VuQube®

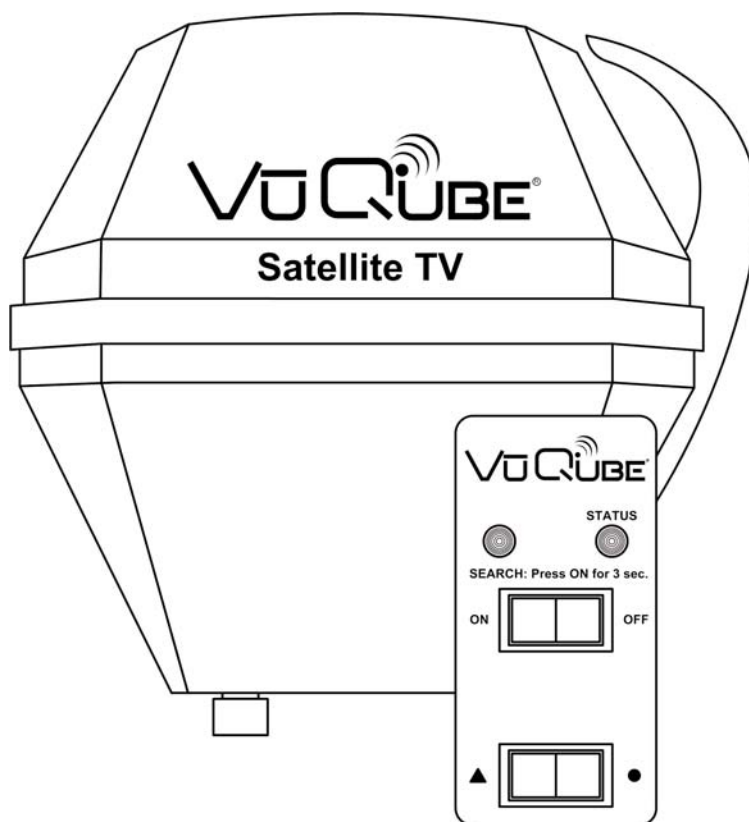# Portable Automatic Satellite System

with built-in DVB for positive satellite identification

Model VQ2000

Operating Instructions

VuQube®
Satellite TV

VuQube®

STATUS

SEARCH: Press ON for 3 sec.

ON   OFF

▲   •

KING CONTROLS®

Satellite Solutions for Mobile Markets

IMPORTANT!

The satellite TV market is expanding and changing. The information in this manual was accurate at the time of printing. If your VuQube does not operate as outlined in this manual please call King Controls at (800) 982-9920 or visit our website at www.kingcontrols.com.

Please read this entire manual before using the VuQube.

TABLE OF CONTENTS

PRODUCT OVERVIEW

The VuQube VQ2000 Automatic Satellite System provides simple, one-touch operation for easy access to all your favorite satellite TV channels. It is a full featured portable dish system with automatic satellite acquisition and satellite switching capabilities.

An optional Flex Install Kit with ladder mount bracket (KC# MB410 - sold separately) is available to allow semi-permanent installation on the rear ladder of your RV, but still provides the flexibility to remove the antenna for use as a portable **(Fig. 1)**. The kit includes everything required to hard wire your RV for the VuQube: ladder mount bracket, power/controller cable, (2) coax cables, (2) cable entry cover plates and controller **(Fig. 2)**.

The VQ2000 is compatible with the following satellite services:

> DIRECTV® Single Satellite
> DIRECTV Plus
> Dish Network™ Single Satellite
> Dish Network (Dish 500)
> Dish Network - HDTV (Dish 1000/1000a)
> ExpressVu
> ExpressVu HDTV

The VQ2000 includes 3 main components **(Fig. 3)**.

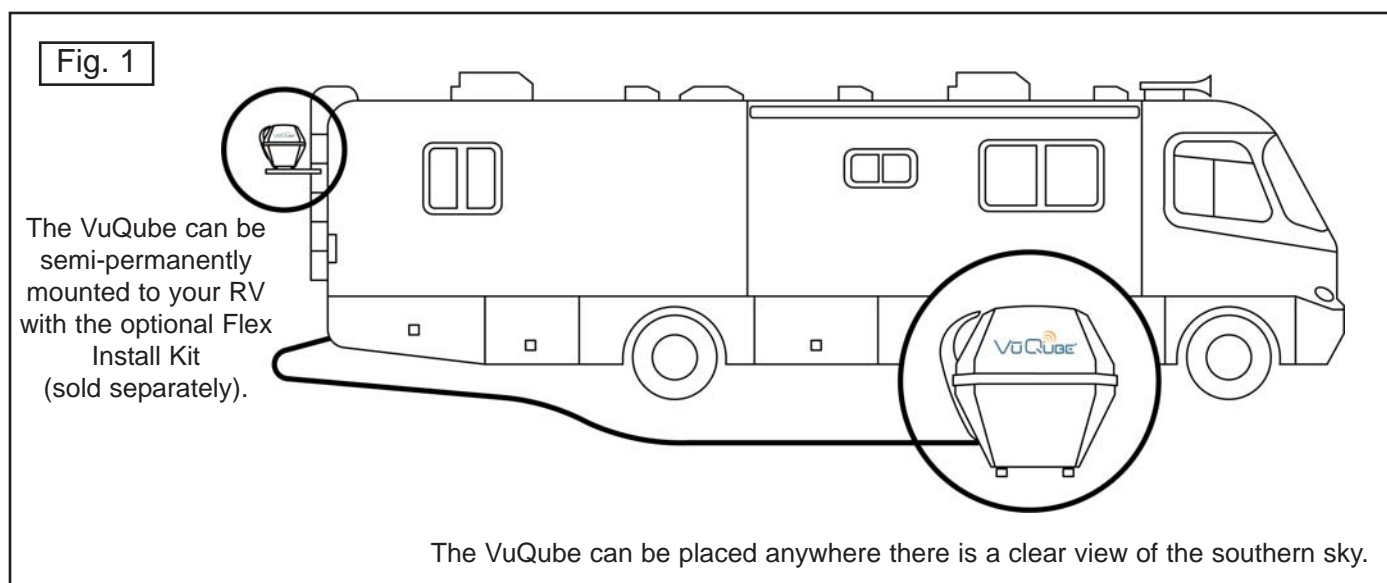|	
Antenna Unit	Placed in direct line of sight to the southern sky. The dish is covered by an enclosure for easy transport and protection from the elements.
Controller	Activates the search mode and provides limited diagnostic functions using the status light.
Power Supply	Supplies proper operating voltage to the VuQube.

