

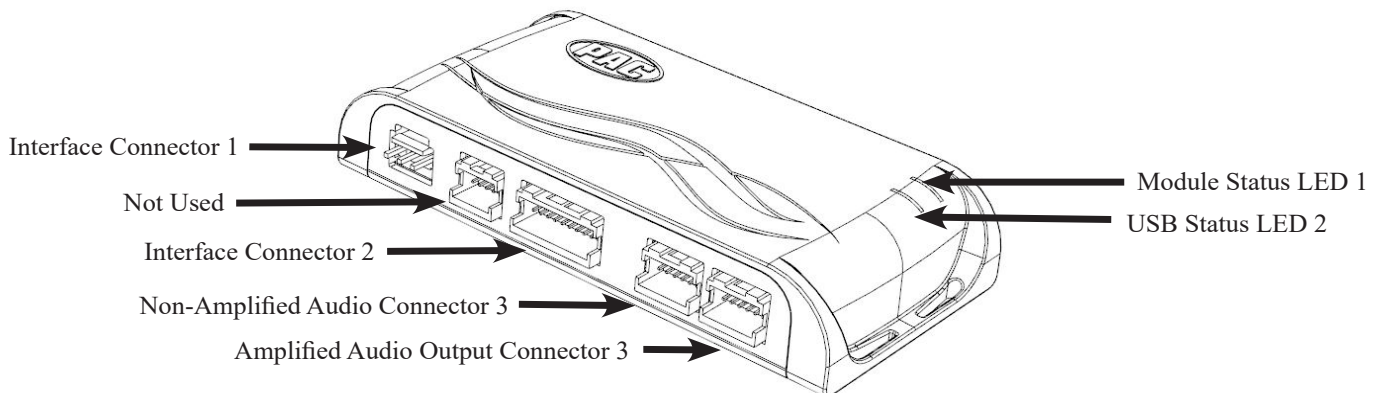
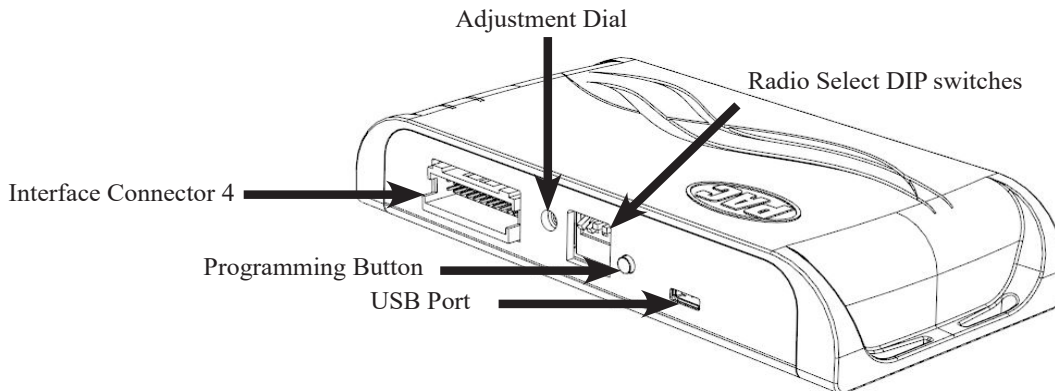
## Introduction and Features

The RP5-GM11 interface allows the replacement of a factory radio in select General Motors vehicles with the Class II Data-Bus. Using this interface will retain factory features such as Warning Chimes, Bose Amplifier, Steering Wheel Controls (SWC), Rear Seat Entertainment (RSE), and Rear Seat Controls (RSC) when the original radio is removed. The RP5-GM11 provides data bus driven outputs such as retained accessory power (RAP), vehicle speed signal (VSS), illumination, reverse trigger and parking brake.

