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SUBJECT:

Sirius Backseat TV Diagnostic Procedures

OVERVIEW:

This bulletin is being provided to aid in diagnosis of the Sirius Backseat TV system based on different symptoms as seen on the screen displays. All diagnostic tests should be performed outside in an open and "known good" Satellite TV reception area.

MODELS:

2008	(LX)	300/Magnum/Charger
2008	(RT)	Caravan/Town & Country
2008	(WK)	Grand Cherokee
2008	(XK)	Commander

NOTE: This bulletin applies to vehicles equipped with Backseat Video (sales code RSV).

SYMPTOM/CONDITION:

Refer to the diagnosis section of this bulletin for the appropriate symptoms list below:

- No backseat audio and video is playing properly
- No backseat video (black screen) and audio is playing properly
- No backseat video (black screen) and audio is not playing
- Blue Sirius backseat TV tuning box displayed with buffer bar empty. No change in display, this logo is continuously displayed and does not change (No flicker, No green flash, No reset occurs)
- Blue Sirius backseat TV tuning box displayed with buffer bar empty. Approximately every 15 seconds a green flash occurs followed by a black screen and then the Sirius backseat TV logo is displayed again
- Blue Sirius backseat TV tuning box displayed with full buffer bar. No change in display, this logo is continuously displayed and does not change. (No flicker, No green flash, No reset occurs)
- Blue on full screen, display shows - SIRIUS BACKSEAT TV - TO SUBSCRIBE CALL 888-539-SIRIUS (7474)



Stick with the Specialists™

DIAGNOSIS:**No Backseat Audio And Video Is Playing Properly**

NOTE: All diagnostic tests should be performed out in the open in a “known good” Satellite TV reception area.

1. Using a Scan Tool (StarSCAN®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all engine systems are functioning as designed. If DTC's are present record them on the repair order and repair as necessary before proceeding further with this bulletin.
2. Check radio volume level and put radio is in SATV mode.
3. Select SATV tab on RER/REN or press SAT button twice on REQ.
4. Put Video Entertainment System (VES) is in SATV mode. Press Mode on remote button, select Radio and SATV. Use headphones to check audio. Simply turn headphones on while video is present.

NOTE: Verify your remote is on the correct channel (CH1 or Ch2)

5. Is SATV audio present in headphones?
 - a. Yes >>> If SATV audio is present in headphones, SATV is functioning properly. Proceed to [Step #12](#).
 - b. No >>> Proceed to [Step #6](#).
6. Use remote to select other VES modes (SAT Audio, FM).
7. Is audio present on headphones in other modes?
 - a. Yes >>> Proceed to [Step #8](#).
 - b. No >>> Proceed to [Step #12](#).
8. Test wiring continuity from audio out of SATV (Pins 14 Right, 15 Common, 16 Left) at the connector to audio inputs on VES.
9. Ensure white 25 pin connector on VES is properly seated.
10. Is wiring OK from SATV to VES?
 - a. Yes >>> Proceed to [Step #11](#).
 - b. No >>> Proceed to [Step #12](#).
11. Turn OFF ignition switch and perform a boot of the SATV module (pull IOD fuse). Does SATV function properly?
 - a. Yes >>> SATV system functioning properly at this time. Repair is complete.
 - b. No >>> Replace SATV module. Verify proper operation.
12. Ensure white 25 pin connector on VES is properly seated. Troubleshoot radio, amplifier, speakers and wiring connections for source of audio loss.

No Backseat Video (Black Screen) And Audio Is Playing Properly.

1. Using a Scan Tool (StarSCAN®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all Audio systems are functioning as designed. If DTC's are present record them on the repair order and repair as necessary before proceeding further with this bulletin.
2. If radio is an RER/REN, place vehicle in park. Select SATV tab and press View Video to display video on radio screen. If radio is REQ, Proceed to [Step #4](#).
3. Does radio display video now?
 - a. Yes >>> SATV is functioning properly. Proceed to [Step #8](#).
 - b. No >>> Proceed to [Step #4](#).
4. Test wiring continuity from video out of SATV (Pins 6 Video shield, 7 Video common, 8 Video signal) at the connector to video input on VES.
5. Ensure white 25 pin connector on VES is properly seated.
6. Is wiring OK from SATV to VES?