Fig. 1

The VuQube can be semi-permanently mounted to your RV with the optional Flex Install Kit (sold separately).

The VuQube can be placed anywhere there is a clear view of the southern sky.

Fig. 2

Flex Install Kit Overview

(Flex Install Kit sold separately.)

Ladder Mount Bracket

Cable Entry Cover Plate

Coax Cable

Cable Entry Cover Plate

VuQube

Power/Controller Cable

Coax Cable

Controller

Front Receiver "Main"

Ladder Mount Bracket

To +12 VDC and Ground

Rear Receiver "Auxiliary"

Fig. 3

Antenna Unit

Controller

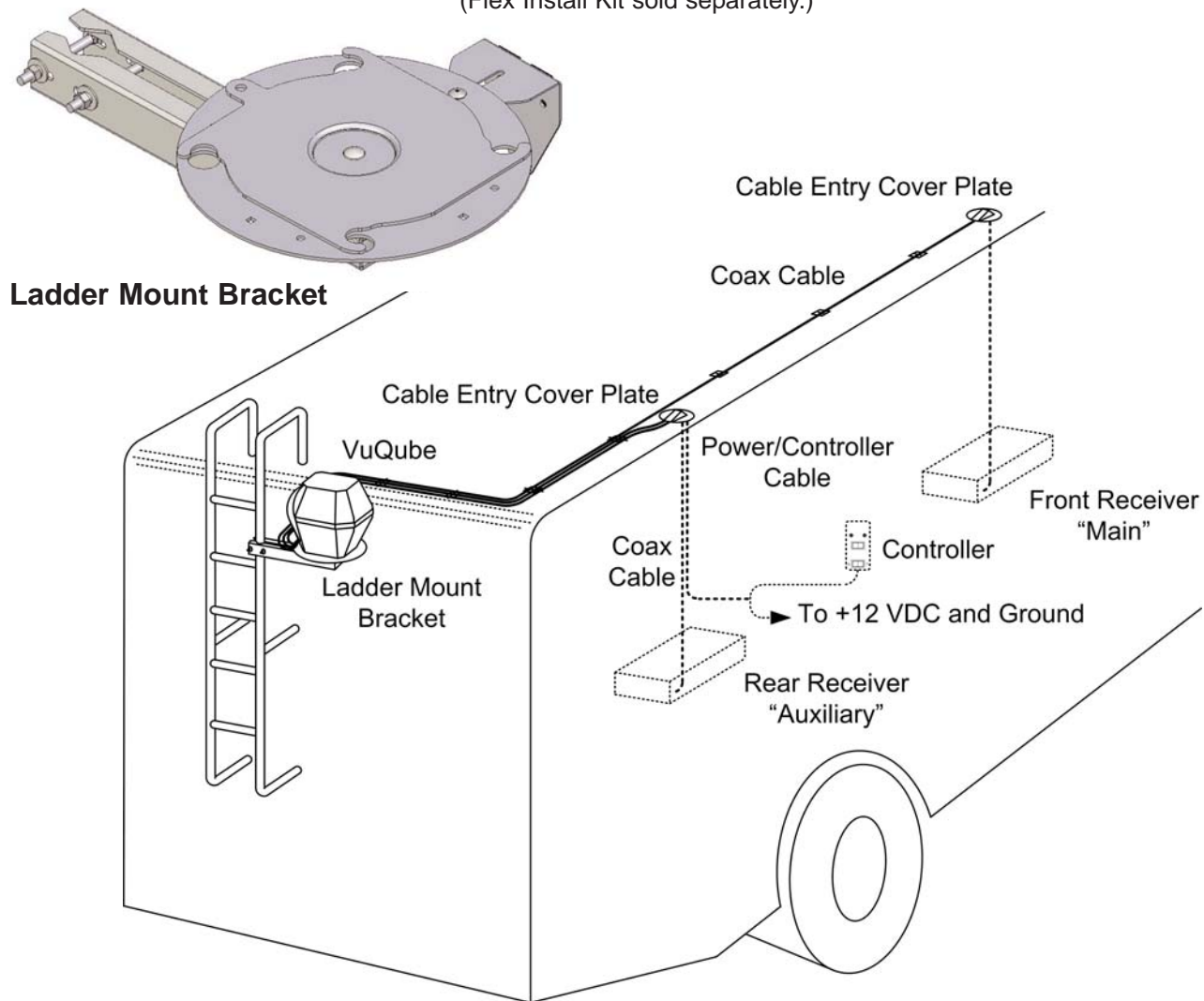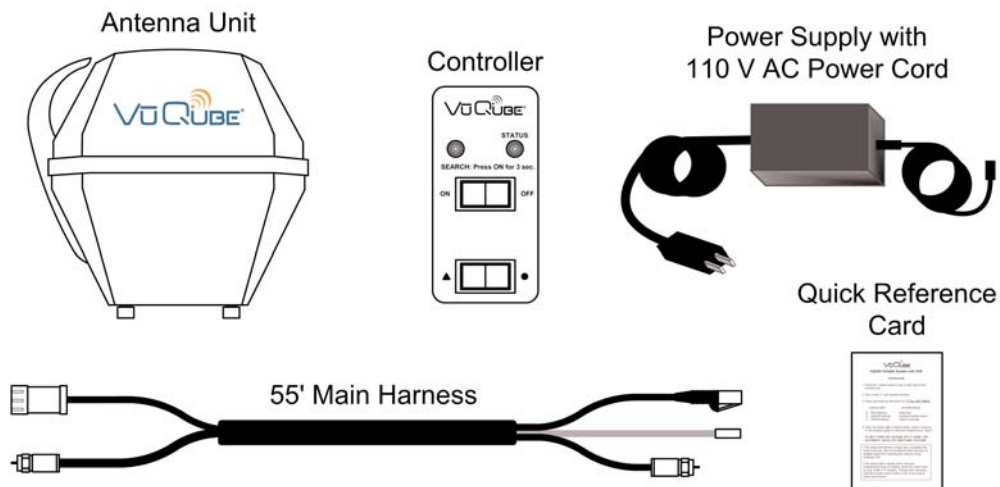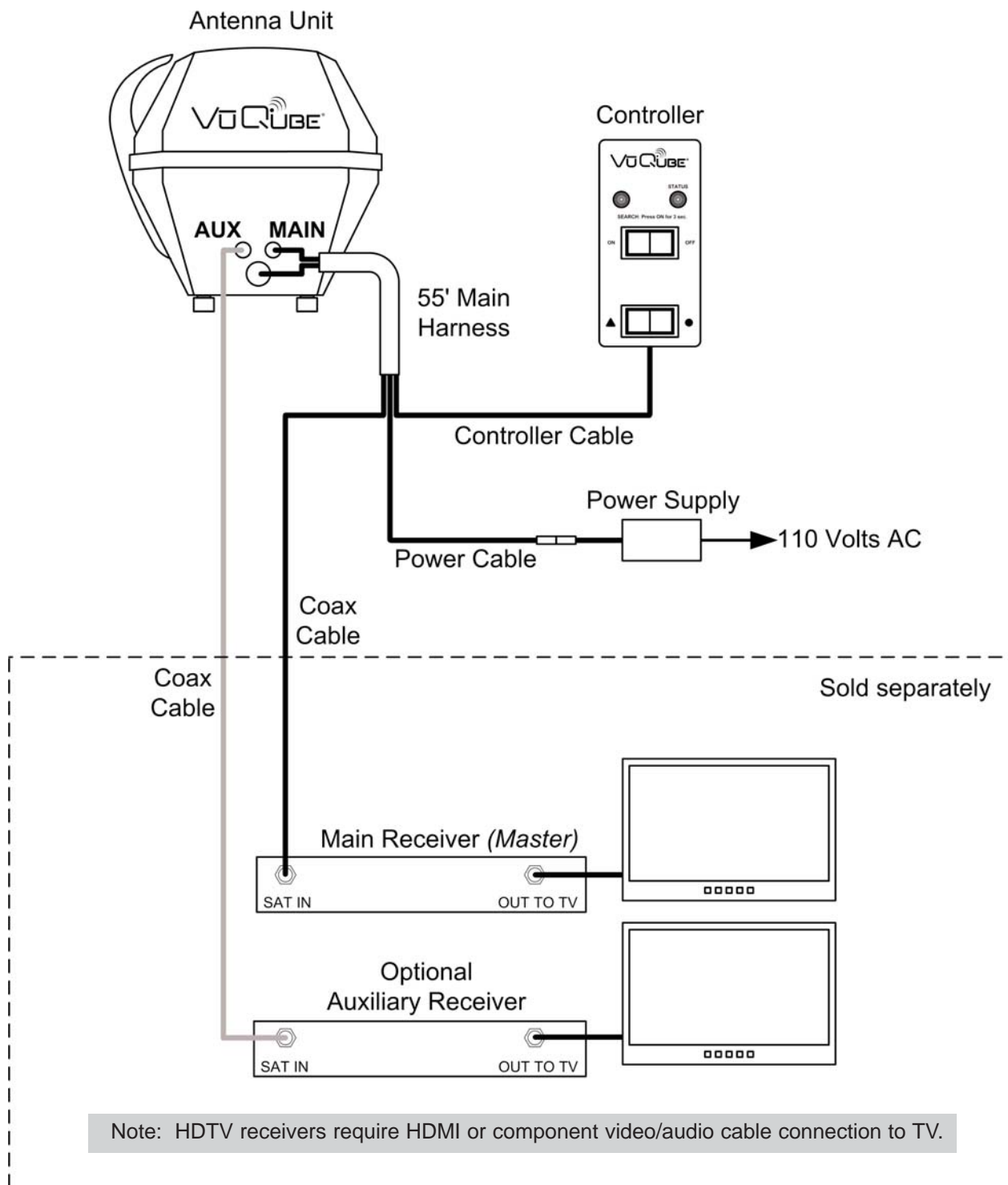Power Supply with 110 V AC Power Cord
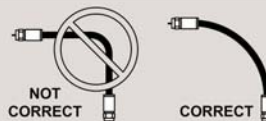
Quick Reference Card

55' Main Harness

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

Fig. 4

CONNECTION DIAGRAM
VuQube Model VQ2000 - Portable

Antenna Unit

Controller

AUX   MAIN

55' Main Harness

Controller Cable

Power Supply

Power Cable

110 Volts AC

Coax Cable

Coax Cable

Coax Cable

Sold separately

Main Receiver *(Master)*

SAT IN   OUT TO TV

Optional Auxiliary Receiver

SAT IN   OUT TO TV

Note: HDTV receivers require HDMI or component video/audio cable connection to TV.

AVOID SHARP BENDS WHEN ROUTING COAX!

NOT CORRECT   CORRECT

The VuQube Model VQ2000 Automatic Satellite System is factory pre-set for DIRECTV standard digital programming broadcast from the 101° W satellite.

If you also receive your local channels from DIRECTV's 119 satellite or if you subscribe to Dish Network or ExpressVu programming, you must use the VuQube hand held controller to re-configure the antenna to work with your satellite service. Doing this will allow the VuQube 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 VuQube antenna.

ANTENNA CONFIGURATION PROCEDURE

On pages 6-10, find your service and follow the instructions in the box.

