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# ***SIENNA VISION***



## **VIDEO ENTERTAINMENT SYSTEM DIAGNOSTIC MANUAL**



Rev: B 12/17/01

MDC #0017-00314-SVC

# TOYOTA SIENNA 2001 – VIDEO ENTERTAINMENT SYSTEM

Service Diagnostic Manual

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***For issues beyond the scope of this document, please use the following resources:***

**Toyota Customer Assistance Center                      800.331.4331**

**Rosen Technical Support                                      800.964.1708**

**Initial Test Inspection**

**Initial Test**

Note:

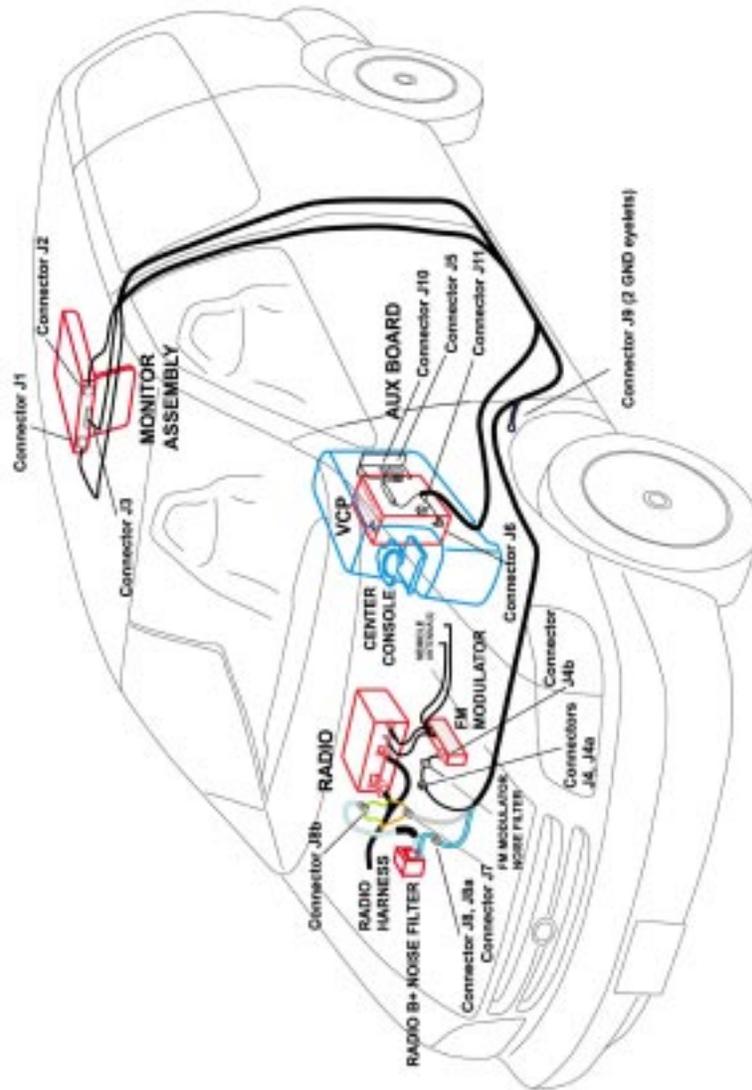
Use this test to confirm the customer complaint/failure condition, such as picture no sound, won't eject, no power to VCP, etc.. Then review the Troubleshooting Table beginning on page 5 for repair procedures. Refer to the VES Owner's Guide for details on operating the system.

1. Turn the ignition key on.
2. Turn the radio on and tune to 88.1 FM.
3. Insert a pre-recorded VHS tape into VCP.
4. Open the screen FPD from the monitor assembly.
5. Verify that batteries are properly inserted into remote, and press Play.
6. Verify that video is displayed on the FPD.
7. Turn VES Audio On using the remote menu function. Verify audio can be heard on the vehicle radio, through the wired headphones, and through the wireless headphones.
8. Close the FPD screen.
9. Turn the ignition key to the "off" position.
10. Verify that the tape ejects in 15–20 seconds.

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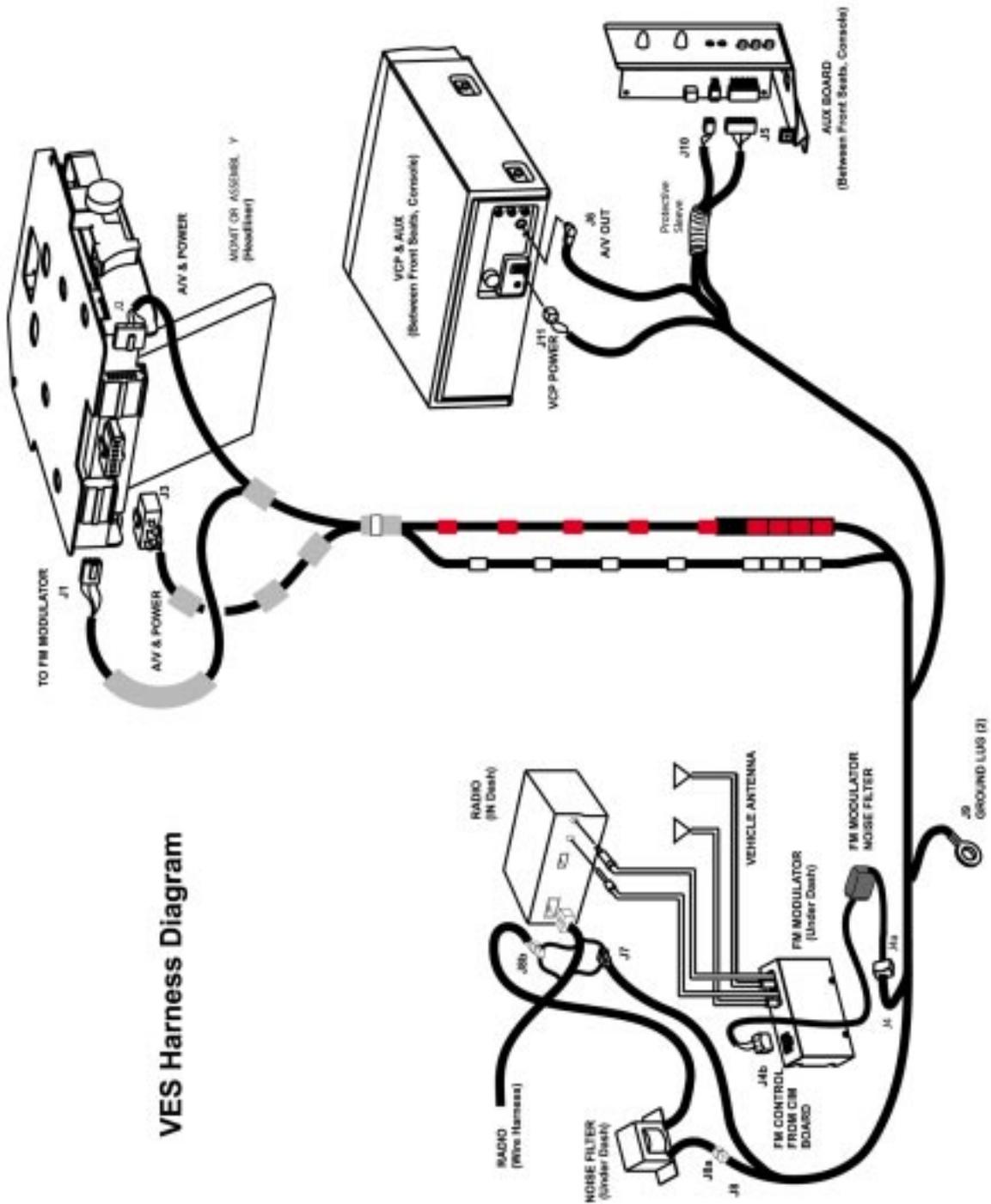
## Sienna VES Component and Connector Locations



