

# TRACVISION<sup>®</sup>

BY KVH INDUSTRIES



## TracVision R6 Installation Guide

# TracVision R6 Installation Guide Addendum

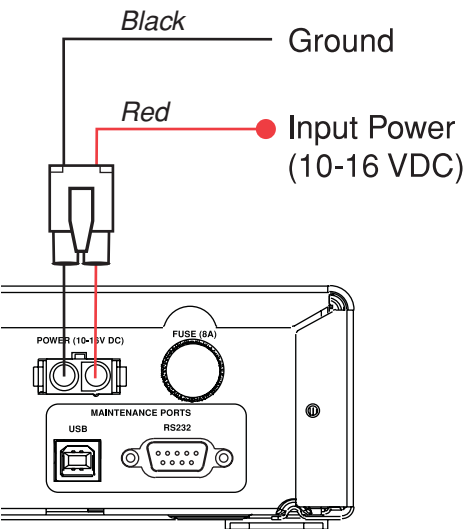
**(ECO #7638)**

The following change applies to Revision A of the TracVision R6 Installation Guide (KVH Part Number 54-0333).

## Connecting Power

The wiring diagram on page 9 of the Installation Guide shows the power connection incorrectly. The wires are reversed.

The diagram below shows the correct power wiring to the TracVision R6 receiver or interface box. Be sure to connect the red (positive) wire to +12 VDC vehicle power and the black (negative) wire to ground.



**Receiver or  
Interface Box**



*The receiver/interface box circuitry has built-in reverse polarity protection. Therefore, if power is wired incorrectly, the electronics will not become damaged.*

# TracVision® R6 Installation Guide

These instructions explain how to install the TracVision R6 satellite TV antenna system on an RV or motor coach.

## Installation Steps

1. Inspect Parts and Get Tools
2. Plan the Installation
3. Remove the Restraints
4. Mount the Antenna
5. Wire the Antenna
6. Wire the Receiver or Interface Box
7. Connect Power
8. Mount the Receiver or Interface Box
9. Install Remote Batteries (*Receiver Option*)
10. Test the System
11. Set Up the System (*Interface Box Option*)
12. Educate the Customer

## Who Should Install the System?

To ensure a safe and effective installation, KVH recommends that a KVH-authorized technician install the TracVision R6 system. To find a technician near you, please visit [www.kvh.com/wheretogetservice](http://www.kvh.com/wheretogetservice). If you purchased the product and decide to install it yourself, please see the enclosed warranty statement for warranty implications.

## Related Documentation

The following additional documents are provided with the TracVision R6 system:

| <u>Document</u>           | <u>Description</u>   |
|---------------------------|--|
| User's Guide              | Complete operation, setup, and troubleshooting information |
| Quick Start Guide         | Handy quick reference to basic operation                   |
| Product Registration Form | Details on registering the product with KVH                |
| Warranty Statement        | Warranty terms and conditions                              |
| Contents List             | List of every part supplied in the kit                     |

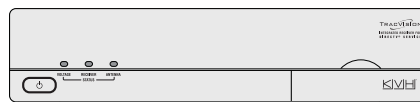
## 12V Receiver or Interface Box?

The TracVision R6 includes either a 12V DIRECTV receiver or an interface box. Be sure to follow the appropriate instructions for your selected option.

### **KVH Technical Support**

Phone: 1-401-847-3327, Email: [techs@kvh.com](mailto:techs@kvh.com)

### **12V DIRECTV Receiver**



### **Interface Box**

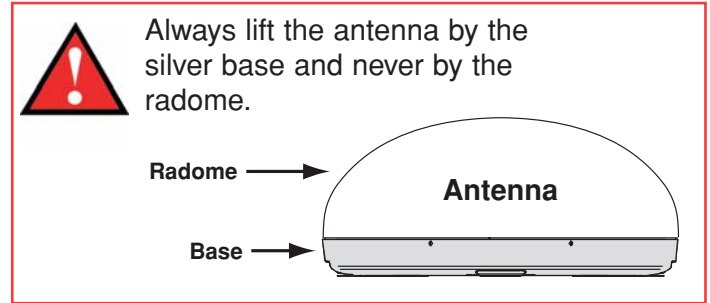


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# 1 Inspect Parts and Get Tools

1. Unpack the box and ensure it contains everything shown on the Contents List. *Save the packaging in case you need to reshipe the system.* Carefully examine all of the supplied parts to ensure nothing was damaged in shipment.
2. Gather all of the tools and materials listed below. You will need these items to complete the installation.