DIRECTV ANTENNA CONFIGURATION
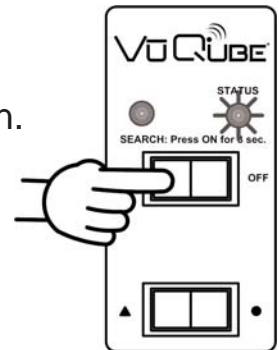
Single Satellite 101

The VuQube is factory pre-set for the DIRECTV 101 satellite. Unless the antenna has been configured for another option since leaving the factory, **PERFORM STEP 5 ONLY**.

1. On the VuQube controller, press and release the ON button. Wait for the status light to flash orange, and then flash green or red.

2. Press and release the ON button **16** times. The status light starts rapidly flashing green and red.

3. Press and hold the ▲ button for 4 seconds. The status light will turn orange for 1 second, and then start flashing green or red.

4. Press OFF.

5. Set your receiver for round dish-1 satellite (do this through the receiver's satellite set-up menu screens). Configuration is complete.
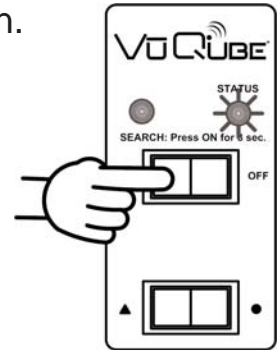
DIRECTV Plus (satellites 101, 119)

1. On the VuQube controller, press and release the ON button. Wait for the status light to flash orange, and then flash green or red.

2. Press and release the ON button **8** times. The status light starts rapidly flashing green and red.

3. Press and hold the ● button for 4 seconds. The status light will turn orange for 1 second, and then start flashing green or red.

4. Press OFF.

5. Set your receiver for oval dish-2 satellites (do this through the receiver's satellite set-up menu screens). Configuration is complete.

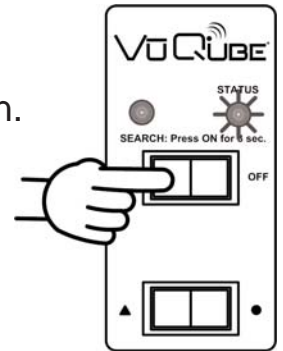# DISH NETWORK ANTENNA CONFIGURATION

Single Satellite 119

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **20** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ▲ button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
   green or red.

4. Press OFF.

5. After you have successfully configured the antenna, you must configure
   your receiver for mobile use. To configure your receiver,
   GO TO PAGE 12 AND RUN THE CHECK SWITCH.

DISH 500 (satellites 110, 119)

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **12** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ● button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
   green or red.

4. Press OFF.

5. After you have successfully configured the antenna, you must configure
   your receiver for mobile use. To configure your receiver,
   GO TO PAGE 12 AND RUN THE CHECK SWITCH.
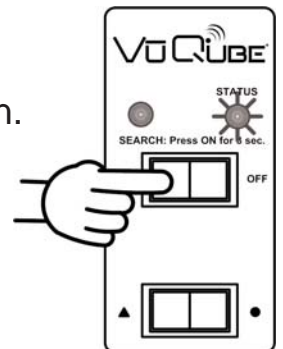
DISH 1000 - HDTV

Dish Network HD programming is broadcast from 4 satellites (61,110,119,129). The 61 and 129 satellites broadcast identical programming. (The 61 is generally stronger in the eastern U.S. and the 129 in the western U.S.) The map below shows the approximate coverage for each satellite.

Your VuQube antenna can be easily configured to work with two different satellite trios (DISH 1000a: 61,110,119 or DISH 1000: 110,119,129). By choosing the appropriate trio that includes either the 61 or the 129 satellite based on where you are, you can receive all of your desired programming.

Configure your antenna for the chosen trio on page 9.

Note: You can switch trios later if you travel to another area of the country (see page 16).

### SATELLITES 61 AND 129 COVERAGE MAP

Note: This map is an approximation only. Which trio works best in a given location may differ from what is indicated on the map.

☐ 129 Approximate coverage   ◨ 61 Approximate coverage   ■ 129 Approximate blackout area
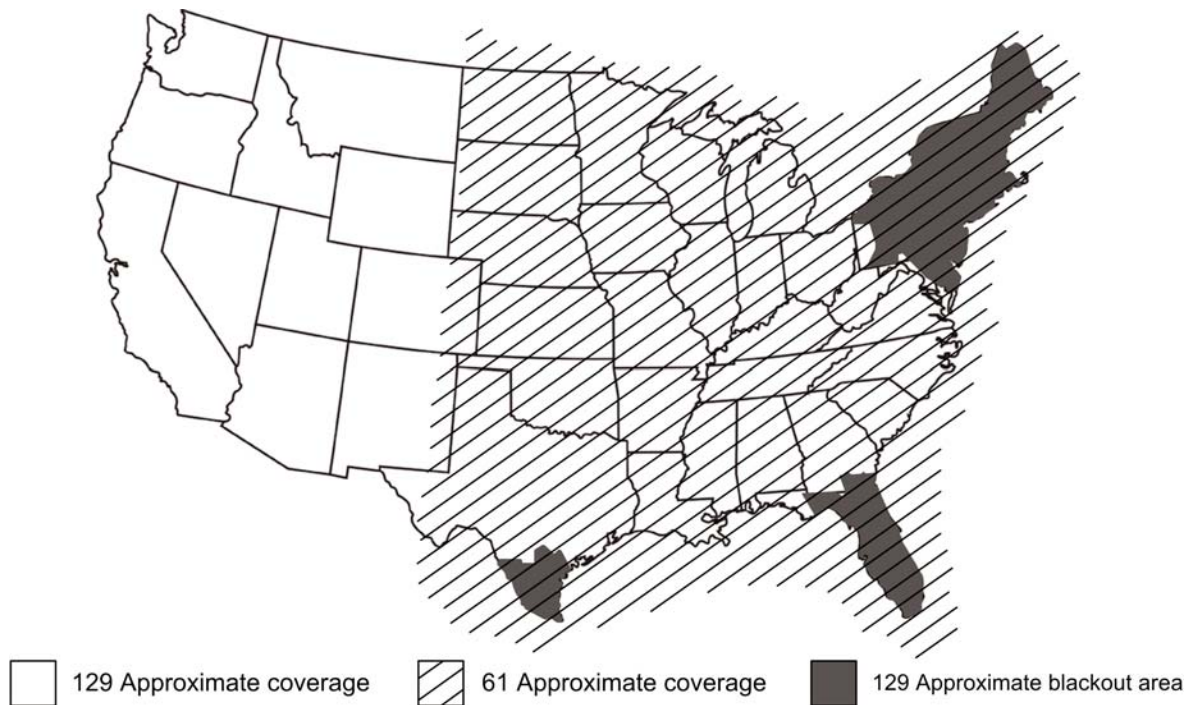
DISH 1000 HD (satellites 110, 119, 129)

