

Introduction and Features

The AMHGM1K is a complete radio replacement kit for the installation of the Aerpro AERA10D modular radio in Chevrolet Silverado and GMC Sierra trucks. All modules, cables and adapters are included to retain important features of the factory system, including: front and rear park assist, warning chimes, factory reverse camera, steering wheel-mounted radio controls and AM/FM reception. Plug & Play wiring harnesses allow for quick and easy installation without the need to cut or splice any wiring. The display mounting panel allows flush mounting the 10 inch display without modifying/cutting any part of the vehicle's sub-dash.

Important Notes

We recommend reading this manual thoroughly to familiarize yourself with the entire process prior to beginning the installation.

1. Does not retain the following factory features:
 - Factory satellite radio
 - Rear seat entertainment system (RSE)
 - Steering wheel control backlighting
 - Factory USB Ports
2. Not compatible with vehicles equipped with Bose amplified audio system.
3. Please make your vehicle settings selections before removing the factory radio for optimal installation time.

Recommended Tools

Plastic Panel Tool
7mm Socket
10mm Socket

Ratchet
Torx T15 Screwdriver
Small Flat-blade Screwdriver

Pick Tool
Wire Feeder

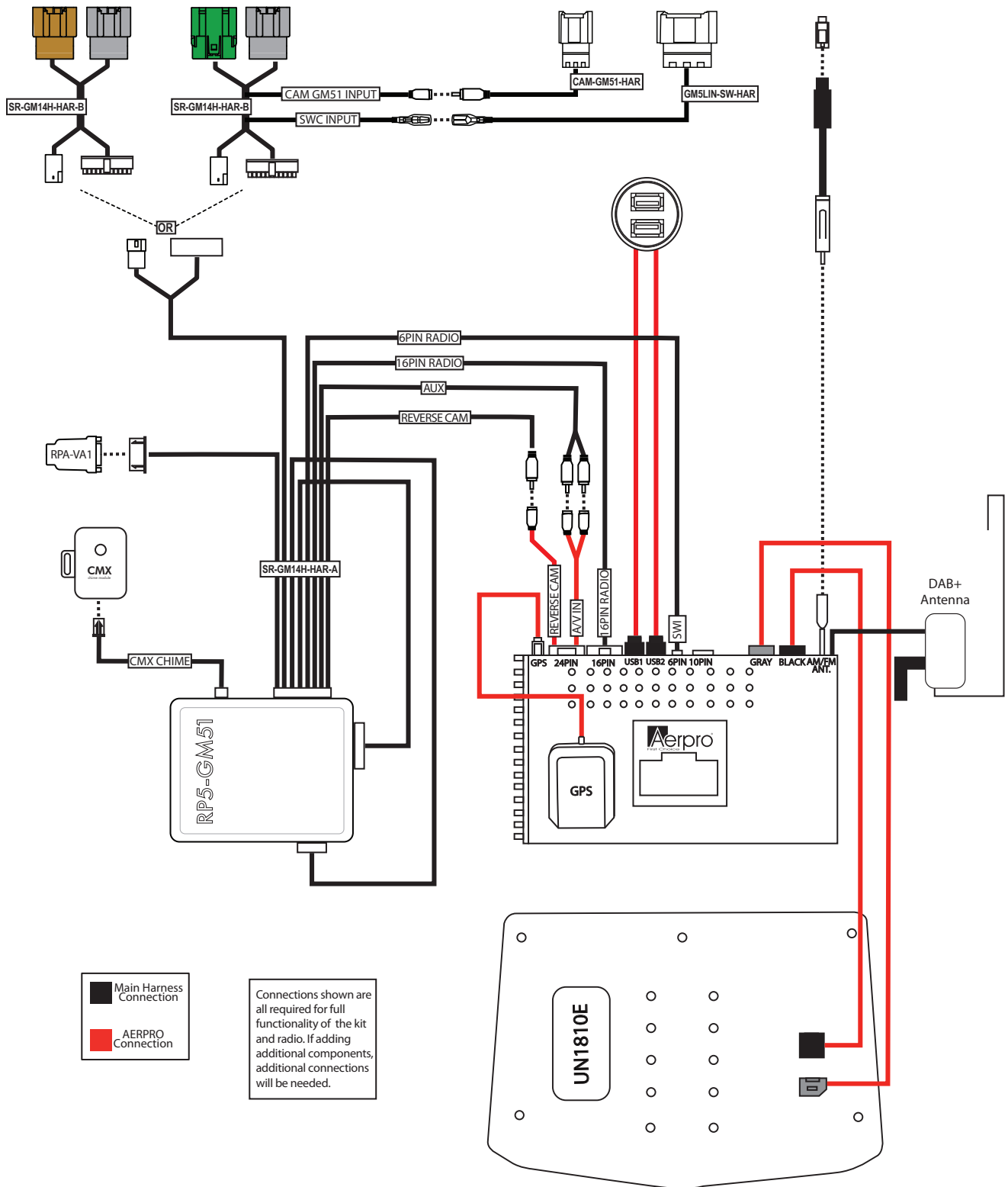
Included Components

1. AERA10D Display Mounting Panel
2. Dual USB Extension (SSUSB2)
3. AM / FM Antenna Adapter (BAA22)
4. Main Harness (AMHGM1K-HAR-A)
5. Vehicle Side Harness B (AMHGM1K-HAR-B)
6. Vehicle Side Harness C (AMHGM1K-HAR-C)
7. Radio Replacement Interface (RP5-GM51)
8. Steering Wheel Control Harness (GM5LIN-SW-HAR)
9. Factory Rear Camera Adapter (CAM-GM51)
