Complete Radio Replacement with Integrated Climate Control Retention for Select 2015-2019 Ford F150 and 2017-2019 Ford Super Duty

Introduction and Features

The RPK4-FD2101 is a complete radio replacement kit with integrated climate control retention for the 2015-2019 Ford F-150 and 2017-2019 Ford Super Duty equipped with the 8" screen. Parts are included for vehicles with multiple upper button configurations and for vehicles with or without heated / air conditioned seats. This kit utilizes the factory HVAC control knobs for a factory look and experience. All modules and cables are included to retain important features of the factory system including: steering wheel mounted radio controls, factory reverse camera, 360-Degree camera, Pro Trailer Camera, and AM/FM reception.

A secondary 5.2" LCD screen is added for additional vehicle control including: HVAC user interface retention, vehicle settings retention, factory amplifier control, settings for control of the RPK4.2-FD2101 interface, forced camera activation, ability to add additional cameras, tire pressure and vehicle gauges. Features provided by the LCD screen will vary based on the vehicle features. See Important Notes (next section) for additional information.

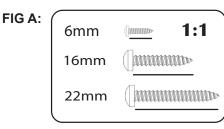
Four hard buttons added to the radio dash bezel (below the 5.2" LCD screen) allow user to set presets to control functions including: specific HVAC controls, forced camera activation, LCD screen controls (Day Mode, Night Mode, Display Off). Options for hard buttons will vary based on vehicle features and which cameras are installed.

Some advanced features require additional accessories, sold separately.

Important Notes

We recommend reading this manual thoroughly to familiarize yourself with the entire process prior to beginning the installation.

- Transfer of the factory HVAC knobs and circuit board, and button panel is required. **Professional installation is** recommended.
- Only compatible in vehicles equipped with the 8" screen.
- Installation with 2018+ F-150 models, DOES NOT retain the Bang & Olufsen factory amplifier, APH-FD02 (sold separately) can be used to bypass the amplifier in these applications.
- Installation with 2018 2019 Super Duty models DOES retain the Bang & Olufsen amplifier.
- Does Not Retain:
 - Compass that is displayed in the instrument cluster. The compass feature is lost.
 - Parallel park assist.
 - User interface for the factory massaging seats. (Massage function still available via hard button activation).
 - Auxiliary input jack in 2015 vehicles.
 - Ford's WiFi-Hotspot.
 - MyKey functions that limit the radio. (Functions that limit the vehicle are retained).
 - Use of the radio to re-assign the door lock keypad code. (Code can still be changed via the keypad itself).
 - Surround Mode
 - Speed Compensated Volume.
- Once the radio is removed, the chimes will play through the factory piezo speaker in the dash and not the cabin speakers.
- Use of improper length screws during kit re-assembly can result in damage to this product. See FIG A: Actual size reference chart.
- If you are adding additional cameras, beyond reverse cam, PAC part number RPA-16P5V (sold separately) can be used for up to 5 total cameras.

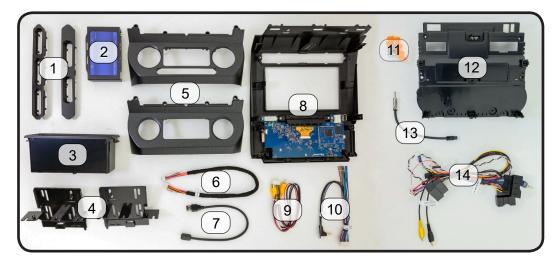


Actual Size

PAC-audio.com



Components

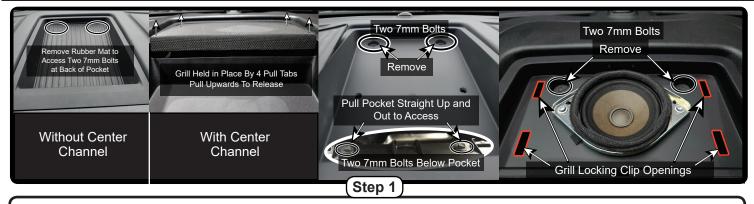


Tools needed for installation: 7mm socket, 10mm socket, ratchet, T10 torx screwdriver, small flathead screwdriver, plastic panel removal tool (example - PAC part number TL-PRY2).

- (x2) Upper Dash Button Inserts
- 2. RP4.2-FD2101 Interface
- 3. Pocket (For single DIN applications)
- 4. (x2) Radio Brackets (left and right)
- 5. (x2) HVAC Trim Panel
- 6. LCD Display Output Connector
- USB Extension Cable (PAC part USB-GM1) Radio Dash Bezel with 5.2" LCD Display
- 9. Reverse Camera Retention Harness
- 10. RP4.2-FD2101 Aftermarket Radio Connection Harness
- 11. (x6) T10 6mm screws, (x8) Phillips Head Pan Head Radio Mounting Screws and (x8) Dash Clips
- 12. Rear Panel Cover
- 13. AM / FM Antenna Adapter (BAA22)
- 14. RP4.2-FD2101 Interface Harness (FD2A-RS-HAR)

Installation

Part One: Disassembly of Factory Dash



Remove the dash pocket that is at the top of the dash above the radio display.