1. On the VuQube controller, press and release the ON button. Wait for the status light to flash orange, and then flash green or red.

2. Press and release the ON button **20** times. The status light starts rapidly flashing green and red.

3. Press and hold the ● button for 4 seconds. The status light will turn orange for 1 second, and then start flashing green or red.

4. Press OFF.

5. After you have successfully configured the antenna, you must configure your receiver for mobile use. To configure your receiver, **GO TO PAGE 12 AND RUN THE CHECK SWITCH.**
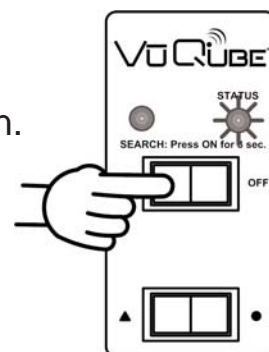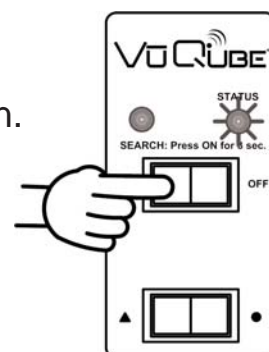
DISH 1000a HD (satellites 61, 110, 119)

1. On the VuQube controller, press and release the ON button. Wait for the status light to flash orange, and then flash green or red.

2. Press and release the ON button **16** times. The status light starts rapidly flashing green and red.

3. Press and hold the ● button for 4 seconds. The status light will turn orange for 1 second, and then start flashing green or red.

4. Press OFF.

5. After you have successfully configured the antenna, you must configure your receiver for mobile use. To configure your receiver, **GO TO PAGE 12 AND RUN THE CHECK SWITCH.**

BELL EXPRESSVU ANTENNA CONFIGURATION

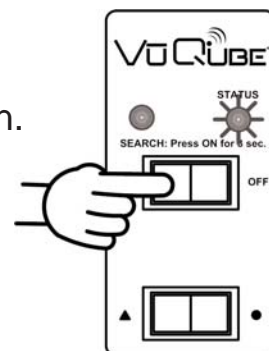## Standard Digital (satellite 91)

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **8** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ▲ button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
   green or red.

4. Press OFF.

5. After you have successfully configured the antenna, you must configure
   your receiver for mobile use. To configure your receiver,
   GO TO PAGE 12 AND RUN THE CHECK SWITCH.

HDTV (satellites 82, 91)

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **12** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ▲ button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
   green or red.

4. Press OFF.

5. After you have successfully configured the antenna, you must configure
   your receiver for mobile use. To configure your receiver,
   GO TO PAGE 12 AND RUN THE CHECK SWITCH.
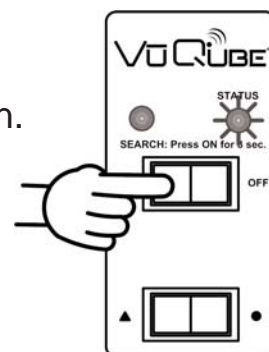
SATELLITE RECEIVER CONFIGURATION
DISH NETWORK AND EXPRESSVU: CHECK SWITCH PROCEDURE

IMPORTANT! <u>**YOU MUST HAVE COMPLETED THE ANTENNA CONFIGURATION BEFORE RUNNING THE CHECK SWITCH.**</u>

For automatic satellite switching, King Controls recommends using a Dish Network model 311 receiver for Dish 500, and a Dish Network model VIP211 or a VIP211k HDTV receiver for Dish 1000/1000a. Do not use dual tuner receivers or recorders.

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

Note: The SW21 and SW64 switches are a receiver software configuration that is loaded into the receiver after 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 a) check switch test is run again while connected to a home dish system, b) check switch is run when a receiver is not connected, or c) you travel outside the coverage area of the pre-set satellite trio (Dish 1000/1000a only).

1. Turn on the TV and satellite receiver.

2. On the VuQube controller, press and hold the ON button for **3 FULL SECONDS**.

   The antenna will lock onto the appropriate satellites before completing the search process.
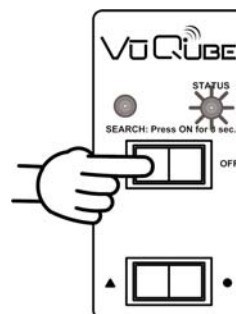
   <u>**After the satellites have been located and the acquisition process is complete, the status light will be steady green**</u>.

3. On the receiver remote, press menu, 6, 1, 1.

4. Highlight Check Switch and press select.
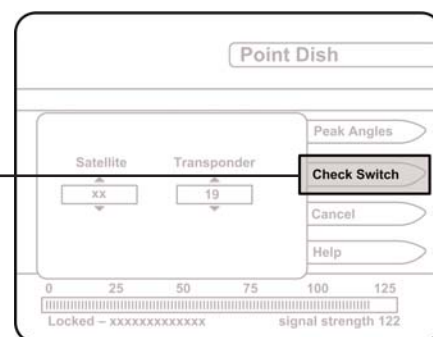
5. Make sure Superdish and Alternate boxes are **NOT** selected.

