

**TOYOTA SIENNA**

**2011-**

**Dual Headrest Video**

Part Number: 00016-08130; Bisque  
 00016-08135; Gray  
 00016-08140; Dark Charcoal



Code: EH5

**Conflicts:**

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**Kit Contents:**

Item #	Qty.	Component Description
1	2	Headrest Assembly
2	2	Cables # 3
3	1	Power Cord # 9
4	1	FM Antenna
5	1	Control Box
6	2	IR Headphones
7	2	Remote Control
8	8	AAA Batteries
9	1	Owners Manual
10	1	Wire Puller
11	1	Hardware Bag
12	4	Cable Clamps w/ Foam Tape

**Hardware Bag Contents:**

Item #	Qty.	Component Description
1	12	6" Wire Ties
2	2	11" Wire Ties
3	1	4" x 8" Foam Tape
4	2	Double Sided Tape
5	2	Red T-Taps

**Additional Items Required For Installation:**

Item #	Qty.	Component Description
1		Masking Tape
2		Electrical Tape

**Recommended Tools:**

<b>Safety Tools</b>	
Seat and Floors Covers	Blankets
<b>Special Tools</b>	
Torque Wrench (36 in/lbs)	
<b>Installation Tools</b>	
10mm Socket	Panel Popper
Ratchet	Wire Cutters
<b>Special Chemicals</b>	
None	

**Color Applicability/ Trim Level:**

Accessory Color	Lt Gray	Bisque	Dk Charcoal
<b>Vehicle Trim Color</b>			
Lt Gray	X		
Bisque		X	
Dk Charcoal			X

**General Applicability:**

All Sienna's
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**Recommended Sequence of Application**

Item #	Accessory	

\* Mandatory

**LEGEND:**



**STOP:** Damage to the vehicle may occur. Do not proceed until process has been complied with.



**OPERATOR SAFETY:** Use caution to avoid risk of injury.



**CRITICAL PROCESS:** Proceed with caution to ensure a quality installation. These points will be audited on a completed vehicle installation.



**TOOLS & EQUIPMENT:** This calls out the specific tools and equipment required for this process.



**REVISION MARK:** This mark highlights a change in installation with respect to previous issue.



**SAFETY TORQUE:** This mark indicates that torque is related to safety.

**SPECIAL NOTE: Installation Sequences**

After TMS and Safety mandated preparatory steps have been taken, the installation sequence is the suggested method for completing the accessory installation. In some instances the suggested sequence is written for one associate to install and in others the sequence is given as part of a team accessory installation. Unless otherwise stated in the document, the associates may perform the installation in any order to make the installation efficient as possible while maintaining consistent quality.

**A. Pre-Installation Precaution**




1. Use Seat and Floor protectors to avoid damage to surfaces.



2. If the vehicle is equipped with an Anti-theft radio, the radio code must be written down prior to disconnecting the battery cable. The code must be re-entered when the negative battery cable is re-installed. Disconnecting the battery may cause certain vehicle settings to be lost. Manufacturer's recommendations for the battery removal should be followed. Disconnecting the battery is recommended.

**B. Battery disconnect**



1. Remove the NEGATIVE (-) battery terminal using a 10mm socket/ ratchet before starting any disassembly. (Figure B1) 

**C. Disassemble Vehicle Trim**



1. Open cup holder tray below A/C controls to access side of auxiliary face panel.
2. Using a NRT, pry edge of no. 1 switch hole base to release clips from instrument cluster finish center panel assembly. (Figure C2) 
3. Disconnect electrical connectors. (Figure C3)
4. Remove plastic push pin from the instrument panel finish panel end. Once removed, push panel toward front of vehicle to separate from the instrument cluster finished lower center panel sub-assembly. (Figure C4a-b) 

