Radio Replacement Interface with Telematics Retention For select General Motors Vehicles With 29 Bit Data Systems

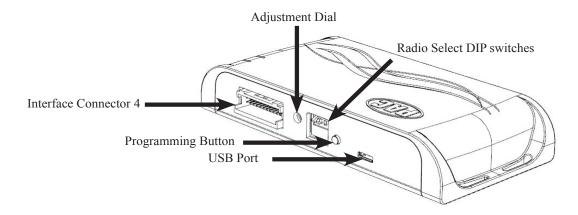
Introduction and Features

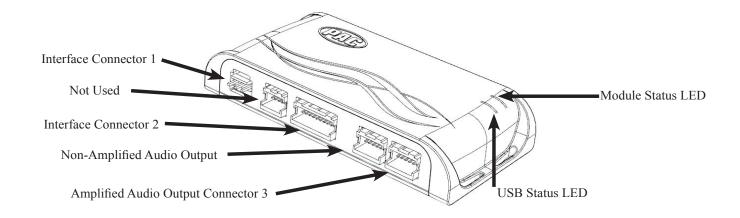
The OS-5 interface allows the replacement of a factory radio in select General Motors vehicles with 29 Bit Data-Bus. Using this interface will retain factory features such as Warning Chimes, Bose Amplifier, Rear Seat Entertainment (RSE), and Rear Seat Controls (RSC) when the original radio is removed. The OS-5 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. 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.

Module Layout







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Installation Steps

- 1. Wire your aftermarket radio to the OS-5's harness according to the wiring connections chart below.
- 2. The Brown mute loop in Interface Connector 4 (if not cut) will turn the OS-5'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).
- 3. Plug Interface Connectors 1 and 2 into the appropriate ports on the OS-5 interface (using the diagram on Page 1 or the label on the bottom of the interface).
- 4. The Connector 3 connection will be dependent upon whether or not the vehicle has a factory amplified system. Plug this connector into the appropriate port on the OS-5 (using the diagram on Page 1 or the label on the bottom of the interface).
- 5. If the aftermarket radio is equipped with an auxiliary input and you wish to retain the factory RSE audio, you must use the part# GMRVD (Sold Separately).
- 6. Remove the factory radio and plug in the OS-5's Vehicle Connector 1 and Vehicle Connector 2 into the factory vehicle harness.
- 7. 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.



(3-pin)



Interface Connector 1 Interface Connector 2 (20-pin)



Interface Connector 3 (12-pin)



Interface Connector 4 (24-pin)



Vehicle Connector 1 (14-pin)



Vehicle Connector 2 (16-pin)

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			



CMX Chime Module

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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. 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

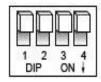
SWI-DIRECT Steering Wheel Control Output Connector

If you are using the SWI-RC-1 or SWI-CP2 please follow the steps below. Refer to the figure to the right to set the bank of eight Dip-Switches.

Refer to the guide below for setting the bank of four Dip-Switches based on your radios manufacturer.







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

Alpine	JAC	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

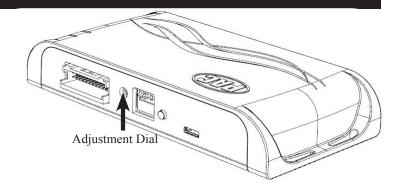
If your brand is not listed above, please use "ALL OTHER BRANDS."

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 OS-5 clockwise until some distortion is heard, then counter-clockwise a little.
- 4. 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 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 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.

OnStar Volume Adjustment for Vehicles without SWC

1. When OnStar is active use the adjustment dial on the side of the module to raise or lower the OnStar volume to the desired level.



CMX



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Rear Seat Entertainment (RSE); If equipped

1. Vehicles equipped with an overhead screen only:

In this application the **GMRVD** must be used in order to feed A/V into the factory screen from an aftermarket head unit (head unit must support A/V out). With the **GMRVD**, A/V will be passed from the aftermarket head unit to the rear screen and audio can be heard through the headphones. The **GMRVD** will also pass the Auxiliary inputs on the rear of the center console to the aftermarket head unit.

2. Vehicles equipped with an overhead screen AND headrest monitors:

In this application the headrest monitors will function independently from the overhead monitor. Neither video or audio can be passed to or from the headrest monitors. The overhead monitor will function exactly as described in #1.

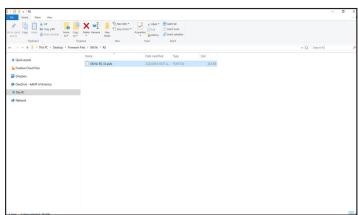
RadioPRO PC App

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

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Standard / International: 727-592-5991



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