- Phillips and flat-head screwdrivers
- 7/16" open-end wrench
- Silicone sealant, RTV, or equivalent
- Construction adhesive suitable for the roof
- 5/8"-diameter hole saw
- Fasteners suitable for mounting the antenna to the roof
- Augat IT1000 crimp/strip tool (KVH P/N 19-0242)
- Eight 1/4" fasteners (optional, see page 10)
- RF modulator (if necessary, see page 7)



3. Peel off the extra serial number label (taped to the antenna) and affix it in the appropriate box on either the red Activation Card (receiver option) or the Quick Start Guide (interface box option).

**Receiver Option**

**TracVision Activation**

Before you can start enjoying satellite TV, the TracVision receiver **must be activated.**

To activate your receiver, please follow the steps below:

1. Call KVH's Activation Department at: **1-866-551-8004** (24 hours a day, 7 days a week)

You will need to provide the KVH Activation Department representative with a credit card number and the following KVH serial numbers:

|                        |   |
|------------------------|---|
| Receiver Serial Number | Antenna Serial Number<br><small>(If purchased as part of a complete antenna system)</small> |
| R 051099999            | A [ ]   |

**Affix Serial Number** (arrow points to box A)

Installer: Please place antenna serial number in box above.

2. The KVH representative will provide you with 4 ID numbers necessary for activation. Enter these in the boxes below:

|                      |                    |
|----------------------|--------------------|
| Access Card Number   | Receiver ID Number |
| Hughes Serial Number | Model Number       |

Please save this card for future reference. You will need these numbers whenever you call DIRECTV.

**Interface Box Option**

**Welcome!**

Congratulations! You have purchased the TracVision R6, the most advanced satellite TV antenna system available today. Refer to this handy quick reference guide for basic operation and setup instructions.

**TracVision Serial Numbers**

|                       |                             |
|-----------------------|-----------------------------|
| Antenna Serial Number | Interface Box Serial Number |
| [ ]                   | 051099999                   |

**Affix Serial Number** (arrow points to Antenna Serial Number box)

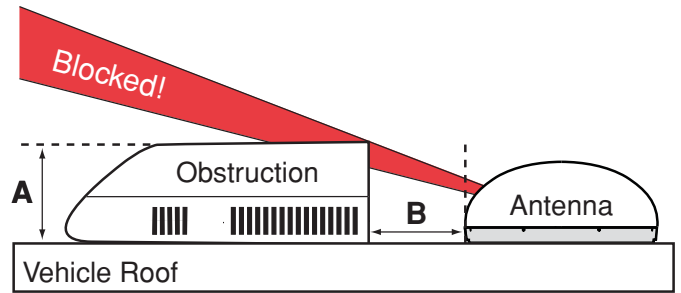
**TracVision R6 System Diagram**

TracVision Antenna

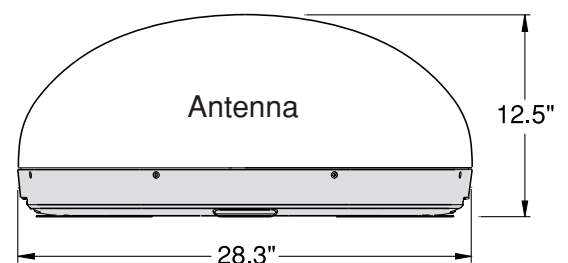
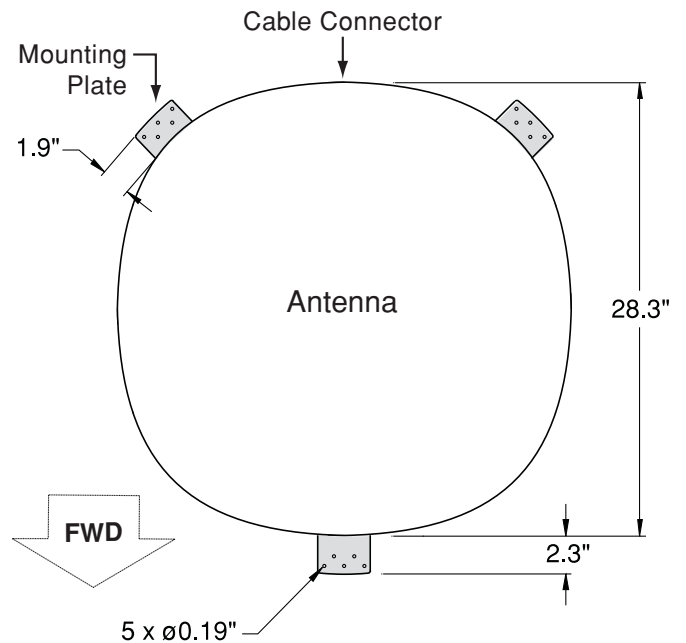
# 2 Plan the Installation

Before you begin, consider the following installation guidelines:

- Minimize blockage. The antenna needs a clear view of the sky to receive satellite TV. Using the table as a guide, mount the antenna a suitable distance away from obstructions on the roof, such as air conditioners.
- Ensure the mounting surface is flat and strong enough to support the 28-lb antenna. When placed on the mounting surface, all three mounting plates must lay flat against the roof (within  $\frac{1}{16}$ " ) to avoid warping the base and damaging the antenna.
- The antenna must be mounted on the centerline of the vehicle with the antenna's cable connector facing the rear of the vehicle.
- Be sure to mount the antenna near enough to the supplied receiver/interface box to allow you to connect the 28-ft. coax cable, while still maintaining sufficient slack in the cable. If you need to use a longer coax cable, use an RG6 (75 ohms) cable that does not exceed 80 feet in length.
- Once you've chosen a location for the antenna, identify a safe location nearby for the  $\frac{5}{8}$ " cable access hole in the roof. Make sure you will not drill into any existing wires or aesthetic structures inside the vehicle.
- When choosing a location for the receiver/interface box, find a dry, well-ventilated area inside the vehicle away from any heat sources. Also be sure the front panel of the receiver/interface box will be easily accessible to the user.




| Height of Obstruction (A) | Minimum Distance from Antenna (B) |
|---------------------------|-----------------------------------|
| 8"                        | 8"                                |
| 10"                       | 13"                               |
| 12"                       | 19"                               |
| 14"                       | 24"                               |
| 16"                       | 30"                               |



# 3 Remove the Restraints

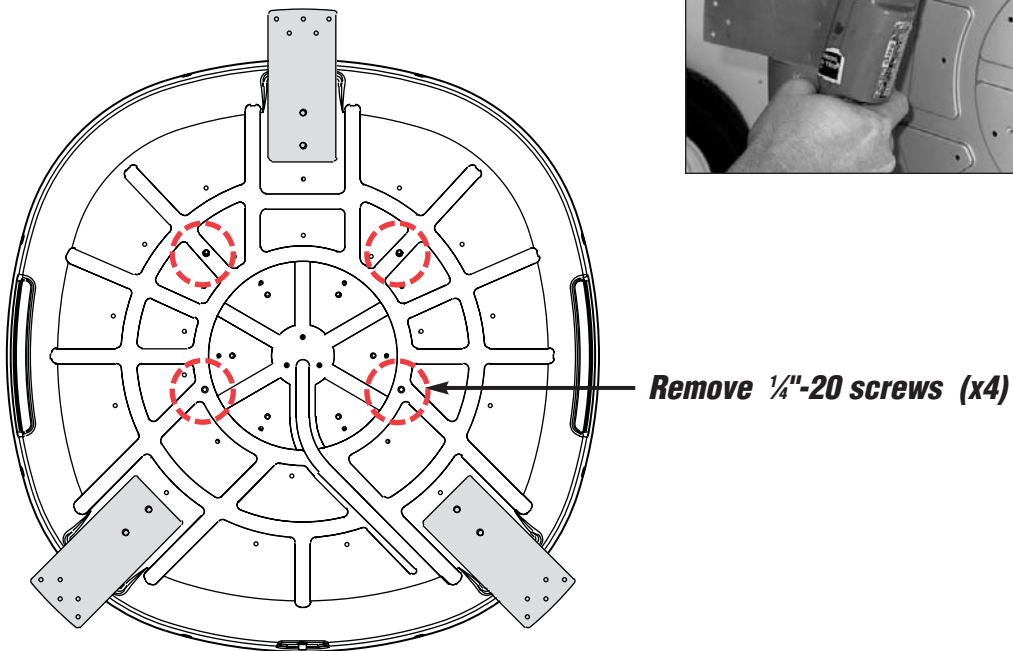
1. Carefully carry the antenna to the roof of the vehicle.
2. Using a Phillips screwdriver, remove the four ¼"-20 screws on the bottom of the antenna's base at the locations shown in the illustration below. *Save these shipping restraints for future use.*

 Be sure to remove all 4 shipping restraints. The antenna will not work with these restraints still installed.

Once you have removed the shipping restraints, handle the antenna unit carefully. Improper handling may damage the unit.