Figure B1



Figure C2



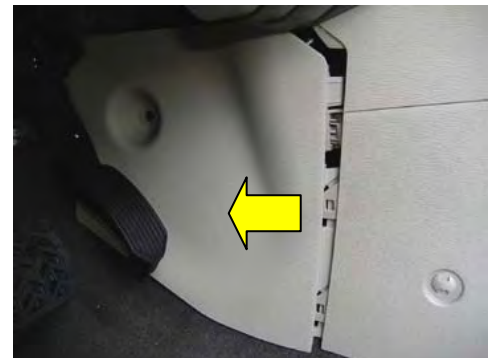
Figure C3



Figure C4a



Figure C4b



5. By hand pull up on driver's door scuff plate assembly. (Figure C5)
6. Remove screw cap from top of cowl side trim board assembly. (Figure C6)
7. Pull cowl side trim board toward rear of vehicle to remove. (Figure C7)
8. Repeat steps 4-7 for like panels on passenger side of vehicle.
9. Remove driver's headrest by pushing release button and pulling up on headrest. (Figure C9)
10. Reach under seat to unhook elastic strap holding front seatback cover to front seat cushion spring assembly. (Figure C10)
11. Repeat steps 9-10 for passenger side seat.

Figure C5



Figure C6



Figure C7



Figure C9



Figure C10



**D. Install Video Headrests**

1. Insert headrest cables #1A (white) and #2A (red) into the appropriate headrest support of the driver's seat. (Figure D1)
2. Continue to feed cables into seat until headrest is located in its highest locking position. (Figure D2)
3. Retrieve cables at bottom of seat (between middle and inboard hog ring) and pull all slack through. If cables cannot be reached the center hog ring may be taken out and then re-installed once cables are routed. (Figure D3)

**E. Mount Control Box**

1. Make all connections to control box using color coded connectors, including antenna and power cord #9. (Figure E1)
2. Wrap control box in foam tape. (Figure E2)

Figure D1



Figure D2



Figure D3



Figure E1



Figure E2



3. Place (2) pieces of double sided tape to the foam tape. (Figure E3)
4. Feed cables #3B (blue and black) from driver side floorboard into console cavity toward passenger side floorboard. (Figure E4)
5. Adhere control box to metal floor in console cavity as shown. (Figure E5)

#### F. Install Power Wiring


1. Using a pliers, attach (2) red T-Taps to the white/ black wires of the center power point socket assembly (D46). (Figure F1) 
2. Feed wire puller from upper dash into cavity of power socket and exit near driver's side footboard area. (Figure F2)

Figure E3



Figure E4



Figure E5



Figure F1




Figure F2

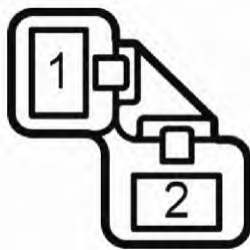


3. Attach power cord #9 to wire puller. (Figure F3)

4. Pull wire puller until power cord is exposed.

Remove wire puller. (Figure F4) 

5. Connect red wire of power cord #9 to the white black wire (PIN#2), and the black wire of power cord #9 to white/ black (PIN#1). Use caution that the correct wires are connected since they are the same color. (Figure F5)



Connector D46

Image shown wire side just below the connector

6. Secure fuse holder to factory wiring with (1) 6" wire tie. (Figure F6)

Figure F3



Figure F4



Figure F5



Figure F6



**G. Route Headrest Cables**


1. Fold driver's carpet back and route cable #3A toward under side of seat. Exit cable at opening in carpet beside HVAC duct (Figure G1a-b)
2. Make sure cable is routed away from foot traffic areas as shown in figure. (Figure G2)
3. Connect cables #1A and #2A to cable #3A. (Figure G3)
4. Snap security clamp around each connection point between cables #1A and #2A to cable #3A. Apply a wire tie to each strain relief, and apply foam tape. (Figure G4) 

Figure G1a



Figure G1b



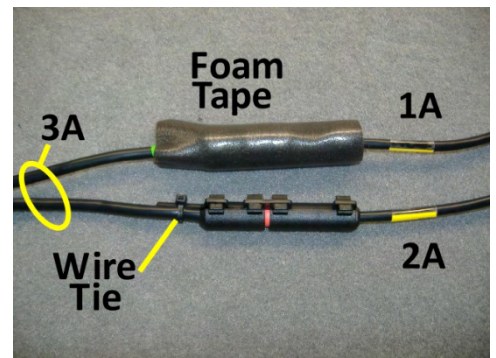
Figure G2



Figure G3



Figure G4





5. Loop cables through white plastic wire hooks (arrows) under seat and secure to factory wiring with (3) wire ties (circles). (Figure G5a-b) 

Figure G5a





Figure G5b



 6. Move seat in all directions and test all seat features to ensure cables have appropriate slack and do not get damaged while seat is in motion.