If the vehicle does not have a center channel: Remove the the rubber mat from the pocket, remove the two 7mm bolts at the back of the pocket, then use a plastic pry tool to pop the top pocket straight up, and out of the dash.

If the vehicle has a center channel: Use a plastic pry tool around the left and right side and front of the grill to pop the grill straight up. There is a locking clip close to each corner of the grill. Remove the two 7mm bolts that are located at the back of the pocket, then use a plastic pry tool to pop the top pocket straight up, and out of the dash.

Remove the two 7mm bolts that hold the radio dash panel in place that are located at the top, back side of the radio dash panel.



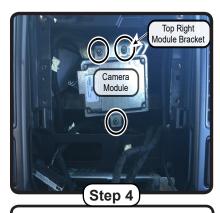
Part One: Disassembly of Factory Dash (cont.)



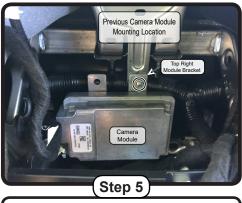
The radio dash panel (outlined in Red) can now be removed by pulling toward you. A plastic pry tool can be used if necessary.



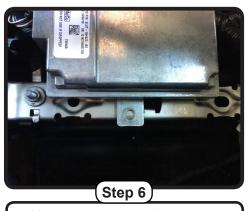
Remove the factory screen / SYNC module (attached to the screen), and Audio Control Module (ACM) using a 7mm socket. These parts are no longer needed. If you intend to reinstall the factory radio later, these pieces will need to be stored away for use at time of reinstallation.



If vehicle is equipped with a factory camera module, it must be relocated. Remove the three nuts securing it using a 10mm socket.



Lower the camera module in the dash and place the top right mounting bracket onto the previous bottom stud mount, and loosely secure using one of the factory 10mm nuts that you removed in the previous step.



You can now secure the bottom of the camera module by using a zip tie or by using the fastener of your choice. Once completed, finish tightening the top nut from the previous step.



Part Two: Disassembly of Factory Dash Panel



Remove the upper dash buttons from back of the dash bezel and set aside for later use. To release, squeeze the left and right release tabs (on each button) inward. The buttons will come out from the front of the dash bezel.

Depending on the trim package of the vehicle, there will be two or three separate buttons. All should be set aside.



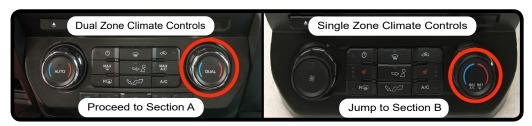
Remove the (9) T10 22mm screws from factory dash panel. Set the screws aside for later use.



Remove back of factory dash panel by releasing the 2 locking tabs on each side. The factory rear cover panel will not be used with the RPK4-FD2101 installation kit.

Dual Zone or Single Zone Climate Controls?

What type of climate controls the vehicle has determines which instructions to follow for the remainder of the disassemby of the factory dash panel. If the vehicle has <u>dual zone climate controls</u>, <u>proceed to Section A</u>. If the vehicle has <u>single zone climate controls</u>, <u>jump ahead to Section B</u>.

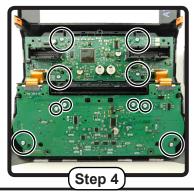


Part Two - Section A: With Dual Zone Climate Controls

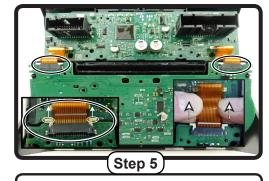
Section A:

Section A only covers <u>dual zone</u> <u>climate controls</u> applications.

For single zone climate controls applications, see Section B Factory Dash Panel Disassembly (page 5).



Remove (4) T10 16mm screws from the upper circuit board and the (6) T10 16mm screws from the lower circuit board. Set the screws aside for later use.



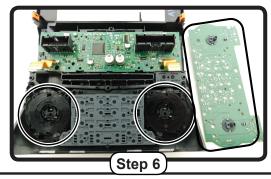
Remove the 2 ribbon cables from the lower circuit board by sliding each of the locking tabs away from the connector, and carefully pulling the ribbon cable out of the connector.

(Continued Next Page)

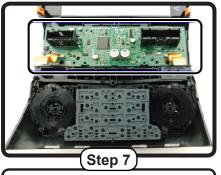


Part Two: Disassembly of Factory Dash Panel (cont.)
Section A: With Dual Zone Climate Controls

Section A (cont.):



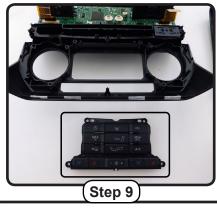
Remove the lower circuit board to gain access to the temperature control and fan speed knobs, and set it aside for later use. The temperature control and fan speed knobs, along with the HVAC button panel, will now be loose in the dash bezel.



Remove the HVAC upper circuit board from the factory dash bezel and set it aside for later use.



Remove the temperature control and fan speed knobs by pulling them out from the back of the dash bezel, along with the clear lighting rings (one on the left side and one on the right side) that sit below the knobs, and set the knobs and light rings aside for later use.



Remove the HVAC button panel, and set it aside for later use.

Depending on the vehicle's options, the panel may, or may not include buttons for heated and air conditioned seats.