**Antenna, Bottom View**



# 4 Mount the Antenna

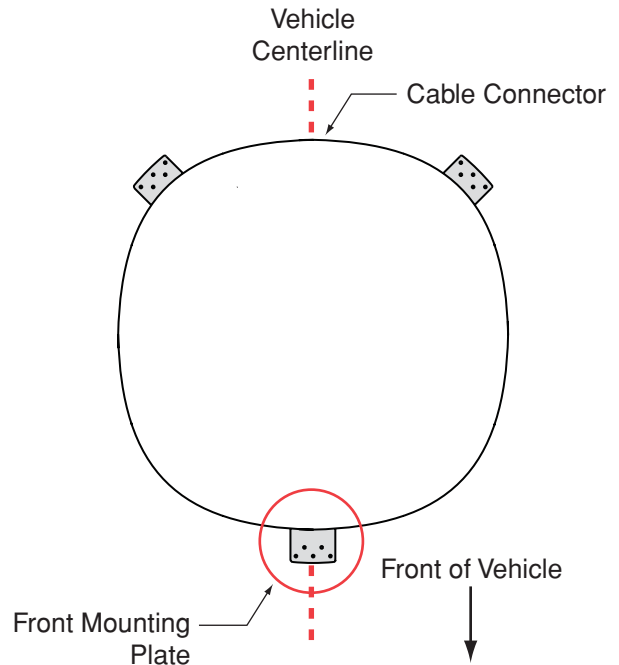
1. Apply appropriate construction adhesive to the bottom of the antenna's three mounting plates across all of the holes.
2. At the mounting location you chose earlier, place the antenna on the centerline of the roof so that the front mounting plate faces the front of the vehicle and the cable connector faces the rear of the vehicle.
3. Attach the three antenna mounting plates to the roof using 15 fasteners appropriate for the roof's construction.

 Due to the variation in RV roof construction, consult with the RV manufacturer to determine the safest fastening method.

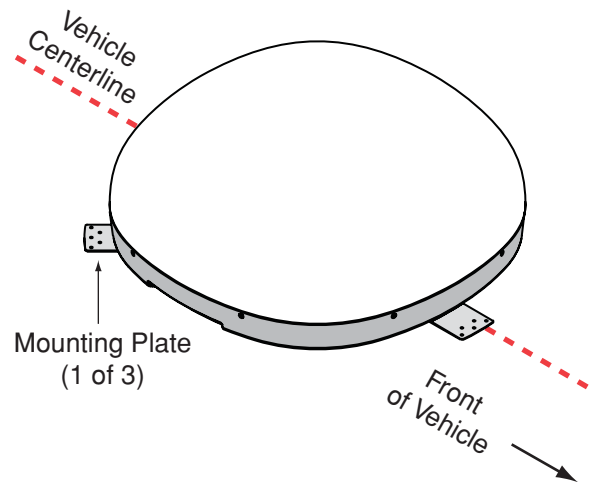
4. Seal all fasteners with silicone sealant or equivalent.



**Antenna, Top View**




**Antenna, Side View**

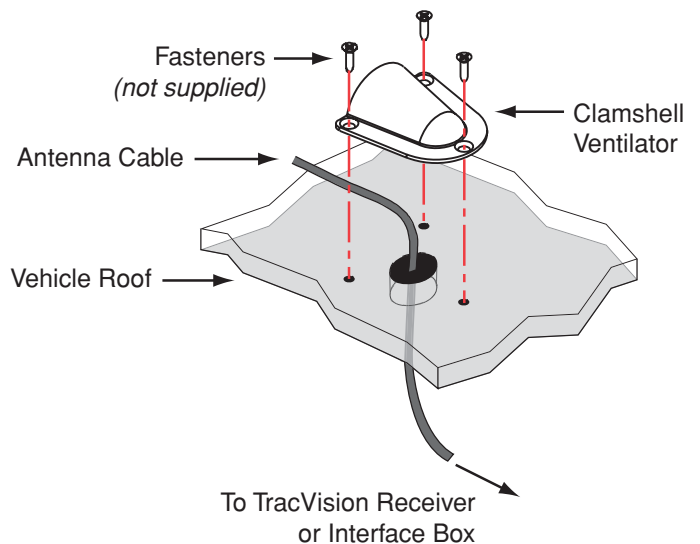


# 5 Wire the Antenna

1. At the location you chose earlier, use a  $\frac{5}{8}$ " hole saw to cut out a cable access hole in the vehicle's roof. Smooth the edges of the hole to protect the cable.
2. Connect the RG6 antenna cable (the end with the rubber boot) to the antenna. Hand-tighten, then tighten with a  $\frac{7}{16}$ " wrench for  $\frac{1}{4}$  turn.
3. Slide the rubber sealing boot up the cable until it covers the connector. This boot will help protect the connector from the elements.
4. Route the other end of the antenna cable down through the roof access hole and into the vehicle. *Later, you will connect this end of the cable to the receiver/interface box.*
5. Leave an adequate service loop, approximately 8" of slack, in the antenna cable for easy serviceability.
6. Seal the cable access hole with a liberal amount of silicone sealant (or equivalent) to protect against leakage.
7. Install the clamshell ventilator over the cable access hole. The clamshell's opening should face the rear of the vehicle. Secure in place with appropriate fasteners.



 Do not kink the cable. Maintain a bend radius of at least 3 inches.