7. Repeat steps 1-6 on passenger side with cables #1B, #2B and #3B.

## H. Complete Installation

 1. Make sure vehicle's battery is connected to manufacturer's specifications (36 in/lbs). 

2. Install (2) AAA batteries in each remote and headphone set.

3. After testing with steps on following pages, carefully re-assemble vehicle by reversing steps in section C.

 4. Check all previously disconnected factory connectors and accessories to ensure they are all connected and operational.

5. Store remotes, owner's manual and headphones in center console, glove box, or seat back pockets.

## VEHICLE FUNCTION CHECK

AFTER ALL PANELS, COVERS, AND COMPONENTS HAVE BEEN REINSTALLED, THAT WERE REMOVED, TEST THOROUGHLY, ALL MECHANICAL AND ELECTRICAL COMPONENTS DISCONNECTED AND/OR REMOVED FROM THE VEHICLE DURING THE INSTALLATION OF THIS ACCESSORY.



**Functional Verification:****Check:**

Accessory Function checks:

Turn vehicle ignition to ON, depress power button on each headrest monitor.

Insert DVD into monitor, press enter.

Listen with wireless headphones (be sure to set to channel "A" to listen to monitor "A" and channel "B" to listen to monitor "B").

Depress "eject" button.

Select Sound Around button on remote to turn on the FM transmitter. Turn on vehicle radio and set station to station selected on FM transmitter.

**Look For:**

Monitor should power on, start up screen should appear onscreen.

DVD should begin playing

Audio should be heard through vehicle headphones.

Disc should eject.

Audio from monitor "A" should be heard through vehicle speakers.

Note: The driver and passenger seats may not retract without assistance once the headrest DVD's are installed.

## Video Entertainment System Troubleshooting Hints

### **Schematic Reference: Video System Schematics**

•Many conditions that affect video system operation may be corrected without removing the DVD Headrest Assembly or the DVD Control Box Assembly. Make sure to understand all features of system operation before beginning the diagnosis of the system. Verify the condition and follow the diagnostic procedures in order to isolate and correct the condition.

•Be sure the vehicle battery is fully charged before beginning video entertainment system diagnosis

### **Video or Audio Distortion**

The manufacturing process for producing DVD's does not have the same quality control processes in place that compact disk manufacturing does. If there are video or audio quality problems with an individual DVD, try playing that disk in another DVD player. If the quality is poor for both players, return the disk to the place of purchase and request an exchange. If the quality problem is only seen in one of the players, examine the disk for scratches, dirt, or smudges and attempt to clean the disk with one of the disk cleaning systems that are commercially available.

Video or audio distortion during auxiliary playback can often be attributed to the DC to AC inverter that is used to power the auxiliary device. The power inverters tend to introduce noisy signals into the vehicle electrical system.

### **DVD Player Inoperative (Power LED Not Illuminated)**

**Important:** The following information lists the most probable cause of the concern to the least probable cause followed by the appropriate test for that condition.

1. The ignition is not turned on. Turn the ignition on.
2. DVD Jumper Harness not connected to vehicle. Verify Accessory Power and Ground.
3. DVD Jumper Harness not connected to Power Cord #9. Verify Accessory Power and Ground.
4. Cable 1A (Red Cable) not connected to Cable 3A (if not receiving power to Monitor A – Driver Side) or Cable 1B (Black Cable) not connected to Cable 3B (if not receiving power to Monitor B – Passenger Side). Make sure cables are connected.
5. Cable 3A (if not receiving power to Monitor A – Driver Side) not connected to Control Box or Cable 3B (if not receiving power to Monitor B – Passenger Side) not connected to Control Box. Make sure cables are connected.
6. Power Cord #9 is not connected to Control Box.
7. Check for power at end of Power Cord #9 (white connector 3-way) at Control Box. If power at Control Box – Replace the Control Box.
8. Remove monitor that is not receiving power. Check power at Red Connector (Monitor A – Driver Side) or power at Black Connector (Monitor B – Passenger Side). If power and ground verified at connectors, replace the DVD Electronics (Monitor).