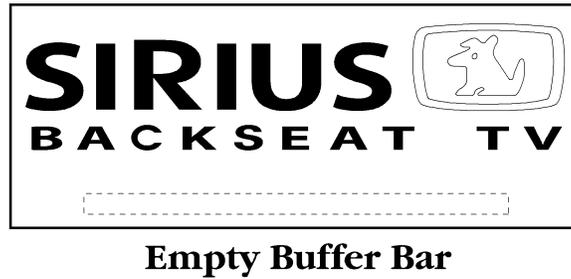
- a. Yes >>> Proceed to [Step #7](#).
- b. No >>> Proceed to [Step #8](#).
- 7. Turn OFF ignition switch and perform a boot of the SATV module (pull IOD fuse). Does SATV function properly?
 - a. Yes >>> SATV is functioning properly at this time. Repair is complete.
 - b. No >>> Replace SATV module. Verify proper operation.
- 8. Ensure white 25 pin connector on VES is properly seated. SATV is functioning properly. Troubleshoot radio, VES and wiring connections for source of video loss.

No Backseat Video (Black Screen) And Audio Is Not Playing.

- 1. Using a Scan Tool (StarSCAN®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all Audio systems are functioning as designed. If DTC's are present record them on the repair order and repair as necessary before proceeding further with this bulletin.
- 2. Put Radio is in SATV mode. Select SATV tab on RER/REN or press SAT button twice on REQ.
- 3. Put VES is in SATV mode. Press Mode on remote button, select Radio and SATV.
- 4. Is SATV video/audio present in either radio or VES?
 - a. Yes >>> Proceed to [Step #14](#).
 - b. No >>> Proceed to [Step #5](#).
- 5. Use StarScan® to confirm SDARV, VES and radio communication by checking for DTC's.
- 6. Does the VES and Radio communicate?
 - a. Yes >>> Proceed to [Step #7](#).
 - b. No >>> Proceed to [Step #14](#).
- 7. Does the SDARV communicate?
 - a. Yes >>> Proceed to [Step #10](#).
 - b. No >>> Proceed to [Step #8](#).
- 8. Test wiring continuity from CANH and CANL of SATV (Pins 1 CAN +, 9 CAN -), at the connector to CANH and CANL on VES and radio.
- 9. Ensure white 25 pin connector on VES is properly seated. Proceed to [Step #12](#).
- 10. Test wiring continuity from video and audio out of SATV at the connector to video and audio input on VES.
- 11. Ensure white 25 pin connector on VES is properly seated.
- 12. Is wiring OK from SATV to VES?
 - a. Yes >>> Proceed to [Step #13](#).
 - b. No >>> Proceed to [Step #14](#).
- 13. Turn OFF ignition switch and perform a boot of the SATV module (pull IOD fuse). Does SATV function properly?
 - a. Yes >>> SATV system functioning properly at this time. Repair is complete.
 - b. No >>> Replace SATV module. Verify operation. Repair is complete.
- 14. SATV is functioning properly. Troubleshoot radio, VES and wiring connections for source of CAN loss or video/audio loss.

Blue Sirius Backseat Tv Tuning Box Displayed With Buffer Bar Empty. No Change In Display, This Logo Is Continuously Displayed And Does Not Change. (No Flicker, No Green Flash, No Reset Occurs)

NOTE: Empty buffer bar usually indicates no signal condition or faulty antenna. Watch screen for 5 minutes to look for any reset activity or display change.



