

Service Key Upgrade Kit - Installation and Operation Instructions

These instructions explain how to install the Service Key Upgrade Kit and set up the TracVision[®] system for the desired satellite TV service using the service keys. This procedure requires a PC with the KVH Flash Update Wizard installed.

NOTE: The Flash Update Wizard is available to KVH-authorized dealers through the KVH Partner Portal.

Step 1 - Update Flash Update Wizard Files

Before flashing the antenna, you need to check for flash file updates to ensure your PC has the most current flashing software available (see Figure 1). Follow the Flash Update Wizard's onscreen instructions to check for updates.

TIP: Refer to the Flash Update Wizard's Help file for details.

Step 2 - Flash the Antenna's Main Board

Follow the Flash Update Wizard's onscreen instructions to flash the TracVision system's main board.

Step 3 - Manually Select the RF Flash File

Now you need to manually select the RF board flash file. Before you can flash the antenna's RF board, you need to turn off the TracVision system to enable manual flash file selection.

- Set the switchplate's POWER switch to the off (down) position (see Figure 2).
- Follow the Flash Update Wizard's onscreen instructions to flash the RF board. Keep the antenna turned off.
- Since the TracVision system is turned off, an error message is displayed (see Figure 3). Choose "Select Antenna Model (Advanced)."
- Select "KVH R5SL/R4SL/R5/R4/C3 RF Board" from the list (see Figure 4). Then select OK.
- Select Next to confirm the selection.
- Set the switchplate's POWER switch to the on (up) position (see Figure 2).

Figure 1 Check for Updates

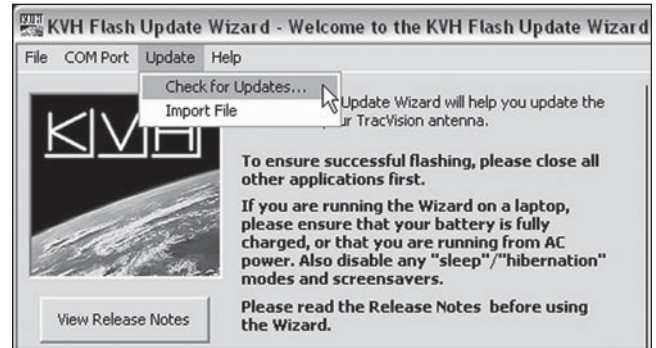


Figure 2 TracVision Switchplate Power Switch

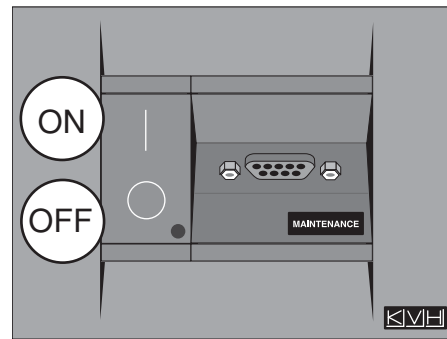


Figure 3 RF Board Not Found Screen

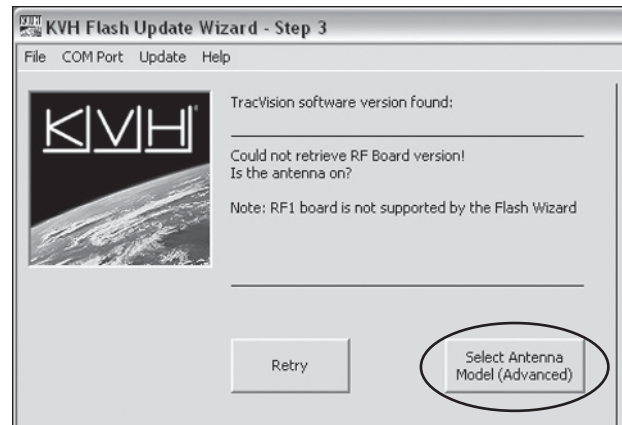
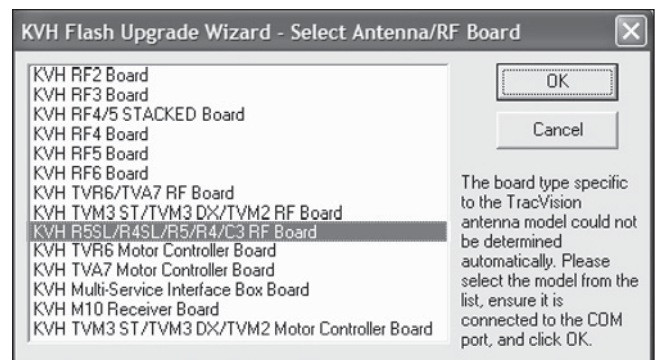