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## Sienna VES Component and Harness Map



VES Harness Diagram

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## Troubleshooting Table

Determine the failure condition, and then repair it by using the TROUBLESHOOTING TABLE. The VES can communicate certain protection modes (which can resemble system failure) by flashing the Status LED's in the monitor assembly. These modes are defined on the next page.

NOTE: Audio and video signals referred to in the troubleshooting table originate from the VCP unless otherwise stated.

No.	Condition	Explanation	Check and Repair
1	No audio or video	Protection Mode engaged  Trouble in IG Power supply  Remote Control NG	See Diagnostic Error Codes ( <a href="#">Page 6</a> ).  STEP 1: CHECK 1 Radio/VCP fuse check. STEP 2: CHECK 2 VES harness power connection check. STEP 3: CHECK 3 VES harness ground check. STEP 4: CHECK 4 VCP/Monitor Assembly harness check. STEP 5: CHECK 5 Monitor Assembly ground distribution check.  Check batteries and/or replace remote if required.
2	No Audio Video is OK VCP accepts a tape	Bad VHS Tape  Trouble in radio/VES settings or connections	Try second VHS tape.  STEP 1: CHECK 6 FM Freq/FM Modulator check. STEP 2: CHECK 7 VES/radio VOLUME check. STEP 3: CHECK 8 FM Modulator harness check.
3	No video Audio is OK	AUX mode engaged  Trouble in harness	Press VCP on remote.  STEP 1: CHECK 5 Monitor Assembly ground distribution check.
4	Radio will not tune in stations	Trouble with FM Modulator	STEP 1: Verify problem remains with VES OFF and screen closed. STEP 2: CHECK 8 FM Modulator harness check.
5	VES audio too low Radio volume OK	VES VOL setting too low	Raise volume with remote.
6	AUX audio or video NG VCP audio and video OK	Trouble with AUX board in center console	STEP 1: CHECK 9 AUX board/Monitor Assembly check.
7	No headphone sound (wired)	Problem in headphone, AUX board, or harness	STEP 1: Check headphone volume setting. STEP 2: (OPTIONAL) Using test headphones, check for output. IF NG, go to STEP 3. STEP 3: CHECK 9 AUX/Monitor Assembly check.
8	No headphone sound (wireless)	Problem in headphone, AUX board, or harness	STEP 1: Check headphone power switch and volume setting. STEP 2: Check batteries in headphones. STEP 3: (OPTIONAL) Test using test wired headphones. IF NG, go to CHECK 9 AUX/Monitor Assembly check.
9	Noise in VES audio with Night-mode on	Problem with FM Modulator power filter	Replace FM Modulator in-line power filter (see diagram on <a href="#">Page 14</a> ).
10	VCP does not eject	Problem in wiring or in Monitor Assembly	STEP 1: CHECK 10 Switched voltage check.
11	Audio poor – VCP LED flashes	VCP in Self-Tracking mode, needs cleaning, or bad videotape	VCP has auto tracking self-adjustment mode (indicated by LED). If no flashing LED is present, clean with a good-quality head cleaner, and try another videotape with known good audio.

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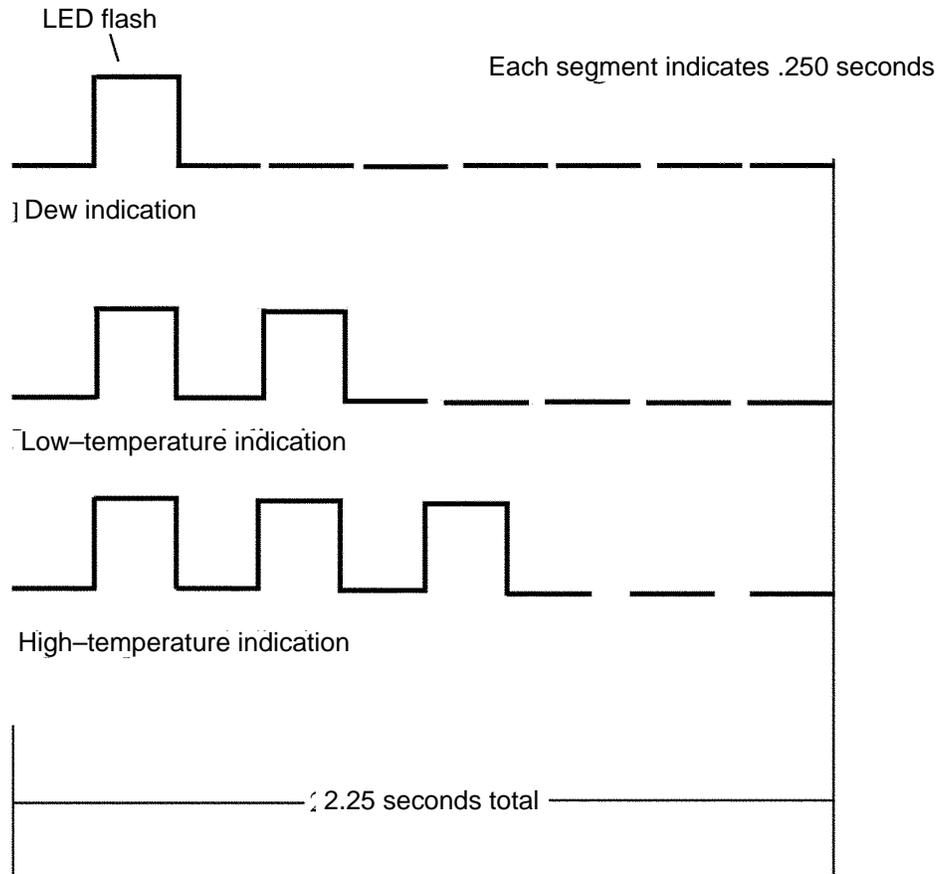
## Diagnostic Error Codes

The Status LED flashes in groups of one, two, or three flashes to communicate what error conditions are present. These error conditions are:

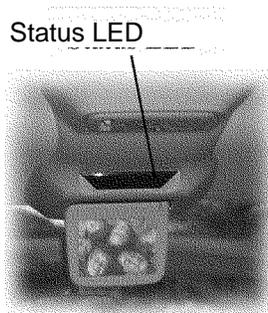
**One flash** – “Dew” or moisture present in the video cassette player.

