

RP4-GM11

Radio Replacement and Steering Wheel Control
Interface for Select General Motors Vehicles

Introduction and Features

The RP4-GM11 interface allows the replacement of a factory radio in select General Motors vehicles with Class II radios. Using this interface will retain factory features such as steering wheel controls (SWC), Warning Chimes, Rear Seat Controls (RSC, select vehicles) and the BOSE amplifier (Standard or Premium) when the original radio is removed. Use of this interface also allows you to program two radio functions to each SWC button by using short press long press dual command functionality. The RP4-GM11 also provides data bus driven outputs such as retained accessory power (RAP), vehicle speed sensor (VSS), illumination, reverse trigger and parking brake.

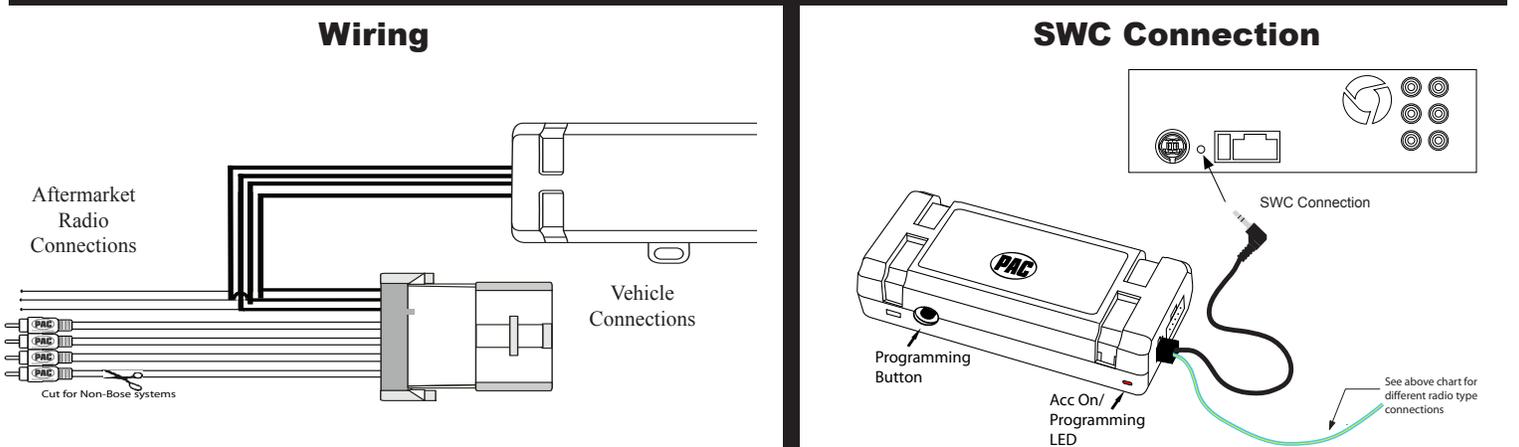
Important Notes

1. These instructions only apply to R.2.2.6.8 or later revisions. The revision info can be found on a small white sticker on the interface and packaging.
2. The radio select rotary switch on the side of the interface must be adjusted to the proper radio setting before plugging the interface into the vehicle (see page 2 for setting chart).
3. The interface comes pre-programmed for all of the vehicle's factory SWC functions and does not require programming unless you wish to re-assign the SWC functions, or utilize short press long press dual command functionality. The SWC can always be restored to default settings by pressing and releasing the program button on the side of the interface once, and waiting 7 seconds for the LED to flash 4 times. **PLEASE NOTE: Due to the many different possible OEM SWC configurations, some applications may need to be reprogrammed for the SWC assignments to make sense.**
4. RSC buttons that are identical to the SWC will mimic the SWC one for one.
5. **To prevent over driven audio** when installing into a vehicle with a Bose system and the aftermarket radio does not have low level outputs then a 4 channel or 2 x 2 channel LOC's are recommended to match the input voltage. We recommend the LP5-4 or two LP5-2 or any other LOC that have the same characteristics as the LP5-4 or LP5-2 will work as well.
6. **To prevent ground loop or engine noise** when installing aftermarket radios that use a common ground on the RCA outputs, a pair of ground loop isolators (part # SNI-1 or LPGL-2) are required.
7. The LED will flash whenever a SWC button is pressed.