Figure 4 Manual Flash File Selection



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Step 4- Flash The Antenna's RF Board

Follow the Flash Update Wizard's onscreen instructions to flash the RF board using the flash file you chose in "Step 3 - Manually Select the RF Flash File" on page 1.

Step 5- Connect Service Keys, If Required

Some configurations require you to connect one or two service keys to the switchplate. Find the selected satellite service below to determine which service key(s), if any, you need to connect.

DIRECTV

The system ships from the factory set up for DIRECTV® service. No service keys are required to track the DIRECTV 101, 110, or 119 satellites.

DISH 1000

To ensure you receive proper reception for your geographic area, use the map in Figure 5 to determine the appropriate DISH 1000 configuration.

DISH 1000/129

No service keys are required to track the DISH 110, 119, and 129 satellites.

DISH 1000/61

Connect service key "A" to the front of the switchplate (see Figure 8) to track the DISH 110, 119, and 61 satellites.

DISH 500

Connect service key "A" to the front of the switchplate (see Figure 8) and service key "B" to the back of the switchplate (see Figure 9) to track the DISH 110 and 119 satellites.

ExpressVu

Connect service key "B" to the back of the switchplate to track the ExpressVu 82 and 91 satellites (see Figure 9).

Figure 5 Approximate 61 Satellite Areas (DISH 1000 Only)



Figure 6 Service Key Usage

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

Figure 7 Service Keys

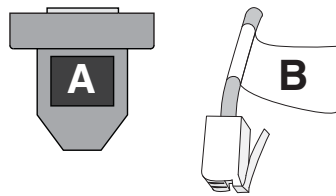


Figure 8 Connecting Service Key A

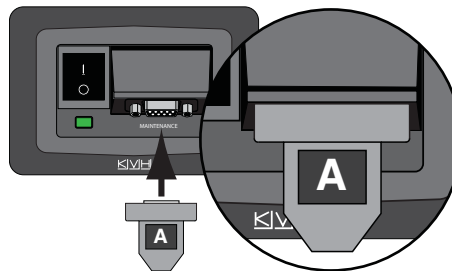
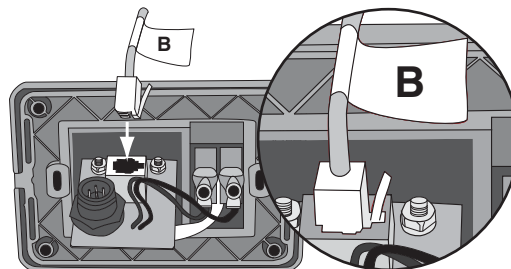


Figure 9 Connecting Service Key B



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Step 6- Run Two Check Switch Tests

If you installed a **DISH Network** or **ExpressVu** receiver, you need to run two Check Switch tests. The first Check Switch test finds the satellites; the second Check Switch test configures the receiver for those satellites.

NOTE: If you are connecting multiple receivers, repeat this process for each additional receiver. You will need to connect each receiver, one at a time, to the RF1 cable and perform the steps below. Then, once you have completed this process for each receiver, you can reconnect them as desired.

