RP4-NI11

Radio Replacement & Steering Wheel Control Interface
for Nissan Vehicles

Introduction & Features

The RP4-NI11 interface allows the replacement of a factory radio in select Nissan vehicles with MSCAN databus radios. Using this interface will retain factory features such as steering wheel controls (SWC), reverse camera and the factory amplifier 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-NI11 also provides outputs such as vehicle speed sensor (VSS), illumination and *reverse trigger.

Important Notes

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 (see next page for setting chart).
2. 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.
3. Does not retain 360 camera system
4. In some 2014+ Nissan Rogues, it may be necessary to find an alternate accesory 12v+ wire If the interface and aftermarket radio are not powering up. Please see Appendix A on page 4 to find an alternate accessory 12v+ wire.

Wiring Connection Chart

Vehicle Connector

Yellow	Battery +12v
Black	Ground
Red	Accessory 12v+
Purple / White	Vehicle Speed Output
Blue / White	Amp Turn On Input
Orange / White	Illumination Output (+)
Green	*Reverse Output (+)

*** Only available in vehicles equipped with a factory reverse camera.**

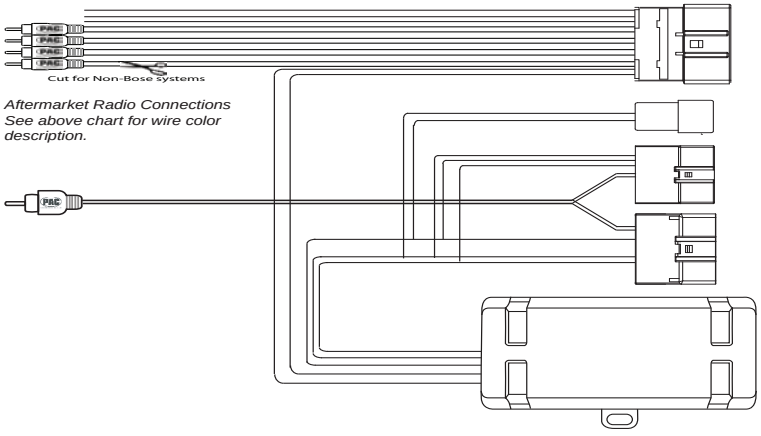
White	Front L + input
White / Black	Front L - input
Grey	Front R + input
Grey / Black	Front R - input
Green	Rear L + input
Green / Black	Rear L - input
Purple	Rear R + input
Purple / Black	Rear R - input
Yellow RCA	*Reverse Camera Output

SWC Connector

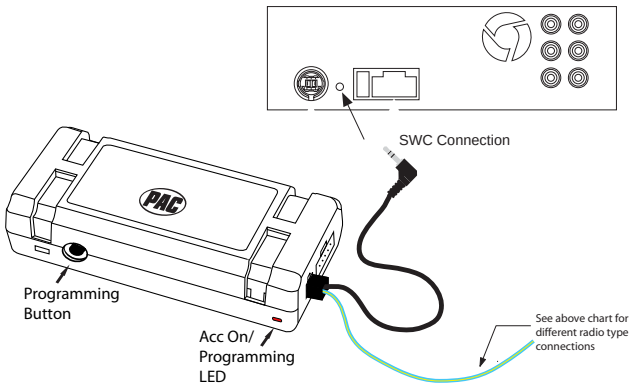
Blu/Yel	Kenwwod, Newer JVC
3.5mm Jack	Alpine, JVC, Clarion, Fusion, Pioneer, Sony, Boyo, Dual, Lightning Audio, Visteon or Advent

Illustration / Schematic

Wiring



SWC Connection



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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, Rockford Fosgate, Visteon

IMPORTANT! In 2014-2015 vehicles, if you wish to retain the reverse camera in vehicles equipped with factory navigation and a BOSE system you must solder a video RCA cable into the factory wires at the ITS module. The ITS module can be found by removing the plastic panel in the passenger footwell that is connected to the center console (Fig. 1). The connector in which you will find the video wires is shown in Fig. 2 . Finally you must connect a video RCA cable into the two wires as shown in Fig. 3 (Wire colors are normally Gray (-) and Black (+) but may vary by vehicle). Once connected, run this RCA to the aftermarket head unit and connect to the reverse camera input.

