RadioPRO 4
Radio Replacement Interface

RP4-GM41
Radio Replacement & Steering Wheel Control Interface
for General Motors Vehicles

Introduction & Features

The **RP4-GM41** interface allows the replacement of a factory radio in select General Motors vehicles with 29-bit LAN v2 44-pin connector radios. Using this interface will retain factory features such as steering wheel controls (SWC) & Warning Chimes 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-GM41 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. Once the radio has been removed, the vehicle settings which are normally selected through the factory radio can be accessed by downloading and installing the PAC Vehicle Settings program from ***http://www.pac-audio.com/firmware/RP/index.html.*** Please make your vehicle settings selections before removing the factory radio for optimal installation time.

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 below for setting chart).

3. The interface comes pre-programmed for all of the vehicles 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.

4. The LED will flash whenever a SWC button is pressed.

5. BAADIN22 antenna adapter sold separately

Wiring Connection Chart

Interface Connector

Red / White	Parking Brake Output (-)
Purple / White	Vehicle Speed Output
Blue	Not Used
Blue / White	Not Used
Red	Accessory Output (1 amp)
Orange / White	Illumination Output (+)
Green	Reverse Output (+)

Vehicle Connector

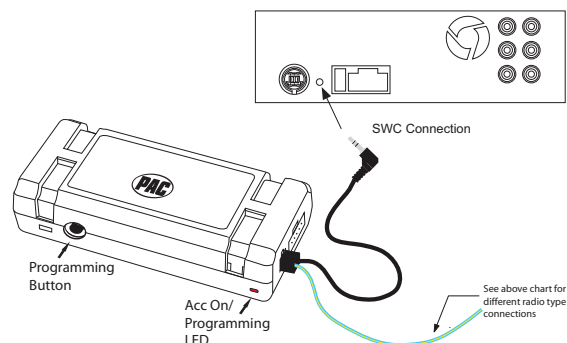|	
Yellow	Battery +12v
Black	Ground
Blue/White	Not Used
White	Front L + input
White / Black	Front L - input
Grey	Front R + input
Grey / Black	Front R - input
Green	Rear L + input
Green / Black	Rear L - input
Purple	Rear R + input
Purple / Black	Rear R - input
Red/White RCA	Factory AUX Jack

SWC Connector

Blue/Yellow	Kenwood, Newer JVC, OEM or Blaupunkt
3.5mm Jack	Alpine, JVC, Clarion, Fusion, Pioneer, Sony, Valor, Boyo, Dual, Lightning Audio, Visteon or Advent

Illustration / Schematic

Wiring

Vehicle Connector
See above chart for
wire color description.

Interface Connector
See above chart for
wire color descriptions.

SWC Connection

SWC Connection

Programming Button

Acc On/ Programming LED

See above chart for different radio type connections
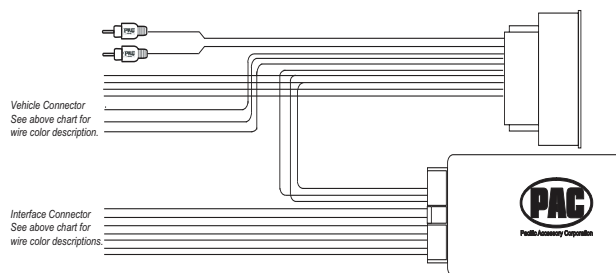
Installation Steps

SET RADIO SELECT SWITCH

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

Other = Advent, BOYO, Dual, Lightning Audio, Visteon,

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 3.

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 programming instructions in the next section.

Default Steering Wheel Control Programming

IMPORTANT! The interface comes pre-programmed for all of the vehicles 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.

The Mute/End button has two functions. Pressing this button for less than 1.5 seconds will initiate the mute command. Pressing this button for more than 1.5 seconds will initiate the end command. This dual function button can also be reprogrammed to

Default SWC Button Assignments

	Alpine	JVC	Kenwood	Clarion	Valor	OEM	Sony/Pioneer	Fusion	Blaupunkt
Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
Source	Source	Source	Source	Source	Source	Source	Source	Source	Source
Track +	Track +	Track +	Track +	Search +	Track +	Next	Track +	Track +	Track +
Track -	Track -	Track -	Track -	Search -	Track -	Previous	Track -	Track -	Track -
Answer/Voice	Receive	Receive	Receive	Receive	OK	Receive	Receive	N/P	OK
Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute	Mute
End	End	End	N/P	End	N/P	End	End	N/P	N/P

Optional Steering Wheel Control Programming

If you wish to re-assign the SWC functions, utilize the buttons that have no initial programming or utilize short press long press dual command functionality, the interface must be programmed in the specific order shown in the chart below. 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. 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 vehicles 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.)

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	Mute	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	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	N/A	Phone Menu	Reject Call/Source (Bluetooth equipped radios only)	
11	Band/Program	Phone Receive	Voice Dial			Answer Call	Answer/End Call	
12	Receive	Phone Reject	On Hook			End Call		
13	End	Voice Dial	Off Hook			VR		
14	VR	Power	Mute (Multimedia units only)					
15			Preset +					
*Other = Advent, Boyo, Dual, Lightning Audio, Rockford Fosgate, & Visteon								

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

Testing & 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 & check balance & fade.
3. Verify that all SWC are functioning properly.
4. Turn off vehicle & remove key. RAP will be active & keep the radio on for 10 minutes or until the drivers door is opened.
5. The LED & radio will turn off when RAP turns off or the drivers door is opened.

Product Updates (Firmware)

The RP4-GM41 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.

RadioPRO
Radio Replacement Interface

4

RadioPRO **4**
Radio Replacement Interface

The professional way to install your new radio

GM AUTOMOBILES	**GM AUTOMOBILES without ONSTAR**	RP4-GM41
RP4-GM41	**Select Models with GM LAN V2 Databus with 44-pin harness**	

Works with vehicle computer system and keeps the following features:

- Steering wheel controls
- Important warning chimes
- Amplified audio system (if equipped)

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Note: OnStar® is a registered trademark of OnStar Corp.

RadioPRO 4
Radio Replacement Interface

The professional way to install your new radio

Upgraded Aftermarket Radio

Radio Replacement Interface

RadioPRO 4
Radio Replacement Interface

Your Vehicle with Steering Wheel Controls

This product allows the replacement of your automobile's original factory radio with an upgraded aftermarket radio. It has been engineered to interface seamlessly with the automobile's computer data bus system and retain important safety and convenience features such as steering wheel controls and factory amplified audio systems, including BOSE (if equipped).

Compatibility Information

General Motors Automobiles without OnStar

Select Models with GM LAN V2 Databus with 44-pin harness

To learn whether or not your specific automobile is compatible, visit www.pac-audio.com/RP4, or scan with your smartphone.

	RadioPRO4
Vehicle Harness Included	•
Accessory 12-volt Output	•
Databus & Amplifier Integration	•
Navigation Radio Ready	•
Retains Warning Chimes	•
Retains Steering Wheel Controls	•
Internet Updateable	•
Retains Rear Seat Radio Controls	•
Rear Seat Entertainment Activation	•
Rear Seat Entertainment A/V Ready	•
No Programming Required	•

CHECK VEHICLE COMPATIBILITY

pac-audio.com/RP4

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Recycle

RP4-GM41

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Designed & Engineered in the USA;
Manufactured in China

RP4-GM41 REV.
1.7.4.4 lot 48742

Patent No. 8,014,540
Patent No. 8,184,825