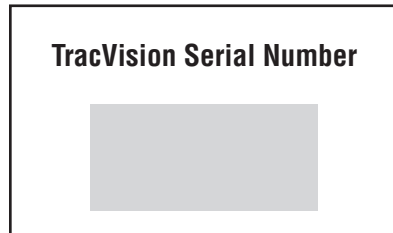


Welcome!

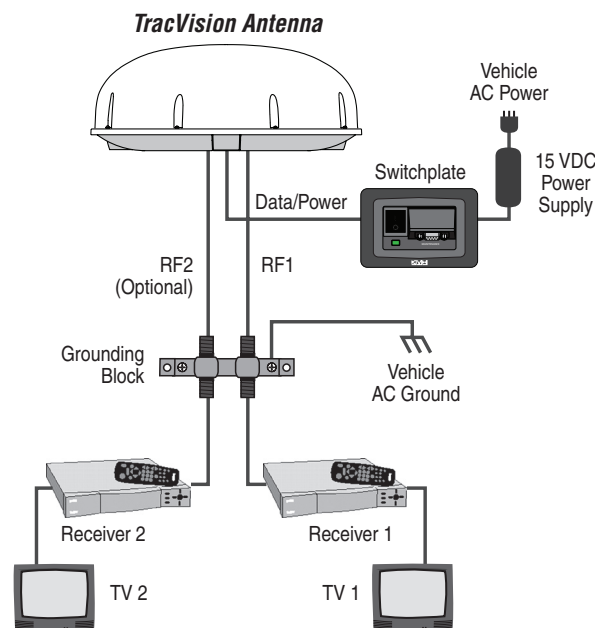
Congratulations! You have purchased the most reliable satellite TV antenna system available today. Refer to this guide for basic operation and troubleshooting information. For installation information, refer to the Installation Guide.

Product Serial Number



- R5SL, In-motion
- R4SL, Stationary (use only when parked)

TracVision System Diagram

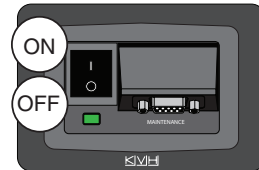


54-0560A

Basic Operation

Turning On the System

1. Park your vehicle in an area with a clear view of the southern sky, away from any trees or tall buildings.
2. Turn on your receiver and TV.
3. Set the switchplate's Power switch to the ON (I) position.



4. Wait 1 minute for system startup.

Turning Off the System

Set the switchplate's Power switch to the OFF (O) position.

Product Care

- Periodically wash the exterior of the dome with fresh water and mild detergent. Avoid harsh cleansers or volatile solvents (e.g., acetone).
- Do not spray the dome with high-pressure water.
- If you wish to paint the dome, use only non-metallic automotive paint without a primer coat. Metallic paint will impair reception of satellite signals.

Certified Receivers

The following receivers have been certified by KVH for use with your TracVision system.

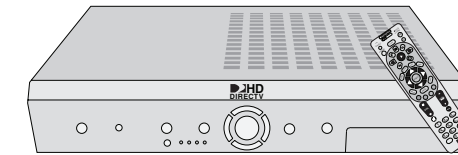
Service	HD	Non-HD
DIRECTV*	H21-200, H20-600	D12, D11, D10
DISH Network	211, 211k	311
ExpressVu	6100	3100

*Tri-Sat AutoSwitch required for KU-band HDTV. KA-band HDTV is not currently supported.

Switching Satellites

Single-Receiver Setup

Your TracVision system automatically switches satellites as you change channels using your receiver's remote control.



Note: Receivers might take up to 30 seconds to display video when changing channels, switching satellites, or switching between HD and non-HD channels.

Multiple-Receiver Setup

The TracVision system tracks one satellite at a time. Therefore, switching satellites with the primary receiver might cause televisions connected to other receivers to display different programming, no programming, or an error message. Simply select a channel carried by the new satellite, or switch back to the original satellite.



DIRECTV

The TracVision system switches satellites automatically as you change channels using the primary receiver's remote control (the receiver connected to RF1).

If your TracVision system is equipped with the KVH Tri-Sat AutoSwitch Kit, any receiver equipped with a Tri-Sat AutoSwitch can control satellite selection.



DISH Network and ExpressVu

The TracVision system switches satellites automatically as you change channels using the primary receiver's remote control (the receiver connected to RF1).

Note: The receiver might briefly display an error message while the antenna changes satellites.

Troubleshooting

Can the antenna see the satellite?

The antenna requires an unobstructed view of the southern sky to receive satellite TV signals. Common causes of blockage include trees, buildings, bridges, and mountains.

Excessive dirt or moisture on dome?

Dirt buildup or moisture on the dome can reduce satellite reception. Clean the exterior of the dome periodically.

Is it raining heavily?