Fig 1

Fig 2

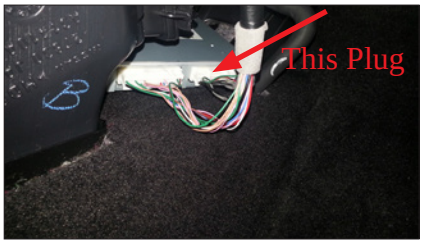
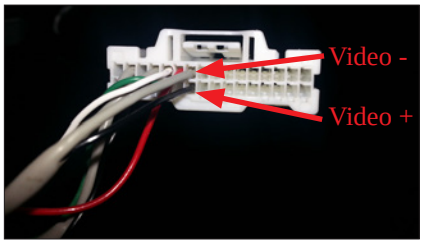


Fig 3



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 radios pre-amp output. The audio level will vary depending on the new radios pre-amp output voltage (2-4 volts is recommended). **If there is not a Bose® Audio system present:** Cut the RCA inputs off and connect the aftermarket radios speaker outputs to the remaining wire according to the chart on page 1.
3. Base model vehicles may not have a factory ground wire. In these vehicles you will have to manually ground the aftermarket radio and RP4 module.
4. If the vehicle is equipped with a reverse camera and the aftermarket radio has a reverse camera input, connect the yellow RCA plug to the aftermarket radios reverse camera input.
5. Connect the SWC wire according to the chart on page 1 (aftermarket radio MUST support a wired remote input).
6. If you wish to reassign functions to the SWC follow the programming instructions on the next page.

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.

Default SWC Button Assignments

	Alpine	JVC	Kenwood	Clarion	Pioneer	Sony	Fusion
Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
Source	Source	Source	Source	Source	Source	Source	Source
Track +	Track +	Track +	Track +	Search +	Track +	Track +	Track +
Track -	Track -	Track -	Track -	Search -	Track -	Track -	Track -
Enter	Play	Power	Disc Up	Band	Preset Up	Preset Up	Power
Phone Answer	Receive	Receive	Answer	Send	Answer Call	Answer/End	Audio
Phone End	End	Reject	Voice	End	End	Reject/Source	Mute

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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 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.

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, Rockford Fosgate, Visteon

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	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

PAC

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. The LED & radio will turn off when the key is turned off

Product Updates (Firmware)

The RP4-NI11 can be updated with new firmware as it becomes available using the PAC-UP interface updater (sold seperatly).

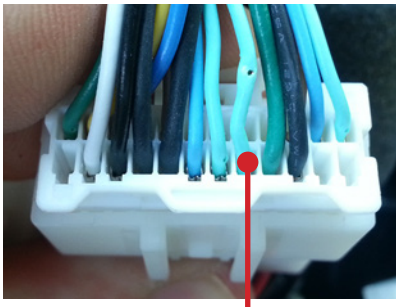
Appendix A

When installing the RP4-NI11 into a 2014+ Nissan Rogue it may be necessary to make a hardwired connection for accessory power. This is necessary due to these vehicles having a different location for the 12v accessory wire. Please follow the procedure outlined below to make the proper connection.

1. Connect the main 20-pin and 24-pin harnesses as outlined in the instruction manual included with the interface.
2. Locate the light green accessory wire in the 24-pin Nissan factory harness (Fig. 1). This wire will need to be jumped to the red wire located in pin 16 of the 20-pin RP4 harness (Fig 2).