Wiring Connection Chart

Interface Connector		Vehicle Connector		SWC Connector	
Red / White	Parking Brake Output (-)	Yellow	Battery +12v	Blue / Yellow	Kenwood, Newer JVC
Purple / White	Vehicle Speed Output	Black	Ground	3.5mm Jack	Alpine, JVC, Clarion, Fusion, Pioneer, Sony, Boyo, Dual, Lightning Audio, Visteon or Advent
Blue / White	Amp Turn On Input	White	Front L + input		
Red	Accessory Output (10 Amp)	White / Black	Front L - input		
Orange / White	Illumination Output (+)	Gray	Front R + input		
Green	Reverse Output (+)	Gray / Black	Front R - input		
		Green	Rear L + input		
		Green / Black	Rear L - input		
		Purple	Rear R + input		
		Purple / Black	Rear R - input		

Illustration / Schematic



Installation Steps



SET RADIO SELECT SWITCH

Alpine	JVC	Kenwood / Lightning Audio	Clarion / Nakamichi	Pioneer / Other*	Sony	Fusion
1	2	3	4	7	8	9

*Other - Dual / Axxera, Jensen, Rockford Fosgate

1. The radio select rotary switch on the side of the interface must be adjusted to the proper radio setting before plugging the interface into the vehicle.
2. Make all connections as described in the chart on page 1. **If there is a Bose® Audio system present:** Connect the RCA inputs to the aftermarket radio's pre-amp output. The audio level will vary depending on the new radio's pre-amp output voltage (2-4 volts is recommended). **If there is not a Bose® Audio system present:** Cut off the RCA inputs, and connect the aftermarket radio's speaker outputs to the remaining wire according to the chart on page 1.
3. Connect the SWC wire according to the chart on page 1 (aftermarket radio MUST support a wired remote input).
4. If you wish to reassign functions to the SWC, follow the "Optional Steering Wheel Control Programming" instructions below.

Default Steering Wheel Control Programming

IMPORTANT! The interface comes pre-programmed for the functions listed in the chart below, and does not require programming unless you wish to re-assign the SWC functions to different buttons. The SWC can always be restored to default settings by pressing the program button on the side of the interface once, and waiting for the timeout. **PLEASE NOTE: Due to the many different possible OEM SWC configurations, some applications may need to be reprogrammed for the SWC assignments to make sense.**

Default SWC Button Assignments (Trucks & SUVs)

	Alpine	JVC	Kenwood	Clarion	Sony / Pioneer	Fusion
Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
Source Up	Source	Source	Disc/FM+	Source	Source	Source
Source Down	Band	Preset +	Disc/AM	N/P	Band	Off
Seek Up	Track +	Track +	Track +	Search +	Track +	Track +
Seek Down	Track -	Track -	Track -	Search -	Track -	Track -
Voice	Voice	Voice	Voice	Voice	Voice	Mute
Prog	Preset Up	Preset -	Source	Band	Preset +	Audio

Default SWC Button Assignments (Corvette)

	Alpine	JVC	Kenwood	Clarion	Sony / Pioneer	Fusion
Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
Seek Up	Track +	Track +	Track +	Search +	Track +	Track +
Seek Down	Track -	Track -	Track -	Search -	Track -	Track -
Voice	Voice	Voice	Voice	Voice	Voice	Mute
End	Source	Source	Source	Source	Source	Source

Optional Steering Wheel Control Programming

If you wish to re-assign the SWC functions or utilize short press long press dual command functionality, the interface must be programmed in the specific order shown on the chart on the next page. 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 programming button on the side of the interface to skip that function. The LED will flash off and on confirming that you have successfully skipped that function and are ready to proceed to the next one.

