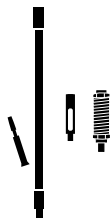
In-Vehicle
Antenna



Power
Supply



Outside Antenna,
14 ft. Cable & Heat
Shrink Tubes



13 in. Mast Ext.,
Side-Exit Adapter, Spring
& Thread Lock Pack



Overland Mounting
Bracket & Mounting
Hardware



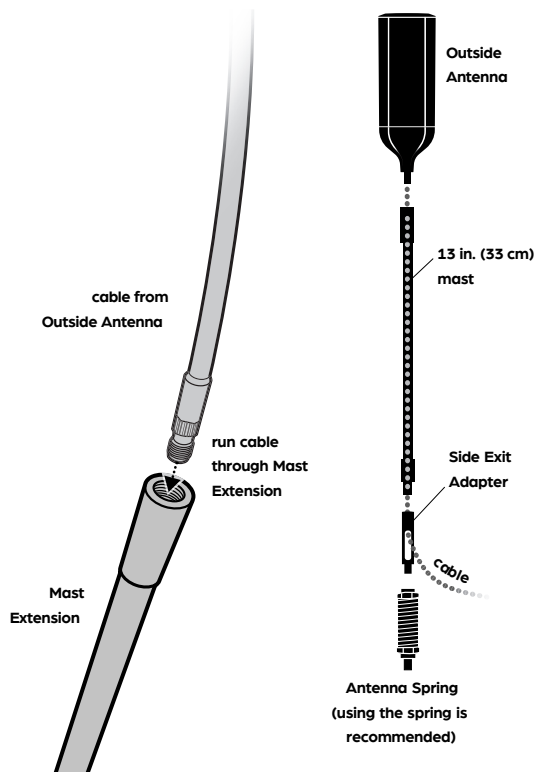
Stabilizer Arm &
Zip Ties

Installation – Overland

STEP 1

Assemble the Overland Antenna

The antenna should be mounted above gear on top of the vehicle. Once you have determined the best location for the outside antenna, insert coax cable through mast extension (mast can be used optionally), then through side-exit adapter.

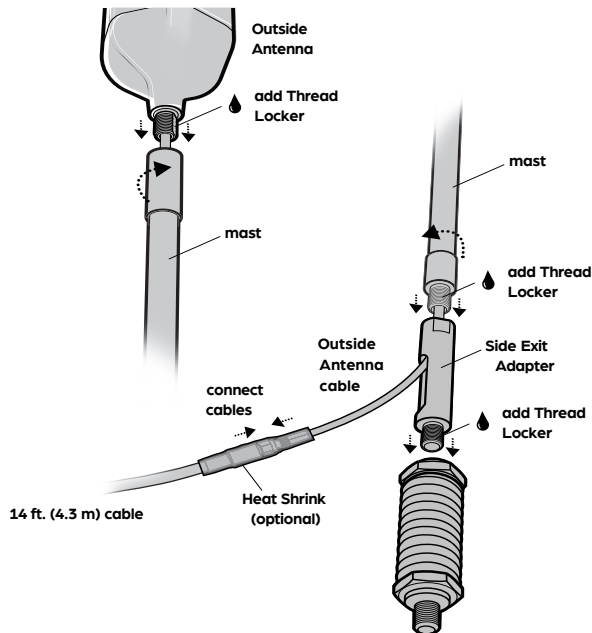


Installation – Overland

STEP 1 (Continued)

After determining outside antenna assembly is the correct height, **apply the thread locker** precisely to thread points only (not plastic body of antenna). **Screw mast onto antenna.**

Connect 14-foot cable to outside antenna cable. Heat shrink tube can be applied to the connection (optional).

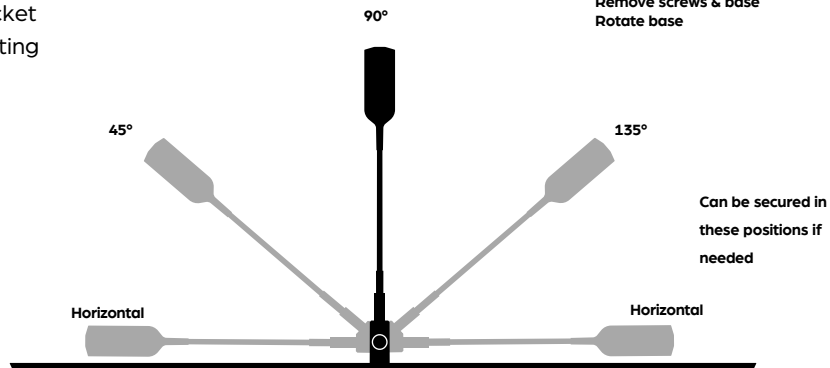
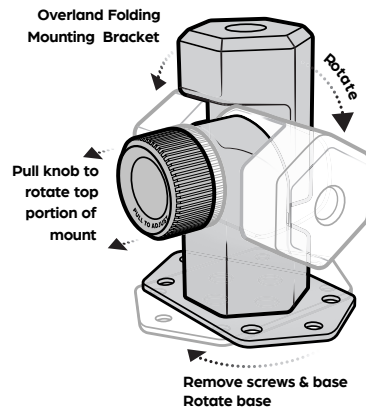