**Two flashes** – A low-temperature condition. This means below 0° C/32° F.

**Three flashes** – A high-temperature condition. This means over 60° C /140° F.



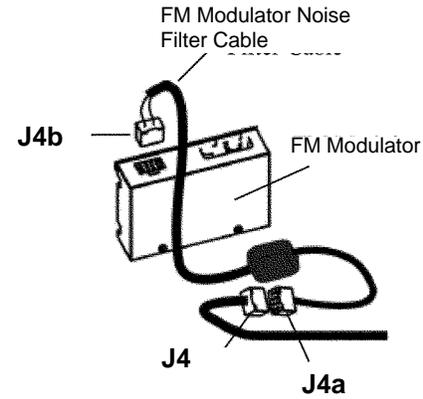
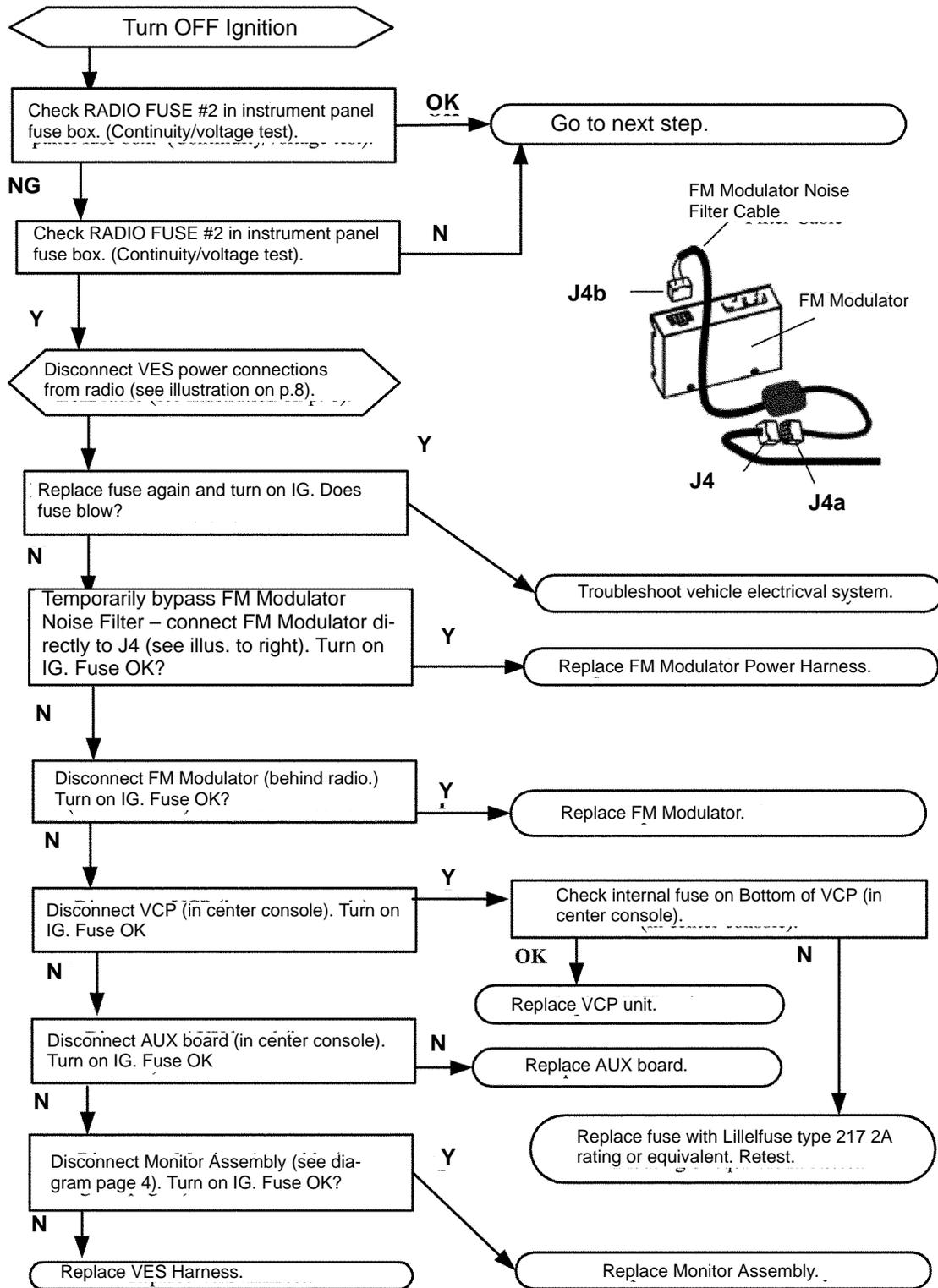
Location of the  
Status LED



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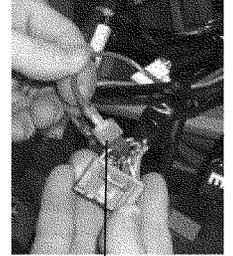
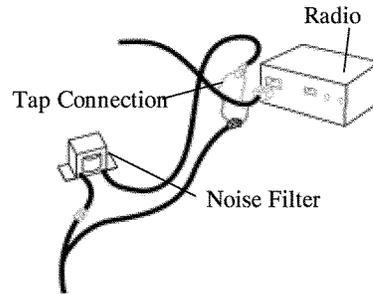
## Check 1: Fuse Check



# TOYOTA SIENNA 2001 – VIDEO ENTERTAINMENT SYSTEM

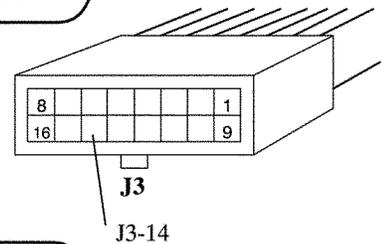
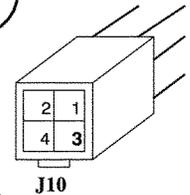
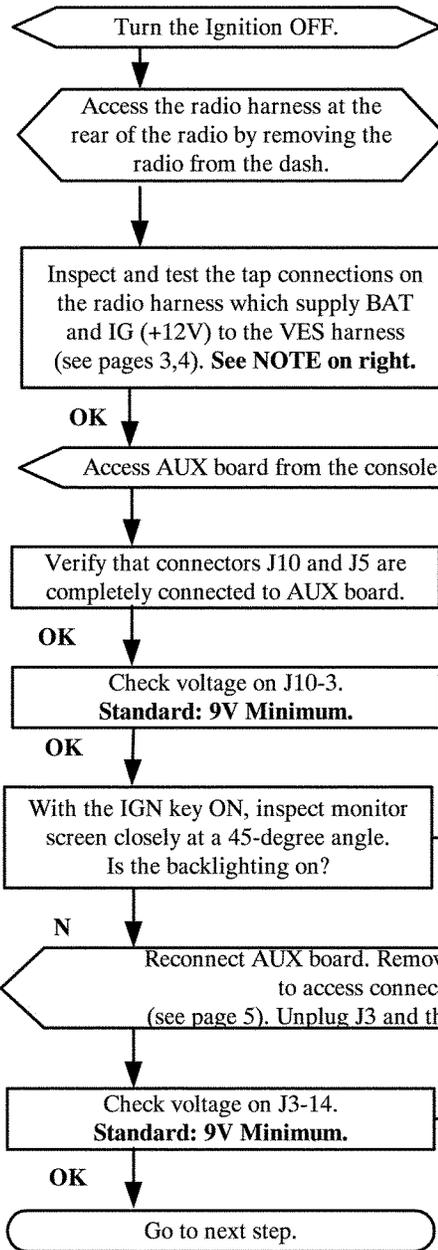
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## Check 2: VES Harness Connection Check



