

ADC Mobile Car Show Installation Guide – GM Series









NOTICE OF INTENDED INSTALLATION AND USE

THE CARSHOW MULTI-MEDIA NAVIGATION SYSTEMS CONTAIN AN INTERNAL VIDEO PLAYER, WHICH IS NOT INTENDED FOR VIEWING BY THE DRIVER. THE VIDEO PLAYER IS DISABLED WHEN THE VEHICLE IS IN MOTION THROUGH A CONNECTION TO THE PARKING BRAKE.

THE INSTALLER OF THIS PRODUCT MUST INSURE THE VIDEO DISABLE CONNECTION IS WORKING PROPERLY PRIOR TO DELIVERY OF THE VEHICLE.

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 AND/OR FEDERAL LAW.

CARSHOW DISCLAIMS ANY LIABILITY FOR ANY BODILY INJURY OR PROPERTY DAMAGE THAT MAY RESULT FROM ANY IMPROPER OR UNINTENDED INSTALLATION AND/OR USE.



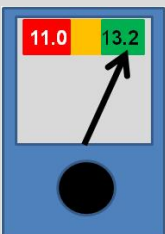





	<p align="center"><u>STOP</u></p> <p align="center">Damage to the vehicle may occur Do not proceed until process has been completed</p>
	<p align="center"><u>CAUTION</u></p> <p align="center">Process must be carefully observed in order to reduce the risk of damage to the accessory or vehicle</p>
	<p align="center"><u>CRITICAL</u></p> <p align="center">Process must be carefully observed in order to ensure a quality installation</p>
	<p align="center"><u>TOOLS and EQUIPMENT</u></p> <p align="center">Specific tools and equipment recommended for this process</p>
	<p align="center"><u>SAFETY RISK</u></p> <p align="center">Observe safe practices, this process can be dangerous and there is a risk of personal injury</p>
	<p align="center"><u>TESTING and TROUBLESHOOTING</u></p> <p align="center">Content specific testing and troubleshooting points</p>

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PREPARING FOR THE INSTALLATION

STEP 1

Before you start, please read these critical steps below

<p>BEFORE YOU START THE INSTALLATION, READ THIS GUIDE!</p> <p>We know, you never read the instructions, but you need to read this BEFORE you start the installation!</p>		
<p>CHECK THE BATTERY</p> <p>Test the battery voltage to make sure it's fully charged</p> <p>This only takes seconds and can save hours of troubleshooting later.</p>		
<p>TURN THE VEHICLE <u>OFF</u></p> <p>Keep the Vehicle Off during the installation to avoid setting various Vehicle Faults.</p>		
<p>KEEP THE VEHICLE <u>OFF</u> DURING THE INSTALLATION</p> <p>Failure to follow this may cause the AIRBAG FAULT SENSOR to become enabled. Dealer Service Departments charge a significant fee to reset the Fault Sensor.</p>		

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REMOVE THE FACTORY RADIO

STEP 2

You will need to remove multiple interior trim components prior to removing the factory radio. The following steps will help guide you through this process.

Tools Required:

- 7mm nut-driver
- Plastic Panel pry tool – available at most auto parts stores
- **DO NOT USE METAL PRY TOOLS OR SCREWDRIVERS – DAMAGE TO THE VEHICLE TRIM WILL RESULT!**



NON-BOSE TRUCKS

Basic Install Video:

<https://www.youtube.com/watch?v=oWFL9aK-OT4>

BOSE TRUCKS/SUV'S

Basic Install Video:

<https://www.youtube.com/watch?v=Llh2Wjaz0t4>

Carefully Remove Right Dash Trim

Remove the right side dash trim using thin pry tool

Start in top center and work your way out to right top corner on Bose vehicle trim



Lower Shift Lever

Make sure parking brake is engaged!!

Carefully pull shift lever down to ease dash panel removal.

(N/A on Bose vehicle)



N/A








Remove Dash Trim

Cautiously remove dash trim using caution not to break plastic. Pull dash trim towards you.

