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# REAR VISION SYSTEM



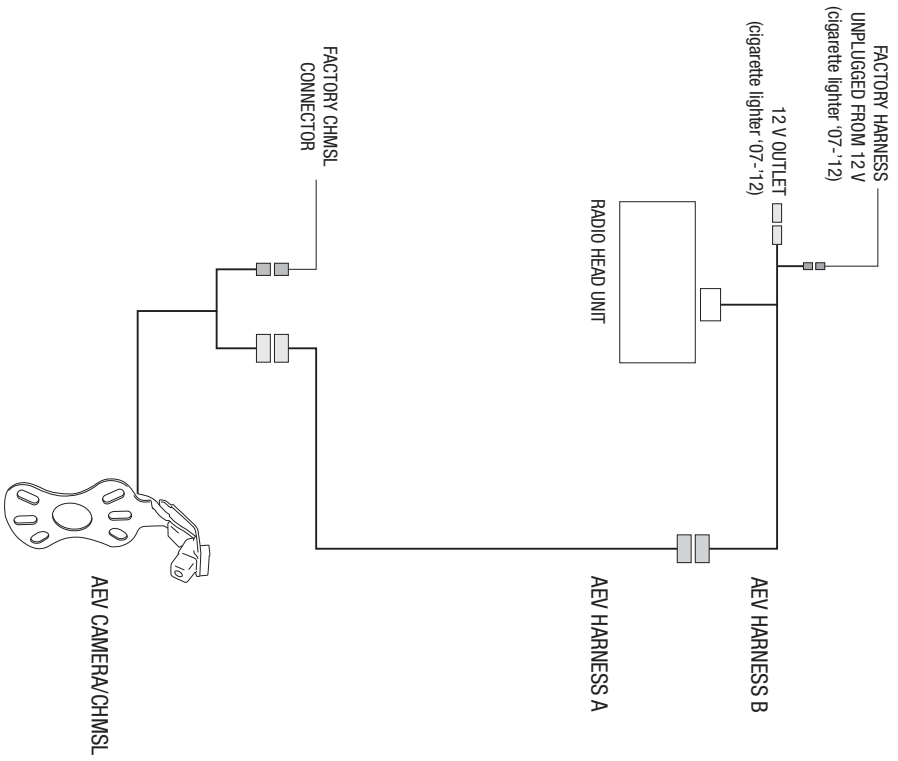
INSTALLATION GUIDE



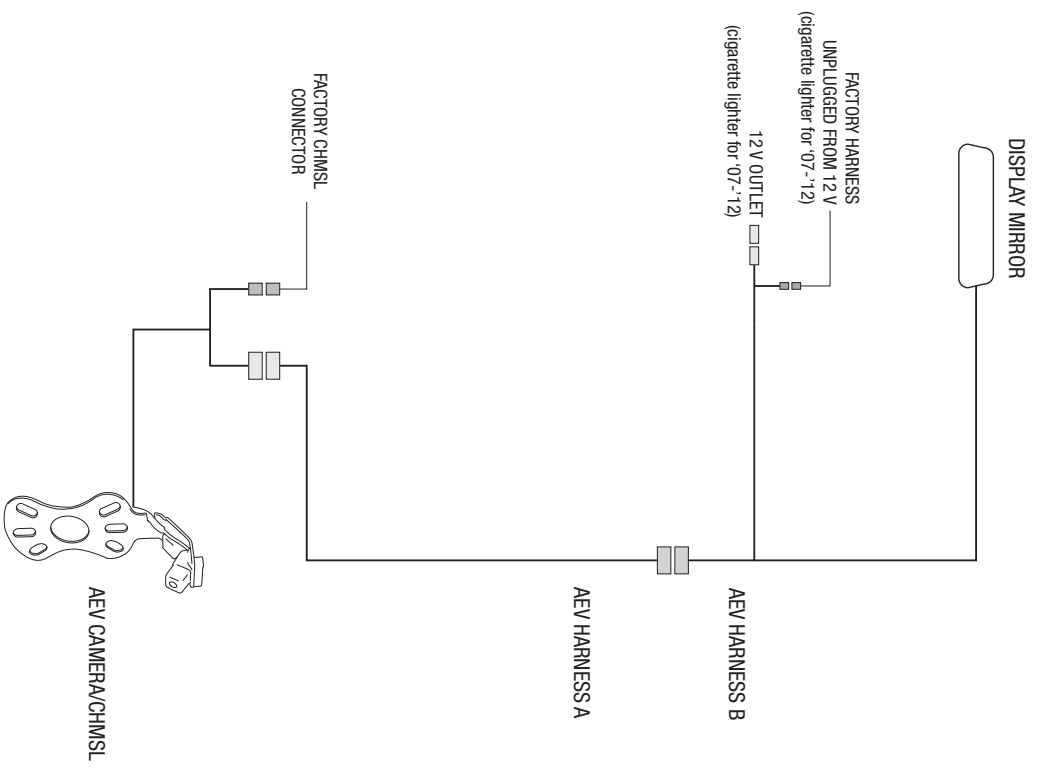
## **PLEASE READ BEFORE YOU START**

TO GUARANTEE A QUALITY INSTALLATION, WE RECOMMEND READING THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING ANY WORK. THESE INSTRUCTIONS ASSUME A CERTAIN AMOUNT OF MECHANICAL ABILITY AND ARE NOT WRITTEN NOR INTENDED FOR SOMEONE NOT FAMILIAR WITH AUTO REPAIR.

<b>INCLUDED PARTS</b>	<b>QTY</b>	<b>REQUIRED TOOLS</b>
Camera Mount Assembly	1	Basic Hand Tools
Wiring Harness	2	
ODB Module (Nav. Unit Only)	1	
Rearview Mirror Display (Mirror Unit Only)	1	
Hardware Pack	1	



NAVIGATION WIRING DIAGRAM



MIRROR DISPLAY DIAGRAM