Tap Connection

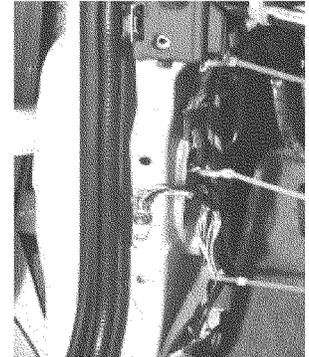
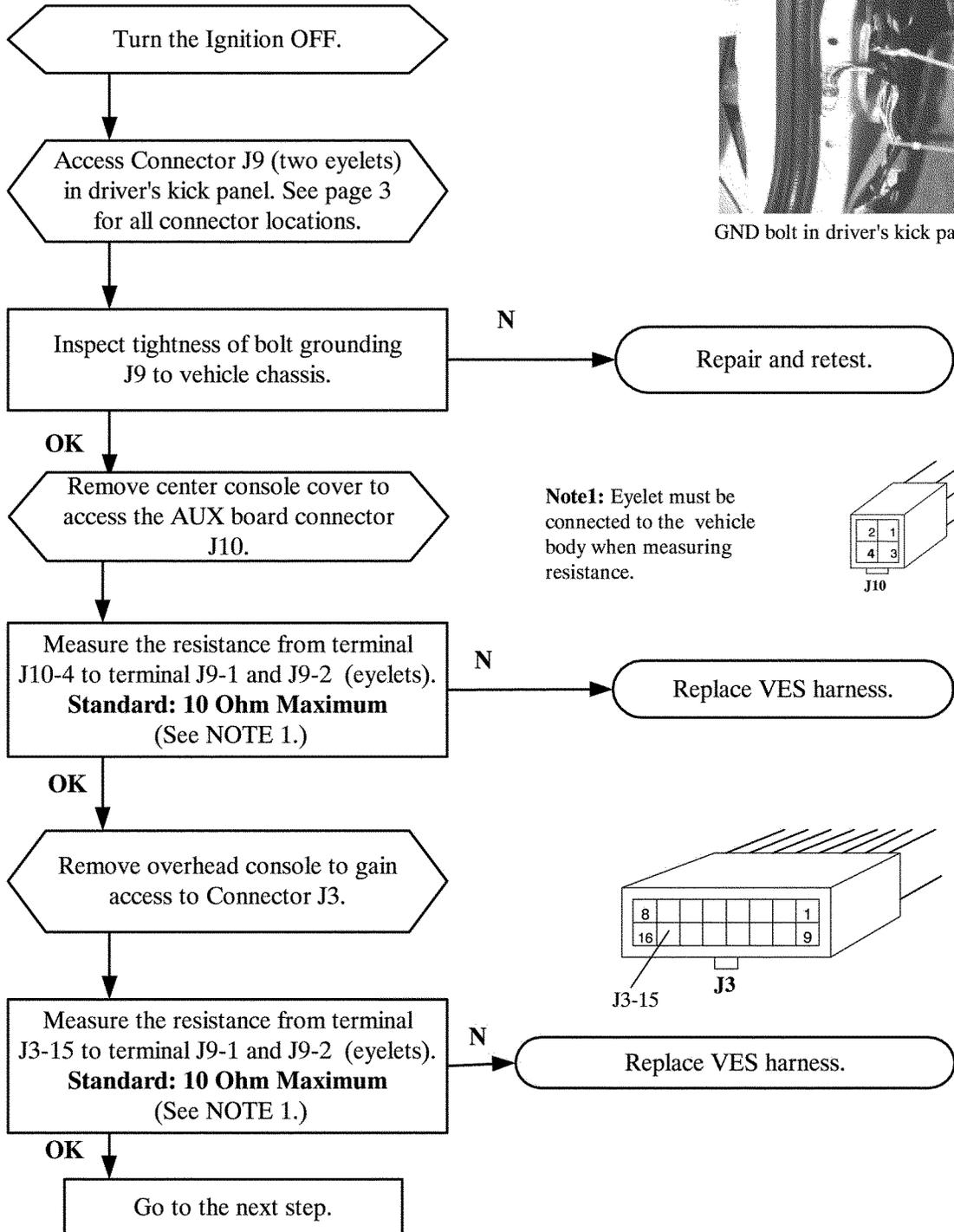
**Note:** Assure that the two wires are properly connected: BLU/YEL of VES to BLU/YEL of the radio harness, GRY of VES to GRY of the radio harness. Reversal of these connections will cause apparent system failure. Also assure that both filter wires are connected firmly.



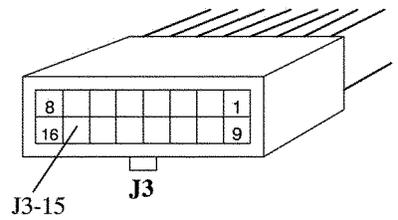
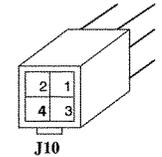
# TOYOTA SIENNA 2001 – VIDEO ENTERTAINMENT SYSTEM

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## Check 3: VES Harness Ground Check