10. IOB Display Harness (GM5CAM-DIS-HAR)
11. Chime Module (CMX)
12. Differential Video Adapter (RPA-VA1)

NOTE: Along with the AMHGM1K components, additional hardware and wire harnesses from the AERA10D (UN1810E) kit will also be used in the installation.



Wiring Overview



Factory Radio Code

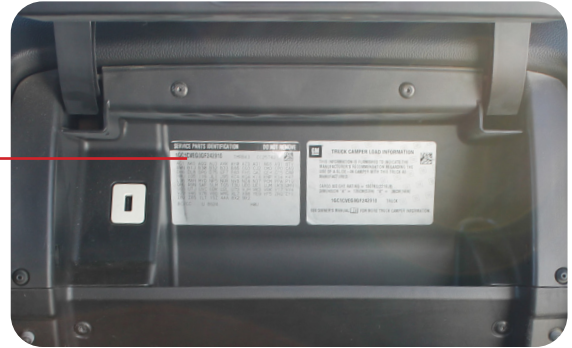
Before starting, determine the vehicle's factory audio system by referencing the Service Parts Identification sticker inside the upper glove box.

One of these RPO codes will be listed:

IO3, IO4, IO5, IO6 or IOB

The installations are very similar for each type of factory audio system, but there are differences referenced throughout this guide.

Note: The installation shown in this guide is IO5 with factory rear camera and steering wheel controls.



This installation manual will cover the necessary order of procedures to complete the installation efficiently and to avoid redoing any steps. The order will be as follows; Disassembly, In-Vehicle Harness Connections and Preparation, Interface and Main Harness Connections, Display Mounting Panel Preparation, Radio Module Preparation and Radio Unit Installation.

The installation steps shown are all required for full functionality of the radio. If adding additional components; cameras, amplifiers, satellite radio, etc., additional steps and harnesses will be needed.

NOTE: LEFT HAND DRIVE VEHICLE PICTURED FOR ILLUSTRATION PURPOSES ONLY

Section 1: Disassembly

Part One: Center Dash Disassembly



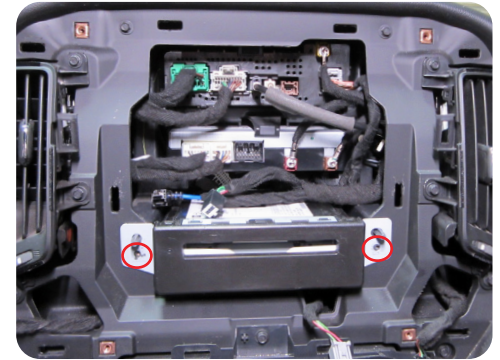
Step 1

Remove the radio display/climate control trim panel using a plastic trim tool to release the retaining clips. Unplug any wire harnesses from the back of the trim panel, if equipped.



