



## Automatic Satellite TV Antenna

# KD1500

Owner's Manual



**For Sales Information Please Contact**

**RoadTrucker Inc ([www.RoadTrucker.com](http://www.RoadTrucker.com))**

**8312 Sidbury Rd.**

**Wilmington, NC 28411**

**(800) 507-0482 / (910) 686-4281**



*Solutions for Mobile Markets*

11200 Hampshire Avenue South, Bloomington, MN 55438-2453

Phone: (952) 922-6889 Fax: (952) 922-8424

[www.kingcontrols.com](http://www.kingcontrols.com)

## IMPORTANT!

The satellite TV market is expanding and changing. The information in this manual was accurate at the time of printing. If your Rover™ Satellite Antenna does not operate as outlined in this manual, please call King Controls at (952) 922-6889 or visit our website at [www.kingcontrols.com](http://www.kingcontrols.com). King Controls is not responsible for changes outside of its control.

Please read this entire manual before installing and using your new antenna.

## IMPORTANT! DISH® CUSTOMERS WITH HD SOLO RECEIVERS ONLY!

If you have a DISH model ViP211z, ViP211k, ViP211 or 411 single tuner HD receiver, you can use the DISH Tailgater® user interface on your receiver (see Sections 3 and 6).

## TABLE OF CONTENTS

Section	Contents	Page
1.	INTRODUCTION .....	2
2.	INSTALLATION .....	3-9
3.	ANTENNA CONFIGURATION .....	10-11
4.	RECEIVER CONFIGURATION - DISH AND BELL TV .....	12-14
5.	OPERATION .....	16-17
6.	TAILGATER MODE .....	18-27
7.	SECOND RECEIVER OPERATION - DISH AND BELL TV .....	28-29
8.	TROUBLESHOOTING .....	30
9.	MAINTENANCE .....	31
10.	LIMITED WARRANTY .....	32

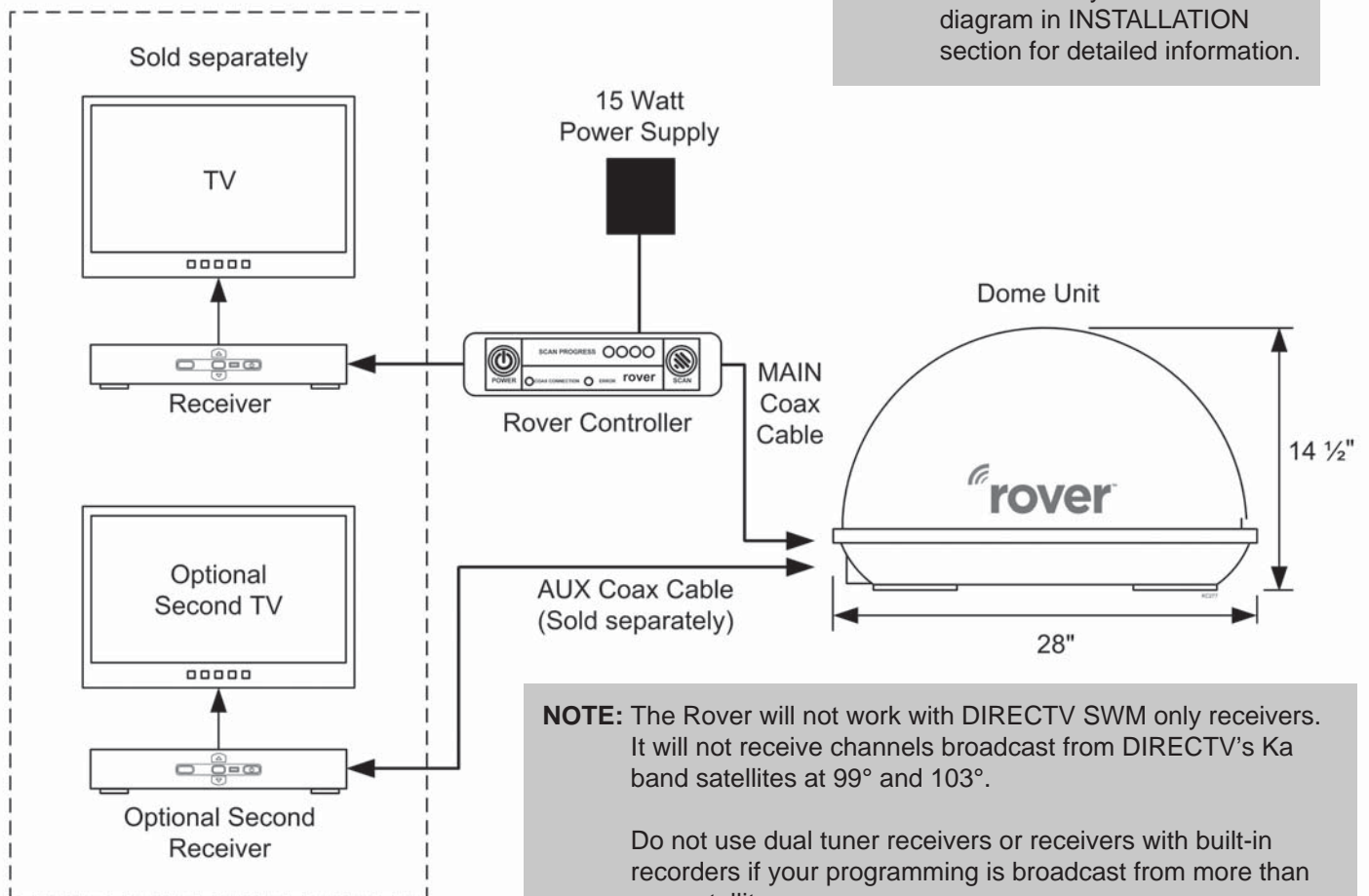
## Section 1 INTRODUCTION

The Rover Satellite System includes 3 main components (**Fig. 1**).

Dome (Antenna) Unit	Located on the roof of the vehicle. The satellite dish and electronics are covered by a protective dome that keeps operational components free from the elements.
Controller	Located in the vehicle. Activates the search mode and provides limited diagnostic functions using the controller's lights.
15 Watt Power Supply	Located in the vehicle. Supplies proper operating voltage to the Rover Controller. (The antenna unit draws power thru the coax from the receiver.)

**NOTE:** A TV, satellite receiver, and program subscription are also required for satellite TV viewing (sold separately).

**FIG. 1**



**NOTE:** The Rover will not work with DIRECTV SWM only receivers. It will not receive channels broadcast from DIRECTV's Ka band satellites at 99° and 103°.

Do not use dual tuner receivers or receivers with built-in recorders if your programming is broadcast from more than one satellite.

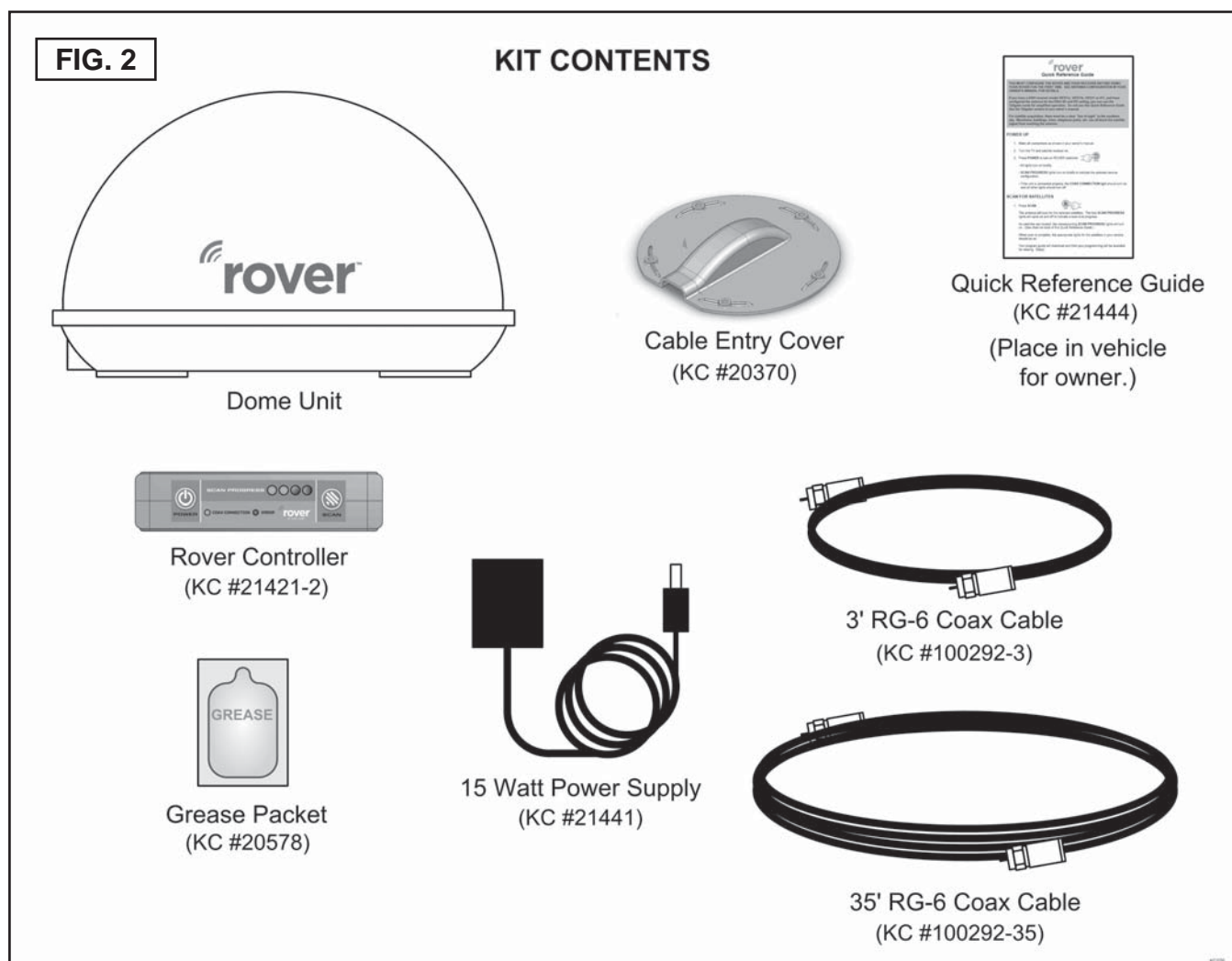
Bell TV: You may experience difficulty receiving your programming more than approximately 100 miles south of the Canadian/US border.