- a. Stop the vehicle/vessel in a blockage-free area.
- b. Ensure the receiver you wish to configure is connected to the RF1 cable.
- c. Turn on the TV and receiver.
- d. Set the switchplate's power switch to the ON (I) (up) position to apply power to the TracVision antenna. Wait one minute for system startup.
- e. Using the receiver's remote, go to the "Point Dish/Signal Strength" screen (press MENU, 6, 1, 1 on most models).
- f. Choose **Check Switch**, then press SELECT.
- g. Choose **Test**, then press SELECT.
- h. Wait at least 15 minutes before proceeding. Disregard any messages that appear on the TV screen.
- i. After you have waited 15 minutes, repeat Steps e-g to run a second Check Switch test.
- j. Refer to the tables in Figure 10 to verify the values on your TV match those required for your selected service. If your values do not match, turn off the antenna, then turn it back on and repeat Steps e-i.
- k. Exit the menu and allow the receiver to download the program guide.

NOTE: This procedure does not need to be performed again unless another receiver is added, receiver(s) are reconfigured for home use, or the user has moved to a different DISH 1000 satellite coverage area (see Figure 5 on page 2).

Figure 10 Expected Results for Second Check Switch Test

DISH 1000/129 Results

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

DISH 1000/61 Results

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

DISH 500 Results

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

ExpressVu Results

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

PLEASE READ!

Important Addendum to Your Product Manual

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

IMPORTANT!

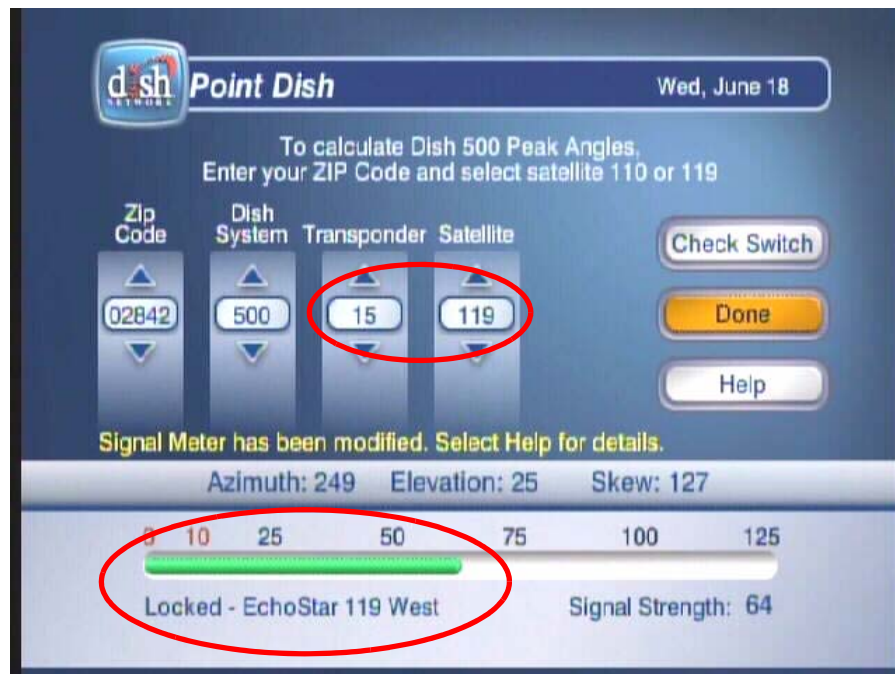
This addendum only applies if the vehicle is located in the **southwestern U.S.** (California, Nevada, Arizona, New Mexico, Texas, or Oklahoma) and you need to configure the system for **DISH Network®** service.

Running Check Switch Tests for DISH Network in the Southwest

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

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

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



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

DISH 1000/129 Results

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

DISH 1000/61 Results

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

DISH 500 Results

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

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