Heavy rain or snow can weaken satellite TV signals. Reception should improve once the inclement weather subsides.

Is everything turned on & connected?

Make sure your TV and receiver are both turned on and set up for the satellite input. Finally, check any connecting cables to ensure none have come loose.

Have you reset the receiver?

Receivers can sometimes lock up, preventing the programming from being displayed on the TV. Turn off and unplug your receiver. Wait 1 minute, then plug it back in and turn it on.

Technical Support



If you are experiencing any operational problems, call or visit your local authorized TracVision dealer or distributor. You can find an authorized

technician near you by visiting our website at www.kvh.com/wheretogetservice.

If you need help finding an authorized technician, please contact KVH Technical Support:

E-mail: techs@kvh.com
Phone: +1 401 847-3327

Service Setup

When Setup is Required

DIRECTV

Your TracVision system is configured for DIRECTV service by default. No action is required to receive DIRECTV service.

DISH 1000

Your TracVision system should have been configured for DISH 1000 during installation. If you add a new receiver or install a receiver configured for home use, proceed to Step 1 below to set up that receiver for mobile use.

Since DISH 1000 coverage varies by region, you can enjoy your DISH 1000 subscription nationwide by adjusting the setup for either the 129 or 61 satellite - whichever best suits your location. Proceed to Step 1 to adjust your setup.



For detailed satellite coverage information, contact DISH Network at 1-800-333-DISH.

DISH 500 and ExpressVu

Your TracVision system should have been set up for your selected satellite service during installation. However, if you add a new receiver or install a receiver configured for home use, proceed to Step 1 below to set up that receiver for mobile use.

Step 1 - Connect the Service Key(s)

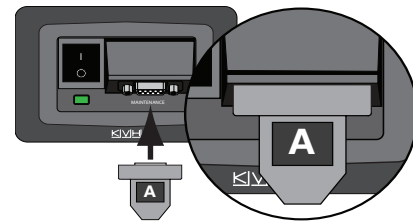
All ExpressVu and some DISH Network setups require connecting one or more of the service keys supplied with your system. This section (continued on the next page) explains which keys, if any, your setup requires.

Note: If your setup requires connecting a Service Key(s), be sure to connect it before proceeding to Step 2.

Service Setup

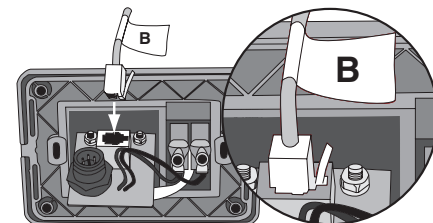
Service Key "A"

When required, this key connects to the DB9 connector located on the *front* of the switchplate.



Service Key "B"

When required, this key connects to the RJ22 connector located on the *rear* of the switchplate.



Service Key Usage for DISH Network/ExpressVu

Satellite Service	Key A	Key B
DISH 1000/129	-	-
DISH 1000/61	Connect	-
DISH 500	Connect	Connect
ExpressVu	-	Connect

Note: DIRECTV service does not require any service keys or Check Switch tests.

Step 2 - Run Two Check Switch Tests

1. Park your vehicle in a blockage-free area.
2. Ensure the receiver you need to configure is connected to RF1. Then turn on the TV and the receiver.
3. Turn on the TracVision system. Wait 1 minute for system startup.
4. Using the receiver remote, go to the "Point Dish/Signal Strength" screen (press MENU 6,1,1 on most models).
5. Choose **Check Switch**, then press SELECT.
6. Choose **Test**, then press SELECT. Wait at least 15 minutes for the procedure to complete.
7. Repeat Steps 4-6 above to run a second test.

Service Setup

Step 3 - Verify Results

1. Verify that the values displayed on your TV match those shown for your selected service in the following tables. If your values do not match, repeat Step 2.

DISH 1000/129 Results

Port	1	2	3
Satellite	119	110	129
Trans	OK	OK	OK
Status	Reception Verified		
Switch	SW64		

DISH 1000/61 Results

Port	1	2	3
Satellite	119	110	61
Trans	OK	OK	OK
Status	Reception Verified		
Switch	SW64		

DISH 500 Results

Input	1	1	2	2
Satellite	119	119	110	110
Polarity	Odd	Even	Odd	Even
Status	Reception Verified			
Switch	SW42			

ExpressVu Results

Input	1	1	2	2
Satellite	82	82	91	91
Polarity	Odd	Even	Odd	Even
Status	Reception Verified			
Switch	SW21			

2. Exit the menu and allow the receiver to download the program guide. Once the guide has loaded, you can start enjoying satellite TV.

TRACVISION

KVH TracVision R5SL/R4SL



User's Guide

KVH Industries, Inc.

50 Enterprise Center
Middletown, RI 02842-5279
Phone: 1-401-847-3327

E-mail: info@kvh.com

Tech Support E-mail: techs@kvh.com

PLEASE READ!