### TOOLS AND MATERIALS REQUIRED

- drill and drill bit set
- tape measure
- 7/16" open end wrench (coax connections)
- adhesive sealant (compatible with roof material)
- appropriate fasteners to install all components and wiring

### KIT CONTENTS

1. Unpack and identify all components (**Fig. 2**).



**NOTE:** Many RVs are pre-wired for satellite with RG-6 coax cable. Contact the manufacturer of your RV or your local dealer to verify where this cable is located.

If pre-wired, run the existing coax cable from the pre-wire location in the roof to the dome unit. When choosing the dome unit location, make sure the pre-wiring will reach the dome unit.

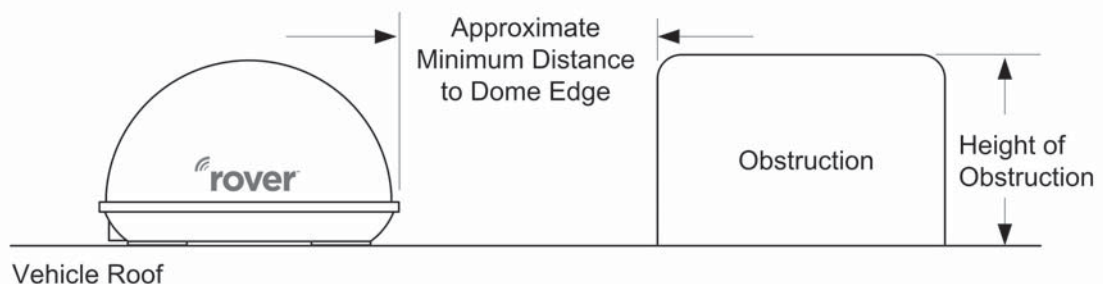
Make all connections, properly route and fasten wiring to roof, and completely waterproof entry hole with the cable entry cover as shown in this section. You may still run a second coax to the rear of the vehicle for an optional second receiver.

## DOMES UNIT LOCATION

2. Select an area on the roof for the dome unit and the location where the wiring will enter the vehicle through the roof to the satellite receiver inside using the following criteria:
  - a) A shorter distance between the dome unit and the satellite receiver is most desirable.
  - b) The dome unit requires a 28 inch diameter mounting area.
  - c) The dome unit should be mounted on the centerline of the vehicle.
  - d) There must be no “line of sight” obstructions. Air conditioning units, other antennas, and storage areas that are too close to the dome unit may prevent the satellite signal from reaching the antenna (**Fig. 3**).

**FIG. 3**

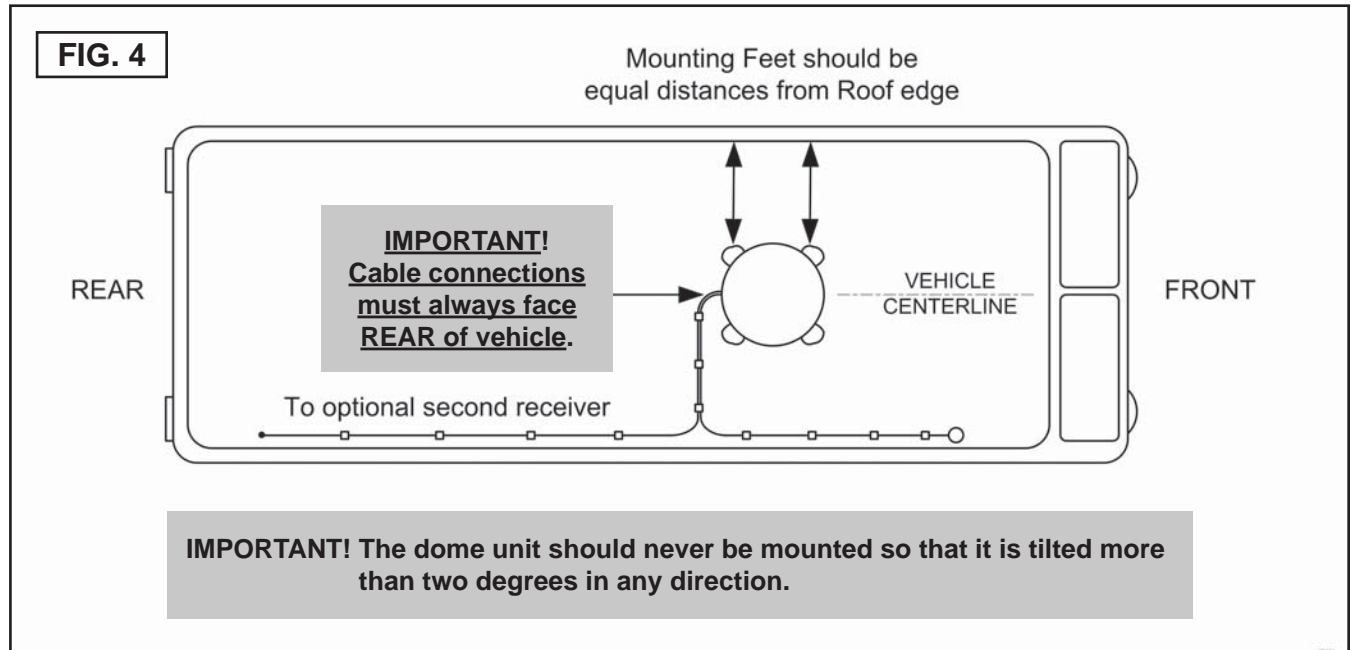
HEIGHT OF OBSTRUCTION	APPROXIMATE MINIMUM DISTANCE TO DOME EDGE
10"	8"
11"	10"
12"	12"
13"	14"
14"	16"
15"	18"
16"	20"



## DOME UNIT INSTALLATION

**IMPORTANT!** Cable connections must ALWAYS be positioned facing the rear of vehicle.

3. Place dome unit on installation location chosen using the criteria discussed on the previous page. Cable connections must be positioned facing rear of vehicle.
4. The dome unit must be positioned so that both mounting feet on each side of the vehicle are equal distances from the roof edge. This should be checked by measuring the distance from each foot to the roof edge. Confirm that these measurements are equal (**Fig. 4**).



**NOTE:** The installer is responsible for determining the most appropriate fastener to secure the dome unit to the roof. Depending on the roof material, fasteners such as lag screws, well nuts, sheet metal screws, toggle bolts and T anchors may be used, and should always be used in combination with a roof compatible sealant.

**IMPORTANT!** The installer is responsible for weatherproofing all holes with sealant.

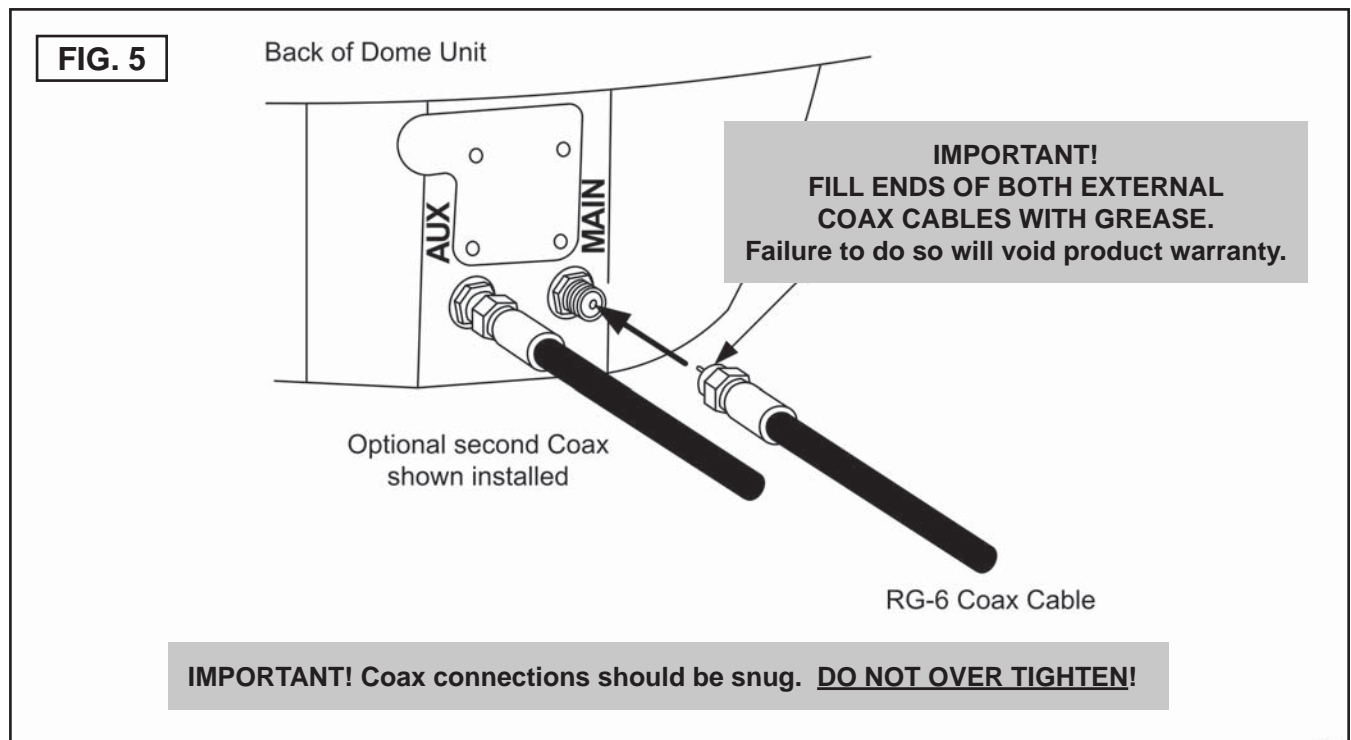
5. Mount the dome unit. Use the pre-drilled holes in the mounting feet as a guide to install the fasteners into the roof. Use additional fasteners whenever necessary.
6. Test that the dome unit is secure by pulling upward from each foot location.

## EXTERNAL WIRING

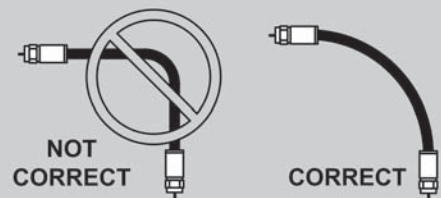
**NOTE:** There are two coax ports on the back of the dome unit. The one labeled “MAIN” **MUST** be connected to the main receiver in vehicle. This is the receiver that will control automatic satellite switching if applicable. The one labeled “AUX” can be used for an additional receiver, or connected to the second input on a DIRECTV DVR.