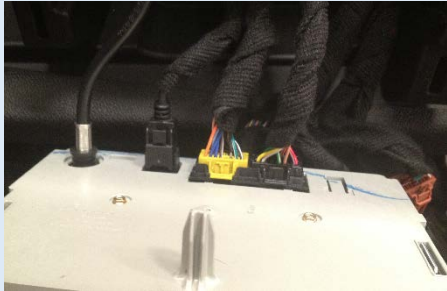
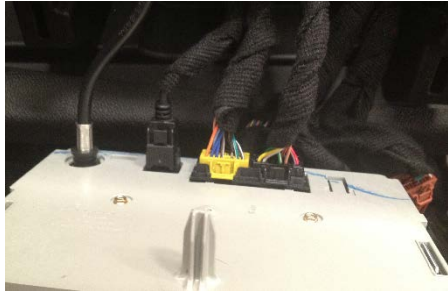
(Use extreme caution with this step on Bose vehicle!)



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	NON-BOSE TRUCKS	BOSE TRUCKS/SUV'S
<p>Unplug Dash Panel Harnesses</p> <p>Carefully unplug dash panel harnesses on Non-Bose vehicle (N/A on Bose vehicle)</p>		<p>N/A</p>
<p>Remove Climate Controls</p> <p>Use 7mm socket to remove 2 x 7mm bolts to remove climate control assembly (Remove lower switch plate and HVAC controls on Bose vehicle)</p>		
<p>Climate Controls</p> <p>Climate controls can be unplugged (Non-Bose) or simply moved to the side (Bose) (use a towel or other padding to keep from scratching the control assembly or the dashboard).</p>		
<p>Remove Radio Mounting Bolts</p> <p>Use 7mm socket to remove 4 x 7mm radio mounting bolts</p>		

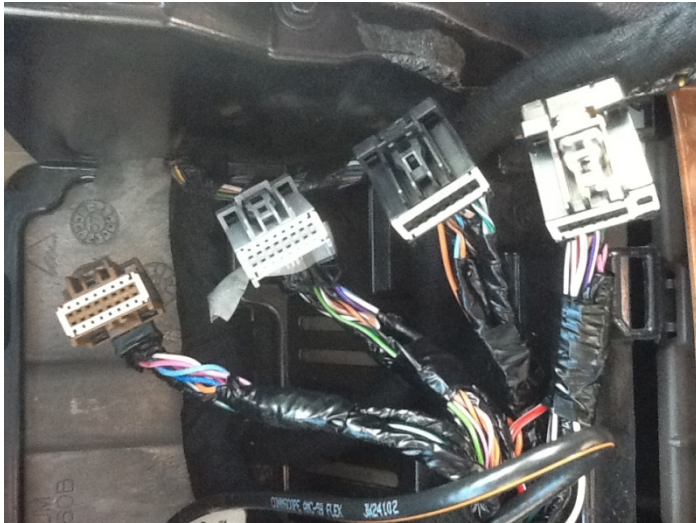
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	NON-BOSE TRUCKS	BOSE TRUCKS/SUV'S
<p>Unplug factory radio harnesses</p> <p>Carefully unplug all harnesses at back of the factory radio.</p>		

CONFIGURE REQUIRED CABLES

STEP 3

Set up the right harnesses for your vehicle



Factory Plugs: The picture at left shows a typical plug arrangement in a GM vehicle – depending on your trim level and factory installed accessories, your vehicle may or may not have all of these plugs present. Use this photo as a guide for the proper use of the Car Show connectors.

The colors of these plugs may vary:

- X1: BLACK**
- X2: BLACK or YELLOW**
- X3: GRAY or BLACK**
- X4: BROWN**

Main Harness: Car Show Main Harness plugs into factory **X1 & X2** connectors. Car Show XM/OnStar output harness plugs into BLACK port on radio and UART harness plugs into BROWN port on radio. The Main Harness is pre-configured for Non-Bose systems. If you are installing into a Bose system, you will need to disconnect the main harness speaker connector (this has **PINK** label on it) and use the PP-GM1210-8 harness as outlined below.