Step 2

Remove the four 7mm screws securing the radio display/climate control panel. Pull outward to release the retaining clips. Remove all connectors from the back of the panel.

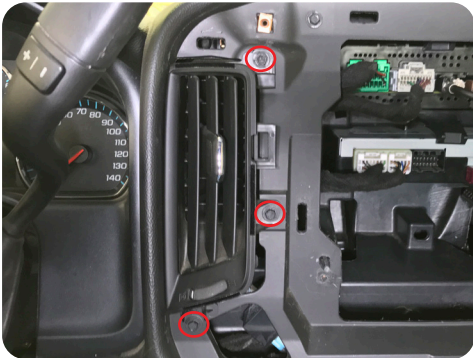


Step 3

If equipped, remove the two 7mm screws from the CD/DVD mechanism, remove and unplug. (This plug will not be reconnected).

Section 1: Disassembly (cont.)

Part One: Center Dash Disassembly (cont.)



Step 4

Remove the three 7mm screws securing the air vent on the left side of the radio opening and remove the vent.

Part Two: Lower Storage Compartment Removal



Step 1

Remove the two Torx T15 screws from the bottom edge of the storage compartment.



Step 2

Remove the upper Torx T15 screw inside the storage compartment.



Step 3

Using a panel tool or similar, release the top retaining clips and remove the storage assembly.

Section 1: Disassembly (cont.)

Part Three: Glove Box Removal (Optional)

If the vehicle is equipped with IO4, IO5 or IO6 radio AND a factory rear camera, follow the steps below to remove the glove box. For IO3 and IOB vehicles, or no factory rear camera, proceed to Part Four.



Step 1

Remove the two Torx T15 screws from the bottom edge of the lower glove box.



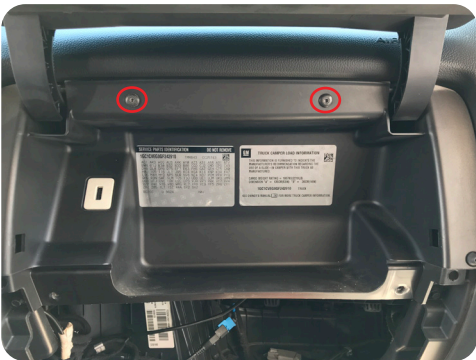
Step 2

Open the upper and lower glove box doors and remove the two Torx T15 screws securing the lower glove box.



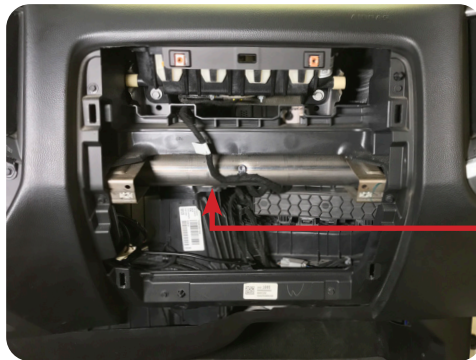
Step 3

Pull outward on the lower glove box to release the retaining clips and remove the lower glove box.



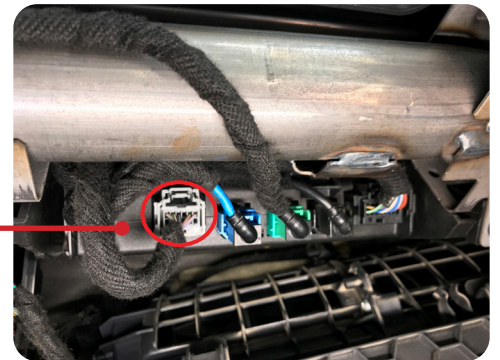
Step 4

Remove the two Torx T15 screws and pull to remove the upper glove box. Unplug the factory USB port from the backside.



Step 5

Up, behind the metal bar running across the inner dash, locate the HMI Module; black module with multiple colored plugs facing down.



Step 6

Unplug the gray 12 pin camera harness from the HMI module.

Section 1: Disassembly (cont.)

Part Four: A Pillar Removal



Step 1

Remove the inserts covering the bolts on the passenger A pillar handle.



Step 2

Remove the two 10mm bolts.



Step 3

Pull the trim panel to release the retaining clips and remove.