Continue
To Part
Three

Bottom of Page 6

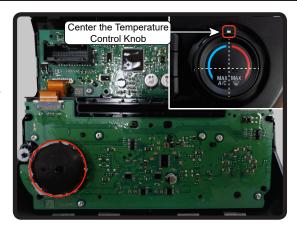
Part Two - Section B: With Single Zone Climate Controls

Section B:

Section B only covers applications with single zone climate controls.

For applications with dual zone climate controls, see Section A (page 4).

Prior to proceeding, center the temperature control knob so that the marker on the knob is centered between the cold and hot scales on the face of the knob. If the knob is not centered prior to additional steps, the temperature control knob may not be able to adjust to the full cooling or heating positions.



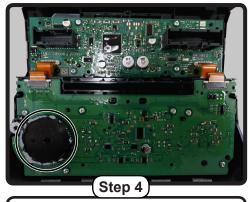
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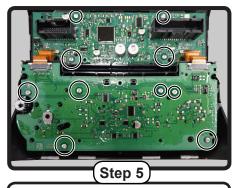
Complete Radio Replacement with Integrated Climate Control Retention for Select 2015-2019 Ford F150 and 2017-2019 Ford Super Duty

Part Two: Disassembly of Factory Dash Panel (cont.)

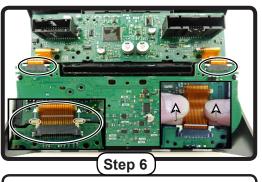
Section B: With Single Zone Climate Controls



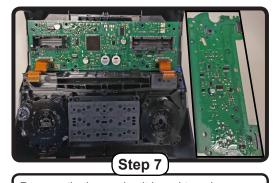
Remove the large black plastic gear by pulling the gear straight up from the lower circuit board, and set aside for later use.



Remove (4) T10 16mm screws from the upper circuit board and the (6) T10 16mm screws from the lower circuit board. Set the screws aside for later use.



Remove the 2 ribbon cables from the lower circuit board by sliding each side of the locking tab away from the connector, and carefully pulling the ribbon cable out of the connector.



Remove the lower circuit board to gain access to the temperature control and fan speed knobs, and set it aside for later use. The temperature control and fan speed knobs, along with the HVAC button panel, will now be loose in the dash bezel.



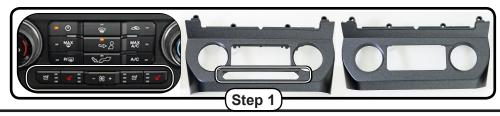
Remove the temperature control and fan speed knobs by pulling them out from the back of the dash bezel, and set aside for later use.



Remove the HVAC button panel, and set it aside for later use.

ContinueTo Part Three (Below)

Part Three: Assembly of Aftermarket Dash Kit

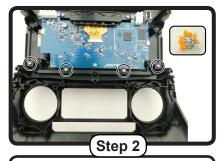


Use the previously removed HVAC button panel to determine which bottom HVAC trim panel will be used. If the additional buttons for heated / cooled seats and fan speed are present, the trim panel with the provision for the additional buttons will be used (left trim panel in photo). If those buttons are not present, the trim panel without the additional button provision will be used (right trim panel in photo). Refer to part 2, step 9.



Complete Radio Replacement with Integrated Climate Control Retention for Select 2015-2019 Ford F150 and 2017-2019 Ford Super Duty

Part Three: Assembly of Aftermarket Dash Kit (cont.)



Attach the appropriate HVAC trim panel to the back of the RPK4-FD2101 kit using (4) of the supplied T10 6mm screws.

6mm (1:1

Dual Zone or Single Zone Climate Controls?

What type of climate controls the vehicle has determines which instructions to follow for **Steps 3 through 7** of the assembly of the aftermarket dash kit.

If the vehicle has <u>dual zone climate controls</u>, <u>proceed to Section A</u>.

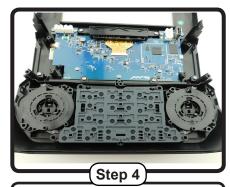
If the vehicle has <u>single zone climate controls</u>, <u>jump ahead to Section B</u>.



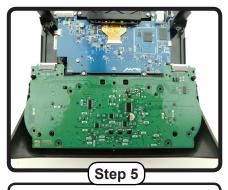
Part 3 - Section A: With Dual Zone Climate Controls



Insert the HVAC knob light rings, then the knobs (from Part - Two, Section A, Step 8) into kit. The openings for the light rings are shaped for the light ring to drop into place when in the correct position. The HVAC knobs are "keyed" for the correct position.



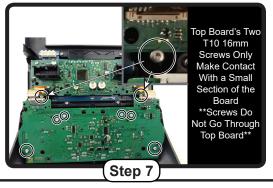
Set the previously removed HVAC button panel in position in the kit's HVAC trim panel.



Place the previously removed HVAC lower circuit board into position on the RPK4-FD2101 kit. The ribbon cable locking tabs will be on top.



Set the HVAC upper circuit board bezel into place on the RPK4-FD2101 kit.