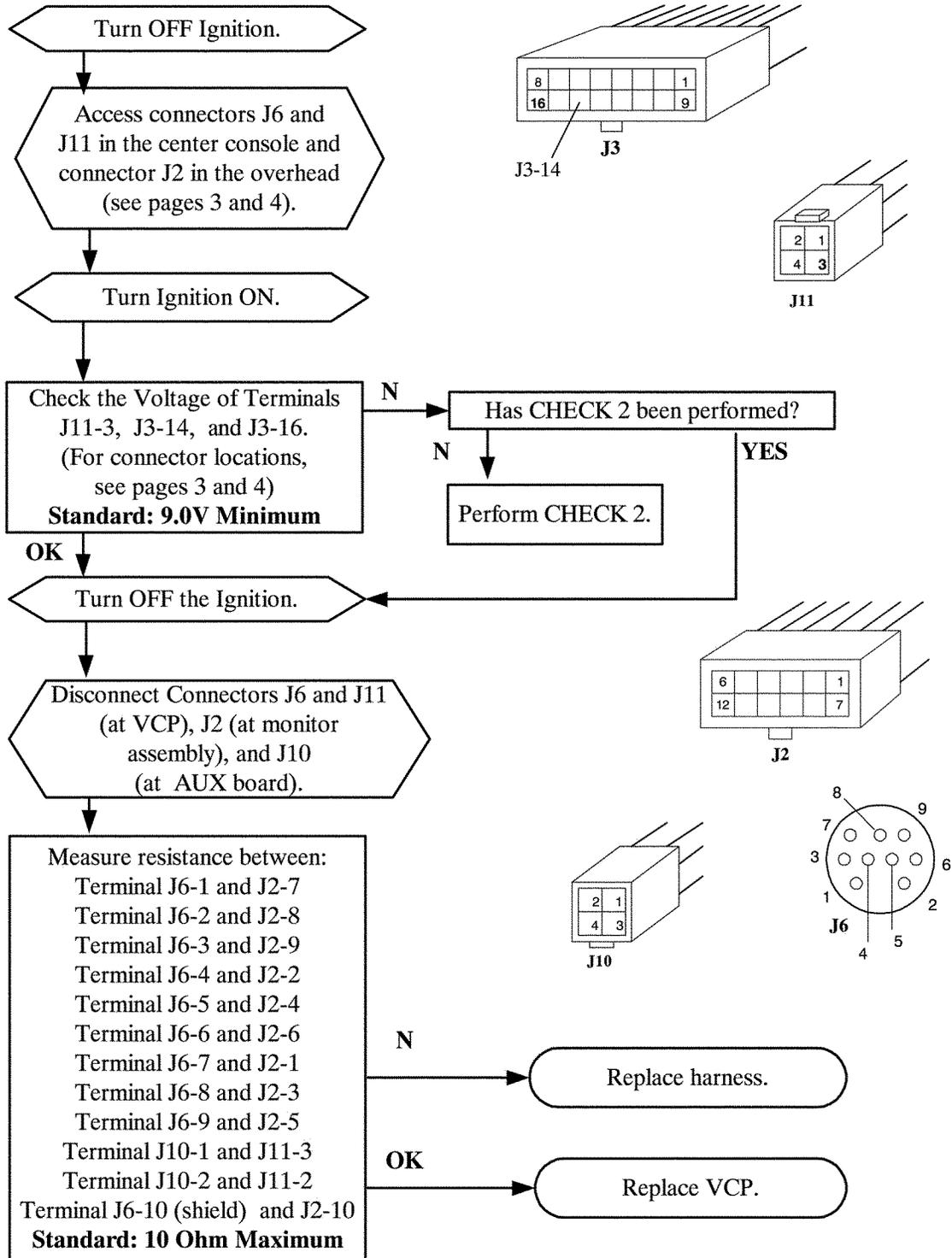
GND bolt in driver's kick panel



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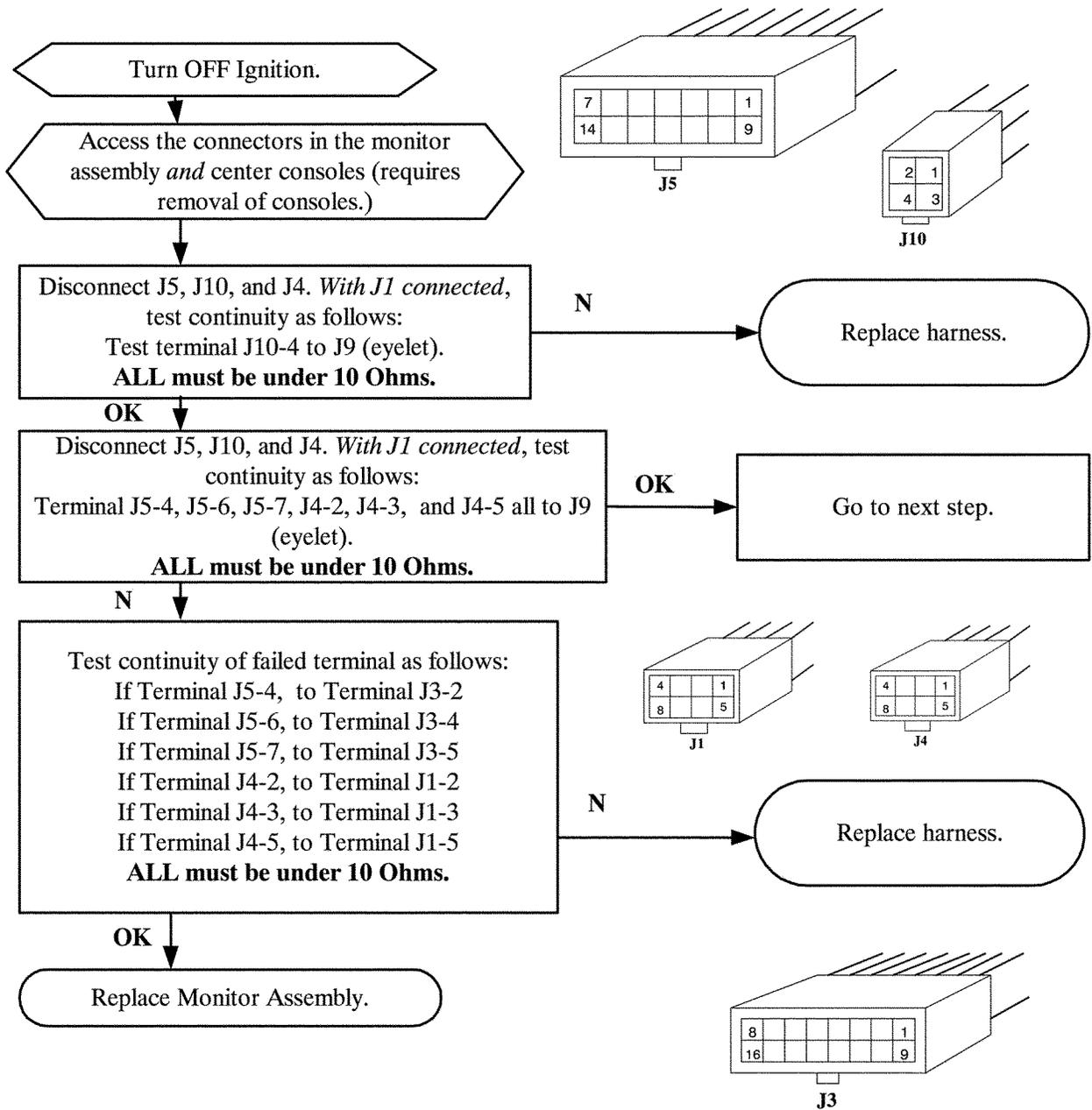
## Check 4: VCP VES Harness Check