Part Five: Lower Steering Column Cover Removal (Optional)

If the vehicle is equipped with IO3, IO4, IO5 or IO6 radio AND steering wheel controls, follow the steps below to remove the lower steering column cover. For IOB vehicles or no steering wheel controls, proceed to Section Two on next page.



Step 1

Remove the two Torx T15 screws from the bottom edge of knee panel below the steering column. Pull outward to remove the panel and lay carefully on the floor board.



Step 2

Remove the plastic handle from the steering wheel tilt lever by pulling outward, towards the passenger's door on the handle. A trim tool may also be used if unable to remove by hand.



Step 3

Pull downward on the lower cover on both sides to release the locking tabs and remove the lower cover.

Section 2: In-Vehicle Harness Connections and Preparation

Part One: Dual USB Extension (SSUSB2)

Apple CarPlay, Android Auto require access to a USB port. The SSUSB2 is designed to extend the USB ports on the back of the AERA10D to where they are accessible once the radio is installed.

For this installation, the factory 12V power outlet will be replaced with the SSUSB2. You may chose to follow these steps, or mount the USB port somewhere else in the vehicle. Please note, the factory USB ports will no longer function after the factory radio is removed.



Step 1

From the backside of the lower storage compartment, remove the metal insert from the power outlet by releasing the two retaining clips with a small pick and pushing out the front side.



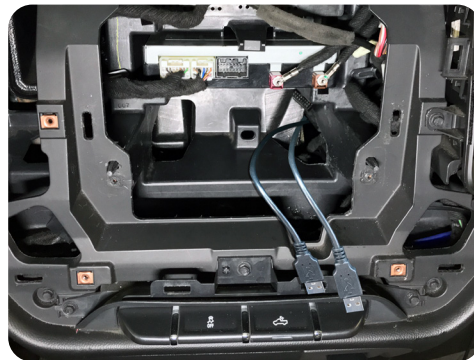
Step 2

Remove the plastic sleeve by depressing the two tabs and pushing out the front.



Step 3

Install the optional USB cover and feed the USB cables through the front of the panel. Secure with the flanged nut and then lock with the lock nut.



Step 4

Route the USB cables up and out of the right side opening at the rear of the CD/DVD opening.

Section 2: In-Vehicle Harness Connections and Preparation (cont.)

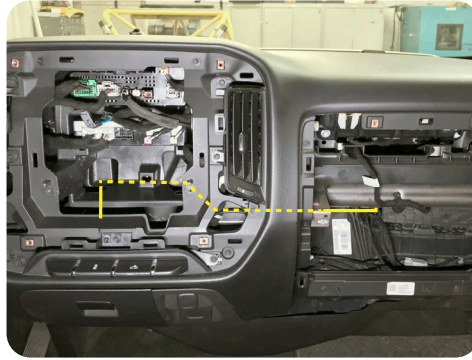
Part Two: Factory Rear Camera Retention Harness (CAM-GM51-HAR)

If the vehicle is equipped with IO4, IO5 or IO6 radio AND a factory rear camera, follow the steps below to install the factory camera retention harness behind the glove box. For IO3 and IOB vehicles, or no factory rear camera, proceed to Part Four.



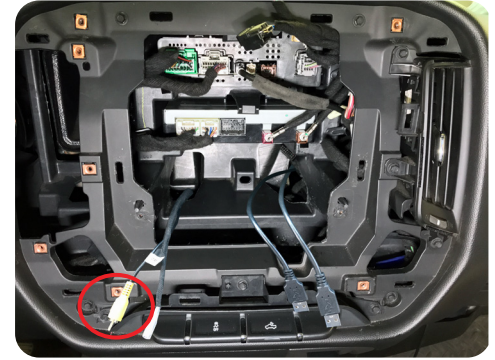
Step 1

Plug the gray 12 pin camera harness from the HMI module into the CAM-GM51-HAR.



Step 2

Route the yellow RCA end of the camera cable to the radio opening. Secure plug and cable with zip ties.



Step 3

Route the camera RCA out of the left side opening at the rear of the CD/DVD opening.

Part Three: Steering Wheel Control (SWC) Retention Harness (GM5LIN-SW-HAR)

If the vehicle is equipped with IO4, IO5 or IO6 radio AND steering wheel controls, follow the steps below to install the SWC retention harness at the steering column. For IO3 and IOB vehicles, or no steering wheel controls, proceed to Part Four.