# 6a Wire the Receiver

## Receiver Option Only:

1. If you cut the antenna cable, use an Augat IT1000 tool to attach a Snap-N-Seal® F-connector to the end of the cable.
2. Connect the antenna cable (A) to the "To KVH Antenna" jack. **Do not kink the cable.**
3. Connect the RF converter cable (B) to the "RF Remote Input" jack.
4. Connect the receiver to the TV's video input. Choose one of the following options:  
 Option 1 - RCA-type jack (*cable included*)  
 Option 2 - S-Video jack (*best quality*)
5. Connect the receiver to the TV's audio input. Choose one of the following options:  
 Option 1 - RCA-type jacks (*cables included*)  
 Option 2 - Digital audio jack (*best quality*)

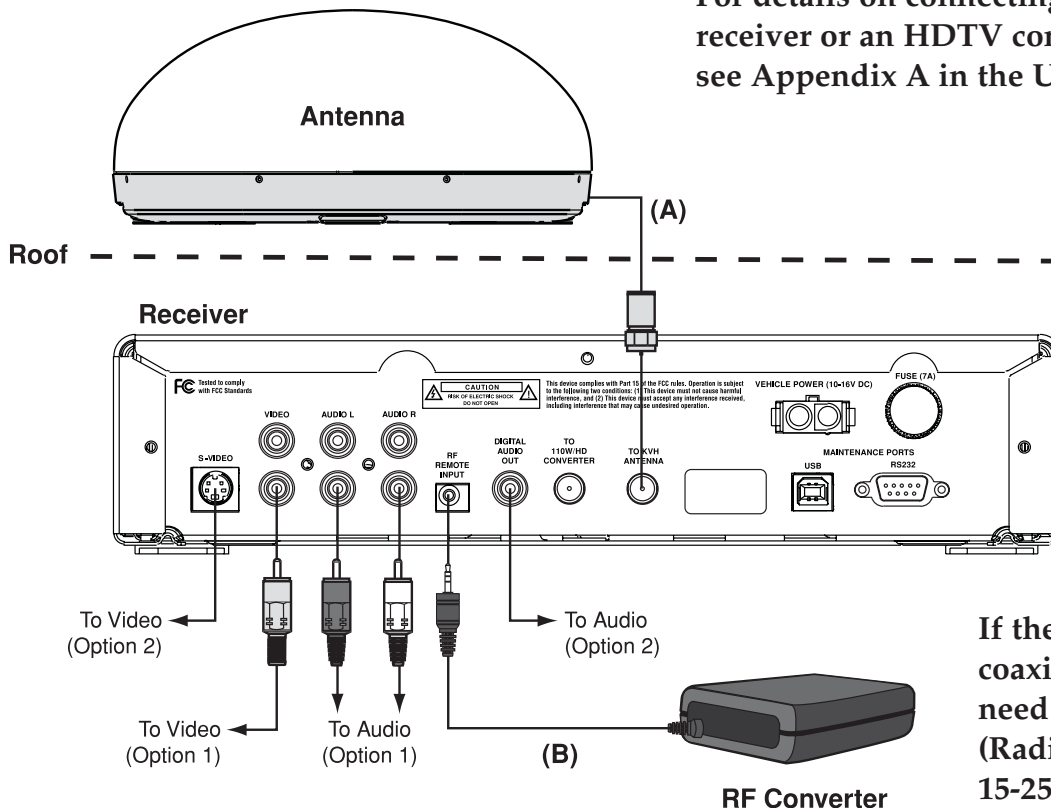


**Augat Tool**



Do not use a screw-on, push-on, or twist-on connector. Low-quality connectors will degrade system performance and KVH's warranty does not cover repairs resulting from the use of such connectors.

For details on connecting an additional receiver or an HDTV converter, please see Appendix A in the User's Guide.



If the TV has only a coaxial input, you will need an RF modulator (Radio Shack model 15-2526 or equivalent).

# 6b Wire the Interface Box

## Interface Box Option Only:

1. If you cut the antenna cable, use an Augat IT1000 tool to attach a Snap-N-Seal F-connector to the end of the cable.
2. Connect the antenna cable (A) to the “To KVH Antenna” jack. **Do not kink the cable.**
3. Connect a RG6 coax cable (B) from the “Unstacked Output” jack on the interface box to the “Satellite In” jack on your satellite TV receiver.
4. Follow the instructions provided in your receiver owner’s manual to connect your receiver to the TV.