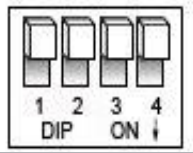
## Important Notes

1. Aftermarket radio must have an auxiliary input in order to retain RSE audio.
2. Aftermarket radios with a 2-wire resistive based SWC circuit will not have default button assignments programmed. Please refer to the owners manual of the radio you are installing to find out the proper SWC programming procedure.
3. If the vehicle chimes when the radio is removed, the CMX is not necessary. In order to get the best possible sound out of the CMX, please mount it in a place free and clear of any obstructions, preferably as close as possible to the bottom of the dash pointing down toward the floor of the vehicle.
4. The external speaker, part number (RP-SPX, Sold Separately) must be used when installing a 4 channel amplifier to retain the OnStar prompts. It can be purchased through any PAC authorized dealers if required for your installation.

## Module Layout



## Installation Steps



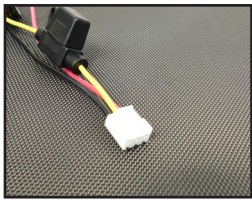
Set DIP switches that correspond with your radio to the ON position.  
Set all other DIP switches to the OFF position.



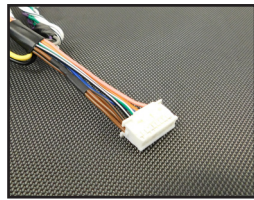
Alpine	JVC	Kenwood / Lightning Audio	Stinger	Clarion / Nakamichi	All Other Brands	Pioneer	Sony	Fusion
1	2	1 & 2	3	3	1, 2, & 3	1, 2, & 3	4	1 & 4

If your brand is not listed above, please use "ALL OTHER BRANDS."

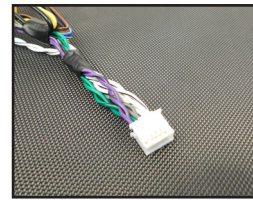
1. Set the Radio Select DIP switches according to the radio you are installing.
2. Wire your aftermarket radio to the RP5-GM11's harness according to the wiring connections chart below.
3. The Brown mute loop in Interface **Connector 4** (if not cut) will turn the RP5's accessory output off when any OnStar function is active. If the aftermarket radio has a mute input, cut this loop and connect the Brown wire in pin 23 to it. This pin is located in the top row next to the solid blue wire. (The top of the connector has the locking tab on it).
4. Plug Interface **Connectors 1 and 2** into the appropriate ports on the RP5-GM11 interface (using the diagram on Page 1 or the label on the bottom of the interface to identify the connector ports).
5. The **Connector 3** connection will be dependent upon whether or not the vehicle has a factory amplified system. Plug this connector into one of the two ports on the RP5-GM11 (using the diagram on Page 1 or the label on the bottom of the interface to identify the port appropriate for the installation).
6. If the aftermarket radio is equipped with an auxiliary input and you wish to retain the factory RSE audio, plug the RCA connectors from the Vehicle **Connector 2** into the radios auxiliary input.
7. Remove the factory radio and plug in the RP5-GM11's Vehicle **Connector 1** and Vehicle **Connector 2** into the factory vehicle harness.
8. If you wish to reassign functions to the SWC, follow the Optional Steering Wheel Control Programming on Page 4.
9. Plug the 2-Pin connector into the **CMX Chime Module** (If the vehicle chimes when the radio is removed, the CMX is not necessary). **PLEASE NOTE:** In order to get the best possible sound out of the CMX, please mount it in a place free and clear of any obstructions, preferably as close as possible to the bottom of the dash pointing down toward the floor of the vehicle.



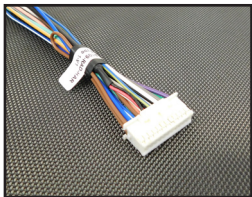
**Interface Connector 1**  
(3-pin)



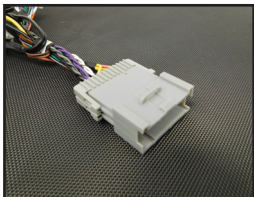
**Interface Connector 2**  
(20-pin)



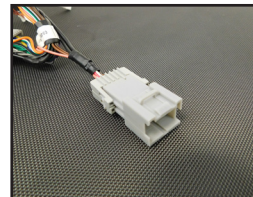
**Interface Connector 3**  
(12-pin)