Step 1

Locate and unplug the black 10 pin connector located on the underside of the steering column.



Step 2

Plug the male connector into the female end of the GM5LIN-SW-HAR and plug the GM5LIN-SW-HAR male end into the female connector on the steering column.

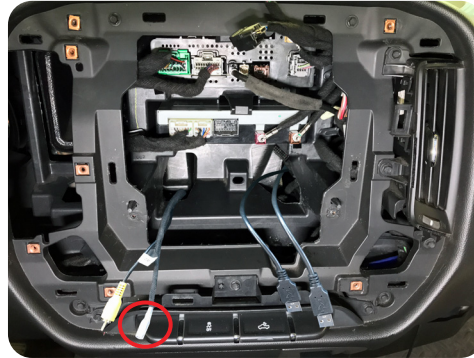


Step 3

Secure the T-harness to the factory wire harness. Route the 50" single lead from the GM5LIN-SW-HAR to the radio opening, securing with zip ties.

Section 2: In-Vehicle Harness Connections and Preparation (cont.)

Part Three: Steering Wheel Control (SWC) Retention Harness (cont.)



Step 4

Route the steering wheel control lead into the CD/DVD area through the left side opening in the rear of the cavity.

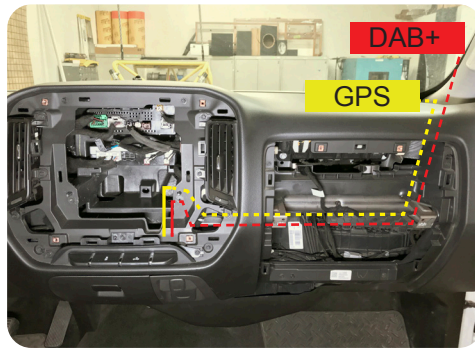
Part Four: GPS & DAB+ Antennas

The GPS antenna is required for proper operation of Apple CarPlay and Android Auto, in addition to the optional GPS if installed. The GPS antenna is included in the AERA10D hardware.



Step 1

Position the GPS & DAB+ antennas, and route the antenna cables down into the glove box area. Replace the A pillar panel and ensure the cables do not interfere or get pinched.



Step 2

Continue routing the cables across the inner dash towards the radio opening securing with zip ties.

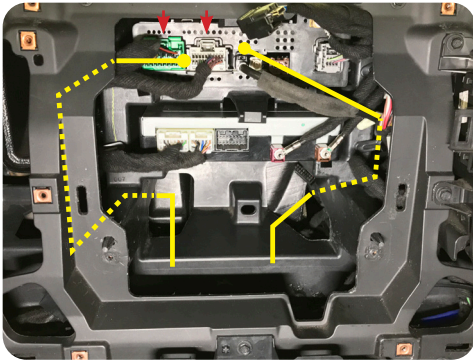


Step 3

Route the cables into the CD/DVD area through the right side opening at the rear of the cavity.

Section 2: In-Vehicle Harness Connections and Preparation (cont.)

Part Five: Vehicle Side Plug Relocation and Antenna Adapter



Step 1

Unplug the Green and Gray or Mustard and Gray (IOB) connectors from the factory tuner and re-route them down and through the left opening of the lower CD/DVD area.



Step 2

Unplug the Black antenna cable from the factory tuner and re-route it down and through the right side opening of the lower CD/DVD area.



Step 3

Connect the BAA22 Antenna adapter to the factory antenna.

Section 3: Interface and Main Harness Connections and Preparation

Part One: RP5-GM51 Radio Interface Connections



Step 1

Using a small flat-blade screwdriver or similar, set the Radio Select Dial on the side of the RP5-GM51 to Number 4.



Step 2

Remove the warning sticker on Vehicle Connections port on the other side of the RP5-GM51 module.

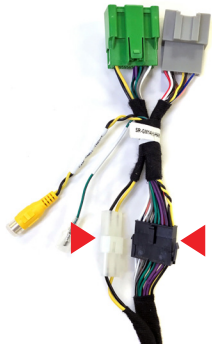


Step 3

Connect the four connectors from the AMHGM1K-HAR-A Main Harness to the indicated ports on the RP5-GM51 module.