### **DVD Player Inoperative (Power LED Illuminated)**

**Important:** The following information lists the most probable cause of the concern to the least probable cause followed by the appropriate test for that condition.

1. The DVD Player is not turned on. Press the Power Button to turn unit on.
2. Press the play button. If no disc in unit, NO DISC message appears on display.
3. Insert Disc. If unit does not accept disc, replace the DVD Electronics (Monitor).

### **DVD Display Inoperative (LEDs Illuminate but No Video)**

**Important:** The following information lists the most probable cause of the concern to the least probable cause followed by the appropriate test for that condition.

1. Verify that the correct source is selected. Monitor A or Monitor B should appear in the upper right hand corner of display.
2. Cable 2A (White Cable) not connected to Cable 3A (if no display on Monitor A – Driver Side) or Cable 2B (Blue Cable) not connected to Cable 3B (if no display on Monitor B – Passenger Side). Make sure cables are connected.
3. Cable 3A (if not receiving power to Monitor A – Driver Side) not connected to Control Box or Cable 3B (if not receiving power to Monitor B – Passenger Side) not connected to Control Box.
4. Remove monitor that is not receiving video. Verify that connectors are connected to the Monitor. If no video displayed, replace the DVD Electronics (Monitor).

## **Cannot Hear Audio Through Vehicle Speakers(FM Transmitter Inoperative)**

**Important:** The following information lists the most probable cause of the concern to the least probable cause followed by the appropriate test for that condition.

1. FM Transmitter not turned on. Turn on FM Transmitter using the Remote Control. Press the DVD Button (A) on the Remote Control to control Monitor A – Driver Side Headrest. Press the Sound Around On/Off Button. “CH On” should appear on Monitor A display.
2. Radio and DVD Unit are not set to the same FM Frequency. Press the Sound Around Select button to select a frequency (88.3 MHz, 88.7 MHz, 89.1 MHz, 89.5 MHz, 89.9 MHz, or 90.3 MHz). The frequency should appear on Monitor A display in upper right hand corner. Tune the Radio to the frequency selected. If no DVD audio over speakers, verify audio by selecting another radio frequency. Replace the DVD Control Box.

## **Video Entertainment System Wireless Headphone Inoperative**

**Important:** The following information lists the most probable cause of the concern to the least probable cause followed by the appropriate test for that condition.

1. Volume control on the wireless headphone set is turned all the way down. Adjust the volume control on the headphones.
2. Incorrect Channel Selected. To hear audio from Monitor A– Driver Side select Channel A. To hear audio from Monitor B – Passenger Side select Channel B.
3. Dead batteries or batteries placed incorrectly in the wireless headphone set. Turn on power to the headphone set. If the headset indicator does not turn on, place batteries in correctly or replace the batteries in the headset as needed.
4. Make sure headphone is in line of sight and no obstructions of the Monitor being listened from.
5. Faulty headphone set. Test the operation of the system using a known good headphone set. If operation is OK, replace the faulty headphone set.
6. Inoperative infrared transmitter in the (DVD) Monitor (s)--Replace the DVD Electronics.