**Interface Connector 4**  
(24-pin)



**Vehicle Connector 1**  
(24-pin)



**Vehicle Connector 2**  
(12-pin)



**CMX Chime Module**

## Wiring Connections

Yellow	12v+
Red	Accessory Output (10 amp)
Black	Ground
Brown Loop	Mute Output
Blue	Not Used
Blue / White	Remote On Input
Orange	Not Used
Orange / White	Illumination Output
Purple / White	Reverse Output (+)
Light Green	Parking Brake Output (-)
Pink	Vehicle Speed Signal (VSS) Output
Blue / Yellow	SWC Output / Key 1
Brown	SWC Output / Key 2
3.5 mm Jack	SWC Output
Purple	Rear R + input
Purple / Black	Rear R - input
Green	Rear L + input
Green / Black	Rear L - input
Gray	Front R + input
Gray / Black	Front R - input
White	Front L + input
White / Black	Front L - input

## Programming Button and Adjustment Dial Functions

You can press and hold the programming button on the side of the interface to access different programming modes. Once the LED is lit to the mode you desire (see below for modes), immediately release the programming button to access that mode.

### PLEASE NOTE:

- This process must be done with the interface in the vehicle and the key in the ignition position.
- A. **1 Chime and LED 1 flash green: SWC re-assignment.** This allows you to re-assign the SWC functions to the buttons of your choice. Please see the Optional Steering Wheel Control Programming instructions on Page 4 for more details.
- B. **2 Chimes and LED 1 flash amber: SWC re-calibration** (this mode is available in the **Corvette only**). This allows you to re-calibrate the analog SWC in the event they fall out of the expected range and do not function properly. If data control SWC are detected by the interface, this mode will be automatically skipped.
- C. **4 Chimes and LED 1 flash red: Master reset.** This does a master reset of the interface and restores the following settings to factory defaults:
  - SWC Mapping
  - SWC Calibration

## Default Steering Wheel Control Programming

### Default SWC Button Assignments

	Alpine	JVC	Kenwood	Stinger	Clarion	Pioneer	Sony
<b>Volume +</b>	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
<b>Volume -</b>	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
<b>Source Up</b>	Source	Source	Disc/FM+	Source	Source	Source	Source
<b>Source Down</b>	Band	Preset +	Disc/AM	N/P	N/P	Band	Band
<b>Seek Up</b>	Track +	Track +	Track +	Search +	Search +	Track +	Track +
<b>Seek Down</b>	Track -	Track -	Track -	Search -	Search -	Track -	Track -
<b>Voice</b>	OnStar	OnStar	OnStar	OnStar	OnStar	OnStar	OnStar
<b>Prog</b>	Preset Up	Preset -	Source	Band	Band	Preset +	Preset +

\*Voice default is OnStar. If Onstar retention is not necessary, unplug the OnStar module to default to voice.

### Default SWC Button Assignments (Corvette)

	Alpine	JVC	Kenwood	Stinger	Clarion	Pioneer	Sony
<b>Volume +</b>	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
<b>Volume -</b>	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
<b>Seek Up</b>	Track +	Track +	Track +	Search +	Search +	Track +	Track +
<b>Seek Down</b>	Track -	Track -	Track -	Search -	Search -	Track -	Track -
<b>Voice</b>	OnStar	OnStar	OnStar	OnStar	OnStar	OnStar	OnStar
<b>End</b>	Source	Source	Source	Source	Source	Source	Source

\*Voice default is OnStar. If Onstar retention is not necessary, unplug the OnStar module to default to voice.



## Optional Steering Wheel Control Programming

### Programming

1. Turn the key to the ignition position.
2. Press and hold programming button on the side of the interface until LED 1 blinks green then release programming button and the LED will go solid green.
3. Within 7 seconds, press the button that is to be learned on the steering wheel. LED 1 will turn red when the button is pressed.