Section 3: Interface and Main Harness Connections and Preparation

Part Two: Main Harness Connections (AMHGM1K-HAR-A)



Step 4A

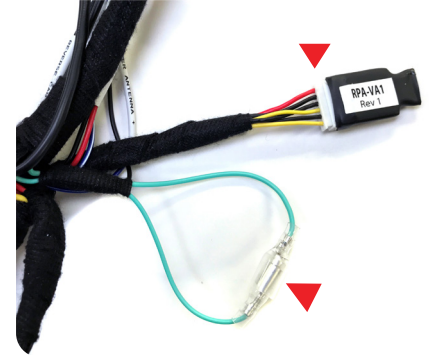
For IO3, IO4, IO5 and IO6 radios, connect the white 2-pin and the black 18-pin of the AMHGM1K-HAR-B to the Main Harness.

OR



Step 4B

For IOB radios, connect the white 2-pin and the black 18-pin of the AMHGM1K-HAR-C to the Main Harness.



Step 5

Plug the 6-pin lead on the Main Harness into the RPA-VA1. Connect the male and female ends of the Light Green leads together.



Step 6

Connect the AERA10D's 24 pin AV Harness AUX IN to AUX on the Main Harness. Connect REVERSE CAMERA IN to REVERSE CAM.



Step 7

Connect the CMX Chime Module to the 2 pin CMX Chime connector on the Main Harness.

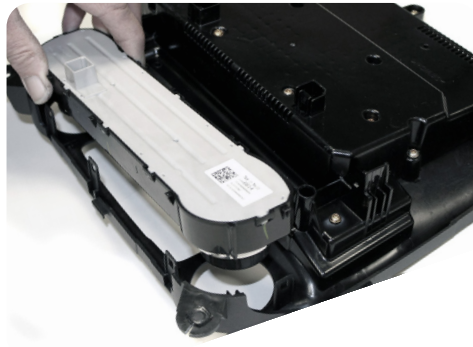
Section Four: Display Mounting Panel Preparation

Part One: Transferring the Climate Controls



Step 1

With the factory radio display / climate control panel face down, apply slight pressure to the front of the controls while releasing the locking tabs around the perimeter.



Step 2

Once all the clips are released, remove the climate controls from the factory bezel.



Step 3

Align the controls in the AERA10D mounting panel and push to seat and lock all the retaining clips.

Part Two: Mounting the Display



Step 1

Insert the display into the front of the mounting panel and carefully turn the panel over while holding the display in place.

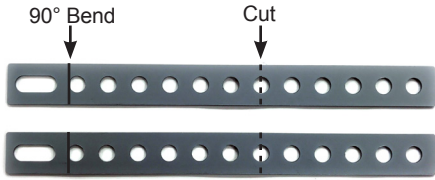


Step 2

Attach the display to the panel using four M4 x 10 screws from the AERA10D hardware pack.

Section Five: Radio Module Preparation

Part One: Radio Module Side Brackets



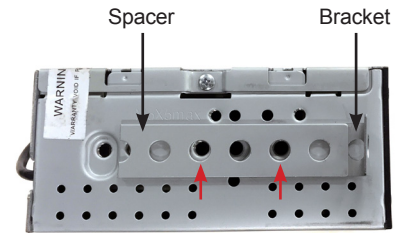
Step 1

From the AERA10D hardware, mark the two metal brackets as shown above. Make a 90° bend at the solid line and cut along the dotted line.



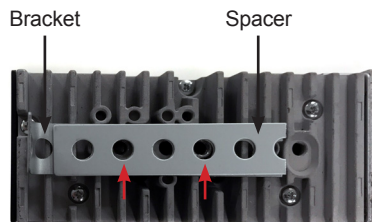
Step 2

Save the cut off end pieces; they will be used as spacers. From the AERA10D hardware, four M5 x 10 screws will be used to attach the brackets.