Installation – Overland

STEP 2

Mount the Outside Antenna with Overland Mounting Bracket

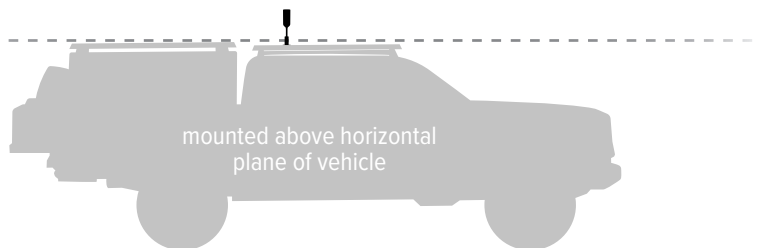
This kit includes a **folding mounting bracket** (can be secured at 90°, 45°, 135° or horizontal). This makes it easier to install the **outside antenna to different types of overland vehicles**. The overland folding mounting bracket is very versatile with different mounting options.



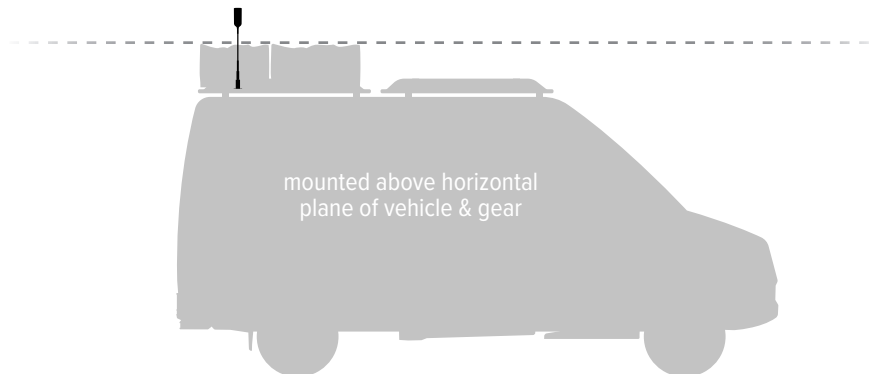
NOTE: System will only fully function with the antenna in the upright position.

Installation – Overland

Best Outside Antenna Position

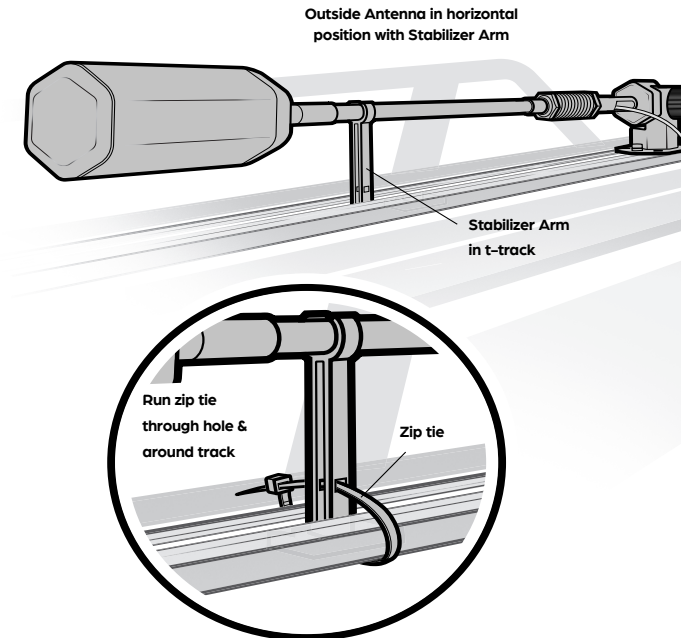


For best performance the outside antenna should be mounted above the horizontal plane of the vehicle and/or above other gear on top of the vehicle.