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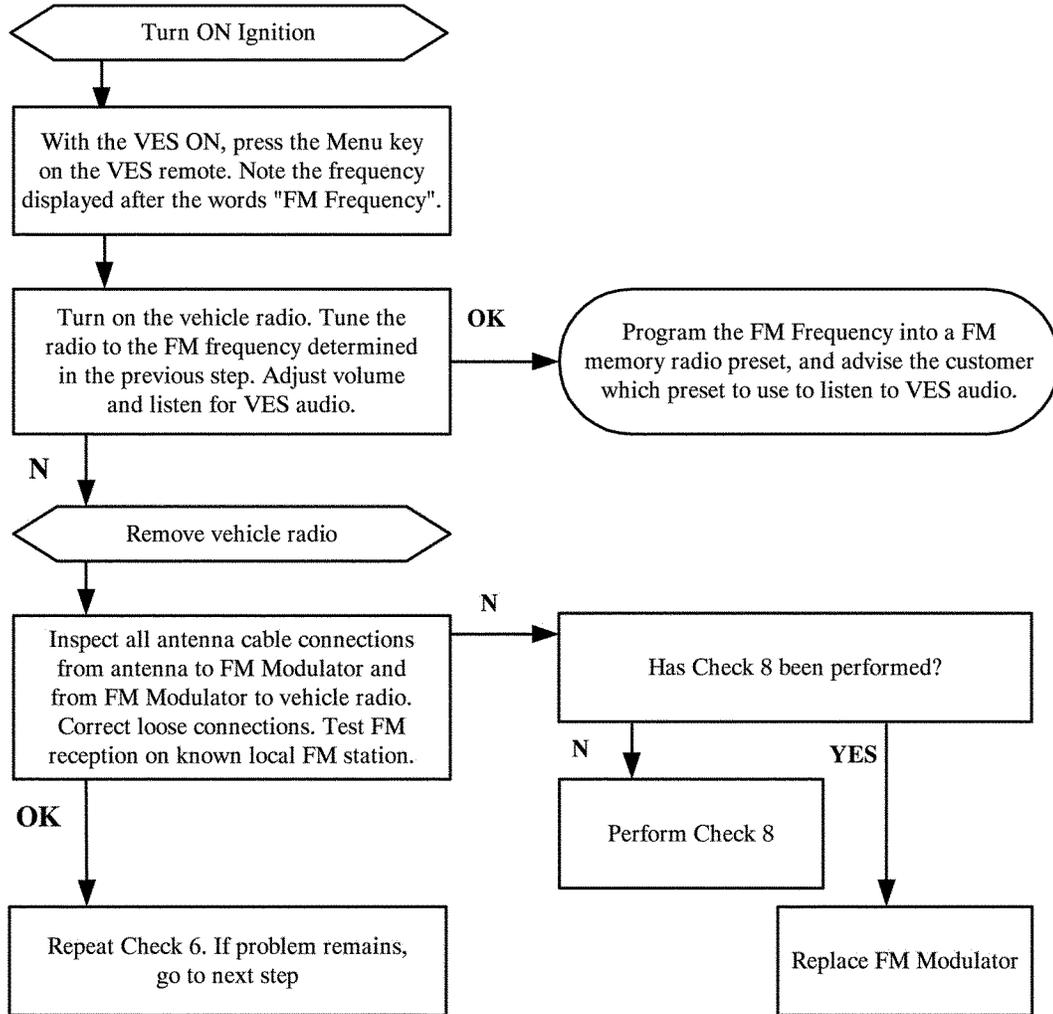
## Check 5: Monitor Assembly/Ground Distribution Check



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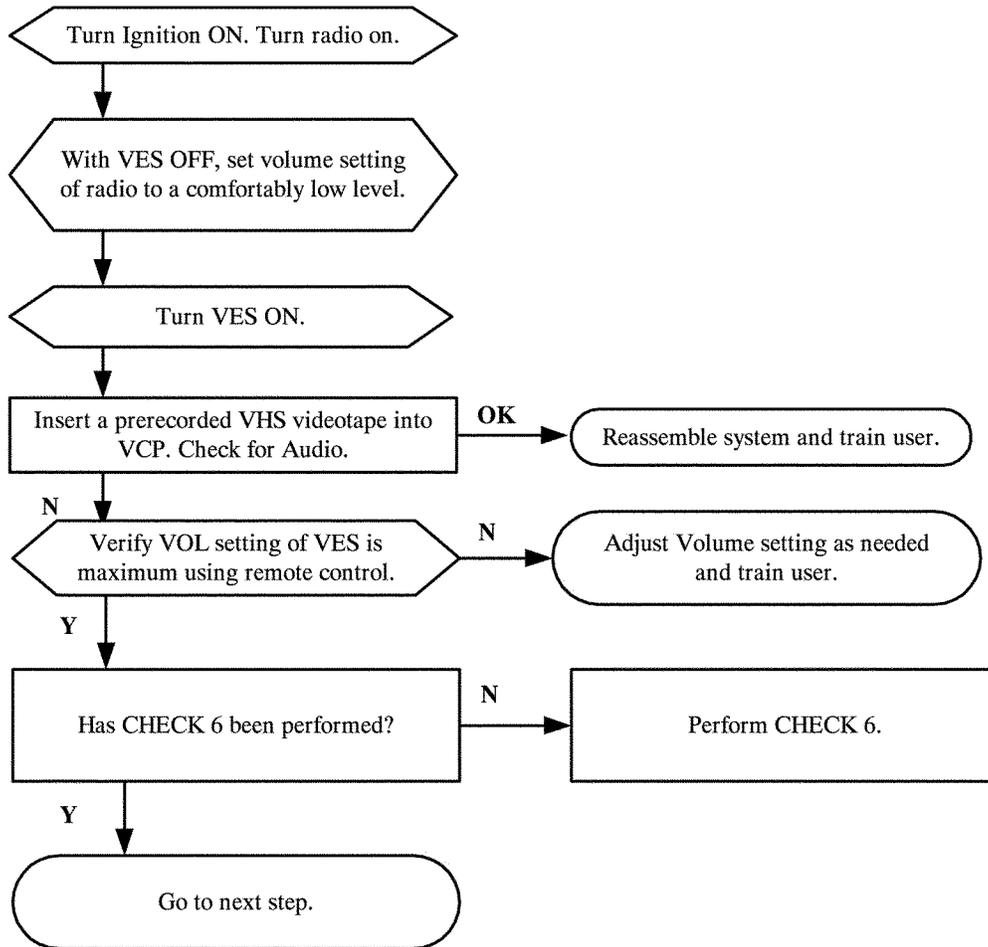
## Check 6: FM Modulator/FM Frequency Check