6. Highlight Test and press Select.

Screen graphics may vary.

The unit will perform a check switch test, and the dish will periodically move back and forth. (This process will take several minutes.)

7. When test is complete, a screen similar to one of the following should appear:

DISH 500   ### BELL EXPRESSVU

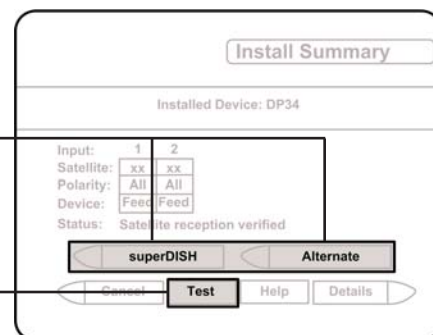|					
Install Summary					
Installed Device: SW21				— MUST SHOW "SW21"	
Input:	1	1	2	2	
Satellite:	110	110	119	119	
Polarity:	Odd	Even	Odd	Even	— NO "X"s
Status:	Satellite reception verified				
superDISH			Alternate		
Cancel		Test		Help	

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	

DISH 1000   ### DISH 1000a

Installation Summary				
		Satellite Input		
Port:	1	2	3	
Satellite:	119	110	129	
Trans:	OK	OK	OK	— NO "X"s
Device:	Twin	Twin	Sgl	
Status:	Reception Verified			
Switch:		SW64		— MUST SHOW "SW64"
☐ SuperDISH			☐ Alternate	
Cancel		Test		Help

Installation Summary				
		Satellite Input		
Port:	1	2	3	
Satellite:	119	110	61	
Trans:	OK	OK	OK	
Device:	Twin	Twin	Sgl	
Status:	Reception Verified			
Switch:		SW64		
☐ SuperDISH			☐ Alternate	
Cancel		Test		Help

If 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.

8. Save the settings, exit to the main menu screen and wait for your programming to download.

9. **DISH 1000/1000a ONLY:** Verify your saved settings show your desired satellite trio (110, 119, 129 or 110, 119, 61). To switch trios, see page 16.

Configuration is complete.

OPERATION

IMPORTANT: There must be a clear "line of sight" to the southern sky. Mountains, buildings, trees, telephone poles, etc. can all block the satellite signal from reaching the dish.

The distance driven since last performing a search may affect how long it takes the VuQube to find the satellite.

Satellite TV and receiver technology are constantly changing. If you experience difficulty go to www.kingcontrols.com or contact the King Controls Service Department at (800) 982-9920.

1. Turn on the TV and receiver. "Searching for Satellite" or similar will appear on TV screen.

2. On VuQube controller, press and hold the ON button for **3 FULL SECONDS**.

    Power light turns steady GREEN.
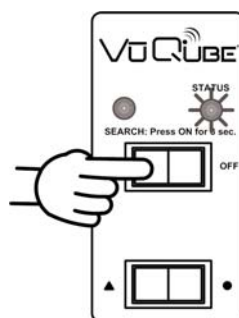
STATUS LIGHT	SYSTEM STATUS
a) flashes a variety of colors for about 30 seconds	unit performs self-diagnostic
b) RED-flashing	search in progress
c) GREEN-flashing (may start flashing RED again)	potential satellite found
d) GREEN-steady	satellite(s) found and search is complete

3. When the status light is steady green, select a channel or the program guide to view your programming. Enjoy! **(DO NOT TURN THE VUQUBE OFF IF USING THE AUTOMATIC SATELLITE SWITCHING FEATURE.)**

Note: If the status light is steady GREEN and your programming does not appear, press the reset button on your DIRECTV receiver. If using Dish Network, hold the receiver power button in for 10 seconds to reset your receiver. Consult your receiver owner's manual for further details. (Note that it may take several minutes for the guide to re-download.)

When receiver reset is complete and the guide is downloaded, select a channel or the program guide to view your programming.

AUTOMATIC SATELLITE SWITCHING

1. After you have properly configured the VuQube antenna for your satellite service, the VuQube will automatically switch between satellites by simply selecting your desired channel using the receiver's remote control.

Note: For better performance when using the automatic satellite switching feature, change channels by selecting your program from the channel guide rather than channel surfing.

It is common for the picture to pixel or display an error message when the antenna is switching between satellites, or the signal has been temporarily blocked. PLEASE BE PATIENT. THE PICTURE WILL RETURN.

If an error message appears for an extended period, selecting CANCEL may help clear the message more quickly.

Dish Network HD users: If you are unable to receive all of your HD programming, see **Dish Network HDTV: Changing the Satellite Trio** on page 16.

DISH NETWORK HDTV: Changing the Satellite Trio

> **IMPORTANT!** Perform this procedure only if you are unable to receive all of your HD programming in a particular area of the country.
>
> You cannot change trios if the antenna has not been initially configured for Dish 1000 or 1000a (see pages 8-9).

Dish Network HD programming is broadcast from 4 satellites (61,110,119,129). The 61 and 129 satellites broadcast identical programming. (The 61 is generally stronger in the eastern U.S. and the 129 in the western U.S.) The map below shows the approximate coverage for each satellite.

Your VuQube antenna can be easily configured to work with two different satellites trios (DISH 1000a: 61,110,119 or DISH 1000: 110,119,129) as you travel from one coverage area to another. By choosing the appropriate trio that includes either the 61 or the 129 based on where you are, you can receive all of your desired programming.


SATELLITES 61 AND 129 COVERAGE MAP

Note: This map is an approximation only. Which trio works best in a given location may differ from what is indicated on the map.