STEP 2 (Continued) T-Track Mounting Option Folded Down

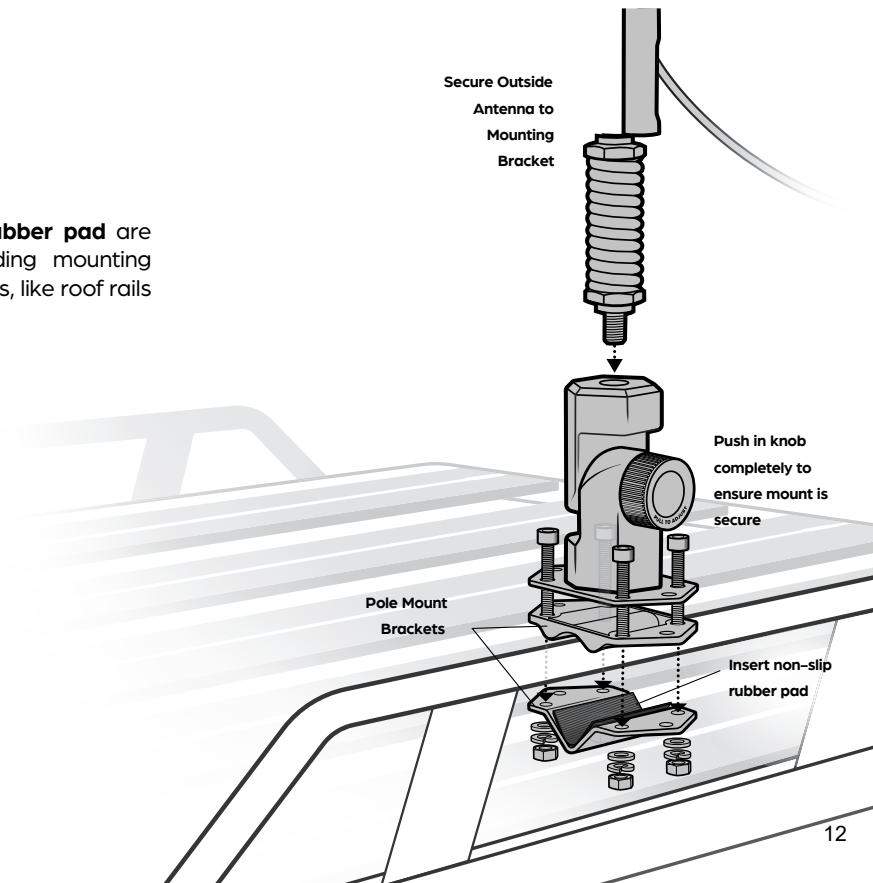
The stabilizer arm can be used to secure the outside antenna in the horizontal position. Insert stabilizer arm into t-track, zip tie can be used to secure it in place.



Installation – Overland

STEP 2 (Continued) Pole Mounting Option

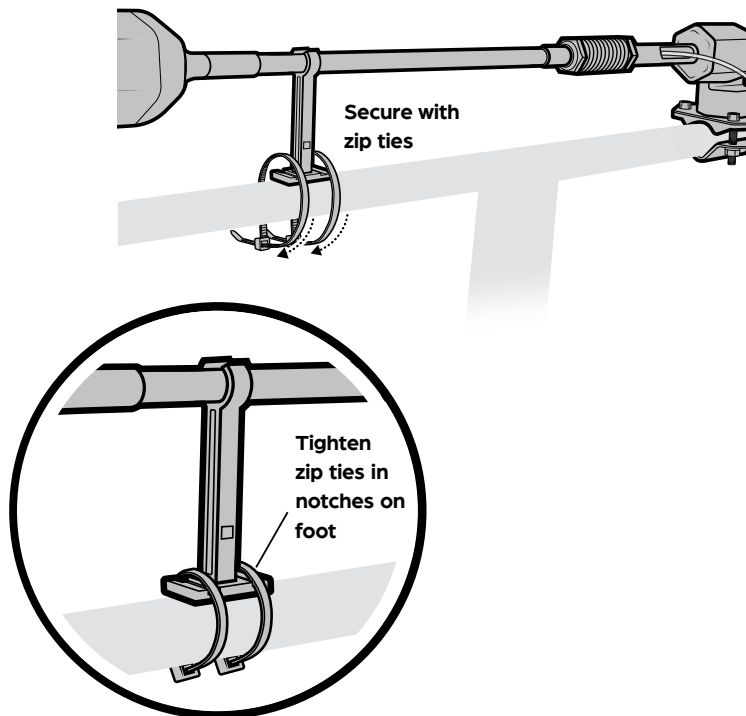
Brackets, hardware and non-slip rubber pad are also provided for securing the folding mounting bracket to 1.0–1.25 inch diameter poles, like roof rails or ladder