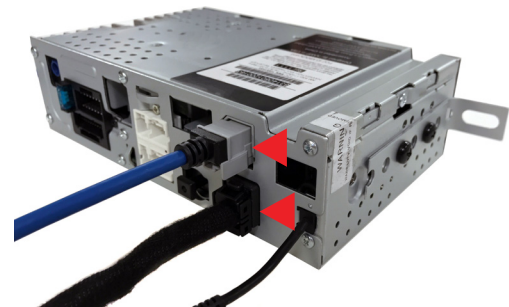
Step 3

Align one of the 90° side brackets to the left side as shown. Bracket, then spacer and attach with two M5x10 screws in the locations shown.



Step 4

Align the other 90° bracket to the right side as shown. Bracket, then spacer and attach with two M5x10 screws in the locations shown.

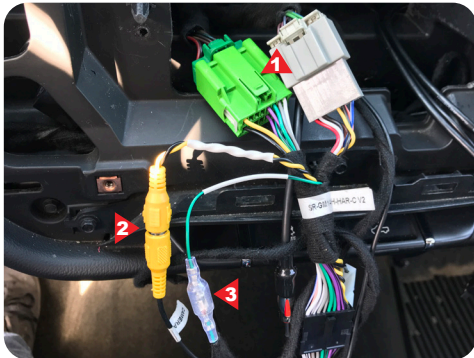


Step 5

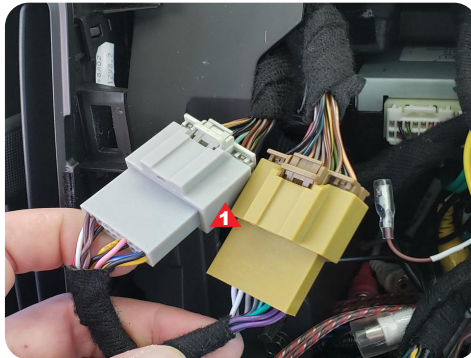
From the AERA10D box, connect the LVDS (Blue USB) and 10 pin display cables to the Radio Module.

Section 5: Radio Unit Installation

Part One: In-Vehicle Harness and Cabling Connections



Step 1A



Step 1B

OR



Step 2

IO3, IO4, IO5, IO6: Connect the Green and Gray vehicle side plugs (1) on the RP5 Main Harness to the matching plugs in the vehicle.
IO4, IO5, IO6: If equipped, connect the Yellow CAM-51 Input RCA to CAMERA RCA (2) and connect the male green/black SWC Input to the female SWC lead (3).

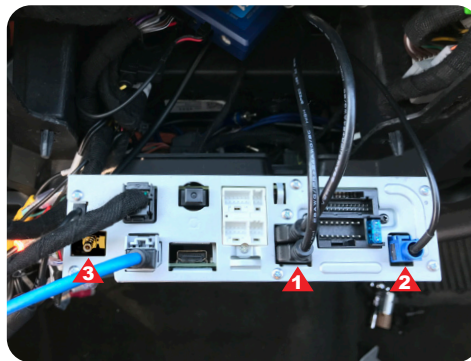
IOB: Connect the Mustard and Gray vehicle side plugs (1) on the RP5 Main Harness to the matching plugs in the vehicle.

After the two vehicle side plugs are connected, push the connectors back into the rear access hole as far as possible to make room for when the radio module is installed.



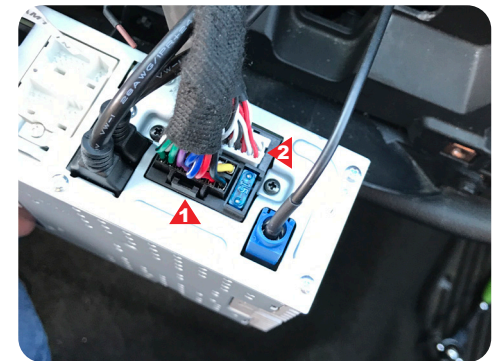
Step 3

Temporarily place the RP5-GM51 module inside the CD/DVD cavity while making the following connections to the AERA10D Radio Module.



Step 4

Plug in the two USB cables (1) and the GPS antenna (2). Plug in the DAB+ antenna (3).