Use (8) of the T10 16mm screws that were set aside from disassembly step 4 (page 4) to secure the upper and lower circuit boards to the kit. The positions for the upper circuit board screws are in a different location from the OEM mounting position. On the upper circuit board, the two screws that hold it in place only make contact with part of the circuit board. The upper board is further secured in later steps, once the back cover is installed.

Continue To Step 8

> On Page 9



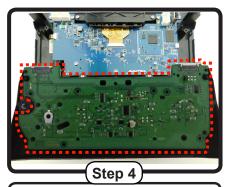
Complete Radio Replacement with Integrated Climate Control Retention for Select 2015-2019 Ford F150 and 2017-2019 Ford Super Duty

Part Three: Assembly of Aftermarket Dash Kit (cont.)

Section B: With Single Zone Climate Controls



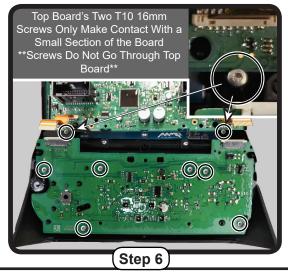
Set the previously removed HVAC button panel and HVAC knobs in position in the kit's HVAC trim panel.



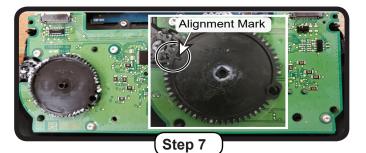
Place the previously removed lower circuit board into position on the RPK4-FD2101 kit.



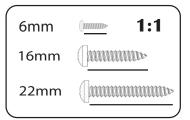
Place the previously removed upper circuit board into place on the RPK4-FD2101 kit.



Use (8) of the T10 16mm screws that were set aside from disassembly step 5 (page 6) to secure the upper and lower circuit boards to the kit. The positions for the upper circuit board screws are in a different location from the OEM mounting position. On the upper circuit board, the two screws that hold it in place only make contact with part of the circuit board. The upper board is further secured in later steps, once the back cover is installed.



Verify that the temperature control knob is still centered (see Part 2 - Section B on bottom of page 5), then install the black plastic gear as shown. Make sure the alignment mark on the gear is pointing at the small gear that is attached to the temperature control knob.



Continue To Step 8
On
The Following Page



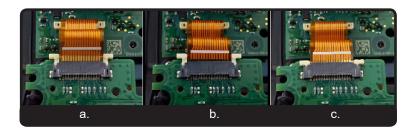
Part Three: Assembly of Aftermarket Dash Kit (Sections A and B cont.)

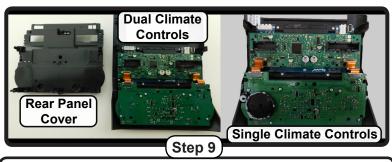
Step 8

Insert the ribbon cables from the upper HVAC circuit board into the lower HVAC circuit board (upper left and right right corners of the circuit board). The locking tabs must be in the unlocked position (tabs pulled away from the connector) in order to seat the ribbon cables. Make sure the cables are fully inserted, then push the tabs in to secure the ribbon cables in place.

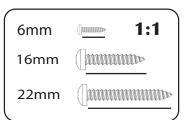
Figure a: Locking tabs unlocked, with the ribbon cable partially inserted. **Figure b:** Locking tabs unlocked, with the ribbon cable fully inserted.

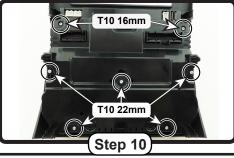
Figure c: Locking tabs locked, with the ribbon cable fully inserted.





Attach the supplied rear panel cover to the back of the RPK4-FD2101 kit. The cover will latch into place when correctly seated.





Use (5) of the T10 22mm screws removed in disassembly step 2 (page 4) and the (2) T10 16mm screws (for the top 2 screws) left over from step 4 (page 4) to secure the back cover to the dash kit. See FIG. A at bottom of page for screw size reference.



Insert the appropriate upper dash button bezel into the RPK4-FD2101, use the (2) supplied T10 6mm screws and insert the buttons that were removed during disassembly (step 1 page 4). See FIG. A on page one for screw size reference.



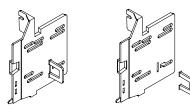
Attach the 8 supplied orange locking clips to the positions shown. The factory dash bezel can be used as a point of reference.



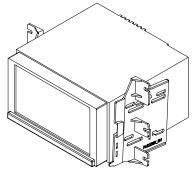


Mounting the Aftermarket Radio

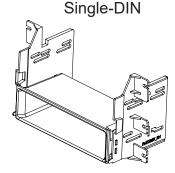
Double-DIN



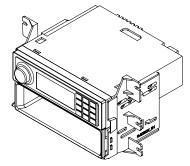
Remove tab (LH and RH) for Double-DIN radio install (LH-Side bracket shown)



Mount radio to brackets using supplied screws



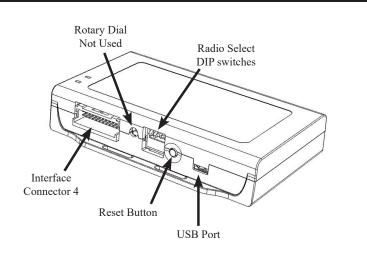
Attach included pocket to bottom of kit brackets

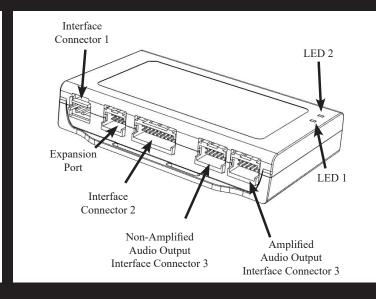


Mount radio to brackets using supplied screws

Part Four: Configuring and Wiring the RadioPRO Interface

RP4.2-FD210101 Module Layout





Part Four: Configuring and Wiring the RadioPRO Interface (cont.)