☐ 129 Approximate coverage   ▨ 61 Approximate coverage   ■ 129 Approximate blackout area
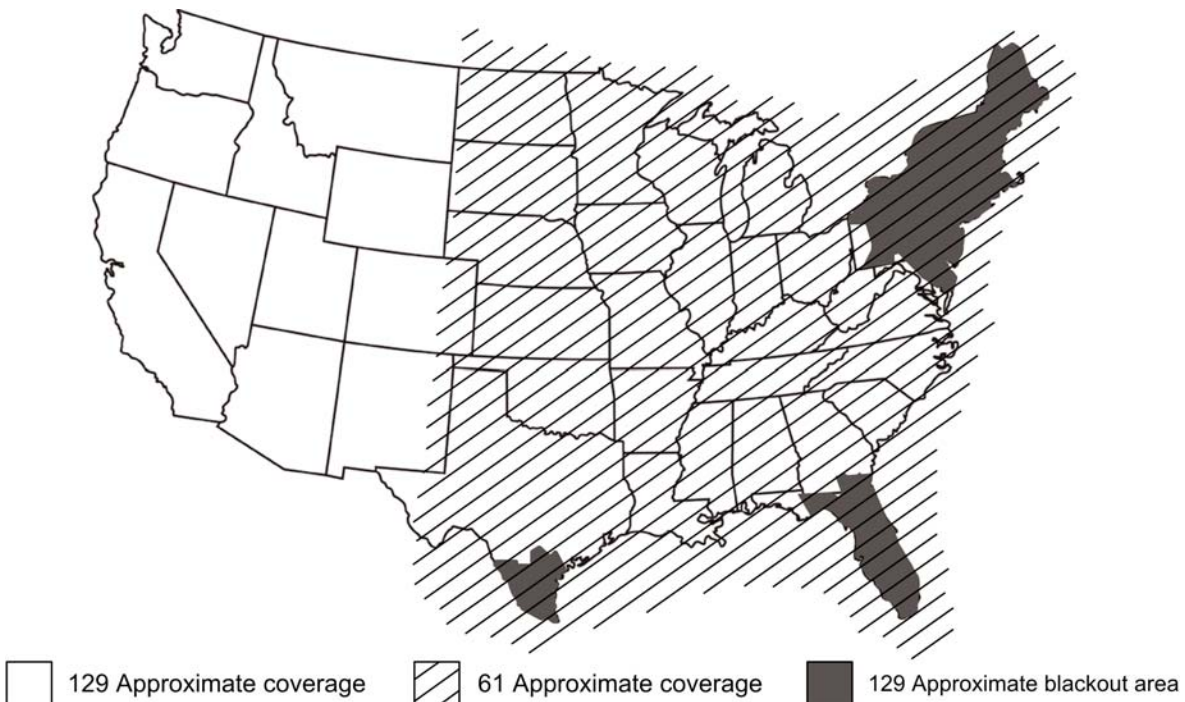

61, 110, 119 TRIO (DISH 1000a)

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **4** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ▲ button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
   green or red.

4. Press OFF. **GO TO PAGE 12 AND RUN THE CHECK SWITCH.**
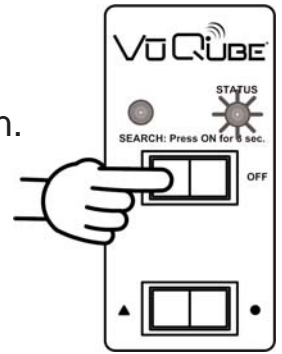
IMPORTANT! YOU MUST RUN THE CHECK SWITCH AFTER SWITCHING TRIOS!

110, 119, 129 TRIO (DISH 1000)

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **4** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ● button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
   green or red.

4. Press OFF. **GO TO PAGE 12 AND RUN THE CHECK SWITCH.**
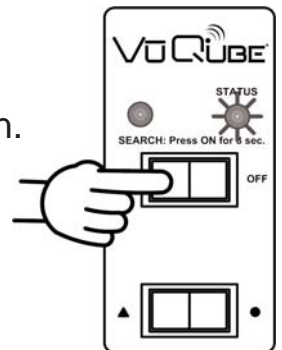
IMPORTANT! YOU MUST RUN THE CHECK SWITCH AFTER SWITCHING TRIOS!
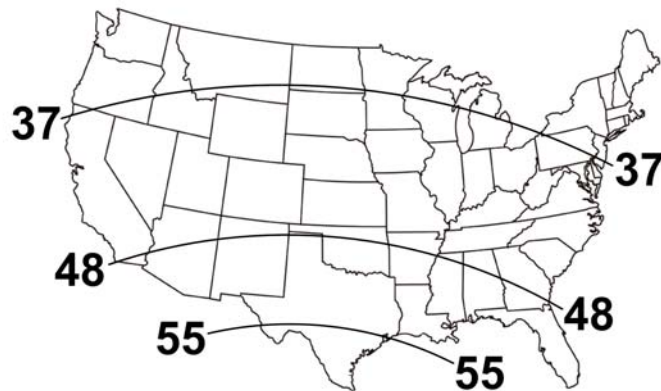
CHANGE SEARCH ELEVATION

If you have traveled a long distance since last performing a search, you can speed up acquisition time by setting the VuQube to start searching at one of four different elevations: 25°, 37°, 48° or 55°.