**At this point you have two options:**

**A. For short press functionality:** Release the button within 1.5 seconds. LED 1 will turn back to green.

**B. For long press functionality:** Hold the button until LED 1 starts blinking. Release the button and the LED will go back to green.

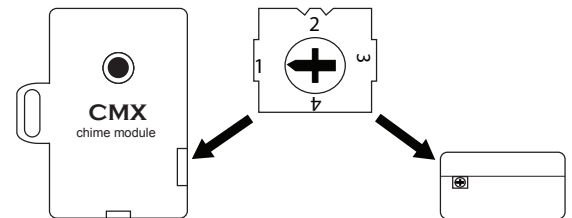
4. Repeat step 3 for each additional audio function on the steering wheel.
5. If you come across a function in the chart that your steering wheel does not have, or you do not want to program, press and release the program button on the side of the interface to skip that function.
6. Once programming is completed, wait seven seconds. LED 1 will flash three times indicating end of programming.
7. Test the interface for proper functionality. Whenever a SWC is pressed LED 1 will illuminate green.
8. If any function does not work, repeat the programming steps.

### Optional Programming Order

	Alpine	JVC	Kenwood / Lightning Audio	Stinger	Clarion / Nakamichi	All other Brands	Pioneer	Sony
1	Volume +	Volume +	Volume +	Volume +	Volume +	No specific programming order. Please refer to the owner's manual of your radio for SWC programming instructions.	Volume +	Volume +
2	Volume -	Volume -	Volume -	Volume -	Volume -		Volume -	Volume -
3	Mute	Mute	Mute	Mute	Mute		Mute	Mute
4	Preset +	Source	Source	Source	Source		Preset +	Preset +
5	Preset -	Track +	Play	Search +	Search +		Preset -	Preset -
6	Source	Track -	Track +	Search -	Search -		Source	Source / End Call
7	Track +	Band / Disc +	Track -	Band	Band		Track +	Track +
8	Track -	Preset / Disc -	Disc / FM +	Send / End	Send / End		Track -	Track -
9	Power	Select	Disc / AM -	Send	Send		Band	Band
10	Enter / Play	Attenuation	Answer	End	End		Phone Menu	Power / End Call
11	Band / Program	Phone Receive	Voice	Voice	Voice		Answer Call	Voice / Answer / End Call
12	Receive	Phone Reject	On Hook				End Call	Voice (Android Auto & Car Play) Answer / End Call****
13	End	Voice	Off Hook				Voice	
14	Voice	Power	Mute					
15			Preset +					
If your brand is not listed above, please use "ALL OTHER BRANDS."								
Please Note: On any entry with multiple commands, the commands shown are source dependent.								

## Testing and Verification

1. Turn the ignition on. LED 1 will illuminate red and the +12v accessory wire will turn on.
2. Turn on the radio and check chimes, volume, balance, and fader.
3. **In vehicles equipped with Premium Bose (Y91 / UQA):** If the overall volume is too low, use the adjustment dial on the side of the interface to set it to the desired level. The best way to do this is to turn the volume on the radio to 3/4 volume, then turn the adjustment dial on the RP5-GM11 clockwise until some distortion is heard, then counter-clockwise a little.
4. Verify that all SWC buttons are functioning properly for both the aftermarket radio and OnStar. To adjust OnStar volume, press the OnStar button on the mirror then use the volume buttons on the SWC, or the adjustment dial on the side of the module to adjust the level. When you hear a chime during this process it means you have reached the farthest minimum / maximum level.
5. Pressing the OnStar button on the rearview mirror will turn off the rear speakers and allow the OnStar audio to be heard in the two front speakers. The OnStar active LED 2 will also turn on. When OnStar disconnects, the radio will un-mute or turn back on and the OnStar LED will turn off. Pressing the VR / OnStar button on the steering wheel will also activate OnStar.
6. Turn off vehicle and remove key. RAP will be active and keep the radio on for 10 minutes or until any door is opened.
7. The LED 1 and radio will turn off when RAP turns off or until any door is opened.
8. Use the 4-position selector switch located on the side of the CMX chime module to select the best chime output volume for your specific installation. Setting 1 being loudest and 4 being softest.