Factory GM Connectors (L-R): X4 / X3 / X2 / X1

GPS Antenna: You will use the GPS antenna in every

installation, and we suggest mounting it in the FACTORY location (see GPS mounting diagrams below or visit our online tech support to determine the location and method of mounting GPS antenna)

Bluetooth microphone: If you are planning on using the Car Show Bluetooth system, we HIGHLY recommend using the external microphone (PP1011)

USB: On systems that already have a factory USB port, the Car Show USB input will plug directly into the factory USB cable. On systems that DO NOT have a factory USB port, you must add an optional mini-male USB to standard female USB cable or a factory USB receptacle in order for USB to function.

Camera: If you are replacing a factory navigation system and have a factory installed rear view camera, or have the factory camera display in the mirror, the camera may be used on the GM1210. However, the GM1210 does not come with an adaptor to allow a plug and play connection. See our online instructions for hooking up the factory camera.

The Car Show GM1210 comes with all of the harnesses to replace almost all types of factory systems. In order to configure your combination of components and harnesses correctly, refer to the following chart.

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FACTORY SYSTEM CONFIGURATION OR ADDITIONAL ACCESSORIES INSTALLED	HARNESSES REQUIRED	FACTORY CONNECTOR?	NOTES
Main Harness w/Data Box	Main Harness	YES: X1 & X2	Used in all installations. Plugs into X1 & X2 factory connectors. Car Show XM/OnStar output plugs into BLACK port on radio & UART data plugs into BROWN port on radio
Factory BOSE audio	PP-GM1210-8	NO	Unplug Main Harness speaker connector (has PINK label) and plug in this cable. Plugs into YELLOW port on radio
Factory Centerpoint audio	PP-GM1210-7	YES: X4	Leave Main Harness speaker connection as shipped. Single RCA subwoofer output plug connects to BROWN X4 factory plug. Plugs into YELLOW port on rear of radio
Outboard (non-factory) amplifiers	PP1007	NO	L/R - F/R RCA's plus two subwoofer RCA's. Plugs into YELLOW port on radio
Factory Rear Entertainment	PP-GM1210-6	YES: X3	Use factory BLACK or GRAY X3 factory plug – NOT X4! Plugs into GREEN & GRAY ports on radio & open port on the end of data box.
Factory Rear Entertainment with factory or aftermarket rear camera	PP-GM1210-6	YES: X3	Use factory BLACK or GRAY X3 factory plug – NOT X4! Plugs into GREEN & GRAY ports on radio & open port on the end of data box. Also contains rear camera input. <u>Please see online tech support or call for factory camera wiring instructions</u>
Aftermarket rear entertainment (Headrests or Overhead Monitors)	PP1009	NO	L/R/Video output RCA's plus IR remote input for use with Car Show headrest monitors. Plugs into GRAY port on radio
AUX1 input for aftermarket A/V source	PP1012	NO	L/R/Video input RCA's to 3.5mm adaptor. Plugs into 3.5mm input port on face of radio
AUX2 input for aftermarket A/V source	PP1008	NO	L/R/Video input RCA's plus camera input. Plugs into GREEN port on radio
Factory or aftermarket rear camera	PP1008	NO	L/R/Video input RCA's plus camera input. Aftermarket camera will plug right in. <u>Please see online tech support or call for factory camera wiring instructions</u>
Bluetooth Microphone	PP1011	NO	Plugs into PURPLE port on radio. Recommended on ALL installations
USB input cable	On radio	YES	If vehicle has factory USB port, it plugs into Car Show USB input. If vehicle does not have factory USB port, you must source additional cables

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LOCATING REMOTE COMPONENTS

STEP 4

You will need to mount the microphone & GPS antenna

Mount Microphone

We normally mount the Bluetooth microphone clipped to the headliner near the rear view mirror to minimize road noise.

Use Caution around SRS Components

Ensure that the routing of the harnesses do NOT obstruct airbags, SRS or other safety devices.