NOTE: The AEV Rear Vision System was designed to work best with AEV Wheels. If you have stock wheels, or any other wheel NOT manufactured by AEV, you will want to test fit the Camera to your wheel to ensure it will fit in the wheel opening.

## I. VEHICLE PREPARATION

1. Disconnect the positive cable from the battery.
2. Open the tailgate and remove the plastic trim panels from the inside (fig. 1).

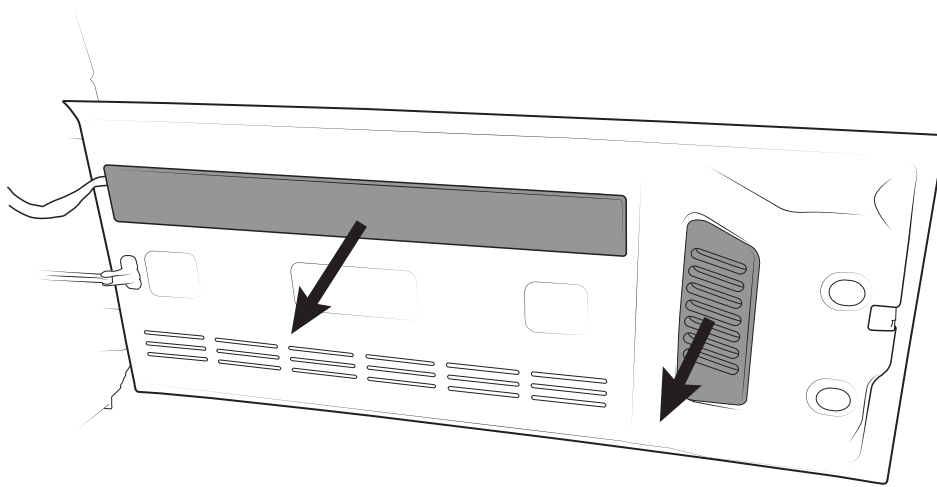


Figure 1

3. If still equipped, remove the factory tire carrier, and wiring for the CHMSL (Third Brake Light).
4. Remove the lid, and storage tray under the floor.
5. If equipped, remove the factory sub-woofer.
6. Remove the kick panel Christmas tree from the front (2x) and backside (1x) of the B-pillar on the passenger side (fig. 2).
7. Remove the first row passenger side kick panel Christmas tree (1x) and unsnap the two forward Christmas trees by pulling panel straight out.