Short Press Long Press Dual Command Functionality

This feature allows you to assign two aftermarket radio functions to each of the vehicle's SWC buttons. It can be used with as many of the buttons as the user likes or none at all. When this functionality is implemented, quickly pressing and releasing a SWC button will initiate the short press command, while pressing and holding a SWC button for longer than two seconds will initiate the long press command. Please note that no long press commands are programmed by default. If you wish to assign dual command functionality to the SWC please follow the programming steps on the next page.



Optional Steering Wheel Control Programming (cont.)

Programming

1. Turn the key to the ignition position.
2. Press and release programming button on the side of the interface.
3. Within 7 seconds, press the button that is to be learned on the steering wheel. The LED will turn off when the button is pressed.

At this point you have two options:

- A. For short press functionality:** Release the button within 1.5 seconds. The LED will turn back on.
 - B. For long press functionality:** Hold the button until the LED starts blinking. Release the button and the LED will go back to solid.
4. If you need to program more buttons, 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. The LED will flash three times indicating end of programming.
 7. Test the interface for proper functionality. Whenever a SWC is pressed the LED on the interface should blink. If any function does not work, repeat the programming steps

Optional Programming Order

	Alpine	JVC	Kenwood	Clarion	Other *	Pioneer	Sony	Fusion
1	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
2	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
3	Mute	Mute	ATT	Mute	Mute	Mute	Mute	Mute
4	Preset +	Source	Source	Source	Preset +	Preset +	Preset +	Source
5	Preset -	Track +	Play	Search +	Preset -	Preset -	Preset -	Track +
6	Source	Track -	Track +	Search -	Source	Source	Source / End Call	Track -
7	Track +	Band / Disc +	Track -	Band	Track +	Track +	Track +	Audio
8	Track -	Preset / Disc -	Disc / FM +	Send / End	Track -	Track -	Track -	Power
9	Power	Select	Disc / AM -	Send	Band	Band	Band	
10	Enter / Play	Attenuation	Answer	End	Answer **	Phone Menu	Power / End Call	
11	Band / Program	Phone Receive	Voice	Voice	End**	Answer Call	Voice / Answer / End Call	
12	Receive	Phone Reject	On Hook		PTT **	End Call	Voice (Android Auto & Car Play) Answer / End Call ***	
13	End	Voice	Off Hook			Voice		
14	Voice	Power	Mute					
15			Preset +					

* Advent, Boyo, Dual, Lightning Audio, Jensen, Rockford Fosgate & Visteon ** Jensen & Advent ONLY *** XAV-AX100 Only

Testing and Verification

1. Turn the ignition on. The LED on the interface will turn on & the +12v accessory wire will turn on.
2. Turn on the radio and check balance and fade. Note: **Premium Factory amplified Systems will not fade** as neither the aftermarket radio, or the RP interface, have the ability to control the amplifier's fader.
3. Verify that the factory subwoofer (if present) is playing.
4. Verify that all SWC are functioning properly.
5. Turn off vehicle and remove key. RAP will be active and keep the radio on for 10 minutes, or until the driver's door is opened.
6. The LED and radio will turn off when RAP turns off, or the driver's door is opened.

Rear Seat Entertainment (RSE); If equipped

- 1. Vehicles equipped with a DVD player built into the rear screen assembly:**
The RP4-GM11 will allow the VES DVD player and rear screen to function as if the factory radio were present. A/V will be passed from the factory DVD player to the rear screen and audio can be heard through the headphones. A/V cannot be passed from the factory DVD player to the aftermarket head unit.

Product Updates (Firmware)

The RP4-GM11 can be updated with new firmware as it becomes available using the PAC-UP interface updater (sold separately). Please visit www.pac-audio.com/firmware for available updates.