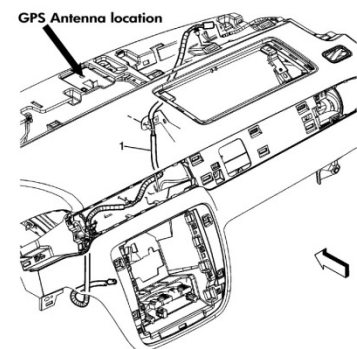
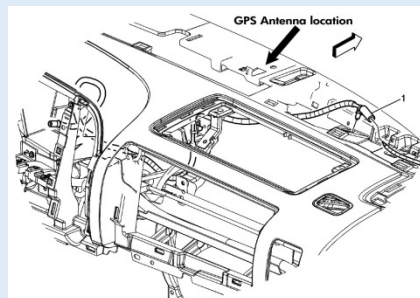


Mount the GPS antenna in the FACTORY LOCATION

The factory location for the GPS antenna in most GM vehicles is under the defroster vent trim.

Lift up on the passenger side defroster trim and you will see a small tray area where the GPS antenna can lay flat.

All other GM vehicles have similar GPS antenna mounting locations.



INSTALL THE SYSTEM

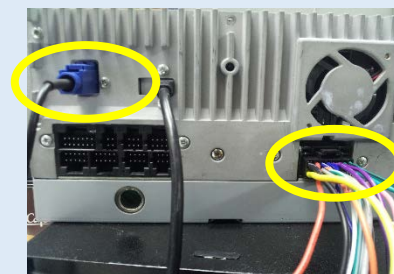
STEP 5

You will need to prepare the Car Show Navigation System for installation in the vehicle.

Connect the Power and GPS Harnesses

If you are replacing a factory GPS unit, you will already have a GPS antenna installed. **YOU MUST REPLACE IT WITH THE CAR SHOW GPS ANTENNA!** The GPS harness must be properly seated into connector.

Failure to follow this step may result in poor GPS signal

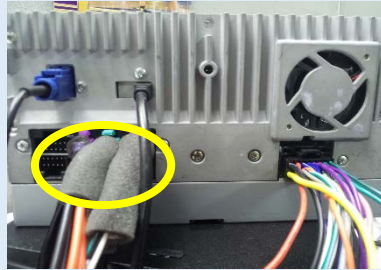


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Connect Optional Harnesses such as iPod, Satellite Radio, Camera

These harnesses must be fully engaged prior to the system installation. **Plug in and gently tug on the harness to insure that it is fully locked into the chassis.**

Parking Brake wire must be connected to vehicle parking brake lead so that viewing video is only available while vehicle's parking brake is engaged.



Vehicle Harness Connections

Be sure to securely connect all harnesses, including the factory USB cable (if you have the factory USB jack)



USB Connections

If you do not have the factory USB jack, your USB connection can be made by routing a “mini-male USB to female standard USB cable” (*not supplied*) to the location of your choice, or by adding a factory power port GM USB jack and connecting with a “mini-male to mini-male” USB cable



Mini-male to female USB cable



**Factory GM USB parts
Available on eBay for under \$35**

Main Speaker Harness

CarShow Main Harness comes **pre-configured** for Non-Bose systems. If your vehicle is equipped with Bose amplification (“Bose” on speaker grills), you will need to disconnect the Main Harness mid-cable connector and connect the PP-GM-1210-8 amp harness (shown at right).

This harness connects to the YELLOW “amp pre-out” port on back of CarShow unit.

Non-Bose systems – no changes to Main Harness are necessary

Bose Systems - Use this harness:



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CAN Module Placement

The foam-wrapped CAN module contains the speaker that reproduces the chime and turn signal sounds. Depending on where this is placed will determine speaker volume.

CHECK CHIME AND TURN SIGNAL VOLUME BEFORE FINALIZING THE INSTALLATION!



Reinsert Radio into Dashboard

You will notice that there are many more harnesses and connectors on the Car Show system than there were on the factory radio – these all now need to find a home in order for the radio to fit properly in the dash. **Take your time and be patient locating the harnesses and connectors in the dashboard!**

They will all fit – trust us! Bose vehicles generally use more of the supplied harnesses and have less room to fit them all into – On Bose vehicles, we recommend that you **PATIENTLY** locate all connectors and harnesses out the bottom “slot” in the radio opening. It is **CRITICAL** that no harnesses or connectors be located directly behind the radio chassis – the radio **WILL NOT FIT** in the radio opening if there is any obstruction behind it, and you may damage the radio if you force it into the opening!