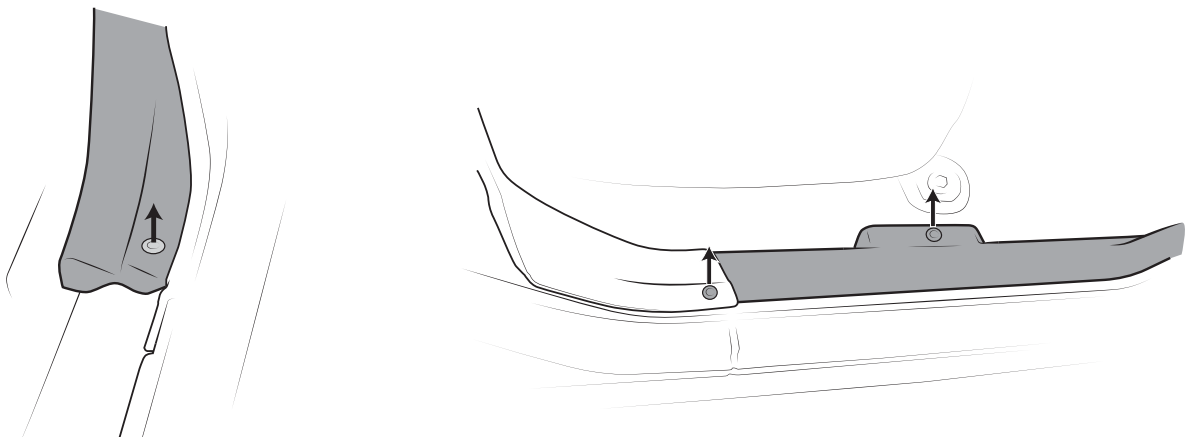


Figure 2— Left: Rear, Right: Front



8. Peel back the carpet along the passenger side of the vehicle.
9. Remove the glove compartment.
10. Remove the transfer case shift lever knob by pulling upward (fig. 3)
11. Remove the forward portion of the center console (fig. 3).
12. Remove the knee block trim located under the steering wheel (fig. 4).

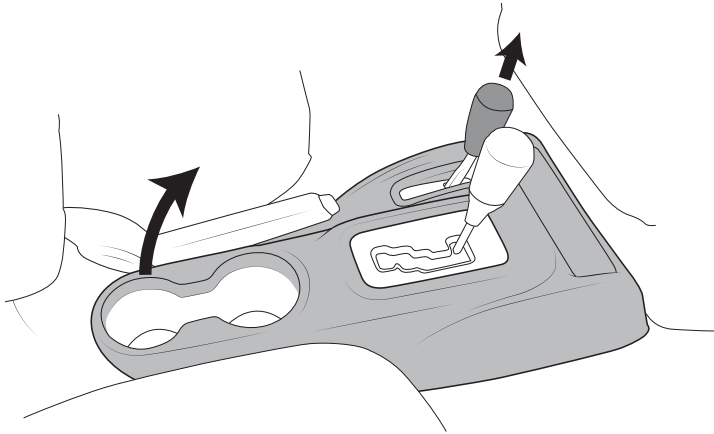


Figure 3

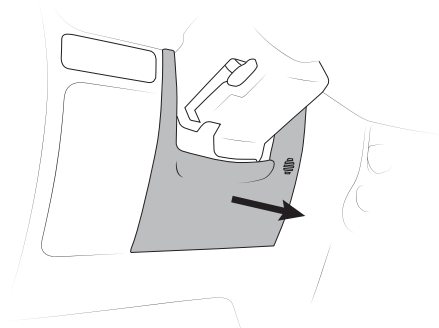


Figure 4

13. Remove the dash panel that surrounds the instrument cluster, and radio.
14. Remove the 4 screws that hold the radio in.
15. Remove the lower switch panel, and then unplug the power plug from the 12 volt outlet\* (fig. 5).  
\*For 2007–2012 vehicles, unplug the power plug from the cigarette lighter on the left side of the panel.