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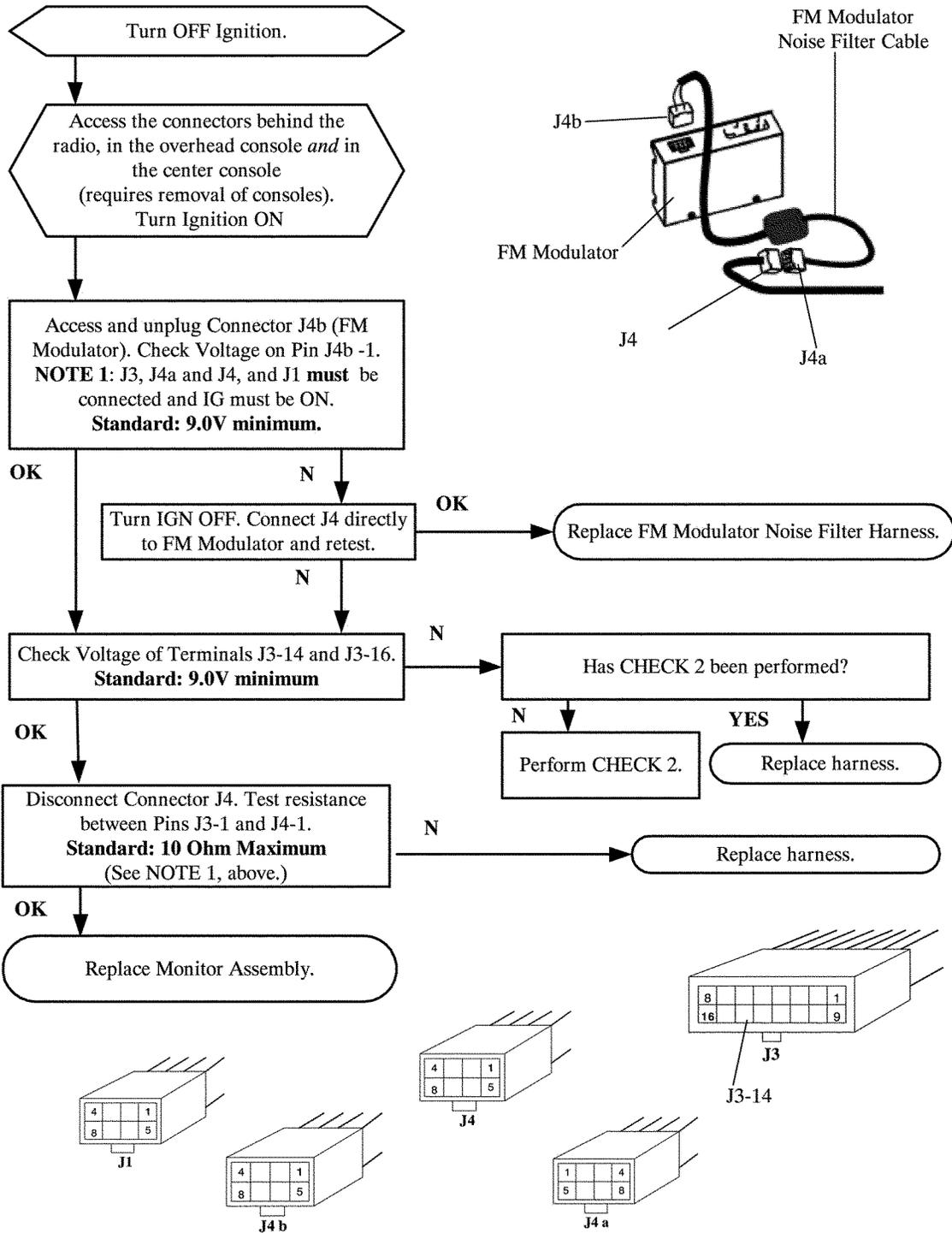
## Check 7: Volume Settings Check



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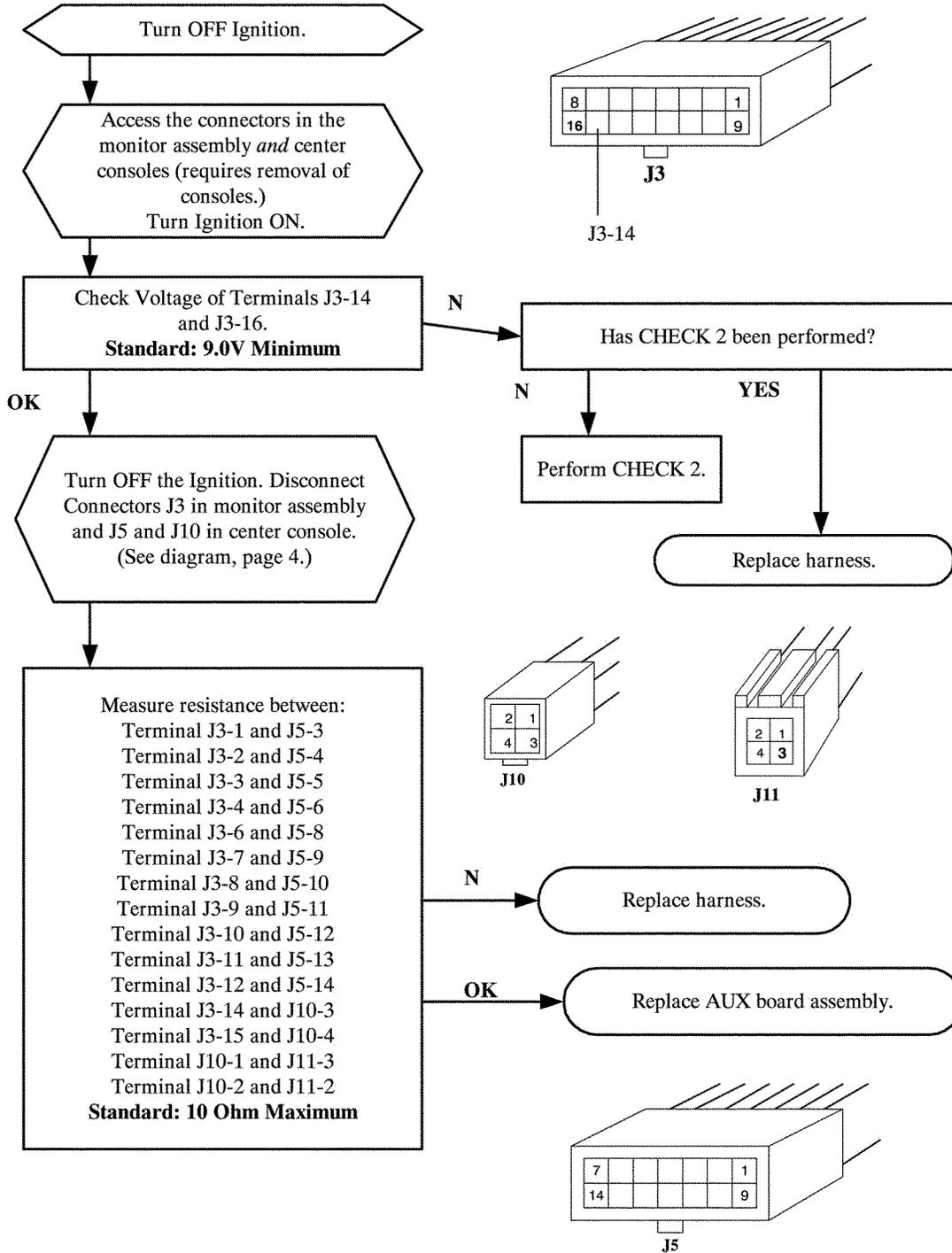
## Check 8: FM Modulator Harness Check



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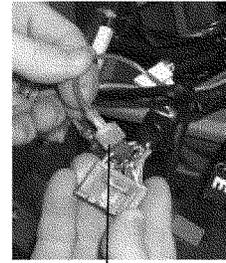
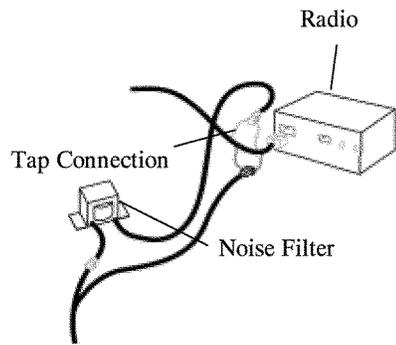
## Check 9: AUX Board/Monitor Assembly Check