Illustration / Schematic

24-Pin Vehicle Connector



Factory ACC Wire

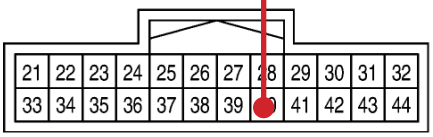
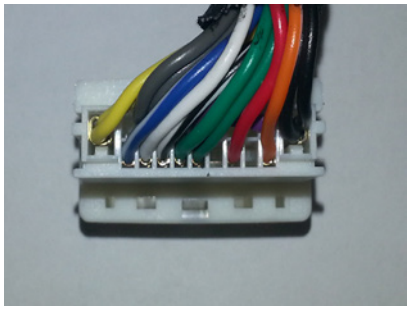


Fig. 1

RP4-NI11 Connector



RP4 ACC Wire

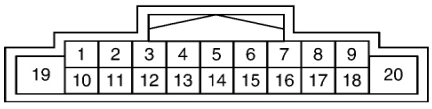


Fig. 2

All connectors are viewed from wire side

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Finding an Accesory 12v+
in 2014+ Nissan Rogue With a Navigation radio

Tech Bulletin

When installing the RP4-NI11 into a 2014+ Nissan Rogue it may be necessary to make a hardwired connection for accessory power. This is necessary due to these vehicles having a different location for the 12v accessory wire. Please follow the procedure outlined below to make the proper connection.

Important Notes

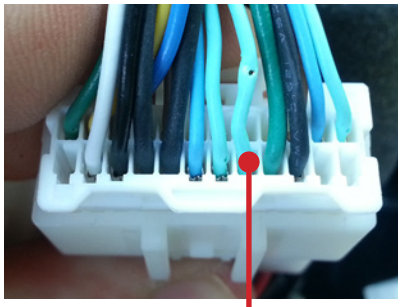
1. This tech bulletin only needs to be followed if installing the RP4-NI11 into the 2014+ Nissan Rogue without an accessory wire in the main 20-pin harness.
2. It is important that all connections be soldered to ensure they are secure. Using T-Taps or crimp connectors will result in faulty connections which could cause erratic/unreliable operation.

Installation Steps

1. Connect the main 20-pin and 24-pin harnesses as outlined in the instruction manual included with the interface.
2. Locate the light green accessory wire in the 24-pin Nissan factory harness (Fig. 1). This wire will need to be jumped to the red wire located in pin 16 of the 20-pin RP4 harness (Fig 2).

Illustration / Schematic

24-Pin Vehicle Connector



Factory ACC Wire

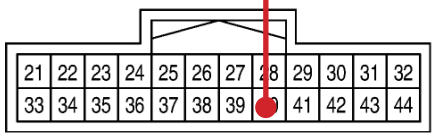
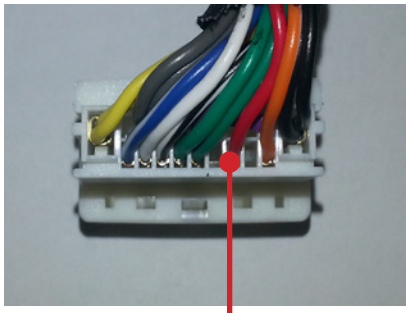


Fig. 1

RP4-NI11 Connector



RP4 ACC Wire

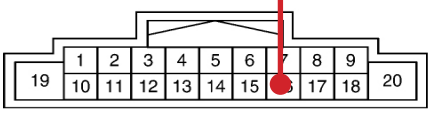


Fig. 2

All connectors are viewed from wire side

PAC

Technical Bulletin

Nissan Murano with Navigation
RP4-NI11 Hardwire

Overview:

In order for the RP4-NI11 to operate in the 2015 and up Nissan Murano applications that are equipped with navigation, several wires from the RP4-NI11 must be hardwired into the 40 pin harness at the radio. **RP4-NI11 Revision 4 or higher of firmware is required**.

Installation:

1. Follow the instructions from the RP4-NI11 installation manual for the wire connections from the RP4-NI11 into the aftermarket radio harness. Only the primary 24 pin connector and the black 16 pin RP4-NI11 connectors will be used (see Fig.1).
2. Cut the Pink (CAN +) and Pink / Black (CAN -) wires between the RP4-NI11 connector and where the wires split to go to the 3 unused connectors (see Fig. 1).
3. Connect the Pink wire (from step 2) to the Light Blue wire (CAN +) in pin 41 of the 40 pin radio connector (see Fig. 2).
4. Connect the Pink / Black wire (from step 2) to the Light Green wire (CAN -) in pin 21 of the 40 pin radio connector (see Fig. 2).
5. **Only necessary when using a reverse camera:** Locate the Green (Reverse +) wire in the Black 16 pin RP4-NI11 connector that goes to a junction near the (unused) 24 pin connector, with one side going to the aftermarket radio wiring, one side going to the (unused) 32 pin connector, and one side going to the (unused) 32 pin connector. Cut the Green wire between the junction and the (unused) 32 pin connector (see Fig. 1).