7. Fill end of coax cable that will connect to the MAIN port on the dome unit with supplied dielectric grease. Connect this end of the coax cable to the MAIN port and tighten connection (Fig. 5). **DO NOT OVER TIGHTEN.**

If using a second receiver, fill end of second coax cable with supplied dielectric grease and connect it to the AUX port. Tighten connection. **DO NOT OVER TIGHTEN.**



### AVOID SHARP BENDS WHEN ROUTING COAX!

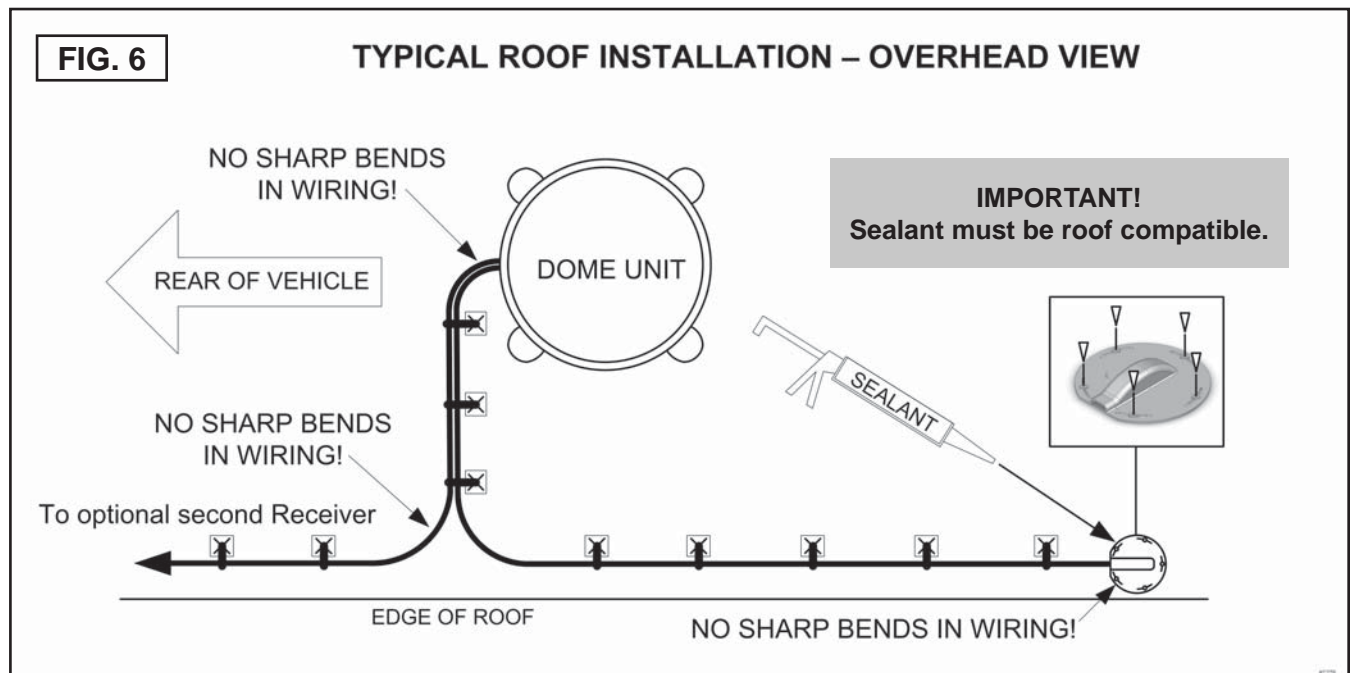


8. Run coax from the back of the dome unit to the roof edge, then along edge to location where coax will be fed into the vehicle. If installing an optional second receiver, run second coax to location where it will enter the vehicle. Secure (both) coax to roof every 12-18 inches (Fig. 6).

**IMPORTANT! Installer is responsible for determining proper roof compatible fasteners for cable entry cover.**

**Roof hole for wiring must be sealed so it is completely waterproof. Mounting holes, perimeter of cable entry cover and cable opening of cable entry cover must be sealed so they are completely waterproof. SEALANT MUST BE ROOF COMPATIBLE.**

9. Drill 3/4" hole through the roof and into the cabinet where receiver is stored. Feed coax down through hole. Seal opening with roof compatible sealant so that it is completely waterproof (inside and outside of the 3/4" hole). Repeat for second coax if present.
10. Fasten cable entry cover to roof. Seal mounting holes, perimeter of cover and cable opening so they are completely waterproof.



11. Remove blue protective sheet and red "position to rear" sticker from the dome unit.



## INTERNAL WIRING

12. Make the connections **IN THE ORDER SHOWN** on the next page.
13. After internal connections are made, go to ANTENNA CONFIGURATION on page 10.

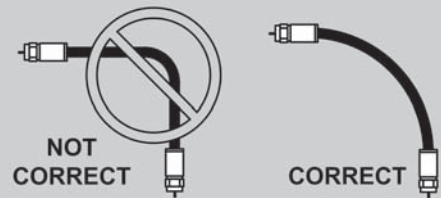
### NOTE TO DISH AND BELL TV SUBSCRIBERS:

If using a second receiver, do not connect it until instructed to do so in the **SECOND RECEIVER OPERATION** section.

**NOTE:** Using multiple receivers is not recommended for multi-satellite services where automatic satellite switching is desired. Do not use dual tuner receivers or receivers with built-in recorders when satellite service is broadcast from more than one satellite.

**NOTE FOR DISH SERVICES:** For automatic satellite switching, King Controls recommends using a DISH model 311 receiver for **DISH SD**, and a DISH model ViP211z, ViP211k, ViP211 or 411 HDTV receiver for **DISH SD and HD** or **DISH SD and HD Alternate**.

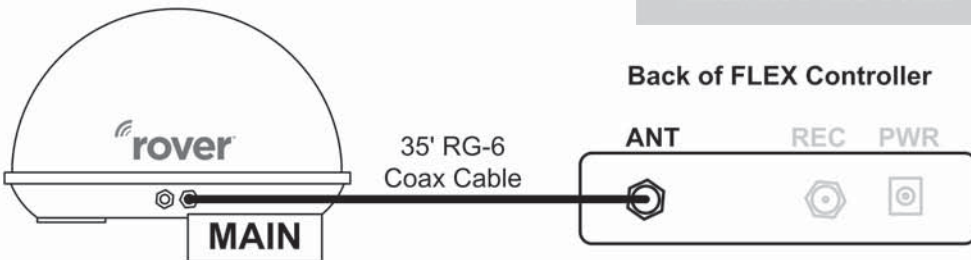
**AVOID SHARP BENDS WHEN ROUTING COAX!**



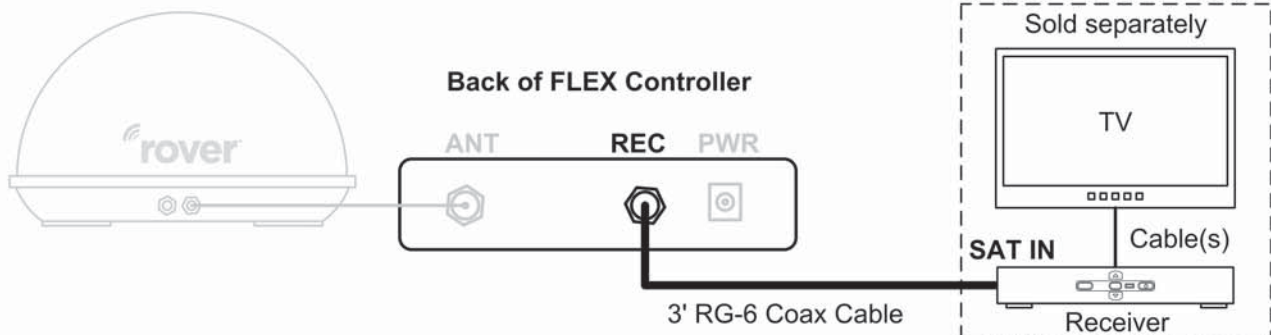
1

Rover Antenna  
(located on roof)

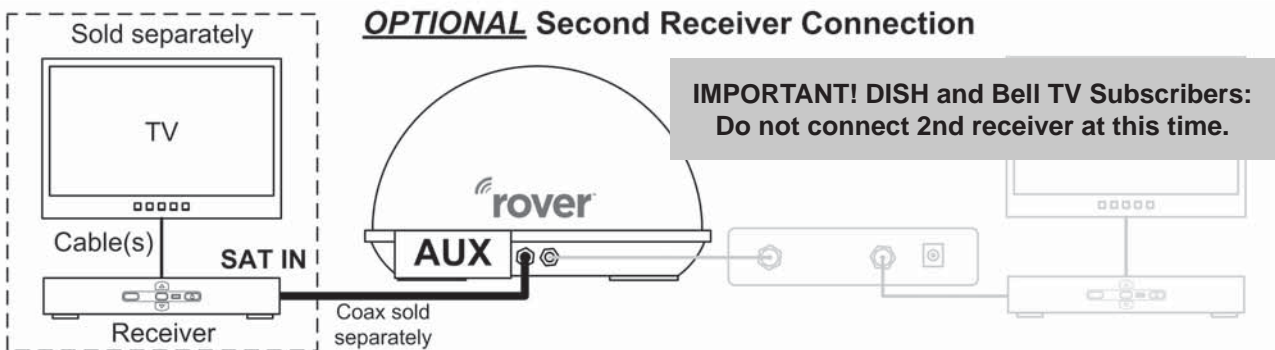
AVOID SHARP BENDS  
WHEN ROUTING COAX!