Re-install Radio Mounting Bolts

Use 7mm socket to re-install 4 x 7mm radio mounting bolts



Re-install Climate Controls

Use 7mm socket to re-install 2 x 7mm radio mounting bolts



Turn the vehicle ON and confirm the unit is fully operational

With the connectors **Fully Engaged**, turn the vehicle on and press the **RESET** located at lower right corner of radio face



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Reconnect Dash Panel Harnesses

Carefully reconnect dash panel harnesses



Re-install Dash Trim

Cautiously re-install dash trim using caution not to break plastic. NOTE: Non-Bose vehicles may require removing upper “eyebrow” panel above instrument cluster in order to clear upper left trim

Non-Bose (L) - Bose (R)



Enable Installer Settings

STEP 6

You will need to select certain Installer setting based on any Optional Equipment that you may have installed

Launch the Installer Setting Screen

- 1) From any Screen, select “Menu”
- 2) From the Menu select “Settings”
- 3) Press “Keypad,” Press “1120” and “Enter”



Select the individual settings as needed

Selectable options vary by product and installation. Select the options as applicable for the installed optional components.



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ResLink Sat Radio Settings

Be sure that OE Sat option is configured properly.

If OEM XM radio is retained, "Factory Sat" option needs to be set to "ON."

If "aftermarket" Sirius tuner (SXV200) is being used, set "Factory Sat" option to "Off."



Perform Functionality Tests

STEP 7

You will need to perform several tests to ensure all functions operate as intended prior to finalizing the installation.

Some equipment may be optional.

Turn the vehicle ON and System ON

Confirm the unit starts up properly. ADC Mobile has a splash screen library online to allow you to install custom splash screens.

Troubleshooting

- 1) Reset the System while the Vehicle is ON
- 2) Confirm all connectors are properly installed



Select Radio as the source

Confirm that the AM and FM reception are as expected

Troubleshooting

- 1) Confirm Antenna is properly connected.



Select Satellite Radio as the source

Troubleshooting







- 1) Confirm the "Factory Sat" option is set to "On" to use factory XM tuner



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<p>Select iPod as the source</p> <p>Confirm iPod is communicating and playback is OK</p> <p><u>Troubleshooting</u></p> <p>1) Confirm the harnesses are properly engaged</p>		
<p>Select CD as the source</p> <p>Confirm CD audio playback</p> <p><u>Troubleshooting</u></p> <p>1) Confirm the disc is store bought and in good condition</p>		
<p>Select DVD as the source</p> <p>Confirm DVD video playback</p> <p><u>Troubleshooting</u></p> <p>1) Ensure the Parking Brake is set to view video</p> <p>2) Confirm the disc is store bought and in good condition</p>		
<p>Confirm the Video Disable Circuit is properly operating.</p> <p>The Brake Wire must be connected to the Park Brake Indicator Wire to complete a ground when the brake is engaged.</p>		
<p>Select Phone as the source</p> <p>Confirm Phone Pairing is successful</p> <p>Consult Quick Start Guide for Bluetooth pairing instructions</p> <p>Note: This screen will NOT appear if OEM BT is being used</p>		

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<p>Select Reverse Camera</p> <p>Confirm the backup camera screen shows in reverse</p> <p><u>Troubleshooting</u></p> <ol style="list-style-type: none"> 1) Confirm “Reverse Trigger” is set to ON in the Installer Settings 2) Confirm the Camera is receiving 12VDC as required 		
<p>Confirm OnStar Operator is heard</p> <p><u>Troubleshooting</u></p> <ol style="list-style-type: none"> 1) Confirm the OnStar Connector (BLACK) is engaged in the unit 		
<p>Steering Wheel Controls, Chimes & Turn Signals</p> <p><u>Troubleshooting</u></p> <ol style="list-style-type: none"> 1) Confirm Can Module is connected and not unplugged 2) Check RESLink FW 		

