

TOYOTA /2005/6 SIENNA

INVISION REV II DUAL PLAYER HEADREST VIDEO

**Part Number: Lt. Taupe - 00016-00710 / Stone - 00016-00720**

**Accessory Code: EH3**



**Kit Contents**

Item #	Quantity Reqd.	Description
1	2	Headrest Assembly
2	2	Remote Control
3	2	Cables #3
4	1	Power Cord #9
5	1	Bag with Storage Straps
6	1	Metal Wire Puller
7	1	Owner's Manual
8	2	Headrest Cover
9	2	IR Headphones
10	8	AAA Batteries
11	1	Control Box
12	1	Hardware Bag
13	1	Fm Antenna

**Color Applicability/Trim Level**

Vehicle Trim Color	Accessory Color	Lt. Stone	Stone				
Lt. Taupe		X					
Stone			X				

**Hardware Bag Contents**

Item #	Quantity Reqd.	Description
1	2	Blue T-Taps
2	2	10" Wire Ties
3	12	6" Wire Ties
4	1	4" x 8" Foam Tape
5	1	3"x1/2" Two Side Tape

**Recommended Sequence of Application**

Item #	Accessory
1	
2	
3	

\*Mandatory

**Additional Items Required For Installation**

Item #	Quantity Reqd.	Description
		Electrical Tape

**Recommended Tools**

<b>Safety Tools</b>	
Seat/Floor Covers	Blankets
<b>Installation Tools</b>	
Pliers	10mm Socket
Nylon Removal Tool	Wire Cutters
<b>Special Tools</b>	
<b>Special Chemicals</b>	

**Legend**

	<b>STOP:</b> Damage to the vehicle may occur. Do not proceed until process has been complied with.
	<b>OPERATOR SAFETY:</b> Use caution to avoid risk of injury
	<b>CRITICAL PROCESS:</b> Proceed with caution to ensure a quality installation. These points will be audited on a completed vehicle installation
	<b>GENERAL PROCESS:</b> This highlights specific processes to ensure a quality installation. These points will be audited during the accessory installation
	<b>TOOLS &amp; EQUIPMENT:</b> This calls out the specific tools and equipment required for this process
	<b>REVISION MARK:</b> This mark highlights a change in installation with respect to previous issue.

**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 steps in any order to make the installation as 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 reinstalled. Disconnecting the battery may cause certain vehicle settings to be lost. Manufacture’s recommendations for the battery removal should be followed. Disconnecting the battery is recommended.

**B. Battery disconnect**



1. Move seats forward and recline back slightly.



2. Remove the NEGATIVE (-) battery terminal using a 10mm socket before starting any


disassembly. (Fig. B2) 

Fig. B2



**C. Remove factory headrests**

- ➡ 1. Adjust front seats all the way forward.
- ➡ 2. Remove driver side headrest while depressing release button. (Fig. C2)
- ➡ 3. Repeat for passenger side.

Fig. C2



**D. Remove seatback panels**

- ➡ 1. Remove driver side seatback panel by grasping panel, pulling back at very bottom, push up slightly to release center catches, then pull down and back to remove. (Fig. D1)
- ➡ 2. Repeat for passenger side.

Fig. D1



**E. Remove center console (if equipped)**


- ➡ 1. Squeeze release latch and remove console from vehicle. (Fig. E1)
- ➡ 2. Remove (4) bolts from console bracket with a 10mm socket/ ratchet. (Fig. E2) 

Fig. E1



Fig. E2



**F. Remove vent cover**


- ➡ 1. Remove screws in AC vent trim bezel under driver's seat using a Phillips screwdriver. (Fig. F1) 

Fig. F1



- ➔ 2. Remove trim bezel by pulling with hands.  
(Fig. F2)

**G. Mount control box**

- ➔ 1. Make all connections to control box, using color coded connectors. (Fig. G1)
- ➔ 2. Position control box under driver seat below carpet. (Fig. G2a-b)

**H. Route headrest cables**

- ➔ 1. Feed cable #3A under the carpet and below the driver seat to exit with factory wiring.  
(Fig. H1)

Fig. F2



Fig. G1



Fig. G2a




Fig. G2b



Fig. H1



- ➡ 2. Push wire puller from opening in the carpet under the driver side seat HVAC duct to the opening for the HVAC duct under the passenger side seat. (Fig. H2) 
- ➡ 3. Attach cable #3B to wire puller and pull through to passenger side seat. Have cables exit with factory wiring. (Fig. H3)
- ➡ 4. Use wire ties to secure cables to factory wire conduit.