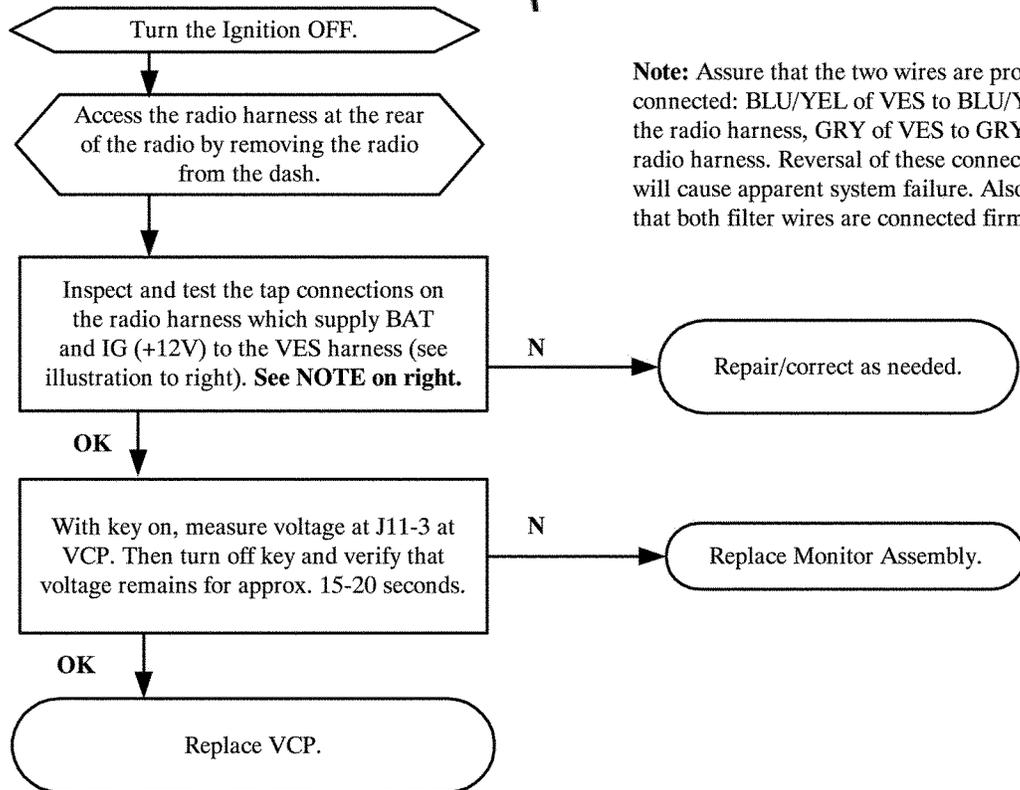
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## Check 10: Switched Voltage Check



Tap Connection



**Note:** Assure that the two wires are properly connected: BLU/YEL of VES to BLU/YEL of the radio harness, GRY of VES to GRY of the radio harness. Reversal of these connections will cause apparent system failure. Also assure that both filter wires are connected firmly.

**SIENNA VES COMPONENT REMOVAL GUIDE**

**MONITOR ASSEMBLY REMOVAL – *With Sunroof***



**1 REMOVE DOME LIGHT**

- (a) Remove both lens covers
- (b) Remove the two (2) Phillips dome light mounting screws



**2 REMOVE OVERHEAD CONSOLE SCREWS**

- (a) Disconnect wire harness from dome light
- (b) Remove the two (2) Phillips rear console mounting screws



**3 REMOVE MONITOR ASSEMBLY**

- (a) Carefully pull overhead console down. The front of the console is mounted with six (6) clips – make sure to disengage all of these clips



**4 FLAT PANEL DISPLAY/ELECTRONICS REMOVAL**

- (a) Remove the four (4) Allen screws in the FPD assembly, using a long 4mm Allen wrench
- (b) Screws are located two (2) at front and two (2) at rear



## **5 WIREHARNES DISCONNECTION**

- (a) Disconnect all three (3) harnesses from the monitor assembly
- (b) This may require two persons, one to hold the assembly and one to unplug the connections
- (c) The assembly is now free to remove

## **MONITOR ASSEMBLY REMOVAL – *Without Sunroof***



## **1 FLAT PANEL DISPLAY/ELECTRONICS REMOVAL**

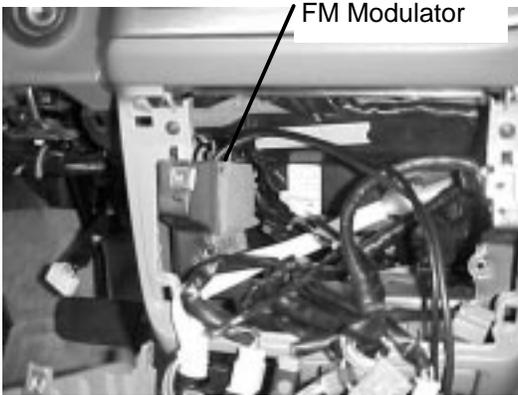
- (a) Carefully pull overhead console down. It is mounted with six (6) clips – make sure to disengage all of these clips
- (b) Remove the four (4) Allen screws in the FPD assembly using a long 4mm Allen wrench
- (c) Screws are located two (2) at front and two (2) at rear
- (d) Drop assembly from headliner and disconnect the 3 connectors
- (e) Disconnect all three (3) harnesses from the monitor assembly
- (f) This may require two persons, one to hold the assembly and one to unplug the connections
- (g) The assembly is now free to remove

## **FM MODULATOR REMOVAL**



## **1 REMOVE RADIO**

- (a) Remove bezel from around radio
- (b) Disconnect connectors from bezel
- (c) Remove four (4) screws and pull radio
- (d) Disconnect antenna lead and harness from rear of radio



**2 REMOVE FM MODULATOR**

- (a) Locate FM Modulator
- (b) Remove wire ties holding FM Modulator
- (c) Disconnect wire harness from FM Modulator

**CENTER FLOOR CONSOLE REMOVAL**



**1 REMOVE SIDE SCREWS**

- (a) Remove left and right side Phillips screws from rear of console



**2 REMOVE HINGE SCREWS**

- (a) Remove the two (2) outer Phillips screws on the hinge



**3 REMOVE CUP HOLDER SCREWS**

- (a) Remove the two (2) Phillips screws on the bottom cup holder, and remove cup holder



**4 REMOVE FRONT SCREWS**

- (a) Remove two (2) screws from behind the cup holder
- (b) Slowly lift console box upward and out from between the seats

**VIDEO CASSETTE PLAYER AND CHASSIS ASSEMBLY REMOVAL**

**1 COMPONENTS**



Jack Plate

VCP

**2 REMOVE VCP FRONT SCREWS**

- (a) Remove two (2) Phillips screws at front of VCP



**3 REMOVE VCP REAR SCREWS**

- (a) Remove two (2) 8mm Hex head screws at rear of VCP

**4 REMOVE VCP FROM BRACKET ASSEMBLY**

- (a) Remove four (4) Phillips screws from bracket assembly
- (b) Disconnect J11 and J6 connectors and remove VCP from bracket assembly