Service and Optional Parts List

<u>Part Number</u>	<u>Description</u>
PP-GM1210-2	Harness, GM-Series Main
CS-GM1012-12	Installation Guide, GM-Series
CS108	Quick Start Guide. GM-Series
PP-GM1210-5	Control, Remote GM-Series
PP-GM1210-6	Harness, Rear Video
PP-GM1210-7	Harness, Bose Subwoofer (Centerpoint)
PP-GM1210-8	Harness, STD Bose
PP-GM-LINK	GM Can Module
PP1005	Antenna, GPS, 5 meters
PP1006	Ground Plate, GPS Antenna
PP1007	Harness, Line Level Pre-Out w/ Sub
PP1008	Harness, AUX IN/Cam In**
PP1009	Harness, AUX Out**
PP1011	Harness, External BT Mic
PP1012	Harness, AUX in 3.5/RCA
PP1014	Display Cleaning Cloth
PP1010	Harness, Sirius Tuner*
DP-1047	GPS Antenna Windshield Mount*
VM-201	Camera, Lip Mount*
EV-GMTH	Camera, Tailgate 2014 Silverado/Sierra 1500*
EV-GMTR	Camera, 2007-2013 Silverado/Sierra 1500, 2007-2014 Silverado/Sierra HD*

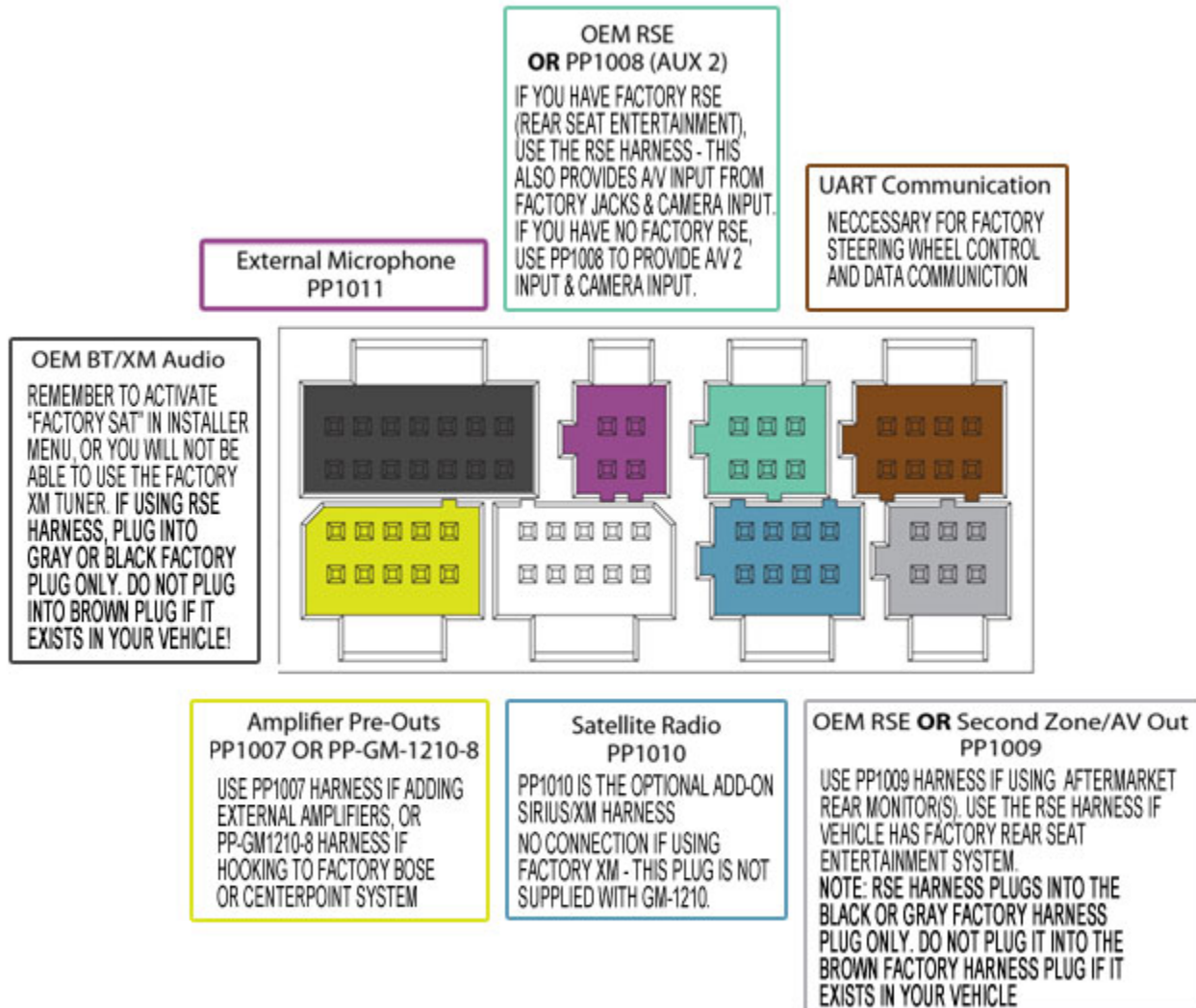
* Optional Accessories

** Cannot be used in vehicles equipped with **OEM** Rear Seat Entertainment

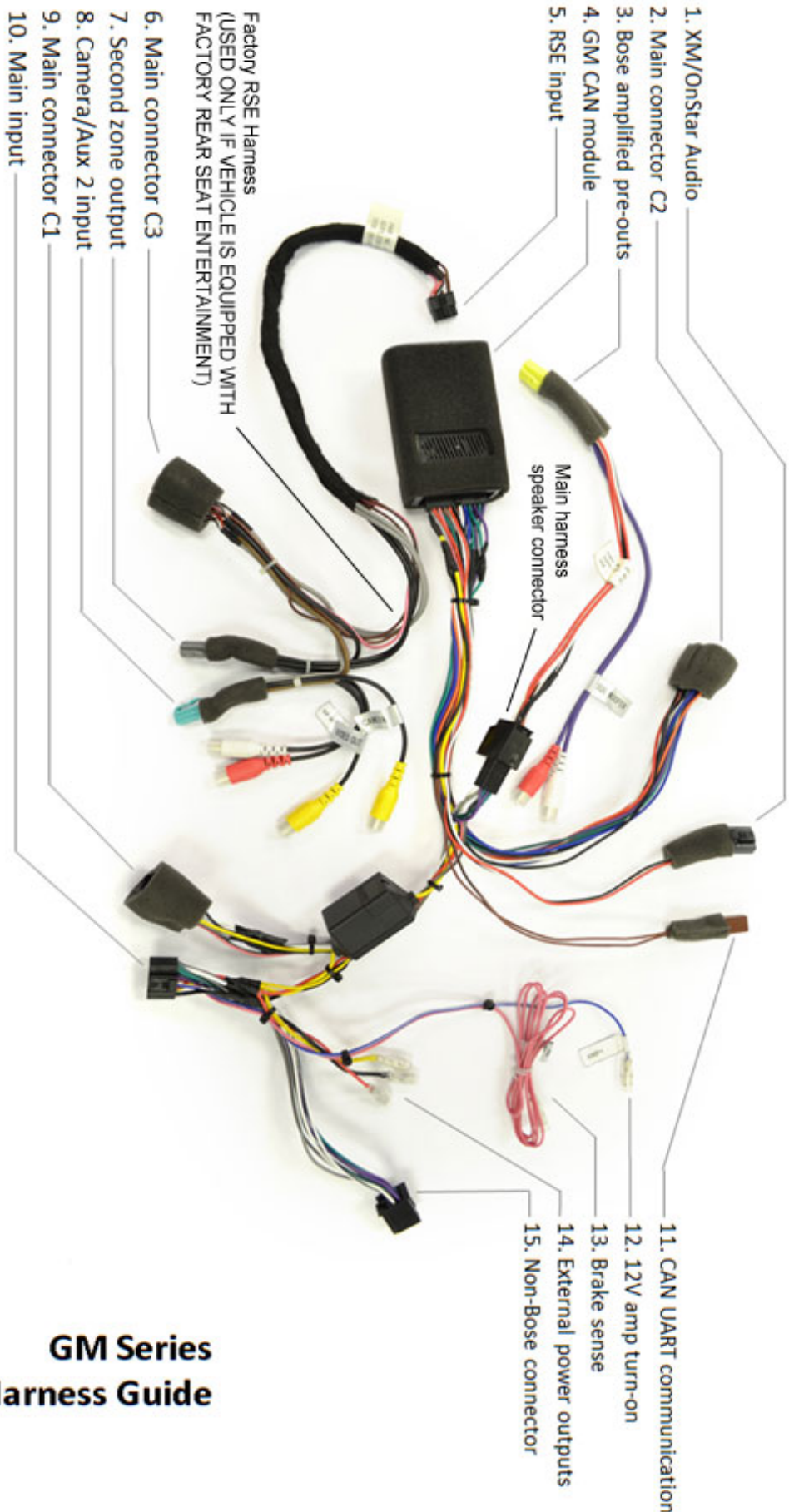
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Harness Diagram