Installation – Overland

STEP 2 (Continued) Pole Mounting Option Folded Down

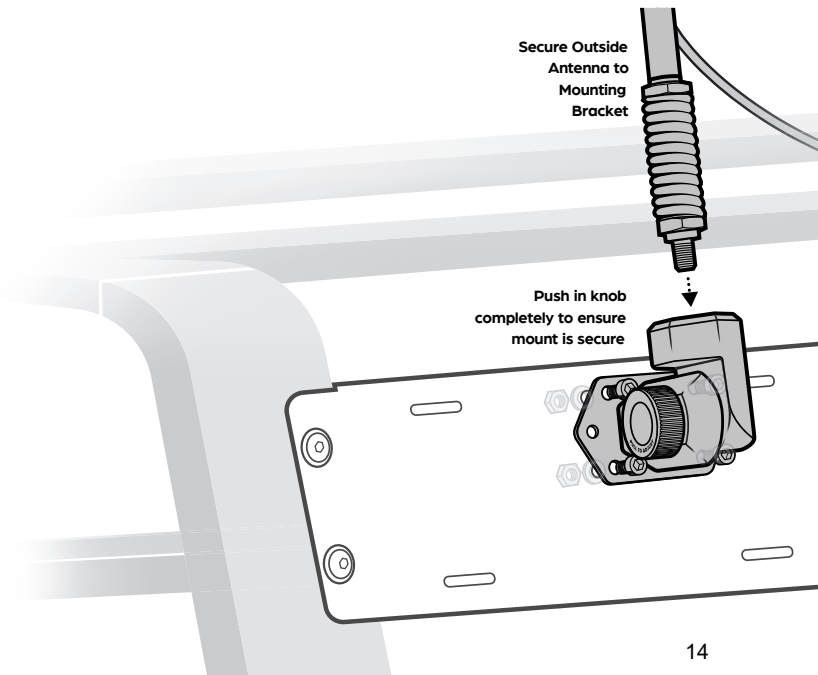
Stabilizer arm can be used on poles by securing with **zip ties**, as shown.



Installation – Overland

STEP 2 (Continued) Fixed Mounting Option

The folding mounting bracket can also be secured to a flat surface using the provided hardware as shown here.



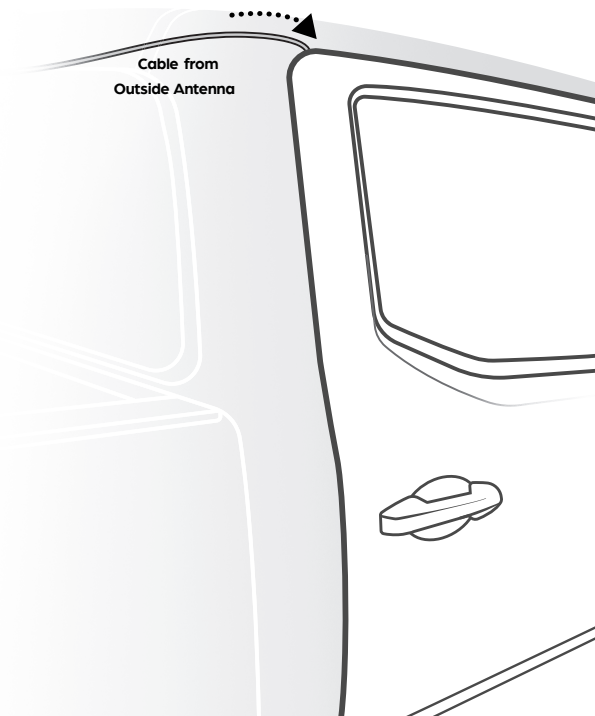
Installation – Overland

STEP 3

Route Cable into Vehicle

Once the outside antenna is mounted and secured, **route the coax cable into the vehicle**. The cable is strong enough that it may be shut in most vehicle doors without damage.

NOTE: Cable should only be routed through vehicle door.