Important Addendum to Your Product Manual

This addendum applies to the following TracVision® antenna models: R4SL and R5SL.

IMPORTANT!

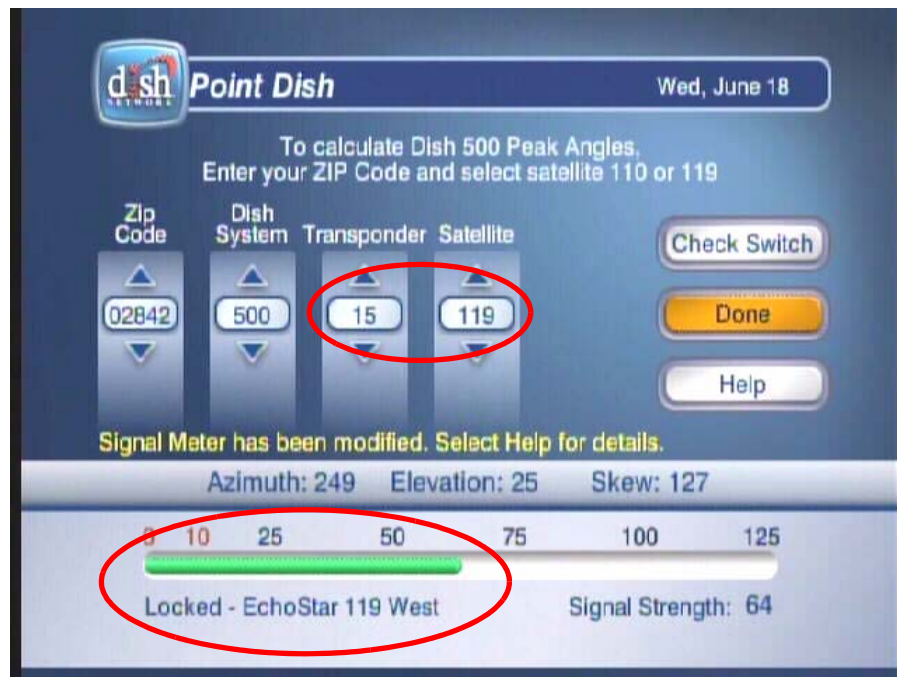
This addendum only applies if the vehicle is located in the **southwestern U.S.** (California, Nevada, Arizona, New Mexico, Texas, or Oklahoma) and you need to configure the system for **DISH Network®** service.

Running Check Switch Tests for DISH Network in the Southwest

Due to the higher elevation angle in the Southwest to the 119 satellite, follow the modified steps below to run the receiver Check Switch tests for a DISH Network configuration.

1. Park the vehicle in a blockage-free area. Ensure the antenna has an unobstructed view of the entire southern sky.
2. Ensure the receiver you wish to configure is connected to the antenna's RF1 cable.
3. Apply power to the TV and receiver.
4. If the antenna is turned off, turn it back on and wait two minutes for system startup.
5. Using the receiver's remote, go to the "Point Dish/Signal Strength" screen (press MENU, 6, 1, 1 on most models).
6. Choose **Check Switch**, then press SELECT.
7. Choose **Test**, then press SELECT.

8. Once the TV shows that the Check Switch test is complete, return to the "Point Dish/Signal Strength" screen and choose transponder 15 on satellite 119.
9. Wait until the Signal Strength meter turns green and shows "Locked - EchoStar 119 West," as shown below (it may take up to 30 minutes).



10. When the Signal Strength meter turns green and shows "Locked - EchoStar 119 West," wait 2 minutes, then turn off the TracVision antenna.
11. Wait 10 seconds, then re-apply power to the TracVision antenna. Wait two minutes for system startup.
12. Repeat Steps 5-7 to run a second Check Switch test.
13. Wait at least 15 minutes before proceeding. Disregard any messages that appear on the TV screen.
14. After you have waited 15 minutes, repeat Steps 5-7 to run a third Check Switch test.
15. Refer to the tables on page 3 to verify the values displayed on your TV match those required for your selected service. If your values do not match, repeat Steps 5-7 to run another Check Switch test.
16. When the values match, exit the menu and allow the receiver to download the program guide.

DISH 1000/129 Results

Port	1	2	3
Satellite	119	110	129
Trans	OK	OK	OK
Status	Reception Verified		
Switch	SW64		

DISH 1000/61 Results

Port	1	2	3
Satellite	119	110	61
Trans	OK	OK	OK
Status	Reception Verified		
Switch	SW64		

DISH 500 Results

Input	1	1	2	2
Satellite	119	119	110	110
Polarity	Odd	Even	Odd	Even
Status	Reception Verified			
Switch	SW42			

All other installation and operation steps remain the same as described in the manual.