Back Of CarShow Unit



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GM Series Harness Guide

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CAUTION:

The External Power Outputs (#14) may be used to provide a fused constant 12V source (yellow) and ground (black), but the red lead cannot support a draw of more than 500ma and cannot be used as an accessory source of power without the use of a relay!

DO NOT HOOK ANY ACCESSORIES SUCH AS A CAMERA OR REAR ENTERTAINMENT DIRECTLY TO THIS LEAD! UNPREDICTABLE OPERATION AND/OR SYSTEM FAILURE WILL RESULT!

- 1. XM/OnStar audio** – Connects to the rear of the radio to supply audio for the factory XM and factory OnStar audio
- 2. Main connector C2** – Connects to the OEM radio secondary plug
- 3. Bose amplifier pre-outs** – Connects to the back of the radio and to the main harness for use with Bose amplified systems only
- 4. GM CAN module** – Translates CAN data between the vehicle and the navigation system
- 5. RSE input** – Connects to the CAN module to integrate the OEM Rear Seat Entertainment systems
- 6. Main connector C3** – Connects to the OEM Rear Seat Entertainment plug
- 7. Second zone output** – Replaces the PP-1009 when OEM Rear Seat Entertainment is present
- 8. Camera/Aux 2 input** – Replaces the PP-1008 harness when OEM Rear Seat Entertainment is present
- 9. Main connector C1** – Adapts to the OEM radio main plug
- 10. Main input** – Connects to the back of the navigation to supply power and high level speaker outputs
- 11. CAN UART communication** – Plugs into the rear of the radio and controls OnStar and steering wheel control data
- 12. 12V amp turn-on** – 12 Volt+ amplifier turn on trigger
- 13. Brake sense** – Must be connected to the parking brake sense wire to disable video capability while driving
- 14. External power outputs** – Optional power and ground outputs
- 15. Non-Bose connector** – Used instead of the Bose amplified harness in most non-Bose vehicles

GM Harness Trouble Shooting Guide

Bose amplified system is overdriven

Connect the Bose low level adaptor harness

Non-Bose system has low volume

Verify the Bose low level outputs are not connected in place of the non-Bose high level harness

Steering wheel controls are unresponsive

Connect the CAN UART communication plug into the back of the radio

Rear Seat Entertainment does not work

Verify the RES input is connected to the CAN module and connector C3 is connected to the OEM C3 plug

Radio and CAN module are unresponsive

Check the connection of connector C1 and Plug C1

Check the main connection at the CAN module

Check the fuse located in the power filter near connector C1

Check all vehicle fusing

XM/OnStar has no audio

Verify the XM/OnStar plug is connected

For all other problems

Recheck all connections and fuses then reset the radio if possible before contacting CarShow Electronics Technical Support