Interface Connectors



Reverse Camera Retention Harness

(11010111101	
Red	Aftermarket Camera Acc 12v+ Output (800 mA)
Black	Aftermarket Camera Ground Output
Yellow Composite	Camera Out To Aftermarket
Male	Radio
Yellow Composite Female	Camera In From Vehicle Connector



(Interface Connector 1)

Red	Accessory Output (10A)
Yellow	12v+
Black	Ground



Interface Connector 2

White / Red	HS-CAN + Input	
White / Black	HS-CAN - Input	
Pink	MS-CAN + Input	
Pink / Black	MS-CAN - Input	
Blue / White	Not Used	
White*	Not Used	
White / Red*	Not Used	

^{*} White and White / Red go to the 3 position togale switch (not used).



Interface Connector 3

(
White	Front L + output
White / Black	Front L - output
Gray	Front R + output
Gray / Black	Front R - output
Green	Rear L + output
Green / Black	Rear L - output
Purple	Rear R + output
Purple / Black	Rear R - output
Ext Speaker Out	Not Used



Interface Connector 4

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
Blue / Yellow	SWC Output / Key 1
Brown	SWC Output / Key 2
3.5 mm Jack	SWC Output
Pink	Vehicle Speed Sense Output
Light Green	Parking Brake Output
Violet / White	Reverse Signal Output
Orange / White	Illumination Output
Blue / White	Amp Turn On Input
Blue	Not Used

Vehicle Connectors



Vehicle Connector 1

Yellow	Battery +12v	
Black	Ground	
Pink	MS-CAN +	
Pink / Black	MS-CAN -	
Blue / White	Not Used	
Brown / Black	Center CH - input	
Brown	Center CH + input	
White	Front L + input	
White / Black	Front L - input	
Gray	Front R + input	
Gray / Black	Front R - input	
Green	Rear L + input	
Green / Black	Rear L - input	
Purple	Rear R + input	
Purple / Black	Rear R - input	



LCD Display Output Connector

(Vehicle Connector 2)

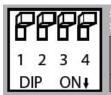
White	Subwoofer RCA +
Black	Subwoofer RCA -
Blue / White	Not Used



(Vehicle Connector 3)

White / Red	HS CAN +
White / Black	HS CAN -
Black	Camera Shield
Yellow	Camera +
Black	Camera -

DIP Switches



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

Set all other DIP switches to the OFF position.						ON = DOWN		
Alpine	JVC	Kenwood / Lightning Audio	Clarion / Nakamichi / Stinger	2-Wire Resistive	Pioneer / Other*	Sony	Fusio	
1	2	1 & 2	3	2 & 3	1 2 & 3	4	1 &	

The radio select DIP switches on the side of the interface must be adjusted to the proper radio setting before plugging the interface into the vehicle.



Fusion

DIPSWITCH

Wiring Connections

- 1. Wire the aftermarket radio harness according to the wiring connections charts for Interface Connector 1 and Interface Connector 4 provided on page 11.
- 2. Connect Interface Connectors 1, 2 and 4 to the RP4.2-FD2101.
- 3. Connect Interface Connector 3 to either the amplified or non-amplified audio output connector depending on your scenario.
- 4. Connect the SWC output wire to the aftermarket radio (aftermarket radio must support a wired remote input).
- 5. Once all connections have been made, plug the vehicle connectors into the vehicle harness. It is recommended that this be done with the vehicle running.
- 6. Reverse camera connection (see Fig. 2):
 - a. Connect the included RPA-16P1V harnes to the 16-pin connector (Connector 3) on the back of the radio dash bezel (see Fig.1).
 - b. Connect the Male Yellow RCA (Video Output) from the RPA-16P1V harness to the aftermarket radio's reverse camera input.
 - c. Connect the Female Yellow RCA (Video Input) from the RPA-16P1V harness to the Male Yellow RCA from vehicle connector 3 (factory reverse camera), or to the aftermarket reverse cameras RCA video output.
- Fig.1: Rear of RPK4-FD2101 Radio
 Dash Bezel

 HVAC
 Connector

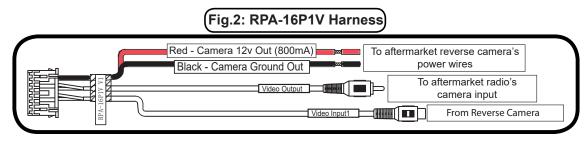
 Connector Connector Function

 RP4.2-FD2101 Display Connector

 Expansion Port (Not Currently Used)

 Camera Input / Output

 HVAC
 Display USB Update Port
- d. Connect the red and black power wires from the RPA-16P1V to the aftermarket reverse cameras power wires. If you are utilizing a factory camera, simply insulate these wires.
- e. **To Add Additional Cameras (Front, Blind Spot, Cargo, etc.):** use the RPA-16P5V (sold separately) in place of the included RPA-16P1V harness. See the next page for additional information.