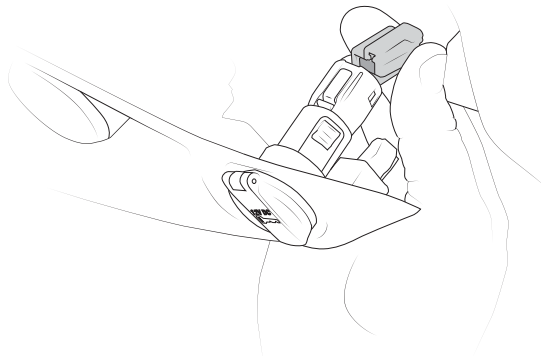


Figure 5



## II. ROUTING THE WIRING HARNESS

1. Route the camera wiring harness A (see diagram pg 1) through the tailgate (fig. 6) following the factory wiring through the protective sleeve and down to the passenger-side floor.

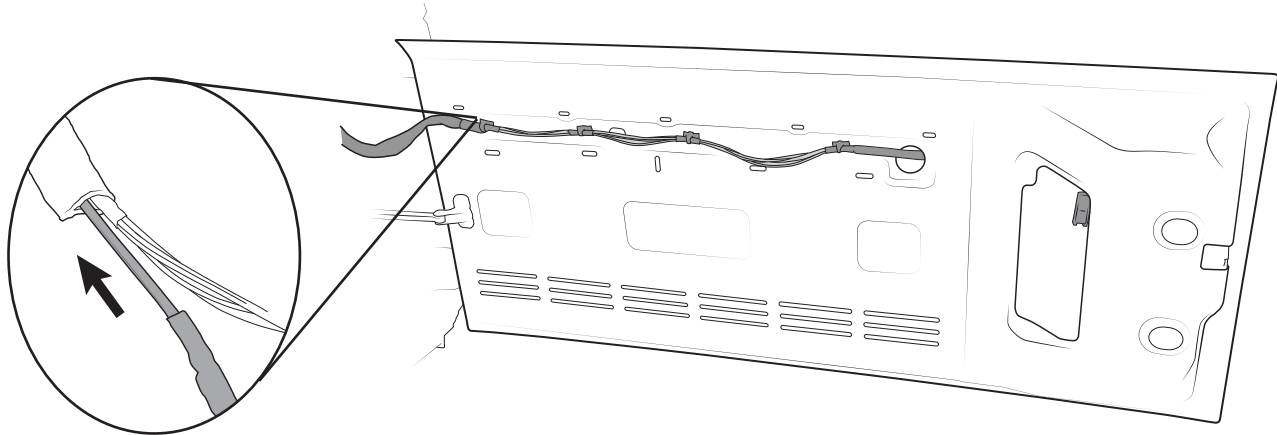


Figure 6

2. Continue routing the wiring harness along the passenger-side floor following the factory wiring.

**If you are installing the AEV Rear Vision System with your factory Radio/Navigation, continue to section III. If you will be using the AEV Rearview Mirror Display you may skip to section IV.**

## III. NAVIGATION HOOK UP

1. Plug Wiring Harness B (see diagram pg 1) into the 12 volt outlet plug\* and the factory 12 volt connector unplugged in step I-15.

\*For 2007–2012 Vehicles use the cigarette lighter outlet on the left side of the switch panel.