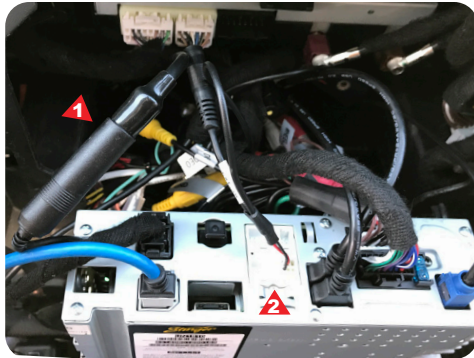


Step 5

Plug in the AERA10D's 16 pin Main Harness (1) and 24 pin A/V Harness (2).

Section 5: Radio Unit Installation (cont.)

Part One: In-Vehicle Harness and Cabling Connections (cont.)



Step 6

Connect the radio side of BAA22 Antenna Adapter (1) to the AERA10D's AM/FM antenna input. Plug in the 6 pin SWC / EXT IR harness (2).

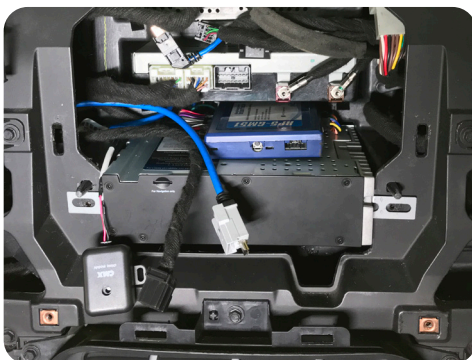


Step 7

2018-19 IOB Only: Plug the 20 pin harness that was removed from the factory display into the GM5CAM-DIS-HAR.

These are the connections for a typical installation. If adding additional cameras, amplifiers or satellite radio, those connections should be made at this point, before mounting the radio module.

Part Two: Radio Unit Mounting



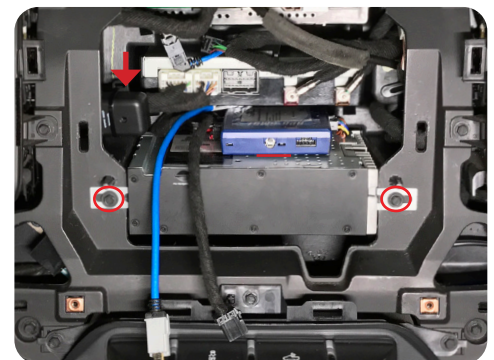
Step 1

With the Chime Module and both display cables routed over the top, place the RP5 interface on top of the radio module and slide it into CD/DVD cavity as noted in Step 2.



Step 2

The plastic panel in front of the CD/DVD cavity is narrower than the cavity itself and will prevent the side bracket screws from passing. The side bracket screws will need to be angled up and over this panel as it is put in place.

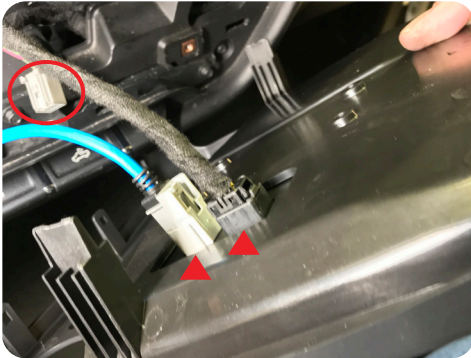


Step 3

Once in place, secure the radio assembly with two 7mm screws. Zip tie the Chime Module in a suitable location. Use the supplied two-sided tape to secure the RP5 interface to the top of the radio module.

Section 5: Radio Unit Installation (cont.)

Part Two: Radio Unit Mounting (cont.)



Step 4

Plug the two display cables into the back of the AERA10D display. Re-connect the factory climate control connector to the climate controls.



Step 5

Place the mounting panel in place and temporarily secure it with two 7mm screws.

Before reassembly, it is recommended to power up the radio and check the chime volume* and all other functionality...

Volume, Balance, Fade
AM/FM Reception
Digital Radio Reception
Bluetooth
USB
Apple Carplay
Android Auto
Camera(s)

* The Chime Module has a 4 position volume selector on the side. Setting 1 being the loudest and 4 being the quietest.

Reset / Restoring Interface Factory Settings

You can restore the RadioPRO interface module to factory default settings by pressing and holding the programming button on the side of the module until the status LED starts blinking red. Once the LED starts blinking red, release the button. You must release the button while the LED is blinking red in order to perform the reset. This reset will restore all settings to factory defaults.

Technical Support

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