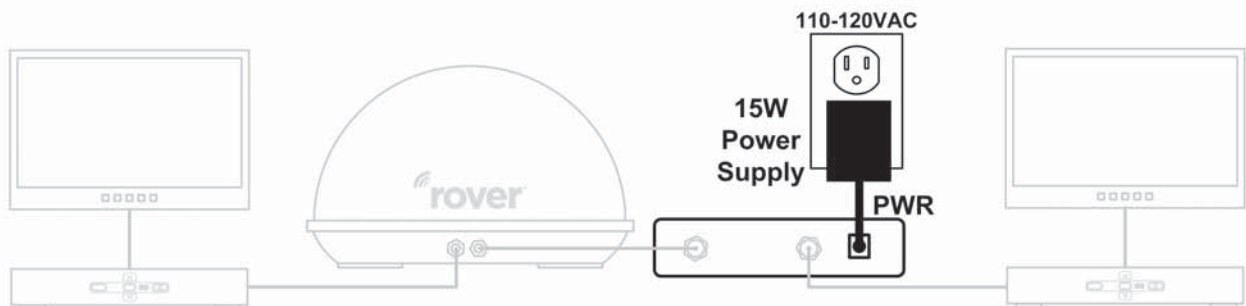
2



3

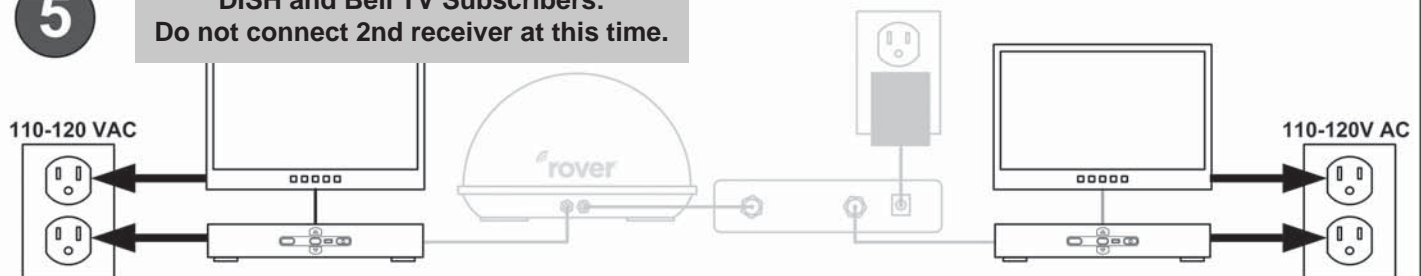


4



5

**DISH and Bell TV Subscribers:**  
Do not connect 2nd receiver at this time.



## Section 3 ANTENNA CONFIGURATION

**NOTE:** If you have **DIRECTV SD** service you do not need to configure your antenna. Go to step 5 on next page.

The Rover is factory pre-set for DIRECTV standard digital programming broadcast from the 101° W satellite (**DIRECTV SD**). If you also receive your local channels from DIRECTV's 119 satellite or if you subscribe to DISH or Bell TV programming, you must configure the antenna to work with your satellite service. Doing this will allow the Rover to lock on the correct satellites to receive your programming and also enable automatic satellite switching via the receiver's remote control for multi-satellite service.

Antenna configuration is a one time procedure that **MUST BE COMPLETED** before using your Rover antenna. To configure your antenna, do the following:

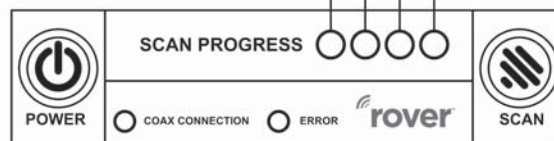
1. Press **POWER** to turn on Rover controller. The **COAX CONNECTION** light will flash for approximately 10 seconds and then remain on. **SCAN PROGRESS** lights will flash 3 times to indicate the selected service configuration.
2. Simultaneously press and hold **POWER** and **SCAN** for five seconds.

**COAX CONNECTION** and **SCAN PROGRESS** lights will flash slowly, and then the appropriate **SCAN PROGRESS** lights will turn on to show the current service and satellites selected.

**SATELLITE SERVICE CHART**

Service	Satellites	Light 1	Light 2	Light 3	Light 4
DIRECTV SD	101	●	○	○	○
DIRECTV SD with Locals	101, 119	●	●	○	○
DISH SD	110, 119	●	○	●	○
DISH SD and HD Choose for Tailgater Mode (see gray box below)	110, 119, 129	●	●	●	○
DISH SD and HD Alternate	61.5, 110, 119	●	○	●	●
BELL SD	91	○	●	○	○
BELL SD and HD	82, 91	○	●	●	○

○ = OFF    ● = ON



**NOTE:** If you have a DISH receiver **ViP211z**, **ViP211k**, **ViP211** or **411**, **FIRST** choose the **DISH SD and HD** setting as instructed on these two pages, and then continue with Tailgater Mode (Section 6, page 18).

To verify the current service configuration without changing it, perform steps 1, 2 and 4.

3. Press **SCAN** repeatedly to scroll thru the options.
4. When the correct lights turn on to show your desired satellite configuration, simultaneously press and hold **POWER** and **SCAN** for five seconds.

All lights will turn off except for the **COAX CONNECTION** light.

5. Locate your service below and follow the instructions:

## **DIRECTV subscribers:**

**NOTE:** The Rover will not work with SWM only receivers. Your local channels may not be available when traveling outside your home area.

### **DIRECTV SD**

If you have a newer receiver or current software, choose the following dish configuration settings (do this through the receiver's satellite set-up menu screens):

Dish Type: 01: 18" Round      Switch Type: 02:Multiswitch  
(If you have an older receiver, choose: round dish-1 satellite.)

### **DIRECTV SD with Locals**

If you have a newer receiver or current software, choose the following dish configuration settings (do this through the receiver's satellite set-up menu screens):

Dish Type: 02: 3-LNB (18 x 20")      Switch Type: 02:Multiswitch  
(If you have an older receiver, choose: oval dish-2 satellites.)

After setting your dish for either service as described above. . . . . go to page 16.

## **DISH subscribers with the following receivers:**

**ViP211z • ViP211k • ViP211 • 411**

**and who chose DISH SD and HD on the previous page:**

You can use the Tailgater Mode . . . . . go to page 18.

**NOTE:** Your local channels may not be available when traveling outside your home area.

## **All other DISH and Bell TV subscribers:**

After you have successfully configured your antenna, you must configure your receiver for mobile use by running a check switch test . . . . . go to page 12.

**NOTE:** Dual tuner receivers or receivers with built-in recorders are not recommended and will not have full functionality when used with the Rover antenna. Your local channels may not be available when traveling outside your home area.

## Section 4 RECEIVER CONFIGURATION - DISH AND BELL TV

**IMPORTANT! YOU MUST HAVE COMPLETED THE ANTENNA CONFIGURATION (PAGES 10-11), AND PERFORMED A SUCCESSFUL SEARCH (STEP 2 BELOW), BEFORE RUNNING THE CHECK SWITCH TEST (STEP 3 ON NEXT PAGE).**

**NOTE:** For automatic satellite switching, King Controls recommends using a DISH model 311 receiver for **DISH SD**.

If you do not have a clear view of the satellites, the switch will not load correctly.

The SW21 and SW64 switches are a receiver software configuration that is loaded into the receiver after successfully running a check switch test with the dish locked on and configured for the appropriate service.

This one time procedure will not need to be repeated after successful installation, unless:

- check switch test is run again while the receiver is connected to a home dish system.
- check switch test is run when the receiver is not connected.
- you travel outside the coverage area of either **DISH SD and HD** or **DISH SD and HD Alternate** and switch to the other.
- you are parked in an area where the selected satellites are blocked, but are able to select alternate satellites and get signal.

### IMPORTANT!

The antenna unit requires a “direct line of sight” to the satellites for signal reception.

Any tall objects can block the signal from reaching the dish.

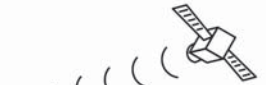
ANTENNA UNIT ON RV



OBSTRUCTIONS

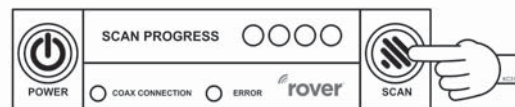


SATELLITE



1. Turn on the TV and satellite receiver.
2. Your Rover controller should be on from the configuration process on pages 10-11. If not, press **POWER** and wait for the **COAX CONNECTION** light to stop flashing and remain on.

Press and hold **SCAN** for 3 seconds.



The antenna will locate all of the appropriate satellites before completing the search process.

**After the antenna acquisition process is complete, specific SCAN PROGRESS lights will turn on to indicate which satellites have been found (see chart on page 17).**

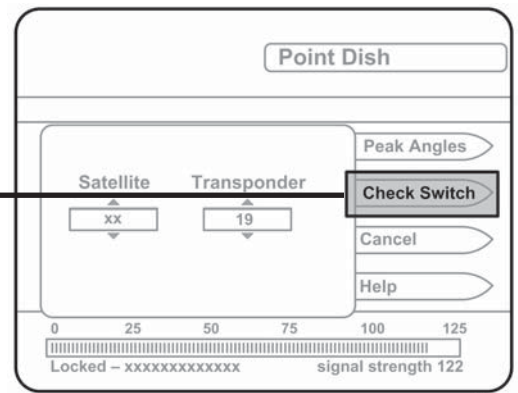
If you configured the antenna for DISH SD and HD and the antenna cannot acquire the 110, 119, and 129 satellites, you may need to configure the antenna for DISH SD and HD Alternate (pages 10-11).

3. On the receiver remote, press **MENU**, **6**, **1**, **1**.

4. Highlight “Check Switch.” ●

Press **SELECT** on your remote.

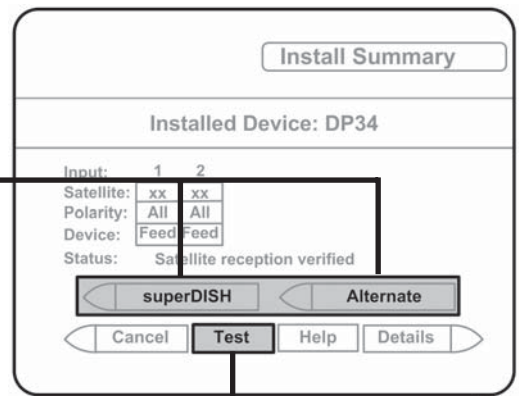
**NOTE: Some receivers may prompt you to select “Check Switch” a second time to initiate the test.**



Screen graphics may vary.

5. Make sure “superDISH” and “Alternate” boxes are **NOT** selected. ●

**NOTE: Not all receivers will display a screen with options that include “superDISH” and “Alternate” boxes.**



6. Highlight “Test.” ●

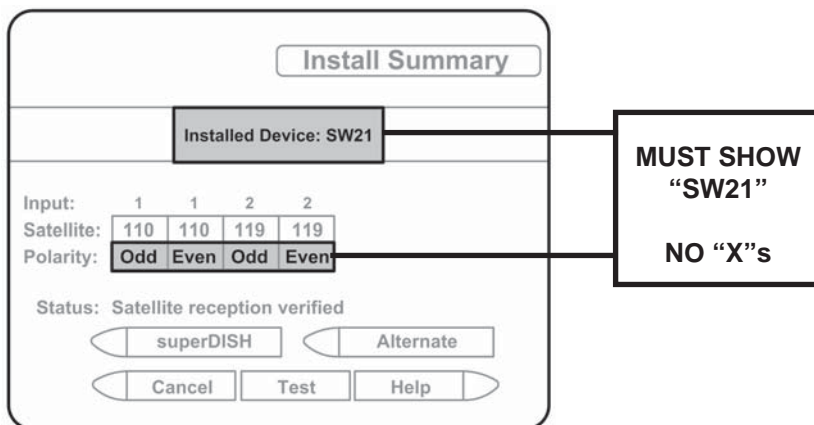
Press **SELECT** on your remote.

The receiver will perform a check switch test, during which time the antenna will periodically move back and forth between satellites. This process will take several minutes.

7. When test is complete, a screen similar to one **below or on the next page** should appear. After screen verification, continue with check switch test procedure on next page.