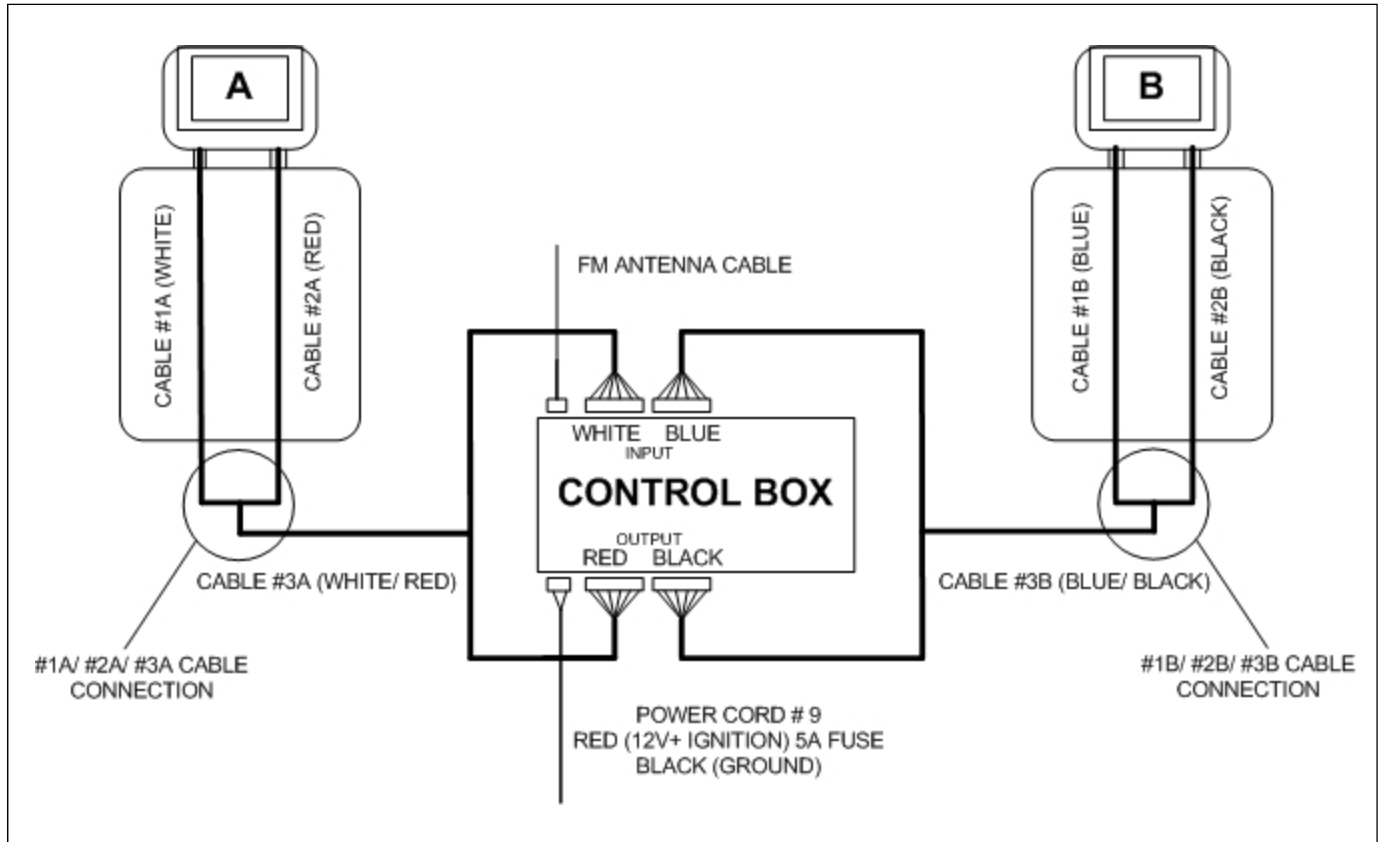
## **Video Entertainment System Remote Control Inoperative**

The buttons on the video remote control do not operate the videodisc player but the buttons on the DVD Headrest Monitor Control Panel operate normally.

**Important:** The following information lists the most probable cause of the concern to the least probable cause followed by the appropriate test for that condition.

1. Press DVD A button to control Monitor A or press DVD B button to control Monitor B.
2. Dead batteries or batteries placed incorrectly in the video remote control. Place batteries in correctly or replace the dead batteries as needed.
3. Faulty remote control. Test the operation of the system using a known good remote control. If operation is OK, replace the faulty remote control.
4. Inoperative infrared transmitter in the (DVD) Monitor (s)--Replace the DVD Electronics.

### Wiring Diagram



### Vehicle Power Connection Information

**Connector**

Name: Center Power Point Socket Assembly  
 Code: D46  
 Part Number: 90980-10760  
 Color: White  
 Display Wire Harness Repair Info

**EWD**

D46  
Center Power Point  
Socket Assembly