Installation – Overland

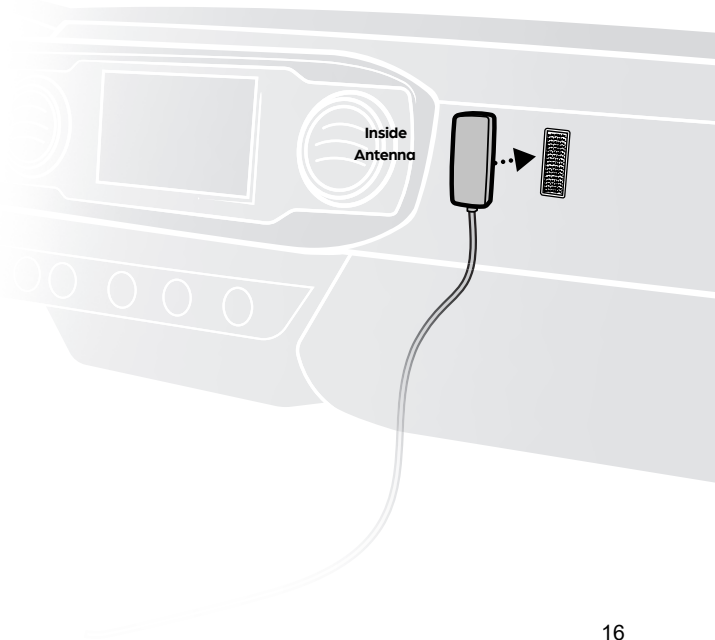
STEP 4

Mount the Inside Antenna

Identify a place to mount the inside antenna.

Mount it either on the dash or the side of the seat. The antenna should be placed at least 18 inches but no more than 36 inches from where the cellular device will be used. Use the Velcro® adhesive strip provided and attach to desired location.

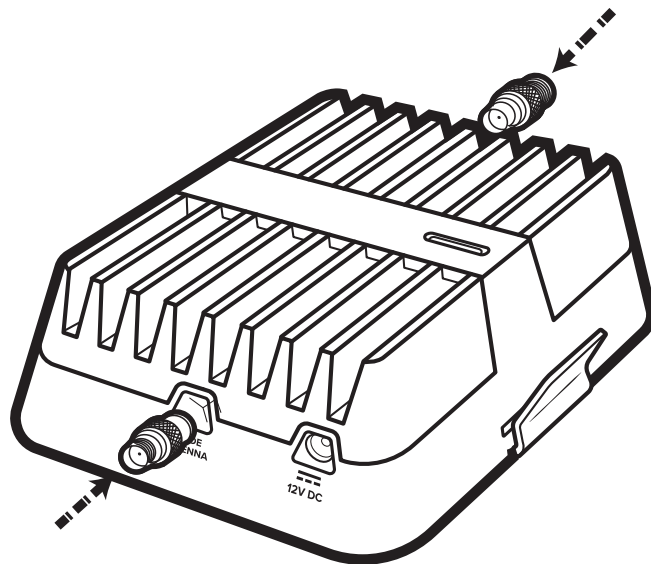
NOTE: Do not mount the inside antenna where an airbag will deploy.



STEP 5

Attach Antenna Adapters

Push each adapter on each end of the amplifier they should stay in place. If they come loose, push them back in. The adapters let you use screw-on antennas, making it easy to move the amplifier between vehicles



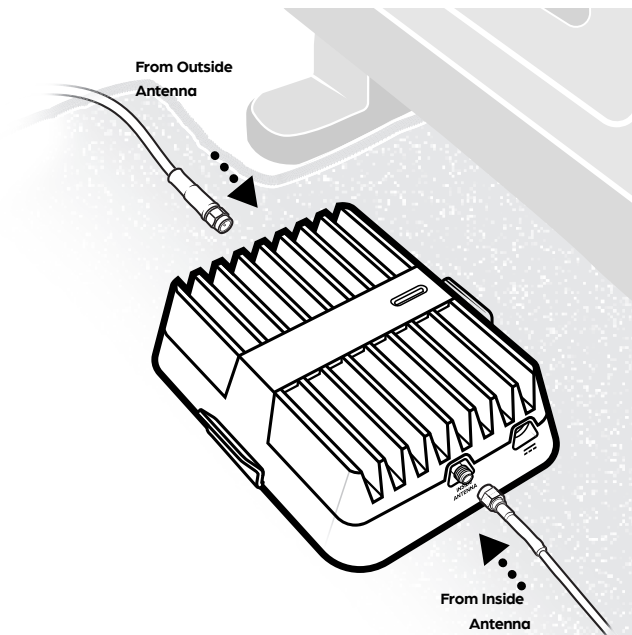
Installation – Overland

STEP 6

Booster Location & Connect Coax Cables

Find a accessible location to place the booster that has good air flow. Securing the booster with Velcro® behind or under the seat is a good option.

Connect the coax cable from the outside antenna to the port labeled “Outside Antenna” on the booster. Then connect the cable from the inside antenna to the port labeled “Inside Antenna” on the booster.