**Because receivers are always changing, screen graphics may vary.**

## DISH SD





## DISH SD and HD

## DISH SD and HD Alternate

**Installation Summary**

Satellite Input			
Port:	1	2	3
Satellite:	119	110	129
Trans:	OK	OK	OK
Device:	Twin	Twin	Sgl
Status:	Reception Verified		
Switch:	SW64		

☐ SuperDISH ☐ Alternate

Cancel Test Help

NO "X"s  
MUST SHOW  
"SW64"

**Installation Summary**

Satellite Input			
Port:	1	2	3
Satellite:	119	110	61.5
Trans:	OK	OK	OK
Device:	Twin	Twin	Sgl
Status:	Reception Verified		
Switch:	SW64		

☐ SuperDISH ☐ Alternate

Cancel Test Help

## Bell TV SD

## Bell TV SD and HD

**Install Summary**

NO SWITCH DETECTED

Input:	1	1	2	2
Satellite:	91	91	x	x
Polarity:	Odd	Even	x	x

Status: Satellite reception verified

superDISH Alternate

Cancel Test Help

"NO SWITCH  
DETECTED"  
or  
"INSTALLED  
DEVICE  
UNKNOWN"  
or  
similar

MUST SHOW  
"SW21"  
NO "X"s

**Install Summary**

Installed Device: SW21

Input:	1	1	2	2
Satellite:	82	82	91	91
Polarity:	Odd	Even	Odd	Even

Status: Satellite reception verified

superDISH Alternate

Cancel Test Help

If the indicated results are not obtained, go back to Step 3 and run test again. Contact King Controls if the check switch fails to load after 4 attempts.

- When the installation summary shows the successful check switch test results, save the settings, exit to the main menu screen and wait for programming to download.
- DISH SD and HD and DISH SD and HD Alternate only:** Verify that your saved settings show your desired satellite trio: 61.5, 110, 119 or 110, 119, 129. To switch trios, see pages 10-11.

**Configuration is complete. Go to page 16, OPERATION.**

## Section 5 OPERATION

**IMPORTANT:** If you have a DISH receiver model ViP211z, ViP211k, ViP211 or 411 AND have configured the antenna for the DISH SD and HD setting, DO NOT use the instructions on this page. Go to the Tailgater Mode instructions on page 18.

Your local channels may not be available when traveling outside your home area.

The Rover will not receive channels broadcast from DIRECTV's Ka band satellites at 99° and 103°.

### IMPORTANT!

The antenna unit requires a "direct line of sight" to the satellites for signal reception.

Any tall objects can block the signal from reaching the dish.

ANTENNA UNIT ON RV



OBSTRUCTIONS



SATELLITE



## POWER UP

1. Make sure all connections are made as shown on page 9.

2. Press **POWER** to turn on Rover controller.



- All lights will turn on briefly.
- **COAX CONNECTION** light will flash for approximately 10 seconds and then remain on.
- **SCAN PROGRESS** lights will flash 3 times to indicate the selected service configuration.
- If the unit is operating properly, the **COAX CONNECTION** light should remain on and all other lights should turn off.

3. Turn the TV and satellite receiver on.

- Antenna is now ready to scan for satellites. Go to next page.



## SCAN FOR SATELLITES

1. Press and hold **SCAN** for 3 seconds.

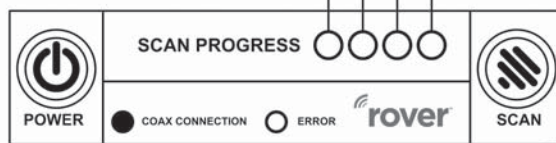


- The antenna will scan for the selected satellites. The four **SCAN PROGRESS** lights will cycle on and off to indicate a scan is in progress.
- As satellites are located, the corresponding **SCAN PROGRESS** lights will turn on (see below).
- When scan is complete, the appropriate lights will turn on to show which satellites were found.
- Wait for the program guide to download and then select your desired channel.

### “SATELLITES FOUND” CHART

Service	Satellites	Light 1	Light 2	Light 3	Light 4
DIRECTV SD	101	●	○	○	○
DIRECTV SD with Locals	101, 119	●	●	○	○
DISH SD	110, 119	●	●	○	○
DISH SD and HD (Tailgater Mode)	110, 119, 129	●	●	●	○
DISH SD and HD Alternate	61.5, 110, 119	●	●	●	○
BELL SD	91	●	○	○	○
BELL SD and HD	82, 91	●	●	○	○

○ = OFF    ● = ON



Use this chart to determine which satellites have been found.

**NOTE:** The order of the lights corresponds to the order of the satellites listed.

Example for **DISH SD**: The 110 satellite corresponds to Light 1, and the 119 satellite corresponds to light 2.

**NOTE:** If you move the vehicle, you will have to re-acquire the satellites by repeating the scan process. The Rover will go into “sleep mode” after 15 minutes and the **COAX CONNECTION** light will dim. Press **POWER** to wake unit up if necessary, i. e. the unit is in sleep mode, you move the vehicle, and wish to rescan for satellites.

**DISH AND BELL TV SUBSCRIBERS:** If you are using a second receiver, see SECOND RECEIVER OPERATION - DISH AND BELL TV on page 28.

## Section 6 TAILGATER MODE

**IMPORTANT:** If you have a DISH receiver model ViP211z, ViP211k, ViP211 or 411 AND have configured the antenna for the DISH SD and HD setting, use the instructions on this page.

See page 10 for configuration details.

Service	Satellites	Light 1	Light 2	Light 3	Light 4
DISH SD and HD	110, 119, 129	●	●	●	○

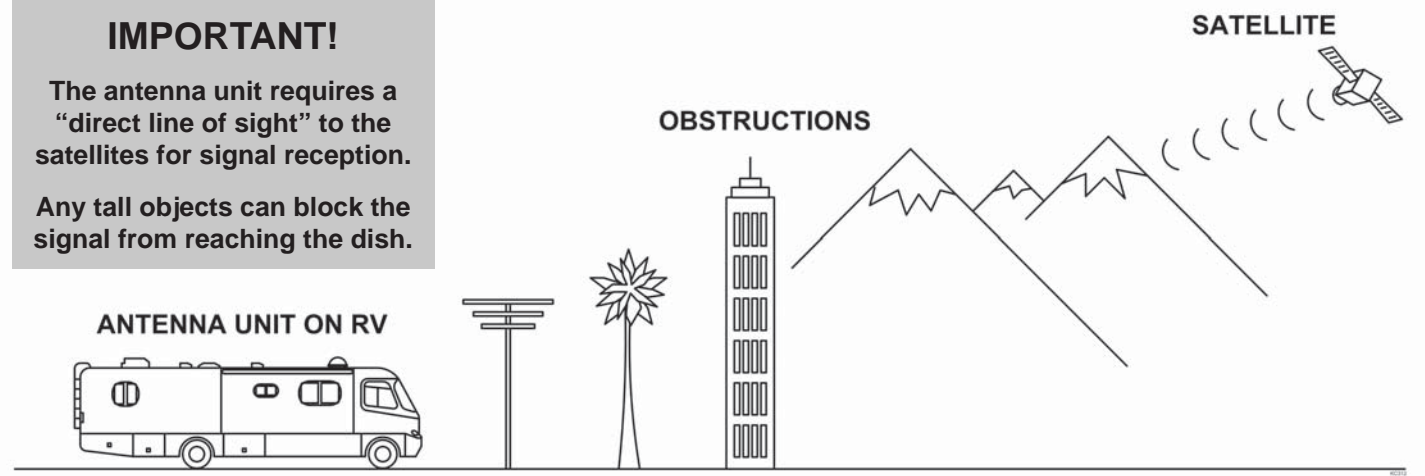
**IF YOUR RECEIVER IS NEW AND NOT YET ACTIVATED, YOU MUST PERFORM THE FIRST TIME SETUP ON PAGE 22 BEFORE USING THE INSTRUCTIONS ON THIS PAGE.**

Your local channels may not be available when traveling outside your home area.

### IMPORTANT!

The antenna unit requires a “direct line of sight” to the satellites for signal reception.

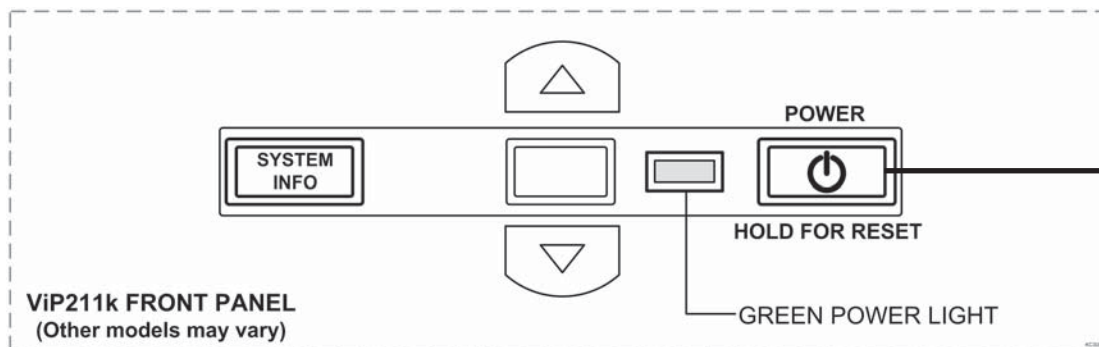
Any tall objects can block the signal from reaching the dish.



1. If your Rover controller is not on, press **POWER** and wait for the **COAX CONNECTION** light to stop flashing and remain on.
2. Verify your receiver and TV are connected to a 110 volt AC power source.

The green light on your receiver should illuminate or begin cycling on and off. Wait for the green light to turn solid (this may take up to two minutes).

If the green light does not illuminate after a few minutes, power on your receiver using the front panel power button.



3. Turn on your TV. Use your TV's input selection menu to select the input that matches the connection to your DISH receiver, i. e. if using an HDMI cable connection you should select the HDMI TV input.

The *Portable Antenna Setup* screen will be displayed on your TV.

**Portable Antenna Setup**

1. The portable antenna must be placed on a stable surface with a clear view of the southern sky.
2. Ensure no obstructions block the line of sight from the portable antenna to the sky.
3. Select the state where the portable antenna is currently located below and select "Scan".

☐ A-F  
☐ G-L  
☐ M-R  
☐ S-Z

☐ Alabama  
☐ Alaska  
☐ Arizona  
☐ Arkansas

**NOTE:** If the *Portable Antenna Setup* screen does not display, press **MENU, 6, 1, 1** on your DISH remote.

Highlight "Check Switch."

Press **SELECT** on your remote.

The *Portable Antenna Setup* screen should now display.