2. Reinstall the lower switch panel.
3. Install three pins from Harness B into the white plug as shown (fig. 7).

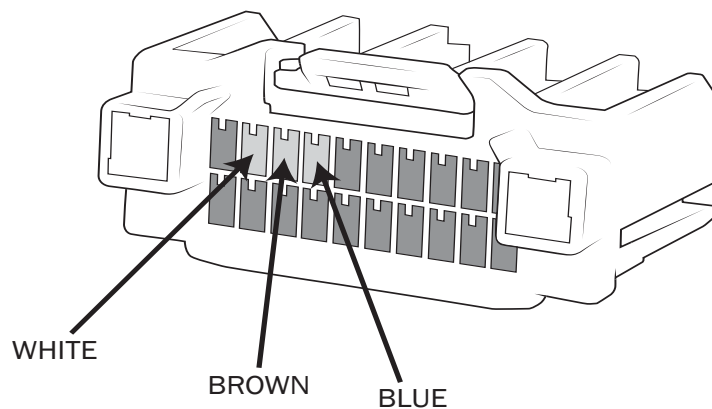


Figure 7



4. Connect the white plug into the back of the radio (fig. 8) then reinstall the radio.

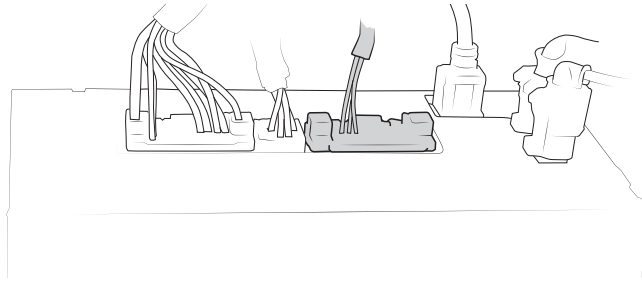


Figure 8

5. Install the 6-pin connector onto the end of Harness A matching wire colors with the corresponding connector on Harness B (fig. 9).

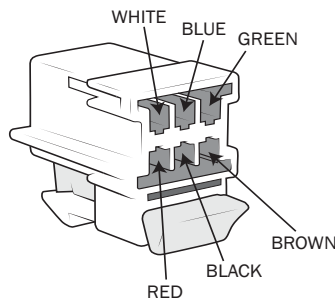


Figure 9

6. Connect Harness A and Harness B.
7. Secure all wiring to prevent any rubbing/chafing

#### IV. MIRROR DISPLAY INSTALLATION

1. Remove the side panel from the dash on the passenger side (fig. 10)
2. Remove the visor, A pillar trim, and factory rearview mirror.
3. For vehicles **with** factory map lights, cut an access hole into the wiring cover of the factory mirror wiring harness (fig. 11).

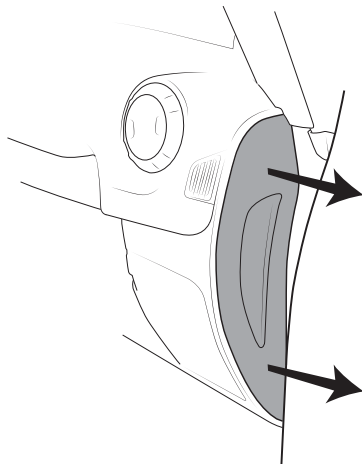


Figure 10

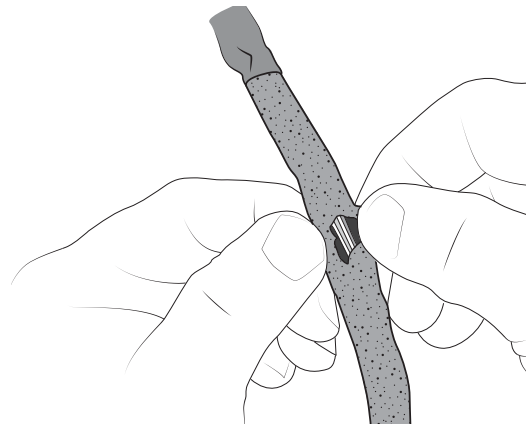


Figure 11



4. For vehicles **without** factory map lights in the mirror: Locate the white wire with the grey stripe in the wiring harness running under the front passenger kick panel (fig. 12). Splice in the reverse signal wire (Green) from the mirror harness. Apply electrical tape to prevent arching.



Figure 12

5. Route the end of AEV Wiring Harness B (see diagram pg 1) up the passenger side A pillar and the 2-connector end across the dash to the power plug.
6. Route the mirror wire through the access hole in step 3.
7. Insert AEV Wiring Harness terminals into factory mirror connector or AEV supplied connector for vehicles without factory mirror connection.
  - a. Disengage Terminal Position Assurance (TPA) device (rectangular white tab) on existing vehicle mirror connector by prying up the notches in the TPA. The tab will only lift about 1/10".
  - b. Insert White terminal of Harness into Cavity 6 of the vehicle mirror harness connector and the Brown terminal into Cavity 7 (fig. 13). The terminals should click into place.

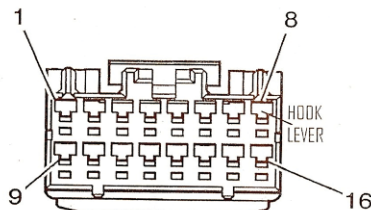


Figure 13: 16-pin Connector face

8. Plug AEV Wiring Harness B into the 12 volt outlet plug and the factory 12 volt connector unplugged in step I-15 (see diagram pg 1).