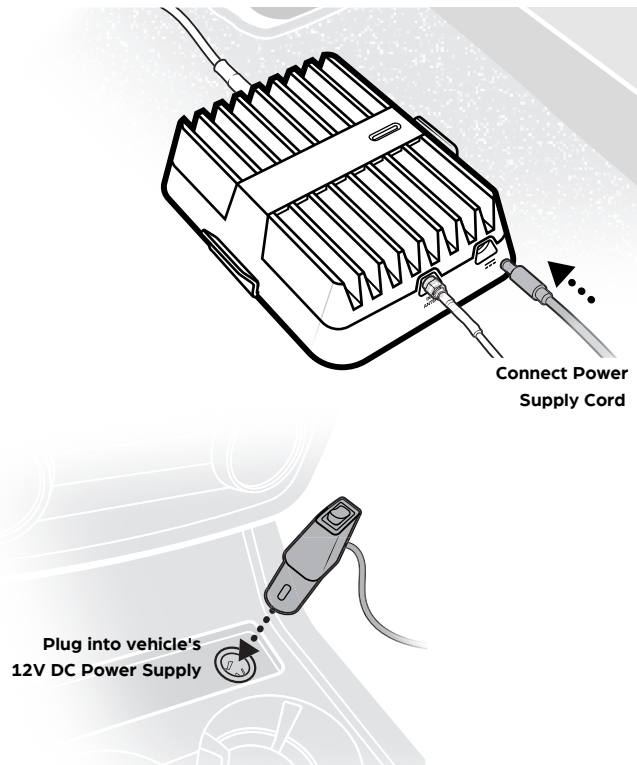
Installation – Overland

STEP 7

Connect Power Supply to Booster

Connect the power supply to the end of the booster. Then plug the power adapter into vehicle's 12V DC power supply. Push switch to ON position. If your booster is working correctly, the light on the booster will be green. Use only the power supply provided in this package.

NOTE: If the 12V cigarette lighter port on your car is always on (even when your vehicle is turned off) and you will be parking for extended periods of time (more than a day), we recommend you turn the booster off by pushing power cord switch to OFF position. This will prevent the booster from draining the battery in your vehicle.



Vehicle Installation

Move the 2-in-1 amplifier from your overlander to your car

The Rover Duo Cross Country's amplifier can be taken from vehicle to vehicle easily by disconnecting it from your car's antennas.

Simply unscrew the outside and inside antennas and gently pull the power supply cord. Leave all cords in place and secure them so that they are not a hazard while driving.

The antenna adapters should remain attached to the amplifier. If they become detached, simply push them into place as shown in step 1 in this manual.

Contents Required



Drive Reach
Signal Booster



Outside Antenna &
Adhesive Disk
(for use on aluminum
vehicles)



In-Vehicle
Antenna



Power
Supply

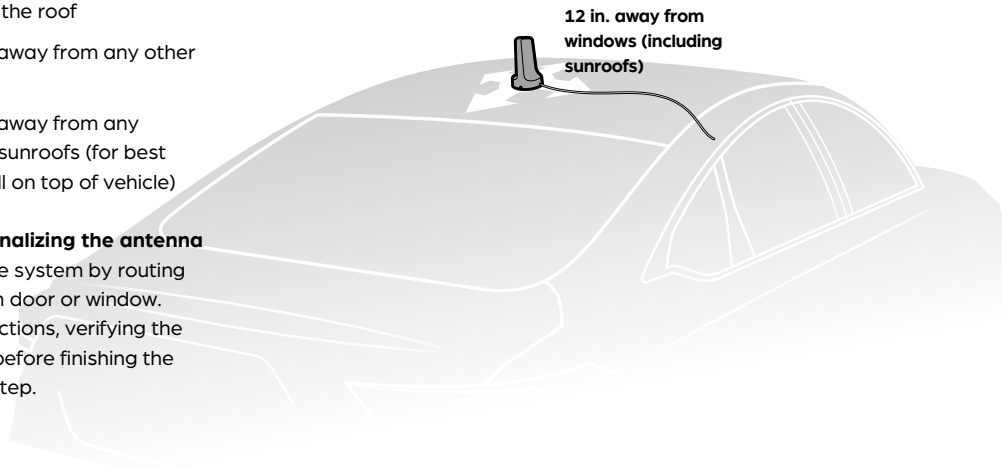
Installation – Vehicle

STEP 1 Mount the Outside Antenna

Identify a location for the outside antenna on the top of your vehicle that is:

- Near the center of the roof
- At least 12 inches away from any other antennas
- At least 12 inches away from any windows including sunroofs (for best performance install on top of vehicle)

Do a soft install before finalizing the antenna mounting point. Setup the system by routing the cable through an open door or window. Complete the setup instructions, verifying the system works as desired before finishing the remaining portion of this step.