**I. Install video headrests**

- ➡ 1. Insert cables #1A and #2A from monitor "A" into holes in top of driver side seatback. (Fig. I1)
- ➡ 2. Continue pulling cable from seatback opening while installing video headrest into seatback. (Fig. I2)
- ➡ 3. Leave headrest in the up most position.
- ➡ 4. Route cables #1A and #2A through lower inboard hole in seatback (where cover separates). (Fig. I4)
- ➡ 5. Tuck cables between cover and seat bottom: allowing enough slack for seat travel.

Fig. H2



Fig. H3



Fig. I1



Fig. I2

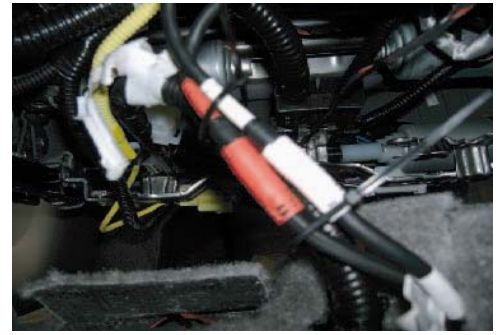


Fig. I4



➔ 6. Connect cables #1A and #2A to cable #3A.  
Secure connections by placing a wire tie on each side of connectors along with the factory wire loom.(Fig. I6)

Fig. I6



➔ 7. Fix cables to seatback suspension wire with a 6" wire tie. (Fig. I7)

Fig.I7



➔ 8. Repeat for passenger side with monitor "B"

**For vehicles equipped with passenger forward folding seat/ table option, follow steps I1,2,3 above, and I8,9,10 and 11 below:**

➔ 9. Fold seatback in forward/ down position.

Fig. I10



➔ 10. **OPTIONAL:** remove hog rings from lower and inboard sides of seatback. (Fig. I10)

➔ 11. Feed monitor cables between seatback frame and foam, then through hole in seat cover at inboard hinge area. Use other hand to pull cable between plastic hinge cover and seatback cover. (Fig. I11a-b)

Fig. I11a



Fig. I11b



- ➔ 12 While pulling back lower seat cover flap, tuck cables behind flap and under seat.


(Fig. I12)

- ➔ 13. Fix cables to factory harness with a 6" wire tie. (Fig. I13)

- ➔ 14. Tuck wire back in center area inside the hinge covers as shown. (Fig. I14)

**J. Install power wiring**

- ➔ 1. Remove driver side threshold by using a

Nylon Removal Tool (NRT). (Fig. J1) 

- ➔ 2. Remove driver's side kick panel trim by hand. (Fig. J2)

Fig. I12



Fig. I13



Fig. I14




Fig. J1



Fig. J2



- ➔ 3. Reach under driver seat to pull power cable to driver side kick panel. (Fig. J3)
- ➔ 4. Attach blue T-taps with pliers to the blue wire (PIN #10) on connector IA2 of the power window circuit and the white wire with black stripe from ground point IE. (Fig. J4-J5) 
- ➔ 5. Attach red power wire from cable #9 of control box to blue vehicle wire (PIN #10 of IA2 connector) and black wire from cable #9 of control box to the white/ black vehicle wire at IE ground point. (Fig. J4-J5)

**K. Complete installation**

- ➔ 1. Reconnect battery by reversing step B. Tighten bolt on battery to 36 inch lbs.
- ➔ 2. Reverse steps J1-2, F, E, and D to reinstall trim.
- ➔ 3 Install 2 AAA batteries in each remote
- ➔ 4. Install 2 AAA batteries in each headphone headset.
- ➔ 5. After testing system, store owner's manual in glove box. Put storage straps, jumper wire, remotes & headphones in bag and place in the cargo area.

Fig. J3



Fig. J4

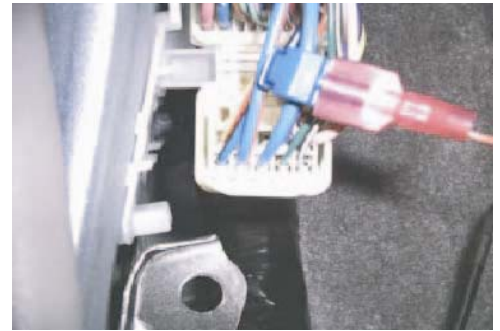


Fig. J5





**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.

## 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.

