



AV8900H Dual Multimedia Headrest Replacement System

NOTICE OF INTENDED INSTALLATION AND USE

AV8900H VIDEO PRODUCTS ARE NOT INTENDED FOR VIEWING BY THE DRIVER, AND ARE TO BE INSTALLED FOR VIEWING BY REAR-SEAT OCCUPANTS ONLY.

IMPROPER INSTALLATION COULD DISTRACT THE DRIVER OR INTERFERE WITH SAFE OPERATION OF THE VEHICLE, WHICH COULD RESULT IN SERIOUS INJURY OR DEATH, AND COULD ALSO VIOLATE STATE LAW. ROSEN ELECTRONICS DISCLAIMS ANY LIABILITY FOR ANY BODILY INJURY OR PROPERTY DAMAGE THAT MAY RESULT FROM ANY IMPROPER OR UNINTENDED INSTALLATION AND/OR USE.

BEFORE YOU START THE INSTALLATION, READ THIS GUIDE FIRST!

Rosen "Headrest Multimedia" systems are extremely easy to install. However, we strongly recommend reading this guide before starting the installation process!

1) Make sure you have the tools you will need

These common items are needed to complete this installation:

- Digital multimeter (DMM)
- #2 Phillips screwdriver
- Appropriate tool for headrest removal
- Allen wrench set
- Panel removing tools
- Cable routing tool (included)
- Security latch tool (included)
- Retractable knife
- Wire cutters, strippers, and a crimping tool
- 1/4" drive sockets are often needed for dashboard and trim disassembly
- Check if Torx or Allen-drive bolts are used on any panels you will be removing
- You will need a DVD disc **in good condition** when testing the system

Standard installation parts you will need include wire, wire ties, wire crimp connectors or solder, and electrical insulating tape. Installation of aftermarket automotive electronics also often requires access to special parts. It is a good idea to have a source for these common installation parts.

2) Inspect the vehicle and plan your work

CHECK THE BATTERY

Test the battery voltage to make sure it's fully charged and inspect battery terminals for tightness and any corrosion. This only takes seconds and can save hours of troubleshooting later.

DECIDE ON A LOCATION FOR THE INTERFACE UNIT

Location of the interface unit varies by vehicle, but is typically secured underneath the driver or passenger seat out of sight and unobstructed by moving parts and passengers.

3) Headrest Post Installation

THIS STEP IS FOR KITS THAT ARE UNASSEMBLED. IF YOUR KIT ALREADY HAS POSTS ATTACHED, SKIP TO STEP 4.

<p>Prepare posts for assembly</p>	
<p>Attach posts to headrest in the desired spacing indicators for your particular vehicle</p>	
<p>Post spacing indicators are located at bottom of headrest bucket</p>	



IF YOU HAVE PURCHASED A PRE-ASSEMBLED HEADREST SYSTEM, SKIP TO STEP 4

4) Removing the factory headrests



IMPORTANT!

Do NOT start this step until you have inspected the seats and factory headrests for any obstructions.

You will need to remove the existing factory headrests. The following steps will guide you through this process.

Step 1: Determine if a locking device is present on the factory headrest. Locking devices are *usually* a button or small push pin located at the base of the headrest post(s).

Step 2: If a locking device is present, press and hold the lock release, and pull firmly upward on the headrest. If no locking device is visibly present refer to the vehicle's owner's manual or the vehicle's manufacturer for further instructions.

5) Running the cables through the headrest posts

You will need to route the cables through the headrest posts. The following step will guide you through this process.

Step 1: Place the AV8900H electronics system above the headrest bucket as shown in figure 1.

Step 2: Position the cables on each side of the headrest bucket and ensure they are smooth without kinks or knots.

Step 3: Route the cables through the headrest posts, being careful not to cross the cables.

Step 4: Position the AV8900H electronics unit in the headrest bucket while continuously pulling the cable through the headrest posts. This step is critical to prevent damage to the cables or AV8900H unit.



IMPORTANT!

Do NOT allow the cables to cross over one another or leave excess cable slack in the headrest bucket. This will prevent the unit from closing properly, and can cause permanent damage to the unit.

6) Mounting the AV8900H electronics into the headrest bucket

The following steps will guide you through this process.



CAUTION!

Do NOT press directly on the surface of the LCD screen. This will cause permanent damage to the LCD and will not be covered under warranty.

Always **REMOVE ANY SLACK** in the cables during assembly. Failure to follow this step may cause damage to the cables.