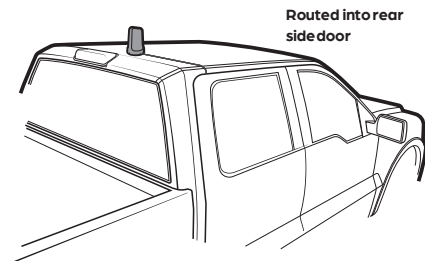
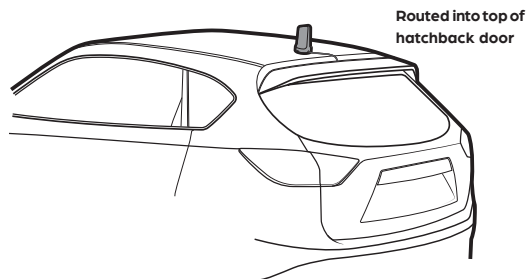
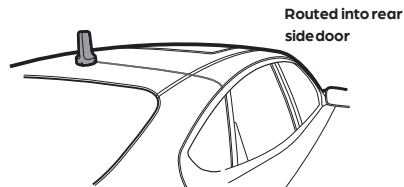


Installation – Vehicle

STEP 1 (Continued) Mount the Outside Antenna

Once the outside antenna is mounted and secured, **route the coax cable into the vehicle**. The coax cable can be routed in different ways depending on your type of vehicle. The cable is strong enough that it may be shut in most vehicle doors without damage.

NOTE: When going through a car wash, remember to remove your antenna.

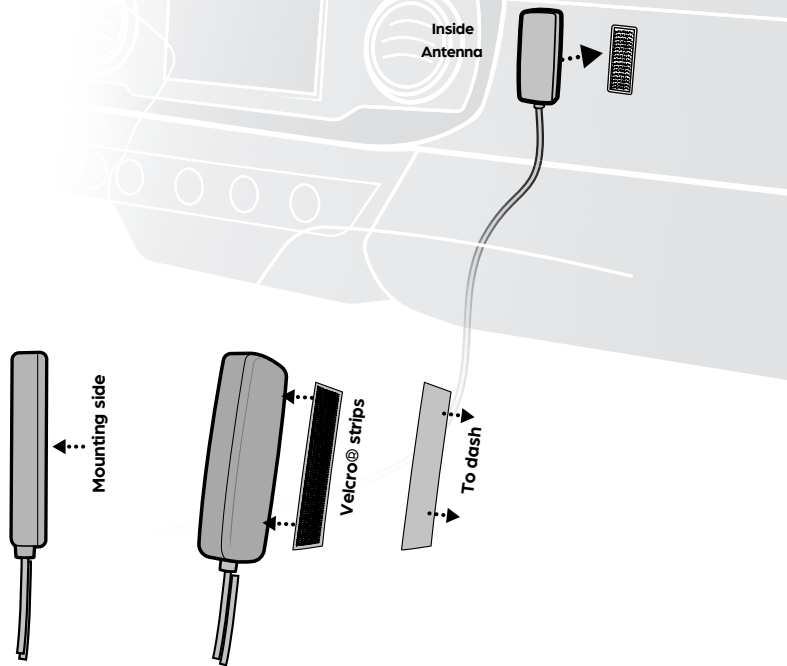


Installation – Vehicle

STEP 2

Mounting the Inside Antenna

Identify a place to mount the in-vehicle antenna, either on the dash or side of the seat and mount. The location should be at least 18 inches but no more than 36 inches from where the cellular device will be used. Use the Velcro® strips provided and attach to desired location.

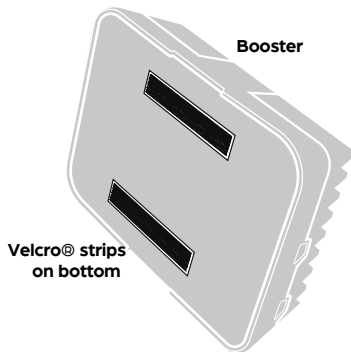


Installation – Vehicle

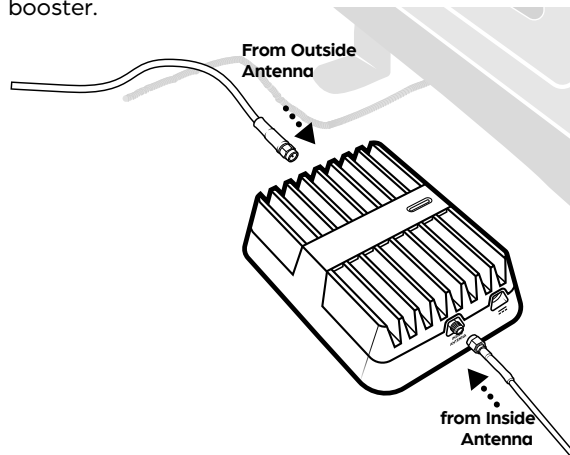
STEP 3

Booster Location & Connect Coax Cables

Find a accessible location to place the booster that has good air flow. Velcro® strips are included to secure the booster to the carpet behind or under the seat.