## SWC Re-calibration Procedure (Corvette Only)

**Please Note: This is only necessary if after installation, the SWC are acting erratic or unresponsive in the Corvette.**

1. Turn the key to the ignition position.
2. Press and hold the programming button until LED 1 blinks amber and you hear two chimes. When this happens, release the programming button.
3. Within 7 seconds, press and hold the button that is to be learned on the steering wheel. The LED 1 will turn off when the button is pressed and begin blinking when the value has been learned. Once the LED 1 begins blinking, release the button.
4. Repeat step 3 for each additional function on the steering wheel.
5. If you come to a button in the list that your vehicle does not have, skip it by pressing the programming button on the interface. Any buttons not learned during this process will not function.
6. Once programming is completed, the LED 1 will flash amber 3 times indicating end of programming.
7. Test the interface for proper functionality. Whenever a SWC is pressed LED 1 on the interface should blink green. If any function does not work, repeat the programming steps.

Button Programming Order
Volume Up
Volume Down
Seek Up
Seek Down
Preset
Answer / Voice
Hang Up
Preset Up

## Rear Seat Entertainment (RSE); If equipped

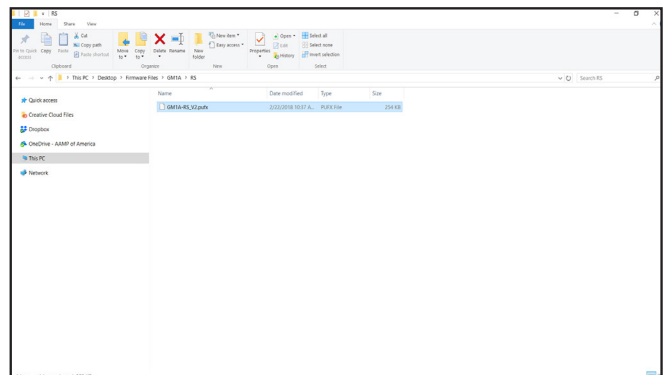
The factory RSE system will function independently from the aftermarket radio. The unit will power up and pass audio through the headphones as long as the vehicle's ignition is on. If you wish to pass audio from the RSE to the aftermarket radio you must connect the RCAs from the 12-pin connector to the aftermarket radios auxiliary input. Select the aftermarket radios auxiliary input to hear RSE audio.

## RadioPRO PC App

### Firmware Updates

The RadioPRO PC app will allow you to update the interface with new firmware as it becomes available. Please visit <https://pac-audio.com/firmware-updates/> for available updates.

Connect the interface to your PC and select "Firmware", then "Update Firmware". Now select "Select File". Finally, browse to the place where you saved the file and select it. This will begin the updating process. Once finished, disconnect the interface from the PC and test operation.



## Technical Support

Email: [support@PAC-audio.com](mailto:support@PAC-audio.com)

Toll Free: 866-931-8021

Standard / International: 727-592-5991



## Overview

**Symptom:** The 12v+ accessory output drops out at high volume causing the aftermarket radio to shut down.

**Cause:** Aftermarket radios with high powered speaker outputs, played at high volumes, cause the interface's components to overheat, thus resulting in the 12v accessory output failure.

**Solution:** Wire 3 of the 4 factory speakers directly to the outputs of the aftermarket radio, bypassing the interface. You will need to leave the front left speaker wired through the interface in order to retain the OnStar functionality.