Fig. 1

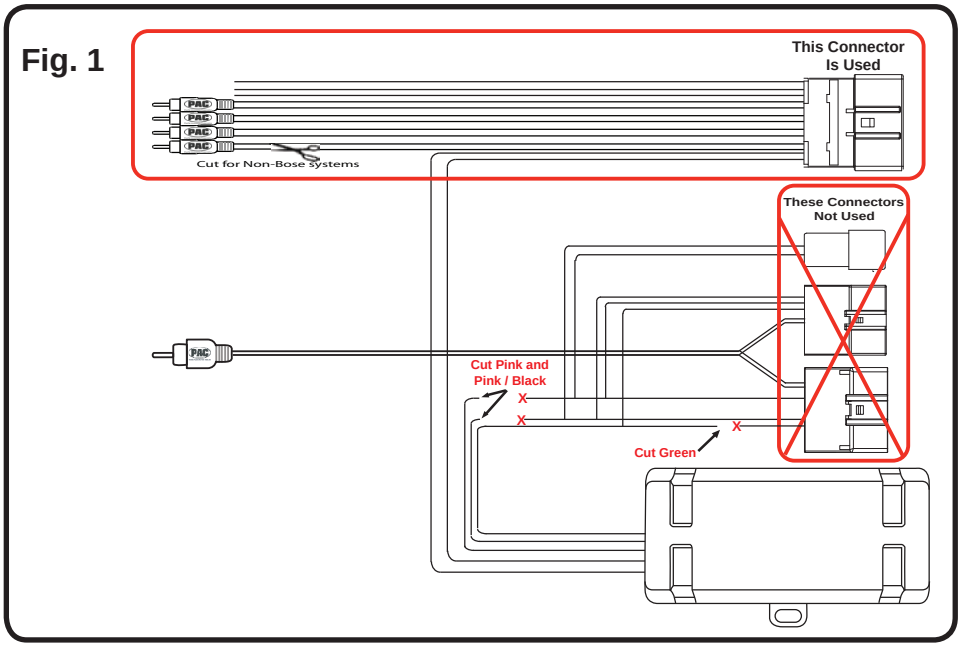
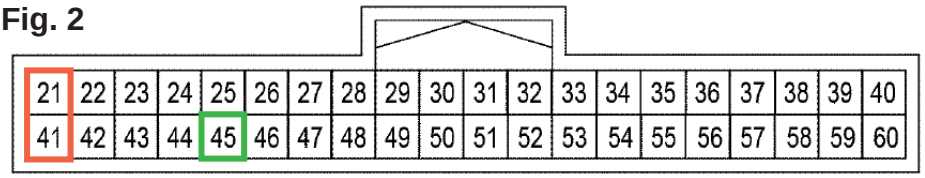


Fig. 2



Connector Viewed From Wire Side

Pin 21 CAN - (Light Green)
Pin 41 CAN + (Light Blue)
Pin 45 Rev + (Green)

6. Connect the Green wire (from step 3) to the Green wire (Reverse +) in pin 45 of the 40 pin radio connector (see Fig. 2).

Testing and Verification:

1. Turn on the ignition and press audio steering wheel control buttons to verify the LED on the RP4 NI11 flashes to indicate that it recognizes the button commands. If the LED does not flash, verify the CAN + and CAN - connections to the Pink and Pink / Black wires on the RP4-NI11, and verify the RP4-NI11 is using firmware Revision 4 or higher.
2. Test the Green reverse output connector by verifying the wire is providing a 12 volt output when the ignition is on and the vehicle is in reverse.