Connect the coax cable from the outside antenna to the port labeled "Outside Antenna" on the booster. Then **connect the cable** from the inside antenna to the port labeled "Inside Antenna" on the booster.



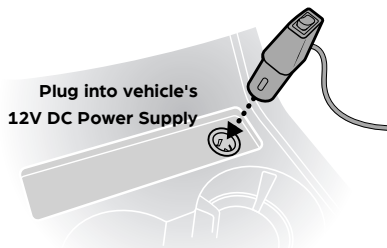
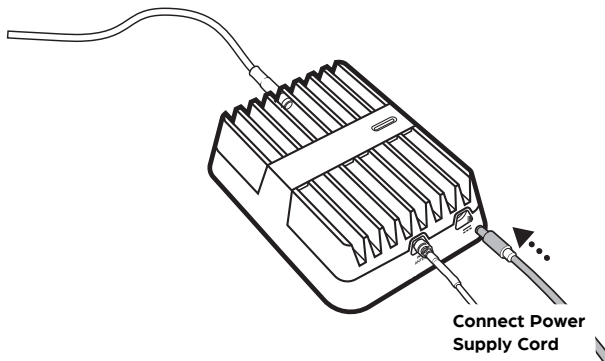
Installation – Vehicle

STEP 4

Connect Power Supply to Booster

Connect the power supply to the end of the booster. Then plug the power adapter into vehicle's 12V DC power supply. Push switch to ON position. If your booster is working correctly, the light on the booster will be green. Use only the power supply provided in this package.

NOTE: If the 12V cigarette lighter port on your car is always on (even when your vehicle is turned off) and you will be parking for extended periods of time (more than a day), we recommend you turn the booster off by pushing power cord switch to OFF position. This will prevent the booster from draining the battery in your vehicle.



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 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 and ensure switch is in 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 desired coverage area is achieved. Note: Horizontal separation of the two antennas typically requires a shorter separation distance than vertical separation.

If you are having any difficulties while testing or installing your booster, contact our Solid Signal Customer Support team for assistance (1-800-312-4547).

Troubleshooting (Continued)


FREQUENTLY ASKED QUESTIONS

How can I contact customer support?

Customer Support can be reached Monday through Friday by calling 1-877-312-4547, or through our support site at www.solidsignal.com/contact-us

Why do I need to create distance between the outside antenna and inside 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.

 1-877-312-4547

 www.solidsignal.com

 info@solidsignal.com

Antenna Info

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

This radio transmitter 4726A-460061 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 permissible antenna gain (dBi) 50Ω	1.2	1.2	1.1	0.8	0.4
Inside antenna maximum permissible antenna gain (dBi) 50Ω	2.1	2.6	3.20	2.1	2.7

Specifications

Drive Reach Cell Signal Booster					
Model	460061				
FCC	PWO460061				
IC	4726A-460061				
Connectors	SMA-Female				
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 B12/17 25.4	700 MHz B13 25.6	800 MHz B5 25.6	1700 MHz B4 26.7	1900 MHz B2 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	12V 1.8A				

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 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 technical specifications were met. This device complies with Part 15 of FCC rules. 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.

Safety Guidelines

Warnings

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

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 20 cm 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.

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 REQUIREMENTS SET OUT IN
ISED CPC-2-1-05, SEE BELOW:**

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08942.html>

**FOR MORE INFORMATION ON REGISTERING YOUR SIGNAL BOOSTER WITH
YOUR WIRELESS PROVIDER, PLEASE SEE BELOW:**

T-Mobile/Sprint/MetroPCS: <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: <http://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp>

When registering your booster use model "Drive Reach 470154"

2 YEAR WARRANTY

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 Signal Group. Signal Group shall, at its option, either repair or replace the product.

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

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

RMA numbers may be obtained by contacting Customer Support.

DISCLAIMER: The information provided herein is believed to be complete and accurate. However, no responsibility is assumed by Signal Group 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.

SOLIDSIGNAL

**22285 Roethel Drive, Novi MI 48375
877-312-4547 • www.solidsignal.com**