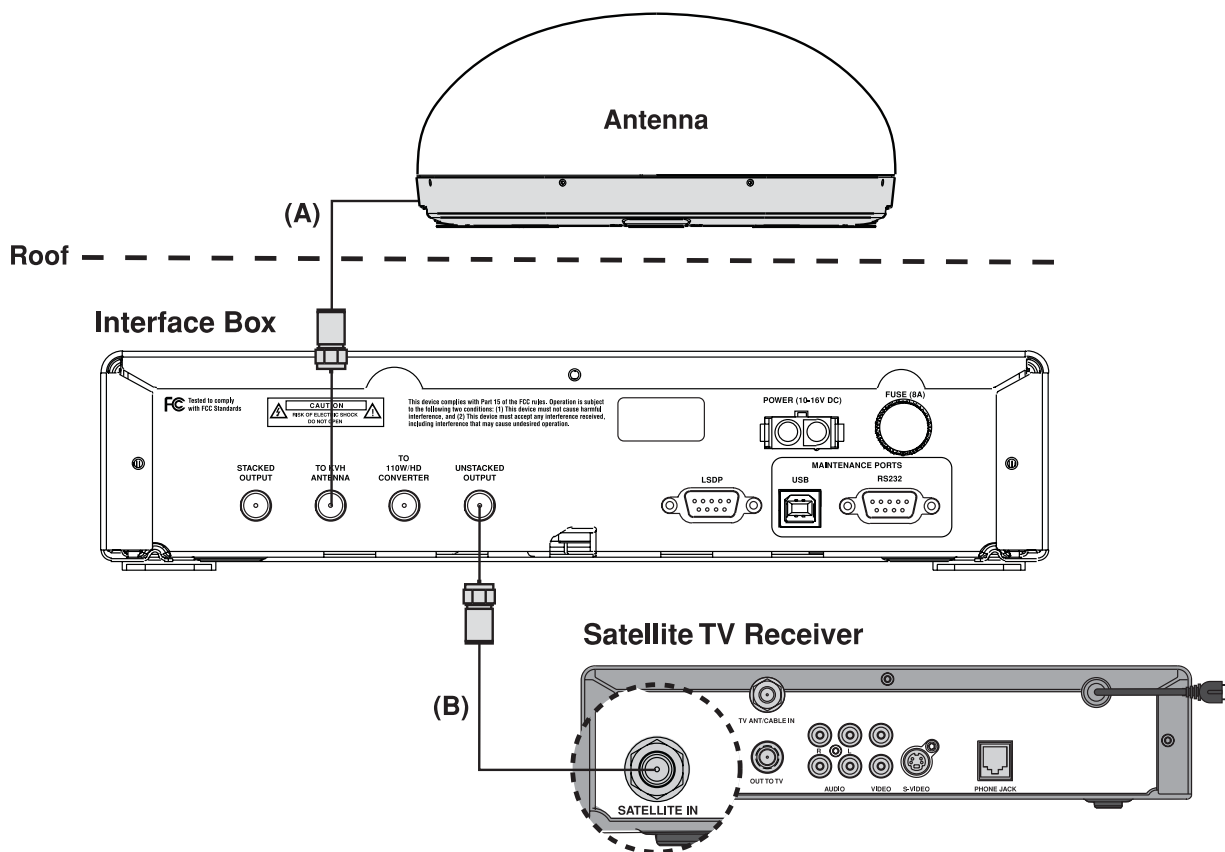


**Augat Tool**



Do not use a screw-on, push-on, or twist-on connector. Low-quality connectors will degrade system performance and KVH’s warranty does not cover repairs resulting from the use of such connectors.

For details on connecting an additional receiver or an HDTV converter, please see Appendix A in the User’s Guide.



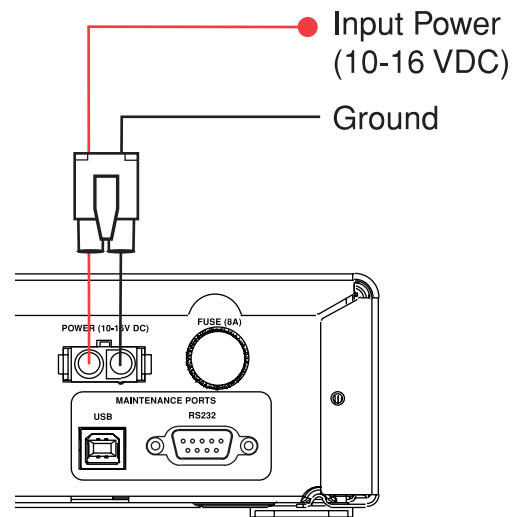
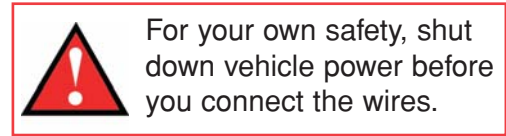
# 7 Connect Power

The receiver/interface box requires a 10-16 volts DC (VDC) power input supporting 60 watts (5 amps @ 12 VDC).