Connect the HVAC connectors from the vehicle into the appropriate connectors on the back of radio dash bezel (see Fig.1).

PLEASE NOTE: It is very important that the next steps be followed in this precise order. Not doing so may cause the HVAC to be inoperative.

- 7. Turn on the ignition, then turn on the HVAC. Connect one end of the supplied Display connector into the Expansion Port on the RP4.2-FD2101 and the other end into the outermost 10-pin connector (Connector 1) on the back of the radio dash bezel (see Fig.1).
- 8. OPTIONAL: To update firmware with minimal effort and without accessing the back of the HVAC display, a USB extension cable, PAC part USBDMA3 (sold separately), can be connected into the USB port (Connector 4) on the back of the radio dash bezel (see Fig.1) and run to a location that allows for easy access (glove box, tucked under an interior panel, etc.).
- 9. Once the interface has been connected, the LEDs for the illumination for the four hard buttons on the kit (below the dash bezel LCD display) will illuminate momentarily, then start flashing. This indicates the system is initializing. Next, the LEDs will turn off, then the RadioPRO splash screen will appear on the LCD.

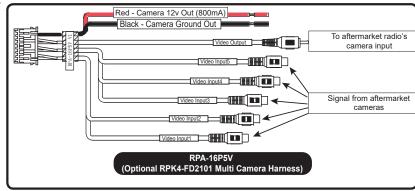
Note: The initialization sequence can take up to 2 minutes on initial powerup.



Using Multiple Cameras

With the addition of the optional RPA-16P5V harness, the RPK4-FD2101 supports display and control of up to 5 cameras. The RPA-16P5V replaces the RPA-16P1v camera harness that is included with the RPK4-FD2101.

Cameras can be connected to any of the 4 separate camera inputs (camera 1 is reserved for the reverse camera). Camera input and control is adjustable through the settings menu on the LCD display on the dash bezel. The provided power and ground connections are active when the vehicle is on. Use these leads to power your aftermarket camera(s) (up to 800mA total). If the cameras require more than 800mA, please use an external relay. See page 14 for setup and operation.



Setup and Testing

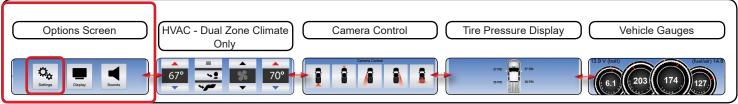
To test the functionality of the radio and RPK4-FD2101, start with the ignition off and driver's door open, then do the following:

- 1. Turn the ignition on. The LED on the interface will turn on and the +12v accessory wire will turn on.
- 2. Turn on the radio and check volume, balance and fade.
 - If you do not hear any audio and there is a factory amplifier:
 - Verify that you have a compatible amplified system: (B & O factory amplifier in 2018+ F-150 models cannot be retained. Use APH-FD02 (sold separately) to bypass the factory amplifier).
 - Cycle the ignition to initialize the factory amplifier.
 - If the overall volume is excessively low or high: Verify that Interface Connector 3 is connected to the appropriate
 output connector on the RP4.2-FD2101 module (one is for amplified audio systems, the other for non-amplified audio
 systems).
 - **If the overall volume is slightly lower or higher**: use the gain adjustment through the RPK4-FD2101 display to set it to the desired level. See the RPK4-FD2101 User Manual for additional info.
 - . Verify that all SWC are functioning properly. See the Steering Wheel Control section (page 17) for radio specific details.
- 4. Verify that all vehicle functions are present through the RPK4-FD2101 5.2" LCD display:
 - HVAC Controls (Only applicable in Dual Zone Climate Control Applications)
 - Ambient Lighting (Only applicable if equipped with Ambient Lighting)
 - Sound Settings (Only applicable in vehicles with a Factory Amplifier)
 - SWI Settings (If DIP Switches are set for any radio other than 2-Wire Resistive)
 - Vehicle Settings
 - Tire Pressure Display
 - Vehicle Gauges
 - Camera Control
- 5. If a vehicle function is not present: Reset the RP4.2-FD2101 (see page 20). If a vehicle function is not present after a reset: With the vehicle running, disconnect and reconnect the RP4.2-FD2101 Display Connector from the back of the 5.2" LCD display.

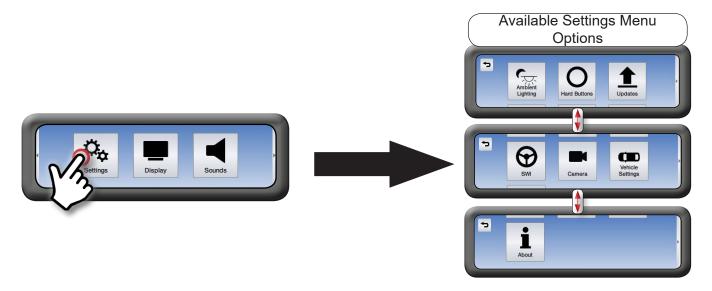


Setup and Testing (cont.)