## Disconnect the Speaker Wires

The RadioPRO5 Module has 2 harnesses:

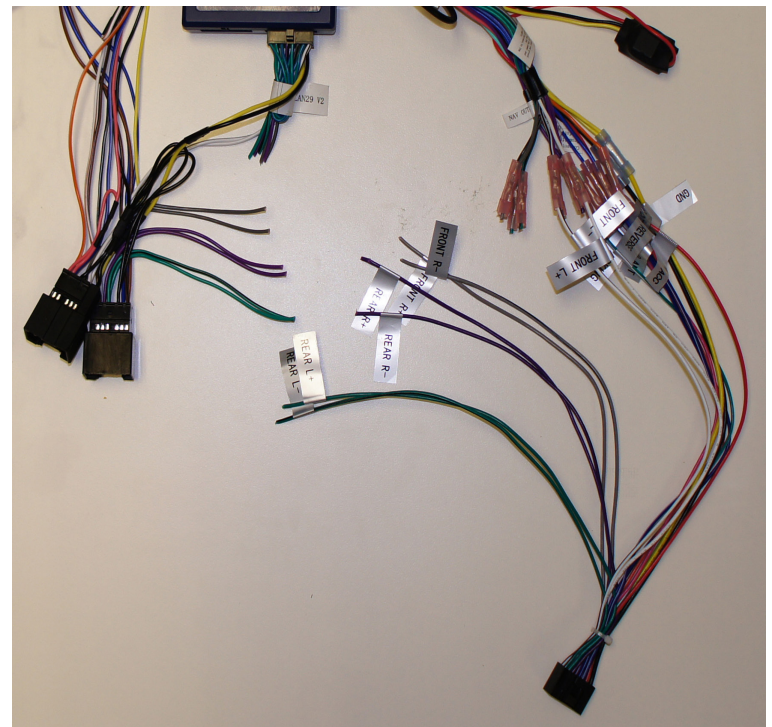
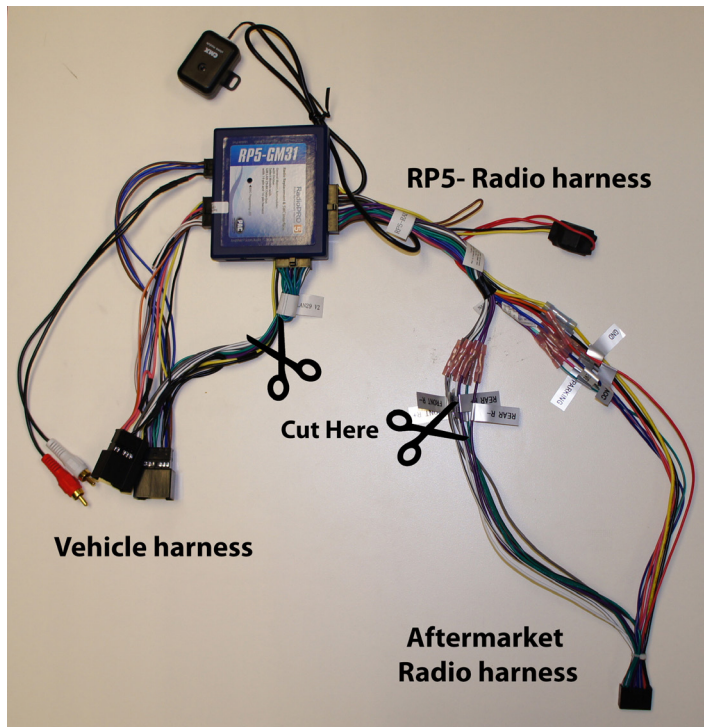
- a. RP5-Radio harness (RP5-RADPWRAUDIO)
- b. Vehicle harness (OS-GMLAN29)

1. Disconnect speaker wires from the Aftermarket Radio harness

- a. Cut the positive and negative speaker wires for the Left Rear, Right Rear and Right Front channels, away from the RP5-Radio harness.
- b. NOTE: The Left Front speaker wires must remain connected for OnStar audio.

2. Modify the Vehicle harness

- a. Cut the positive and negative speaker wires for the Left Rear, Right Rear and Right Front channels, away from the RP5 module.
- b. NOTE: The Left Front speaker wires must remain connected for OnStar audio.



## Reconnect the Speaker Wires

1. Connect the 3 channels of speaker wires from the Aftermarket Radio harness to the speaker wires on the Vehicle harness, bypassing the RP5 module, as shown below.