Insert the top part of the electronics first and then gently push the bottom until it snaps into the integrated locking tabs inside bucket



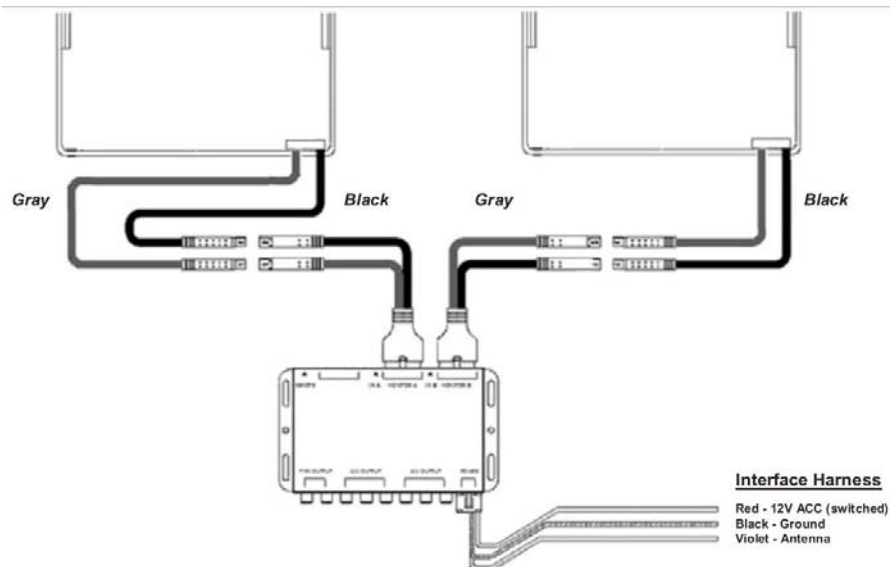
Align LCD assembly with mounting bracket. Push firmly on the frame at the bottom of LCD assembly until the side latch click locking the LCD assembly in place. Use caution NOT to press on the LCD surface as this can cause permanent damage to the panel.



CAUTION!

Do NOT press directly on the surface of the LCD. This will cause permanent damage to the LCD which is not covered under warranty.

7) Wiring diagram



8) Installing the AV8900H headrests

You will need to install the AV8900H headrests and route the cables through the seat backs. The following steps will guide you through this process.

Step 1: Check the headrest down tubes in the seat backs for any obstructions. Normally the down tubes are clear and allow the AV8900H cables to exit from the bottom of the down tubes.

Step 2: Position the AV8900H headrest so the monitor is facing the rear of the vehicle once properly installed. Then drape the cables over the seat back, making sure that the cables are **NOT** crossed. Place the headrest safely on the seat cushion (see figure 6).

Step 3: Attach the cable routing tool to a cable. Slowly feed each cable routing tool through its corresponding down tube until the ends of the cable routing tool is visible at the bottom of each seat back. Pull the cable until it extends out the base of the seat back. Repeat for the second cable.

Step 4: Reduce the cable slack until only ½ inch is showing. Insert the headrest into the down tubes. This step normally takes some moderate force, and may be eased by using a very light lubricant on the posts. Be certain to pull lightly on the cables while the headrest is inserted to remove excess slack.

Step 5: Once the headrest is fully seated in the down position (see figure 7), place a **small service loop (6"-12")** of cable in the seat back, to allow the headrest to easily move up or down.

Step 6: Connect the interface cable to the monitor cable, ensuring that the cables are matched **gray-to-gray** and **black-to-black**. Properly route the cables to ensure they are secured, out of sight and unobstructed by any moving parts and passengers.

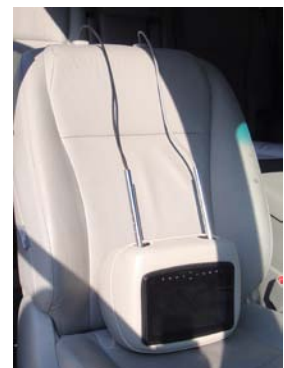


Fig. 6



Fig. 7



CAUTION!

Use caution when pulling on the cables as some seats may have sharp edges or objects in the seat back which could damage the cables. Sometimes it is necessary to remove or partially remove the seat back covering to properly install the cables.

9) Routing the harnesses and making the wiring connections



It is the installer's responsibility to ensure that the safety equipment in the vehicle is NOT adversely affected by installation of this system. Ensure that routing of the harnesses does NOT obstruct airbags, SRS or other safety devices.

You will need to route the harnesses and make the power connections to the vehicle. The following steps will guide you through this process.

Step 1: This system requires a minimum of 12V (+) ACC Switched and Ground (-) to operate. The 12V (+) ACC Switched source must be capable of supplying a minimum of 7A. These can be found at multiple points in the vehicle. The Ground (-) should be located at a Factory Chassis ground point when possible.