Settings



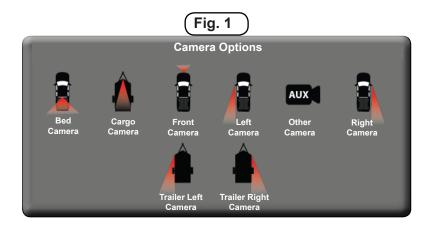
Enter the settings menu by pressing the Settings icon from the Options screen.



Camera Setup

The camera settings menu is used to setup which cameras are installed on the vehicle. When used with the PAC Harness RPA-16P5V (sold separately), the RPK4-FD2101 gives you the ability for switching between up to 5 different camera images via the aftermarket radio. **Note: Camera 1 is permanently set as the Rear Camera and cannot be changed in the settings menu.** Camera inputs 2, 3, 4, and 5 can be toggled between None (No Camera) or the options shown in Fig. 1 below.







Setup and Testing (cont.)

To edit the camera settings, from the settings menu, do the following:

Open Camera Settings

Step 3

From the right set of options, touch the icon that describes which camera is being added.



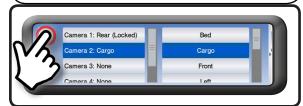
Step 2

From the left set of options in the Camera menu, touch the icon for camera input (Camera 2, 3, 4, 5) you wish to activate.



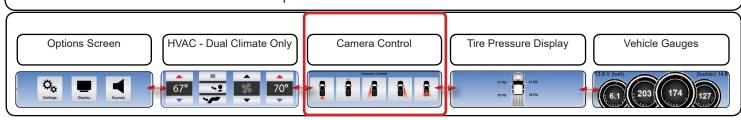
Step 4

Verify the camera input has been setup properly. Exit the settings by pressing the back button until you are on the options screen.



Step 5

Swipe left to the camera control screen



Step 6

Verify the new camera icon shows on the screen and activates the camera when touched.





Setup and Testing (cont.)

Automatic Camera Trigger (Front, Left, or Right Cameras Only)

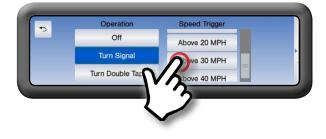
Open Camera Settings Step 1 Open Camera Settings Vehicle Settings

Select the camera trigger.. Select the camera trigger.. Auto On Shift to Drive Low Speed Steering Angle Camera Speed Threshold 6 MPH



The selectable triggers for the Front camera are:

- Auto On Shift to Drive the front camera will come on when the vehicle is placed into drive and stay on for 30 seconds or until 6 mph is reached.
- Low Speed Steering Angle The front camera will turn on when the steering wheel is greater than the selected angle and the speed is less than the selected threshold speed.
- Camera Speed Threshold The front camera will come on when the vehicle is less than the speed selected here and greater than the Low Speed Steeering Angle speed.



The selectable triggers for the Left and Right camera are: **Operation**

- Off Camera will not come on with turn signals (only with forced activation through icons on LCD display).
- **Turn Signal** Camera will come on with turn signal at selected speed (select speed trigger).
- Turn Double Tap Camera will come on with a double tap on the turn signal at selected speed (select speed trigger).

Speed Trigger

- Any
- Moving
- Above 10 MPH
- Above 20 MPH
- Above 30 MPH
- Above 40 MPH



Setup and Testing (cont.)

Steering Wheel Controls

IMPORTANT! The interface comes pre-programmed with all 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. See below for information on custom programming the steering wheel controls, including adding long press / short press operation.

	Alpine	JAC	Kenwood	Clarion	Pioneer	Sony	Fusion
Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +	Volume +
Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -	Volume -
Mode	Source	Source	Source	Source	Source	Source	Source
Track +	Track +	Track +	Track +	Search +	Track +	Track +	Track +
Track -	Track -	Track -	Track -	Search -	Track -	Track -	Track -
Voice	VR	Voicedial	Voice	VR	VR	VR	Power
Mute	Mute	Mute	Att	Mute	Mute	Mute	Mute
Phone Answer	Receive	Answer	Answer	Send	Answer	Answer	N/P
Phone End	End	Reject	End	End	End	Reject	N/P

Note: 2 Wire Resistive radios do not have a specific default programming order and cannot be custom programmed through the RPK4-FD2101. Please refer to the owner's manual of your particular radio for programming instructions.

Example: To program the **Track Up button** to perform the **Track Up function** with a **quick press**, and perform the **Preset Up function** when the button is **pressed and held** for more than 1 second, from the SWI settings menu, do the following:

Open SWI Settings Open SWI Settings Camera Vehicle Settings

Step 3

Touch the display on the Track Up Long Press function that is currently labeled as Unassigned.



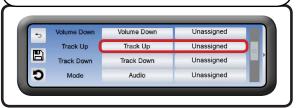
Step 5

Press the save icon below the back arrow to save your changes and to complete the steering wheel programming edits.



Step 2

Scroll to the Track Up button function under the "Buttons" header



Step 4

Using the same method of scrolling that you used to find the Track Up button option, scroll to find and press the Preset Up option.