1. Before you connect the power wires, turn off vehicle power and test the circuit to ensure no power is present.
2. Connect the individual power wires to a dedicated 12 VDC circuit. Connect the negative (black) wire to ground (power return), and connect the positive (red) wire to clean +12 VDC vehicle power.

If vehicle power fluctuates or is noisy, KVH recommends that you use an AC/DC power supply (KVH P/N 19-0402) to provide stable power to the receiver/interface box.

3. Plug the other end of the power wires into the "Vehicle Power" jack on the rear panel of the receiver/interface box.




**Receiver or Interface Box**

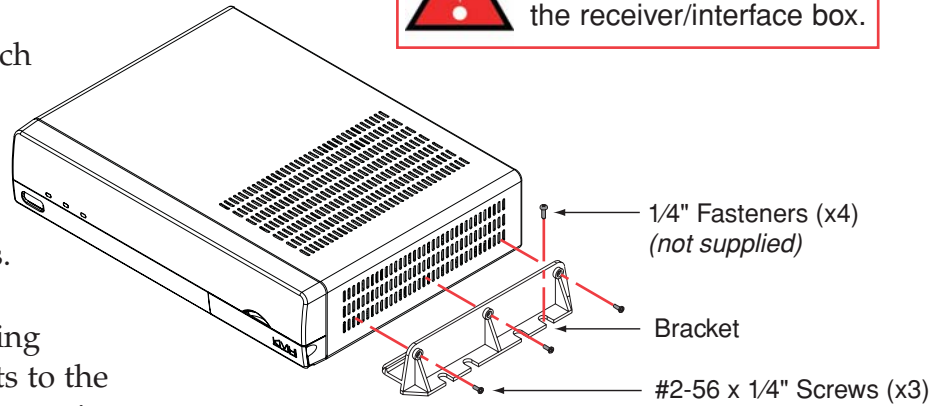
# 8 Mount the Receiver/Inter. Box

Once all cables are connected, install the receiver/interface box inside the vehicle.

1. If you wish to mount the receiver/interface box, attach the two mounting brackets to the sides of the unit using three #2-56 screws. Simply screw these fasteners into the vent slots.
2. If you are using the mounting brackets, secure the brackets to the mounting surface using appropriate 1/4" fasteners (*not supplied*).

Be sure to leave enough slack in the connecting cables (service loop) for easy serviceability.

 To avoid overheating, do not block the vents of the receiver/interface box.



## Receiver Option Only:

Place the RF converter at least 3 feet away from the receiver. If it is too close to the receiver, the remote control might not operate properly. Also avoid placing the RF converter behind a metal surface or in an area surrounded by metal. If desired, mount the RF converter using the supplied Velcro fasteners.

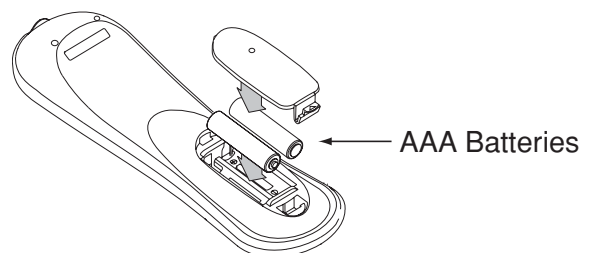


**RF Converter**

# 9 Install Remote Batteries

## Receiver Option Only:

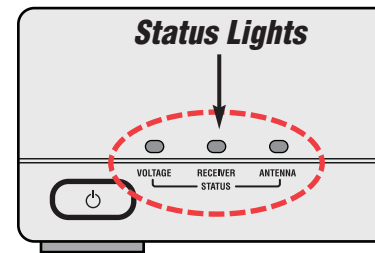
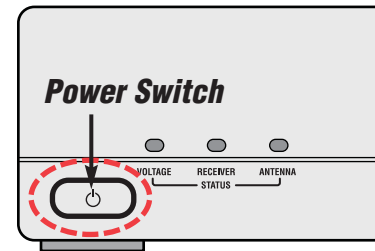
Insert two AAA batteries (*supplied in the kit*) in the remote control's battery compartment. Be sure to observe the correct polarity.



# 10 Test the System

Now that you have installed the TracVision system, you need to turn the system ON and verify that the antenna works properly.

1. Ensure the antenna has a clear view of the southern sky.
2. Apply power to the TV and the TracVision system.
3. Turn on the power switch on the front of the receiver/interface box.
4. Wait while the antenna searches the sky for the satellite. Within a few minutes, all three status lights on the front of the receiver should be lit green.



## Receiver Option Only:

A progress bar will appear on the TV, indicating that the receiver is downloading the program guide. Once the guide is loaded, verify that you can view the DIRECTV preview channel (channel 100).