**Point Dish**

To calculate Dish 500 Peak Angles,  
Enter your ZIP Code select satellite 110 or 119

Zip Code	Dish System	Transponder	Satellite
30000	500	15	129

Azimuth: N/A    Elevation: N/A    Skew: N/A

0 10 25 50 75 100 125  
 Not Locked - Name Not Acquired!    Signal Strength: 0

4. Use the arrow buttons on your DISH remote to highlight the letter group that includes the first letter of the state you are currently in.

Press **SELECT** on your remote.

**Portable Antenna Setup**

1. The portable antenna must be placed on a stable surface with a clear view of the southern sky.
2. Ensure no obstructions block the line of sight from the portable antenna to the sky.
3. Select the state where the portable antenna is currently located below and select "Scan".

☐ A-F  
☐ G-L  
☐ M-R  
☐ S-Z

☐ Alabama  
☐ Alaska  
☐ Arizona  
☐ Arkansas

5. Highlight the state you are currently in from the state menu.

Press **SELECT** on your remote.

**Portable Antenna Setup**

1. The portable antenna must be placed on a stable surface with a clear view of the southern sky.
2. Ensure no obstructions block the line of sight from the portable antenna to the sky.
3. Select the state where the portable antenna is currently located below and select "Scan".

☐ A-F  
☐ G-L  
☐ M-R  
☐ S-Z

☐ Alabama  
☐ Alaska  
☐ Arizona  
☐ Arkansas

6. Verify "Scan" is highlighted. ●

Press **SELECT** on your remote.

**Portable Antenna Setup**

1. The portable antenna must be placed on a stable surface with a clear view of the southern sky.
2. Ensure no obstructions block the line of sight from the portable antenna to the sky.
3. Select the state where the portable antenna is currently located below and select "Scan".

<input checked="" type="checkbox"/> A-F	<input checked="" type="checkbox"/> Alabama
<input type="checkbox"/> G-L	<input type="checkbox"/> Alaska
<input type="checkbox"/> M-R	<input type="checkbox"/> Arizona
<input type="checkbox"/> S-Z	<input type="checkbox"/> Arkansas

**Scan** **Cancel** **Summary**

The scan will begin and may take several minutes to complete.

This screen will display during the scan:

**Attention** 058

Please wait while your switch installation is checked.

Currently doing test # 1 of 3.

**Cancel**

7. When the scan is complete, the *Acquiring Signal* message will display.

Acquiring the signal may take up to 5 minutes to complete.

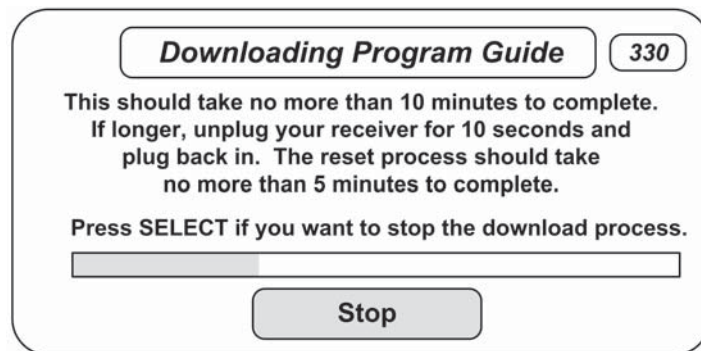
**Acquiring Signal** 535

This should take no more than 5 minutes to complete...

Progress bar: 2 of 5 segments filled.

- After your receiver has acquired the signal, the electronic program guide will download.

This may take up to 5 minutes to complete (potentially longer if an external hard drive is connected for DVR use).



If you are using a second receiver, see **SECOND RECEIVER OPERATION** on page 28.

## OPERATING NOTES

If your system is inactive for an extended period of time, you may need to call DISH Customer Service at 1-800-333-DISH (3474) to re-authorize your receiver. You can view your programming when your receiver has been re-authorized and the guide has finished downloading.

If you move the vehicle, you will need to repeat the scan process to re-acquire the satellites and restore programming.

When in the northeastern United States, television programming from the 129 satellite may not be available. You can configure your antenna for the **DISH SD and HD Alternate** setting using the procedure found in the ANTENNA CONFIGURATION section (pages 10-11) and the receiver configuration process (pages 12-14). When you leave the northeastern US and reconfigure the antenna for **DISH SD and HD**, the unit will automatically revert to Tailgater mode and you will not need to configure the receiver.

## TAILGATER MODE: INITIAL SETUP WITH NEW (UN-ACTIVATED) RECEIVER

**IMPORTANT:** If you have a NEW, not yet activated DISH receiver model ViP211z, ViP211k, ViP211 or 411, AND have configured the antenna for the DISH SD and HD setting, use the instructions on this page for first time setup. After this one time setup procedure, you can use TAILGATER MODE on page 18.

See page 10 for configuration details.

Service	Satellites	Light 1	Light 2	Light 3	Light 4
DISH SD and HD	110, 119, 129	●	●	●	○

### IMPORTANT!

The antenna unit requires a “direct line of sight” to the satellites for signal reception.

Any tall objects can block the signal from reaching the dish.

ANTENNA UNIT ON RV



OBSTRUCTIONS

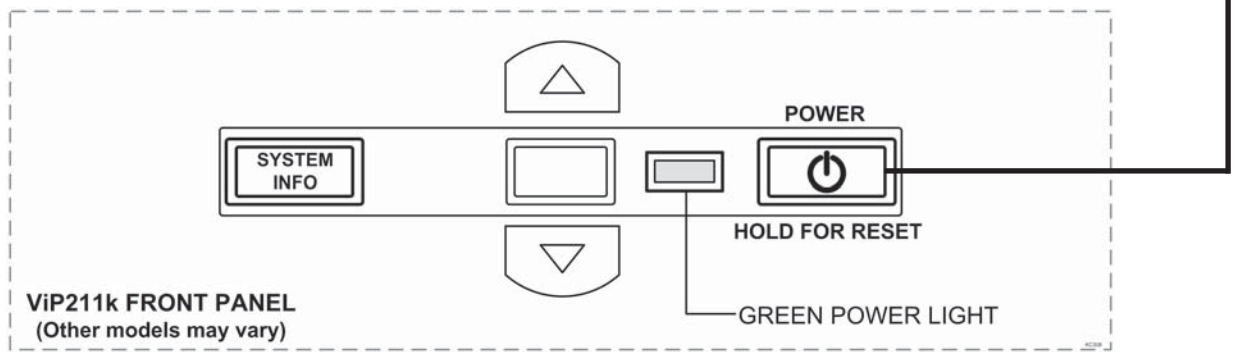
SATELLITE



1. If your Rover controller is not on, press **POWER** and wait for the **COAX CONNECTION** light to stop flashing and remain on.
2. Verify your receiver and TV are connected to a 110 volt AC power source.

The green light on your receiver should illuminate or begin cycling on and off. Wait for the green light to turn solid (this may take up to two minutes).

If the green light does not illuminate after a few minutes, power on your receiver using the



3. Turn on your TV. Use your TV's input selection menu to select the input that matches the connection to your DISH receiver, i. e. if using an HDMI cable connection you should select the HDMI TV input.

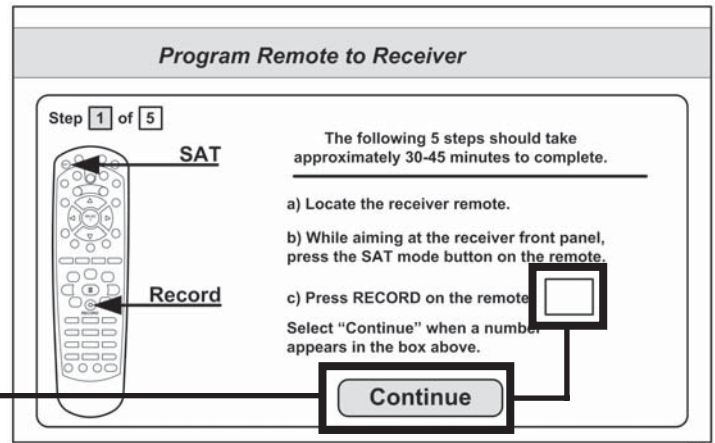


4. Point your receiver's remote at the front of the receiver and press **SAT**.

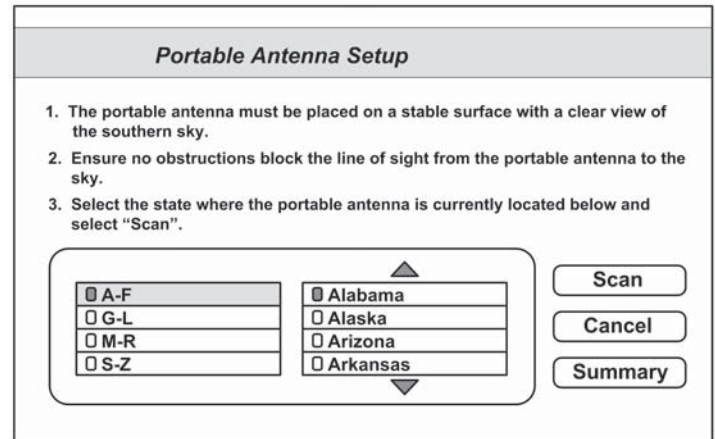
Press **RECORD**.

When a number appears in the box, verify "Continue" is highlighted.

Press **SELECT** on your remote.

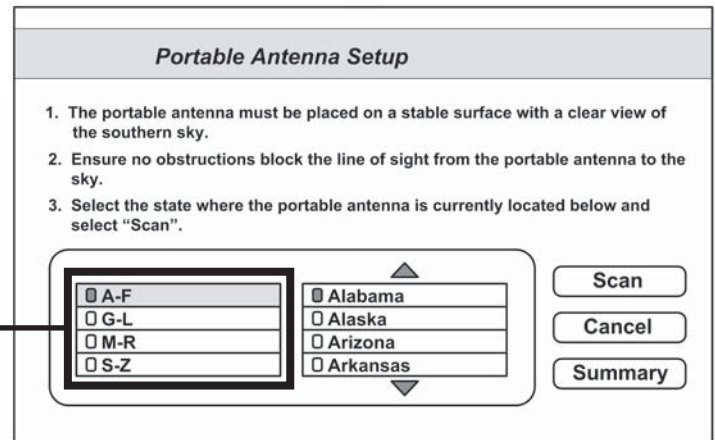


The *Portable Antenna Setup* screen will display.