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Fig. 1 BLUE BOX W/O BUFFER BAR

1. Using a Scan Tool (StarSCAN®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all Audio systems are functioning as designed. If DTC's are present record them on the repair order and repair as necessary before proceeding further with this bulletin.
2. Select SAT **video** mode on radio and VES.
3. Does the radio display "**Acquiring Signal**" ?
 - a. Yes >>> Proceed to [Step #4](#)
 - b. No >>> Proceed to [Step #9](#).
4. Select SAT **audio** mode on radio and VES.
5. Does the radio display "**Acquiring Signal**" and audio not functioning?
 - a. Yes >>> Sirius antenna signal is obstructed. Drive vehicle to open view of sky or test another Sirius module for signal presence in area.
 - b. No >>> Proceed to [Step #6](#).
6. Does the radio display "**No Signal**" and audio not functioning?
 - a. Yes >>> Proceed to [Step #7](#).
 - b. No >>> Proceed to [Step #8](#).
7. Troubleshoot yellow and green SAT audio antenna connection and wiring for source of SAT audio antenna signal loss. Trace green wire all the way to radio. Trace yellow wire to SAT audio antenna, if OK replace rear antenna. After repair, start over at [Step #2](#) as this is a SAT audio problem only and does not solve initial SATV issue.
8. If SAT audio works normal but SATV is not, read DTC's for SATV within 10 seconds after ignition on. Is B1539 (SATV Antenna DTC) active?
 - a. Yes >>> Troubleshoot brown SATV antenna connection and wiring for source of antenna signal loss. If wiring is OK, replace front antenna. Repair is complete. Verify operation.
 - b. No >>> Proceed to [Step #13](#).
9. Call Sirius and have subscription updated/verified. Is the radio a REQ?
 - a. Yes >>> Proceed to [Step #10](#).
 - b. No >>> Proceed to [Step #11](#).
10. **REQ Radio.** Retrieve the 12 digit subscription number from the radio using the following procedure:
 - A. Press the SETUP button A on the radio.
 - B. Scroll down using the TUNE/SCROLL knob A to SIRIUS VIDEO ID setting.
 - C. Push the TUNE/SCROLL button and the 12 digit number will be displayed.

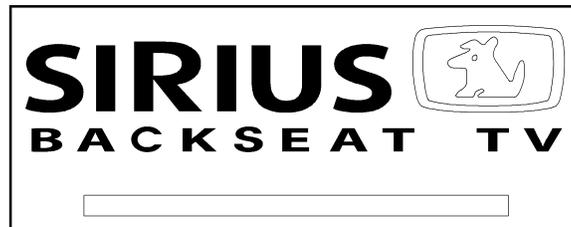
- D. Record the number on the repair order.
 - E. Call Sirius: 888-539-SIRIUS (7474) with 12 digit number available.
 - F. Verify subscription is current or update as necessary.
 - G. Proceed to [Step #12](#).
11. **REN & RER Radio.** Retrieve the 12 digit subscription number from the radio using the following procedure:
- A. Put radio in SAT or SAT-V mode.
 - B. Press MENU key.
 - C. Press the Subscription key on screen and the 12 digit number will be displayed.
 - D. Record the number on the repair order.
 - E. Call Sirius: 888-539-SIRIUS (7474) with 12 digit number available.
 - F. Verify subscription is current or update as necessary.
 - G. Proceed to [Step #12](#).
12. Does SATV function normal?
- a. Yes >>> Problem solved. Repair is complete.
 - b. No >>> Replace SATV module. Verify operation.
13. Turn OFF ignition switch and perform a boot of the SATV module (pull IOD fuse). Does SATV function properly?
- a. Yes >>> SATV system functioning properly at this time. Repair is complete.
 - b. No >>> Replace SATV module. Repair is complete. Verify operation.

Blue Sirius Backseat Tv Tuning Box Displayed With Buffer Bar Empty. Approximately Every 15 Seconds A Green Flash Occurs Followed By A Black Screen And Then The Sirius Backseat Tv Logo Is Displayed.