Find your location on the appropriate map for your service and choose the elevation closest to you. Then follow the instructions in the corresponding box on the next 2 pages.
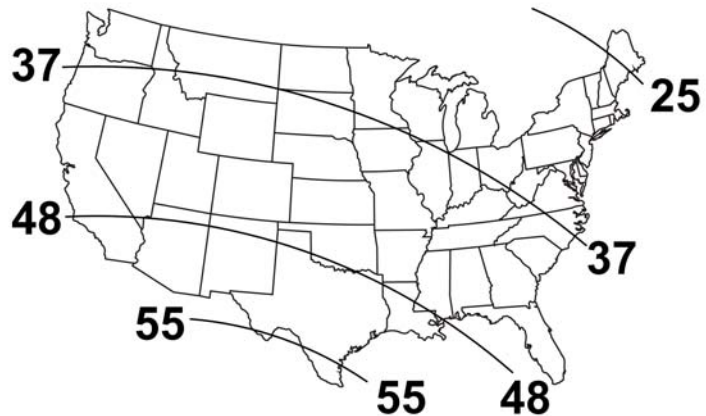
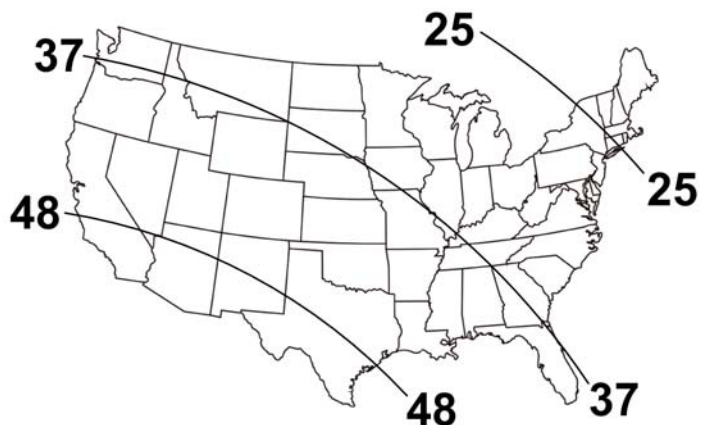**DIRECTV**

Single satellite 101
DIRECTV Plus

Dish Network

Dish 500
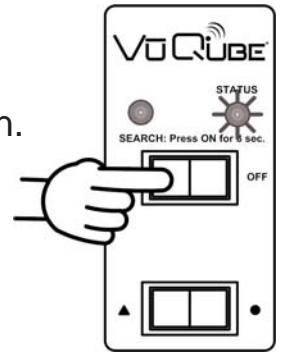**Dish 1000**
Dish 1000a

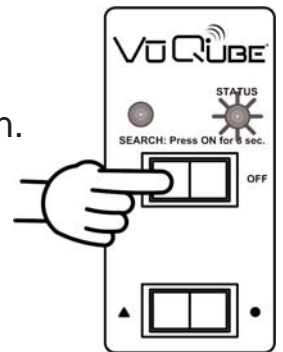**Dish Network**

Single satellite 119

CHANGE SEARCH ELEVATION TO 25°

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **8** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ON button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
   green or red.

4. Press OFF.

CHANGE SEARCH ELEVATION TO 37°

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **12** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ON button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
   green or red.
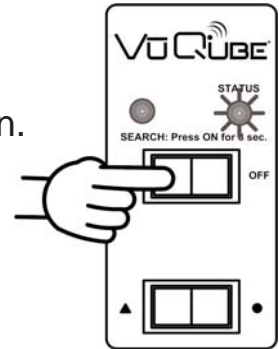
4. Press OFF.

CHANGE SEARCH ELEVATION TO 48°

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **16** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ON button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
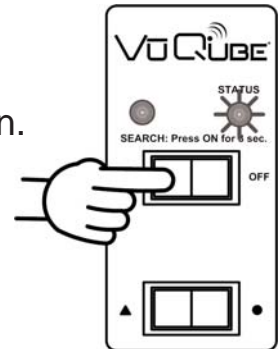   green or red.

4. Press OFF.

CHANGE SEARCH ELEVATION TO 55°

1. On the VuQube controller, press and release the ON button.
   Wait for the status light to flash orange, and then flash
   green or red.

2. Press and release the ON button **20** times.
   The status light starts rapidly flashing green and red.

3. Press and hold the ON button for 4 seconds.
   The status light will turn orange for 1 second, and then start flashing
   green or red.

4. Press OFF.

TROUBLESHOOTING

SYMPTOM	POSSIBLE REASON	COURSE OF ACTION
VuQube does not find satellite. (STATUS light flashes red or green.)	Did not hold ON button for 3 FULL SECONDS.	Hold ON button for 3 FULL SECONDS.
STATUS light flashes orange.	Before search: bad coax connection. After unsuccessful search (approximately 25 minutes): obstruction in line of sight between VuQube and satellite.	Call King Controls. Move VuQube to have unobstructed view of southern sky.
STATUS light does not stop rapidly flashing red and green.	Self check failed: potential motor problem.	Call King Controls.
STATUS light does not turn on or is dim.	Bad power source (low voltage). Bad power or controller cable connection at antenna unit. Bad controller cable connection at controller.	Call King Controls.
STATUS light is steady green but no picture.	Satellite receiver is off or requires reset.	Turn on receiver or reset (see page 14).
I don't get all of my channels.	One of your satellites is blocked. Dish 1000/1000a ONLY: you have traveled outside the coverage area of your selected trio.	Move VuQube to have unobstructed view of all satellites. Dish 1000/1000a ONLY: Change your satellite trio (see page 16).

The VuQube Satellite System has been designed to be maintenance and trouble free.

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

If you plan on not using your VuQube 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 (800) 982-9920, or email King Controls at info@vuqube.com

Rain Fade

Rain or dew on the enclosure 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 enclosure surface.

To minimize this issue and eliminate the effects of water on the enclosure, apply King Controls **Dome Magic**® rain fade solution to the enclosure. This will prevent water from sticking to the enclosure surface and blocking the signal. For additional details on **Dome Magic**® rain fade solution please contact your authorized VuQube dealer or call King Controls at (800) 982-9920.

Single Application Packet #1830-SP   **Spray Can #1830**

Note: **Dome Magic**® will discolor black VuQubes or VuQubes painted a dark color.

SECTION 7   LIMITED WARRANTY

Every VuQube Satellite System is thoroughly inspected and tested before leaving the factory. It is covered by a one year parts and labor limited warranty from the date of original purchase. This warranty does not cover installation and external wiring or refurbished units.

Should any trouble develop during the warranty period, contact King Controls. Only King Controls and certified dealers are authorized to perform warranty evaluations and repairs.

If it is determined that the unit needs to be returned, return COMPLETE product, freight prepaid, to:

King Controls, 11200 Hampshire Ave. S. 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.

This warranty 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.

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.