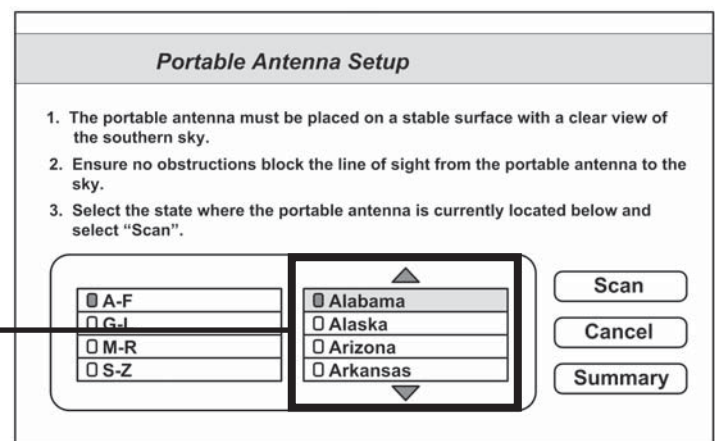
5. Use the arrow buttons on your remote to highlight the letter group that includes the first letter of the state you are currently in.

Press **SELECT** on your remote.



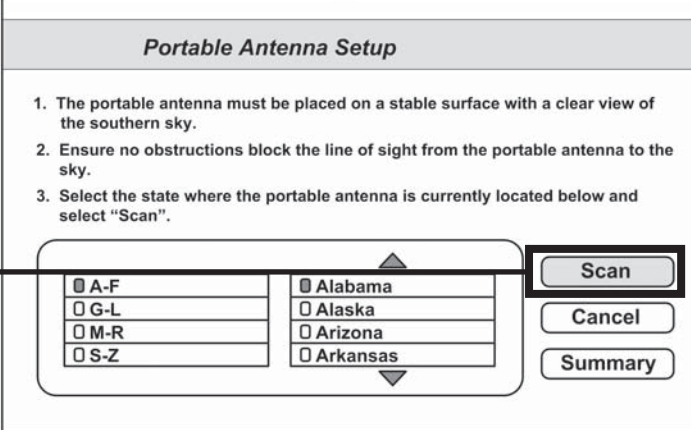
6. Highlight the state you are currently in from the state menu.

Press **SELECT** on your remote.



7. Verify "Scan" is highlighted.

Press **SELECT** on your remote.



**Portable Antenna Setup**

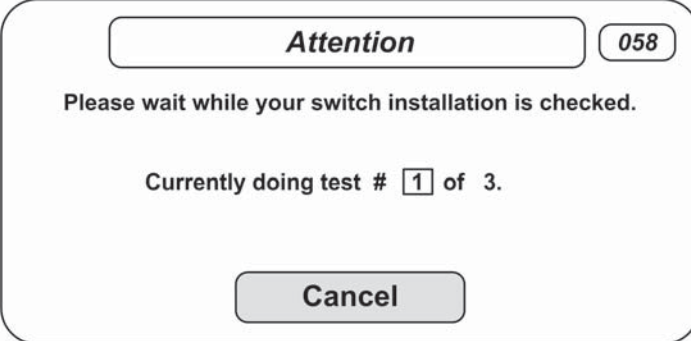
1. The portable antenna must be placed on a stable surface with a clear view of the southern sky.  
2. Ensure no obstructions block the line of sight from the portable antenna to the sky.  
3. Select the state where the portable antenna is currently located below and select "Scan".

<input type="checkbox"/> A-F	<input type="checkbox"/> Alabama
<input type="checkbox"/> G-L	<input type="checkbox"/> Alaska
<input type="checkbox"/> M-R	<input type="checkbox"/> Arizona
<input type="checkbox"/> S-Z	<input type="checkbox"/> Arkansas

**Scan**  
Cancel  
Summary

The scan will begin and may take several minutes to complete.

This screen will display during the scan.



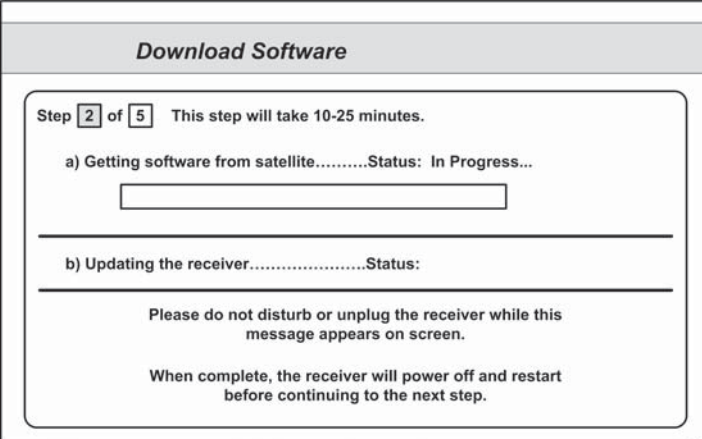
**Attention** 058

Please wait while your switch installation is checked.

Currently doing test # 1 of 3.

Cancel

The receiver will download current software.



**Download Software**

Step 2 of 5 This step will take 10-25 minutes.

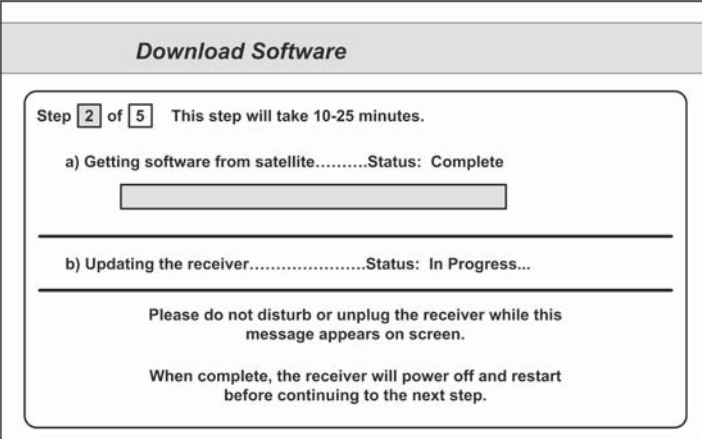
a) Getting software from satellite.....Status: In Progress...

b) Updating the receiver.....Status:

Please do not disturb or unplug the receiver while this message appears on screen.

When complete, the receiver will power off and restart before continuing to the next step.

The receiver will update with the current software.



**Download Software**

Step 2 of 5 This step will take 10-25 minutes.

a) Getting software from satellite.....Status: Complete

b) Updating the receiver.....Status: In Progress...

Please do not disturb or unplug the receiver while this message appears on screen.

When complete, the receiver will power off and restart before continuing to the next step.



8. The receiver will reset and the *Portable Antenna Setup* Screen will appear. Choose your location again and initiate a second scan.

**Portable Antenna Setup**

1. The portable antenna must be placed on a stable surface with a clear view of the southern sky.
2. Ensure no obstructions block the line of sight from the portable antenna to the sky.
3. Select the state where the portable antenna is currently located below and select "Scan".

<input checked="" type="checkbox"/> A-F	<input checked="" type="checkbox"/> Alabama	<input type="button" value="Scan"/> <input type="button" value="Cancel"/> <input type="button" value="Summary"/>
<input type="checkbox"/> G-L	<input type="checkbox"/> Alaska	
<input type="checkbox"/> M-R	<input type="checkbox"/> Arizona	
<input type="checkbox"/> S-Z	<input type="checkbox"/> Arkansas	

The antenna will scan a second time.

**Attention** 058

Please wait while your switch installation is checked.

Currently doing test # 1 of 3.

When the scan is complete, the *Acquiring Signal* message will display.

Acquiring the signal may take up to 5 minutes to complete.

**Acquiring Signal** 535

This should take no more than 5 minutes to complete...

Progress bar: [ ] [ ] [ ] [ ] [ ]

After your receiver has acquired the signal, the electronic program guide will download.

This may take up to 5 minutes to complete (potentially longer if an external hard drive is connected).

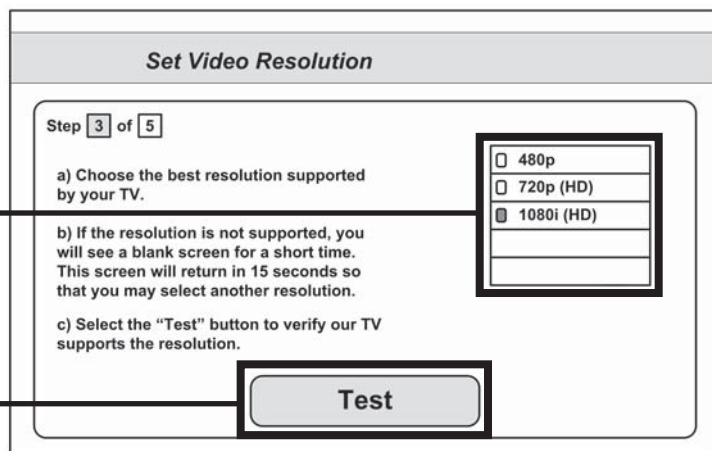
**Downloading Program Guide** 330

This should take no more than 10 minutes to complete. If longer, unplug your receiver for 10 seconds and plug back in. The reset process should take no more than 5 minutes to complete.

Press SELECT if you want to stop the download process.

Progress bar: [ ] [ ] [ ] [ ] [ ]

9. The *Set Video Resolution* screen will appear. Select the highest resolution your TV will display. ●

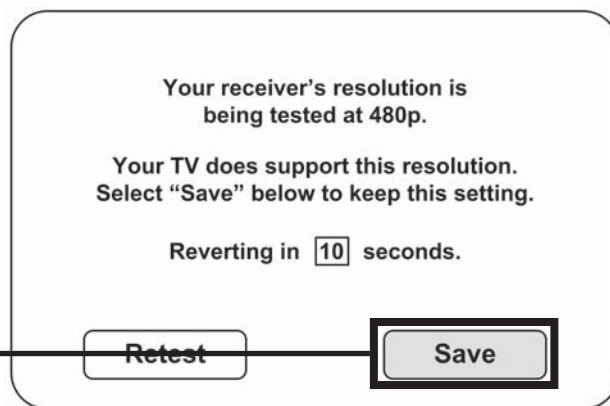


The screen is titled "Set Video Resolution" and shows "Step 3 of 5". It contains three instructions: a) Choose the best resolution supported by your TV. b) If the resolution is not supported, you will see a blank screen for a short time. This screen will return in 15 seconds so that you may select another resolution. c) Select the "Test" button to verify our TV supports the resolution. On the right, there is a list of resolutions: 480p, 720p (HD), and 1080i (HD). The 1080i (HD) option is selected. At the bottom right, there is a "Test" button.

Verify "Test" is highlighted. ●

Press **SELECT** on your remote.

