

ViP Troubleshooting

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STEP 1: PREPARATION

- Ensure the SBSM is charged
- Review the account notes
- Contact customer if Call History shows no contact was made or you require directions or security gate access

STEP 2: CUSTOMER CONFIRMATION

- Bring the SBSM when greeting the customer
 - "I understand you are having an issue with _____. Can you show me where you are having this issue?"
- Ask probing questions such as:
 - "Is the issue on all TVs or just one TV?"
 - "Is the issue constant or intermittent?"
 - "Have you recently moved/relocated the system?"
 - Take note of any error messages and thank the customer for the information he or she provides

STEP 3: INITIAL TROUBLESHOOTING WITH CUSTOMER

- Attempt to recreate the problem (if possible)

At both TV1 and TV2

- Use the voltage detector to confirm that the first receiver is safe to touch
 - If the voltage detector beeps rapidly, unplug every receiver, TVs and other interconnected items in the system
 - Use the receptacle tester and voltage detector to find the outlet(s) that are causing the system to be unsafe

- When you find the unsafe outlet(s), inform the customer of the issue and try another location. If there are no outlet solutions, or customer does not approve, notify your FSM of the situation and then work to cancel or reschedule the work order based on the customer's desire to resolve the electrical issue
- Verify all devices are plugged in and turned on
- Verify all cables are secured properly
- Verify the TV is on the correct input/channel
- If applicable, verify the smart card is inserted properly

If receiver is operational

- Ensure the remote is programmed properly (codes, address, etc.)
- Ensure the remote and receiver are communicating properly
- Check the system info screen for errors

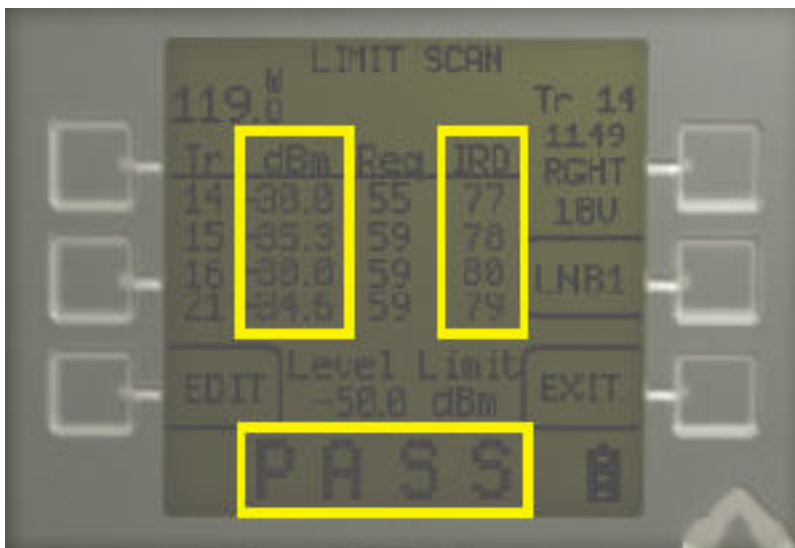
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STEP 4: SET UP LIMIT SCAN

- Unplug the receiver from the power outlet
- Power on the SBSM
- Set the SBSM configuration to match the dish/switch configuration
- Unhook the satellite feed from the receiver
- Attach the SBSM to the satellite feed

STEP 5: LIMIT SCAN BEHIND THE STB WITH CUSTOMER

- On the SBSM, press MENU and then press LIMIT SCAN
- Press LNB OFF soft key to cycle through orbitals
- Look for a PASS or FAIL alert



FAIL	PASS
<p>A failed limit scan will occur if:</p> <ul style="list-style-type: none"> At least one transponder's IRD is less than the Req At least one transponder is less than -50.0 dBm 	<p>A passed limit scan will occur if:</p> <ul style="list-style-type: none"> All transponders' IRD is greater than the Req All transponders' dBm is greater than -50.0 dBm <p>This means the issue is isolated between the STB and TV.</p>
<p>Inform the customer:</p> <p>"There seems to be an issue with the signal path. I will do further research tests and will let you know once the issue is resolved."</p>	<p>Inform the customer:</p> <p>"The signal strength is good and the issue seems to be isolated to this area. I will do further tests and will let you know once the issue is resolved."</p>
<p>Go to Step 6a - Signal Troubleshooting</p>	<p>Go to Step 6b - STB to TV Troubleshooting</p>

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STEP 6A: SIGNAL TROUBLESHOOTING

Step	Fail	Pass
a. Does the wall plate have a low frequency barrel in it?	Replace and retest	Next step
b. Limit scan at STB side of ground block/switch	Next step	Check and replace any defective components between ground block/switch and STB. Then go to (f)
c. Limit scan at dish side of ground/ block switch	Next step	Replace ground block/switch. Then go to (f)
d. Limit scan at dish	Next step	Check and replace any defective components between dish and ground block/switch. Then go to (f)
e. Verify the mount is secure and positioned properly	Secure and peak dish	Replace the LNBF, then go to (f)
f. Repeat the limit scan behind STB	Go to (b)	Go to (g)

g. Test outlet, plug in the receiver and run a check switch	Go to Step 6b(a)	Go to (h)
h. Perform a limit scan behind all other STBs. If no other STBs exist, continue to Step 7 - Final Quick Checks	Return to (a)	Go to Step 7 - Final Quick Checks

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STEP 6B: STB TO TV TROUBLESHOOTING

Step	Fail	Pass
a. Run limit scan around each component (ex. diplexer, separator or triplexer)	Replace any defective components. Reconnect components and go to (h)	Reconnect coaxial cable and go to next step. A separator/ triplexer will only show odd or even transponders, which will display "fail" on SBSM.
b. Test outlet, plug in receiver and see if the TV picture is coming in clear and consistent	Go to (d)	Go to (c)
c. Ensure TV picture contains no error message	Address error message and, if needed, replace the receiver	Go to (i)
d. Try using the same cable in a different port on the TV	Next step	Use the same cable in the different port. Then go to (i)
e. Try using a replacement cable	Next step	Use a replacement cable. Then go to (i)
f. Without downgrading, try using a different kind of cable connection (ex. If HDMI, try using component cable)	Next step	Use a new cable connection. Then go to (i)
g. Reset the TV's factory settings, with customer approval	Next step	Go to (i)
h. Plug in another device into the same port on TV, if possible	Possible TV issue, test on another TV	Replace the receiver. Then go to (i)
i. Perform a limit scan behind all other STBs. If no other STB, continue to Step 7 - Final Quick Checks	Go to Step 6a, (a)	Go to Step 7 - Final Quick Checks

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STEP 7: FINAL QUICK CHECKS

1. Dish and Mount

- Clear line of sight
- Secure mount and lags
- Enough lag screws
- Level mast
- Ground mast

2. Cabling and Components

- Cable RG-6 and in good condition
- DNS approved hardware
- All fittings secure and torqued
- Drip loops installed properly

3. Grounding

- Approved ground block
- Approved ground source
- Grounding component installed properly

4. Connectivity and Customer Education

- Verify connectivity is present and functioning
- Review troubleshooting findings with customer
- Ensure customer is confident with system/remote
- Review and quiz customer on 5 troubleshooting steps

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