If your satellite dish is ready for DIRECTV® service, please wait until your Advanced Program Guide™ is prepared.

Installation

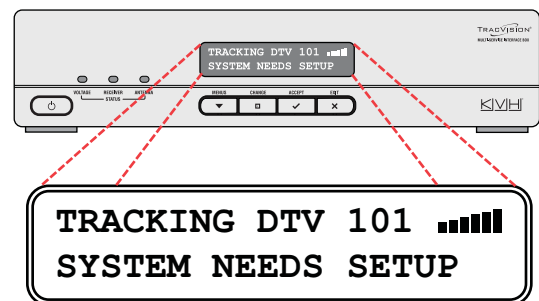


Acquiring guide data...

# 11 Set Up the System

## Interface Box Option Only:

Now that you have verified the antenna works properly, set up the system for the desired satellite TV service and receiver configuration. The system supports DIRECTV, DISH Network, or ExpressVu. Follow the simple, step-by-step instructions in Section 4 of the User's Guide to set up the system.

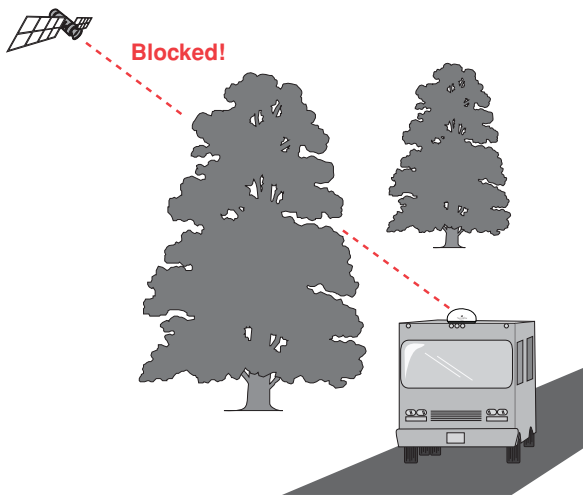


TRACKING DTV 101 [signal strength]  
SYSTEM NEEDS SETUP

# 12 Educate the Customer

Be sure to give the manuals to the customer and explain how to use the product. The customer also needs to know the following:

- **Keep the radome installed on the antenna at all times.** The radome protects the antenna's internal moving parts from wind, rain, and debris.
- **The receiver must be activated before it can receive satellite TV programming.**
- The antenna must have a clear view of the southern sky to receive satellite TV. Common causes of blockage include trees, building, overpasses, and mountains. The TracVision antenna will not work inside a garage.



- Heavy rain or snow may temporarily interrupt reception.
- To ensure optimum reception, keep DewShield™ set to AUTO. The DewShield electronic dew elimination system prevents dew from forming on the antenna (moisture weakens satellite signals).

## Receiver Option Only:

The owner needs the red Activation Card to activate the TracVision 12V receiver.

To activate, call KVH's Activation Department toll-free at **1-866-551-8004**

**TracVision® Activation**

Before you can start enjoying satellite TV, the TracVision receiver **must be activated.**

To activate your receiver, please follow the steps below:

1. Call KVH's Activation Department at:  
**1-866-551-8004**  
(24 hours a day, 7 days a week)  
You will need to provide the KVH Activation Department representative with a credit card number and the following KVH serial numbers:  
Receiver Serial Number: **R 051099999**  
Antenna Serial Number: **A 051077777**  
(If purchased as part of a complete stereo system)  
Installer: Please place antenna serial number in box above.
2. The KVH representative will provide you with 4 ID numbers necessary for activation. Enter these in the boxes below:  
Access Card Number:   
Receiver ID Number:   
Hughes Serial Number:   
Model Number:

Please save this card for future reference. You will need these numbers whenever you call DIRECTV.

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- The antenna should be cleaned regularly. Dirt buildup on the radome can affect satellite TV reception.
- The owner needs to register the system for product warranty validation. Refer to the Product Registration Form for details or visit: [www.kvh.com/register](http://www.kvh.com/register).
- It is **dangerous** to watch TV while driving a vehicle. The TracVision system is intended as a passenger entertainment product.
- The vehicle must be located within the selected satellite's coverage area in order to receive its satellite TV signals. To view satellite coverage maps, visit: [www.kvh.com/footprint](http://www.kvh.com/footprint).
- Refer to the Quick Start Guide and the User's Guide for complete operation instructions.

TRACVISION®  
BY KVH INDUSTRIES

KVH®  
www.kvh.com

**KVH Industries, Inc.** • 50 Enterprise Center • Middletown, RI 02842-5279 U.S.A . • Phone: (401) 847-3327 • Fax: (401) 849-0045 • E-mail: info@kvh.com

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