Step 2: Select a location to mount the interface module for the AV8900H units. Normally the interface module is best located under either the driver or passenger seat. Be sure to locate it so that it will not obstruct any moving parts of the seat or can be damaged by the feet of passengers.

Step 3: Route the power harness to the dash area where you have located the 12V (+) ACC connection point. Be sure to protect the cable from any potential sharp edges that can damage the harness in the future. To avoid vibration noise, use adhesive tape to secure the harness whenever possible.

Step 4: Route the FMT antenna wire (purple) toward the antenna/tuner. **(Be sure to separate it from the power wires and avoid any power seat modules or other vehicle harnesses as these may induce noise into the FM transmission.)**

Step 5: When connecting the power harness, Rosen recommends soldering all connections. When using T-Tap or crimp connectors, always ensure the connections are made with the proper gauge connectors. Failure to make a proper connection will result in a system failure in the future.

Step 6: With ACC off, plug all harnesses into the main interface unit. **Note: Plug the main power harness last.**

10) Initial test, reassembly, and pre-delivery re-test

You will need to fully test the system to ensure it is working and connected to the vehicle properly. The following steps will guide you through this process.

Step 1: INITIAL TEST (Do this BEFORE you reassemble any trim panels)

- a. Reconnect the vehicle battery if needed
- b. Install batteries into the remote control, and wireless headphones
- c. Start the vehicle (ensure that it is safe to do so, and there are no tools or people under the hood)
- d. Perform the following steps on each headrest to ensure proper operation:
 - Insert a DVD (in good condition) and select play
 - Check the audio on the IR headphones
 - Press the Speaker button and adjust the vehicle radio frequency as needed to check the audio
 - Eject the disc
 - Turn off the vehicle and wait for the unit to turn off

Step 2: REINSTALL all trim panels removed during installation with care to avoid damaging any harnesses

Step 3: PRE-DELIVERY AND RE-TEST

- a. Start the vehicle (ensure that it is safe to do so, and there are no tools or people under the hood)
- b. Perform the following steps
 - Insert a DVD (in good condition) and select play
 - Connect HDMI devices into HDMI port and test
 - Re-check IR headphones and FMT audio
 - Eject the disc
 - Remove the protective films and clean the unit as needed
- c. Place the Owners Information package in the glove compartment
- d. Place the IR headphones and remote control in a convenient location

The monitor cables get stuck in the posts

Normally the cables will slide through the posts with very little effort. However, if you encounter difficulty, please check the following:

Solution: Ensure there are no obstructions inside the post.

Solution: Ensure there are no metal burs at the entrance or exit of the posts.

Solution: Ensure there are no kinks or knots in the cables.

The monitor does not fit into the headrest bucket

The AV8900H unit has been designed to fit tightly into the headrest bucket. This was done to ensure a high quality fit with no gaps.

Solution: Use a mild soap and water solution to LIGHTLY moisten the mating surface of the headrest bucket.

CAUTION! – Do not get water on or in the electronics as it WILL damage the equipment is not covered by warranty.

Finding the best Power Point

Avoid connection to wires supplying power to the following: fan/seat/mirror motors power, excessively large sized wires, glow plug power lines, radio power lines, defroster power lines, etc.

Solution: Open power points can be located in the fuse box, which are designed for accessory equipment.

The DVD restarts when the vehicle is started

When the vehicle is started, the DVD should resume from previous viewing point. However, if the voltage falls below 10VDC during cranking, the system will restart viewing at the beginning of the DVD.

Solution: Check if the battery is fully charged. New vehicles rarely have a fully charged battery.

Solution: Older batteries can not provide the necessary voltage during an engine cranking. Vehicle battery may need replacement.

Solution: Extreme climate conditions (cold or hot) will reduce the efficiency of the battery. Be sure the battery is fully charged and in good condition. Replace the battery if needed.

No headphone audio

The audio to the headphones should be present at all times.

Solution: Confirm the headphones have fresh batteries are turned on, and the ON LED Indicator is illuminated.

Solution: Check and adjust the volume level on the headphones as needed.

Selecting FMM pre-sets

For best operation, the FMM Pre-set selection should be on a station which is not in use or has weak broadcast in your area.

Reducing audio or video noise

Audio or video noise may be induced into the system from sources ranging from harness location, power connection to poor grounding.

Solution: Re-route the wire harnesses to avoid crossing/passing over other harnesses or near electrical motors.

Solution: Try relocating the ground point to factory ground point or factory ground wire.

Missing Channel B Audio

System includes a monitor A and monitor B. Monitor A is channel "A" on headphones and monitor B is channel "B" on headphones. If audio is not present, check the following.

Solution: Check A/B switch on headphones.