- 1. Using a Scan Tool (StarSCAN®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all Audio systems are functioning as designed. If DTC's are present record them on the repair order and repair as necessary before proceeding further with this bulletin.
- 2. Turn OFF ignition switch and perform a boot of the SATV module (pull IOD fuse).
- 3. Does SATV function normal?
 - a. Yes >>> Problem solved. Repair is complete.
 - b. No >>> Proceed to [Step #4](#).
- 4. Is the radio a REQ?
 - a. Yes >>> Proceed to [Step #5](#).
 - b. No >>> Proceed to [Step #6](#).
- 5. **REQ Radio.** Retrieve the 12 digit subscription number from the radio using the following procedure:
 - A. Press the SETUP button A on the radio.
 - B. Scroll down using the TUNE/SCROLL knob A to SIRIUS VIDEO ID setting.
 - C. Push the TUNE/SCROLL button and the 12 digit number will be displayed.
 - D. Record the number on the repair order.
 - E. Call Sirius: 888-539-SIRIUS (7474) with 12 digit number available.
 - F. Verify subscription is current or update as necessary.
 - G. Proceed to [Step #7](#).
- 6. **REN & RER Radio.** Retrieve the 12 digit subscription number from the radio using the following procedure:
 - A. Put radio in SAT or SAT-V mode.
 - B. Press MENU key.
 - C. Press the Subscription key on screen and the 12 digit number will be displayed.
 - D. Record the number on the repair order.
 - E. Call Sirius: 888-539-SIRIUS (7474) with 12 digit number available.
 - F. Verify subscription is current or update as necessary.
 - G. Proceed to [Step #7](#).

7. Does SATV function normal?
 - a. Yes >>> Problem solved. Repair is complete.
 - b. No >>> Replace SATV module. Verify operation.

Blue Sirius Backseat Tv Tuning Box Displayed With Full Buffer Bar. No Change In Display, This Logo Is Continuously Displayed And Does Not Change. (No Flicker, No Green Flash, No Reset Occurs).



Full Buffer Bar

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Fig. 2 BLUE BOX W/BUFFER BAR

1. Using a Scan Tool (StarSCAN®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all Audio systems are functioning as designed. If DTC's are present record them on the repair order and repair as necessary before proceeding further with this bulletin.
2. Use VES remote and radio to attempt to change channel.
3. Does SATV function normal?
 - a. Yes >>> Problem solved. Repair is complete.
 - b. No >>> Proceed to [Step #4](#).
4. Turn OFF ignition switch and perform a boot of the SATV module (pull IOD fuse).
5. Does SATV function normal?
 - a. Yes >>> Problem solved. Repair is complete.
 - b. No >>> Proceed to [Step #6](#).
6. Is the radio a REQ?
 - a. Yes >>> Proceed to [Step #7](#).
 - b. No >>> Proceed to [Step #8](#).
7. **REQ Radio.** Retrieve the 12 digit subscription number from the radio using the following procedure:
 - A. Press the SETUP button A on the radio.
 - B. Scroll down using the TUNE/SCROLL knob A to SIRIUS VIDEO ID setting.
 - C. Push the TUNE/SCROLL button and the 12 digit number will be displayed.
 - D. Record the number on the repair order.
 - E. Call Sirius: 888-539-SIRIUS (7474) with 12 digit number available.
 - F. Verify subscription is current or update as necessary.
 - G. Proceed to [Step #9](#).
8. **REN & RER Radio.** Retrieve the 12 digit subscription number from the radio using the following procedure:
 - A. Put radio in SAT or SAT-V mode.

- B. Press MENU key.
 - C. Press the Subscription key on screen and the 12 digit number will be displayed.
 - D. Record the number on the repair order.
 - E. Call Sirius: 888-539-SIRIUS (7474) with 12 digit number available.
 - F. Verify subscription is current or update as necessary.
 - G. Proceed to [Step #9](#).
9. Does SATV function normal?
- a. Yes >>> Problem solved. Repair is complete.
 - b. No >>> Replace SATV module. Verify operation.