10. Verify "Save" is highlighted. ●

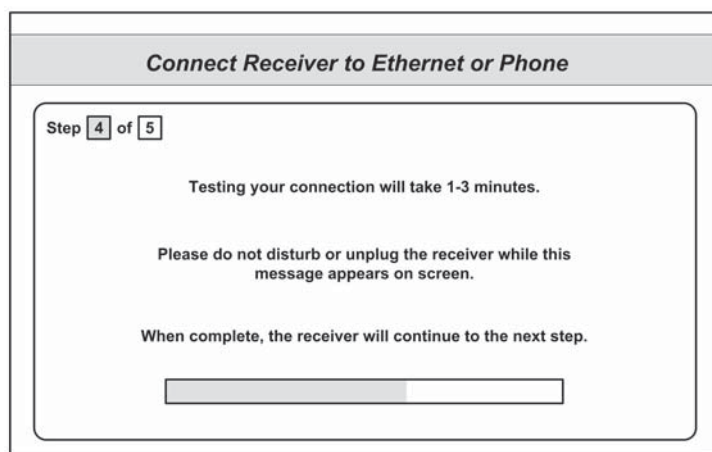


The screen displays the following text: "Your receiver's resolution is being tested at 480p.", "Your TV does support this resolution. Select 'Save' below to keep this setting.", and "Reverting in 10 seconds." At the bottom, there are two buttons: "Retest" and "Save". The "Save" button is highlighted.

Press **SELECT** on your remote.

11. While this screen is displayed you may be prompted with a "Continue" message.

If prompted, verify "Continue" is highlighted and press **SELECT** on your remote.



The screen is titled "Connect Receiver to Ethernet or Phone" and shows "Step 4 of 5". It contains the following text: "Testing your connection will take 1-3 minutes.", "Please do not disturb or unplug the receiver while this message appears on screen.", and "When complete, the receiver will continue to the next step." At the bottom, there is a progress bar.

12. Call DISH to activate your new receiver.

**1-800-333-DISH (3474)**

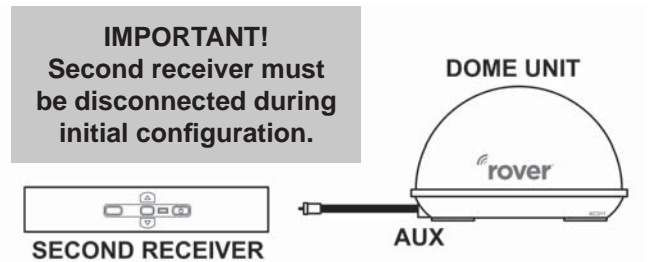


**This completes the initial setup for new receivers.  
You may now use Tailgater mode on page 18 for subsequent use.**

**If you are using a second receiver, see SECOND RECEIVER OPERATION on page 28.**

## INITIAL SETUP FOR SECOND RECEIVER

1. With the second receiver disconnected from the dome unit's AUX port coax, use your DISH remote control and press **MENU, 6, 1, 1** to display the *Point Dish* screen.



2. Use the arrow buttons on the remote to highlight "Check Switch."

Press **SELECT** on your remote.

**Point Dish**

To calculate Dish 500 Peak Angles,  
Enter your ZIP Code select satellite 110 or 119

Zip Code	Dish System	Transponder	Satellite
30000	500	15	129

**Check Switch**

Done

Help

Azimuth: N/A Elevation: N/A Skew: N/A

0 10 25 50 75 100 125

Not Locked - Name Not Acquired! Signal Strength: 0

3. Verify "SuperDISH" and "Alternate" are not selected.

Verify "Test" is highlighted.

Press **SELECT** on your remote.

**Installation Summary**

Port:	1	2	3
Satellite:	129	119	110
Trans:	OK	OK	OK
Device:	1K.2	1K.2	1K.2

Status: Reception Verified

Switch: DP34

☐ SuperDISH ☐ Alternate

Details **Test** Done Help

4. When test is complete, highlight "Save."

Press **SELECT** on your remote.

**Installation Summary**

**Warning** 836

The check switch test has found you have fewer satellites than previously detected. Selecting "Save" will result in a loss of channels. Press "Cancel" to keep the original setting and return to the previous menu. Only select "Save" if you are sure that this new setting is correct for your installation or you have added/removed equipment.

Cancel Retest **Save**

Details Test Done Help

5. After successfully saving the results, connect the AUX port coax to SAT IN on the second receiver.

**See the next page for downloading programming to the second receiver.**

## DOWNLOADING PROGRAMMING TO THE SECOND RECEIVER

1. With the second receiver now connected, and the antenna locked on (see OPERATION section), re-set the second receiver by pressing the POWER button on the front panel for 10 seconds. The TV picture will go away and should reappear within two minutes.

The receiver will then download the program guide to show only the channels available on the current satellite as determined by the channel selected on the main receiver. Downloading the new program guide can take up to five minutes to complete.

The channels available on the second receiver are determined by the channel/satellite selected on the main receiver. For example, if you select a channel on the main receiver that is broadcast from the 119 satellite, then the second receiver will be able to display any channel broadcast from the 119 satellite.

If you switch channels on the main receiver to one that is broadcast from a different satellite, (i.e. your channel was broadcast from satellite 119 but your new channel is broadcast from the 110 or 129), the antenna will automatically switch to the new satellite and programming will be lost on the second receiver until you either:

- Select a channel on the main receiver that is broadcast from the previous satellite (satellite 119 in this example).

(or)

- Reset the second receiver to download the program guide for the newly selected satellite (satellite 110 or 129 in this example).

**TIP:** Most DISH HD channels are broadcast from the 129 satellite location. Selecting an HD channel on the main receiver before re-setting the second receiver will provide independent viewing of most available HD channels on either receiver.

## Section 8 TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	COURSE OF ACTION
No lights turn on.	No power to controller.	<p>Verify power supply is properly connected to Rover controller.</p> <p>Verify power supply is plugged into a 110-120 VAC power source.</p>
ERROR light and all 4 SCAN lights flash slowly.	No satellites found.	<p>Line of sight obstructions. Move vehicle so unit has a better view of southern sky and rescan.</p> <p>Inclement weather can occasionally cause loss of signal. Wait till weather improves and rescan.</p> <p>If problem persists, call King Controls Service at (952) 922-6889.</p>
ERROR light and COAX CONNECTION light both flash quickly.	<p>Coax between antenna unit and Rover controller not connected.</p> <p>Coax between antenna unit and Rover controller faulty.</p> <p>Coax from Rover controller connected to wrong port (AUX) on antenna unit.</p> <p>Coax between main circuit board and output port on antenna unit faulty.</p>	<p>Connect coax between antenna unit and Rover controller.</p> <p>Replace coax (KC# 100292-35).</p> <p>Connect coax from Rover controller to MAIN port on antenna unit.</p> <p>Call King Controls Service at (952) 922-6889.</p>
Scan is not complete after 15 minutes.	Antenna is not moving.	Call King Controls Service at (952) 922-6889.

## Section 9 MAINTENANCE

Rover Satellite Systems are designed to be maintenance and trouble free.

For optimum performance, keep the dome clean from dirt, bugs, and other debris. Periodic washing of the dome with mild soap and water is recommended.

**IMPORTANT! Do not power wash the Rover.**

If you plan on storing your vehicle for long periods of time, it is recommended that the system be put through a search procedure on a quarterly basis to keep all moving parts in good working order.

If you have any comments or questions, please contact the King Controls Service Department at (952) 922-6889, or via email at [info@kingcontrols.com](mailto:info@kingcontrols.com).

### Rain Fade

Rain or dew on the dome can cause signal interference and make the digital picture freeze, pixel or go out altogether. This loss of signal is commonly referred to as “rain fade” and is caused by the combination of water in the atmosphere and water on the dome surface.

To minimize this issue and eliminate the effects of water on the dome, apply King Controls **Dome Magic®** rain fade solution to the dome. This will prevent water from adhering to the dome surface and blocking the signal. For additional details on **Dome Magic®** rain fade solution please contact an authorized dealer or call King Controls at (952) 922-6889.



**Single Application Packet #1830-SP**



**Spray Can #1830**

**NOTE:** *Dome Magic®* will discolor black domes or domes painted a dark color.



## Section 10 LIMITED WARRANTY

Every new Rover Satellite System is thoroughly inspected and tested before leaving the factory, and is covered by the following two year parts and one year labor limited warranty from the date of original purchase:

- Two year parts warranty: The customer is not responsible for the cost of replacement parts if the original part is determined to be defective under the terms of the warranty. The customer is responsible for the cost of replacement parts after two years.
- One year labor warranty: The customer is not responsible for labor costs to repair unit if unit falls under the terms of the warranty. Any warranty labor outside of that performed at the factory is not covered unless the product has been installed by an authorized dealer/installer or OEM manufacturer. The customer is responsible for all labor costs after one year.

Should any trouble develop during the warranty period, contact King Controls. You must contact King Controls before the warranty period expires. The customer must supply proof of purchase (such as a dated sales receipt) when requesting warranty service. If customer cannot supply proof of purchase, warranty period shall start 30 days after date of manufacture.

Only King Controls and certified dealers are authorized to perform warranty evaluations and repairs. Depending upon the problem, King Controls may authorize the dealer to perform the necessary repairs, or may have the unit returned to King Controls for repairs.

A certified dealer must not perform any repair without first contacting King Controls for a Service Order Number. King Controls will advise the dealer on how to proceed with any repairs.

If it is determined that the unit needs to be returned to King Controls, customer must return COMPLETE product, freight prepaid, to: **King Controls, 11200 Hampshire Avenue South, Bloomington, MN 55438-2453.**

If inspection shows the trouble is caused by defective workmanship or material, King Controls will repair (or at its option, replace) without charge.

When returning product, King Controls will supply an RMA number (Return Merchandise Authorization). This number must be clearly written on the box. Failure to clearly write RMA number on box may result in delays in processing claim. Along with product, customer should include in the box: his/her name, address, daytime phone number, proof of purchase and description of the problem.

This warranty does not cover installation and external wiring, or remanufactured units. This warranty is not transferable from the original owner.

Due to the expanding and changing TV market, King Controls cannot be held responsible for changes made to satellite services. Software updates to address such issues are not covered under warranty.

This warranty also does not apply where:

- The product has been abused, misused, improperly installed or improperly maintained.
- Repairs have been made or attempted by others that are not certified by King Controls to do such repairs.
- Repairs are required because of normal wear and tear.
- Alterations have been made to the product.
- The dome cover has been removed without authorization.
- Supplied grease not used in the external coax connections as specified in the instructions.
- Damage has been caused by power washing.
- Circumstances beyond the control of King Controls cause the product to no longer operate correctly.
- Customer is not the original owner.

**In no event shall King Controls be liable for any indirect, incidental, or consequential damages from the sale or use of the product. This disclaimer applies both during and after the term of the warranty.**

**King Controls disclaims liability for any implied warranties, including implied warranties of “merchantability” and “fitness for a specific purpose,” after the one year term of this warranty.**

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.