9. Plug connector into back of Display Mirror (fig. 14) and mount to windshield.
10. Reinstall all trim.

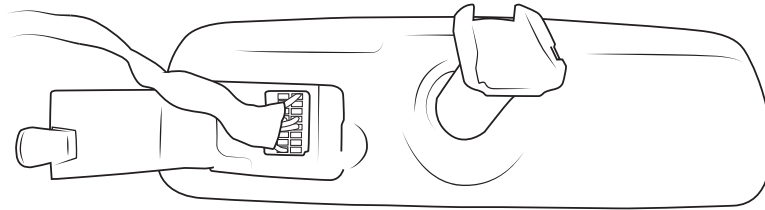


Figure 14

## V. INSTALLING CAMERA TO TIRE CARRIER

1. Mount the Camera/CHMSL (third brake light) bracket to the spare tire mount and secure with the supplied push nuts (fig. 15).
2. Route the Camera/CHMSL wires to be free from obstructions, pinch points, or sharp edges (Recommended routing with AEV tire carrier shown in fig. 16).
3. Insert camera connectors through the factory CHMSL wiring hole in the tailgate. Push rubber grommet into place to secure.

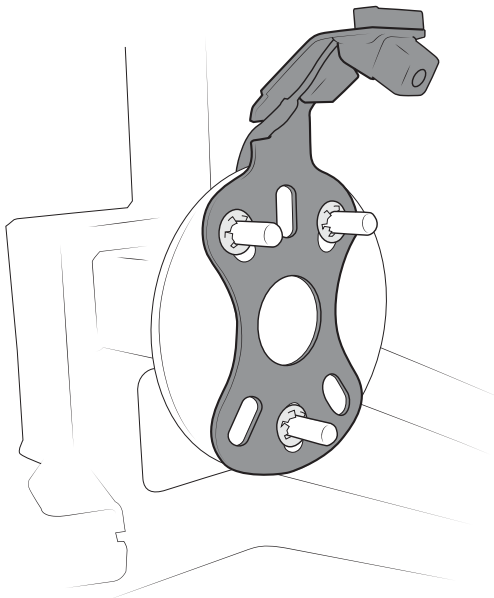


Figure 15

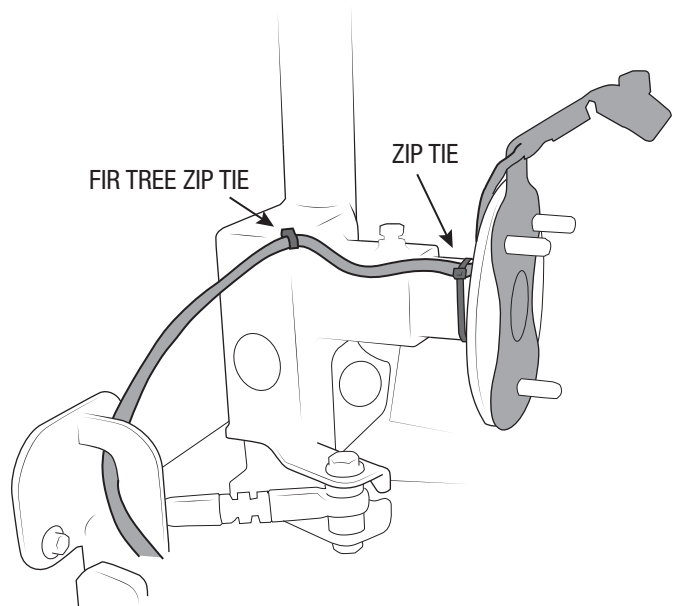


Figure 16

4. Plug the new CHMSL connector into the factory wiring harness and the Camera connector into the new AEV wiring harness.
5. Reinstall all trim panels, carpet, and dash.



## **VI. CAMERA CALIBRATION FOR NAVIGATION UNIT**

1. Insert key into ignition, and very slowly turn two clicks forward. This will turn on the dash without starting the Jeep.
2. Wait 10 seconds (this gives the system time to run all of the check sequences.)
3. Plug the Rear Vision System calibration module into the OBD port located under the dash on the driver's side of the Jeep.
4. After the two horn honks, turn the key off, remove the key.
5. Remove the module from the OBD port.
6. You have now successfully turned on the camera function.