Blue On Full Screen, Display Shows - Sirius Backseat Tv - To Subscribe Call 888-539-Sirius (7474)



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Fig. 3 BLUE ON FULL SCREEN W/PHONE NUMBER

1. Using a Scan Tool (StarSCAN®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all Audio systems are functioning as designed. If DTC's are present record them on the repair order and repair as necessary before proceeding further with this bulletin.

This condition will occur when a brand new SATV module is installed, or when the subscription runs out. The module needs to be exposed to the satellite signal to activate properly. If this has not occurred, it could mean a no signal condition or faulty antenna. Watch screen for 5 minutes to look for any reset activity or display change.

- 2. Select SAT **video** mode on radio and VES.
- 3. Does the radio display "Acquiring Signal"?
 - a. Yes >>> Proceed to [Step #4](#)
 - b. No >>> Proceed to [Step #9](#).
- 4. Select SAT **audio** mode on radio and VES.
- 5. Does the radio display "Acquiring Signal" and audio not functioning?
 - a. Yes >>> Sirius antenna signal is obstructed. Drive vehicle to open view of sky or test another Sirius module for signal presence in area.
 - b. No >>> Proceed to [Step #6](#).
- 6. Does radio display "No Signal" and audio not functioning?
 - a. Yes >>> Proceed to [Step #13](#).
 - b. No >>> Proceed to [Step #8](#).
- 7. If SAT audio works normal but SATV is not, read DTCs for SATV within 10 seconds after ignition on.

8. Is B1539 (SATV Antenna DTC) active?
 - a. Yes >>> Troubleshoot brown SATV antenna connection and wiring for source of antenna signal loss. If wiring is OK, replace front antenna. Repair is complete. Verify operation.
 - b. No >>> Proceed to [Step #9](#).
9. Is the radio a REQ?
 - a. Yes >>> Proceed to [Step #10](#).
 - b. No >>> Proceed to [Step #11](#).
10. **REQ Radio.** Retrieve the 12 digit subscription number from the radio using the following procedure:
 - A. Press the SETUP button A on the radio.
 - B. Scroll down using the TUNE/SCROLL knob A to SIRIUS VIDEO ID setting.
 - C. Push the TUNE/SCROLL button and the 12 digit number will be displayed.
 - D. Record the number on the repair order.
 - E. Call Sirius: 888-539-SIRIUS (7474) with 12 digit number available.
 - F. Verify subscription is current or update as necessary.
 - G. Proceed to [Step #12](#).
11. **REN & RER Radio.** Retrieve the 12 digit subscription number from the radio using the following procedure:
 - A. Put radio in SAT or SAT-V mode.
 - B. Press MENU key.
 - C. Press the Subscription key on screen and the 12 digit number will be displayed.
 - D. Record the number on the repair order.
 - E. Call Sirius: 888-539-SIRIUS (7474) with 12 digit number available.
 - F. Verify subscription is current or update as necessary.
 - G. Proceed to [Step #12](#).
12. Turn OFF ignition switch and perform a boot of the SATV module (pull IOD fuse). Does SATV function properly?
 - a. Yes >>> SATV system functioning properly at this time. Repair is complete.
 - b. No >>> Replace SATV module. Verify operation, repair is complete.
13. Troubleshoot yellow and green SAT audio antenna connection and wiring for source of SAT audio antenna signal loss. Trace green wire all the way to radio. Trace yellow wire to SAT audio antenna, if OK replace rear antenna. After repair, start over at [Step #3](#) as this is a SAT audio problem only and does not solve initial SATV issue.

SPECIAL TOOLS / EQUIPMENT REQUIRED:

CH9401	StarSCAN® Tool
CH9404D	StarSCAN® Vehicle Cable

POLICY:

Information Only.