Custom SWI Programming Tips:

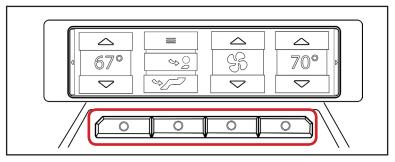
- If you are changing / adding multiple commands, it is not necessary to press the save icon until you have completed all of your changes.
- Each SWC radio function can be used only once. If you try
 to use a radio function that is already assigned to a button,
 the pre-existing button's radio function will change to
 "Unassigned", and the radio function will be set to the new
 button. For example, if you were to try to program volume
 up to the Mode button, the Volume Up button would now
 be set to "Unassigned" and the Mode button would be set
 to volume up.



Setup and Testing (cont.)

Hard Buttons

The four hard buttons located below the RPK4-FD2101 display, give you the ability to assign a single preset to each button to control a specific HVAC function, force activate a specific camera to display on the radio, or to control select screen settings. Once the buttons have been assigned a function, a descriptive tag above each button showing what function that button performs will be present.



If popups are turned on in the menu: The proximity sensor within the dash bezel will display the descriptive tabs when your hand is near the buttons. When your hand is removed, the tabs will disappear.

The options that are able to be preset to the hard buttons are :

HVAC Functions - <u>Vehicle must</u> be equipped with dual zone climate controls:

- · Driver Temp +
- · Driver Temp -
- Passenger Temp +
- · Passenger Temp -
- Fan Speed +
- · Fan Speed -

Camera Functions - Camera must be activated in the Camera Input Settings (Page 15):

- Camera 1
- Camera 2
- Camera 3
- · Camera 4

Screen Functions:

- Day Mode
- Night Mode
- Screen Off
- Screen Cycle (Day Mode / Night Mode / Screen Off)

Assigning functions to the Hard Buttons

Step 1

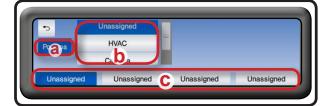
Press the Hard Buttons icon in the settings menu



Step 2

Within the Hard Buttons menu, you will find the following:

- a) Popups Icon (Turns Popups On or Off)
- b) Device Selector Menu (Unassigned / HVAC / Camera / Screen)
- c) Function Identifier Tabs (one above each hard button)





Setup and Testing (cont.)

Step 3

Touch the function identifier tab that corresponds to the hard button that you wish assign a function to.



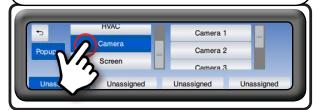
Step 5

A new menu will appear giving options for what operations are available for the device selected in step 4. Click on the option that you wish to assign to the hard button that you selected in step 3. In the example, because Camera 2 is the front camera, we select the Camera 2 option.



Step 4

Click on the device (Unassigned, HVAC, Camera or Screen) in the device selector menu, that corresponds to the operation you wish to program. In the example, we want to use the first hard button to force activate the front camera, so we select the Camera option.



Step 6

The function identifier tab selected in step 3 should now show the function assigned in step 5. Repeat steps 3 through 5 for each hard button you wish to program.



Troubleshooting

- 1. Factory HVAC not working Verify that the two ribbon cables are fully seated and locked in place (see "Assembly of Aftermarket Dash Kit" Step 8 on page 9).
- 2. Factory HVAC working but User Interface not displayed on the 5.2" LCD display (only supported in vehicles with dual zone climate controls) Reset the RP4.2-FD2101 (see "Reset / Restoring Interface Factory Settings" on page 20). If resetting does not resolve the issue, with the vehicle running, disconnect and reconnect the RP4.2-FD2101 Display Connector from the back of the 5.2" LCD display.
- 3. Steering wheel controls inoperable Verify that the DIP switches are set properly according to page 11 of this manual.
- 4. Reverse Camera inoperable -Verify that all reverse camera connection points are proper by reviewing the reverse camera wiring connection steps on page 12 and 13.
- 5. Vehicle option not showing through RPK4-FD2101 display reset interface while kit is connected to the vehicle.

LED Pattern	State	Action
LED 2 solid red	Vehicle RAP / ACC output is on	N/A
LED 2 flashing green	SWC Activity	N/A
LED 2 flashing red	Module Resetting / Initializing	N/A
LED 1 solid green	Module Powered and Operating	N/A
LED 1 flashing amber	USB connected	N/A
Off	No Activity	Verify Key is in ignition position. Verify that there is 12v on the Yellow wire and Ground on the Black wires.



Complete Radio Replacement with Integrated Climate Control Retention for Select 2015-2019 Ford F150 and 2017-2019 Ford Super Duty

Product Updates (Firmware)

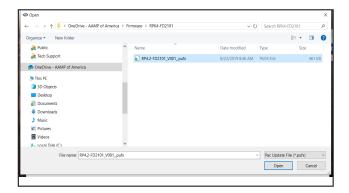
Firmware Updates

The RadioPRO app will allow you to update the RP4.2-FD2101 interface with new firmware as it becomes available. Please visit www.PAC-audio.com/firmware for available updates.

The User Interface for the 5.2" LCD screen can also be updated. Refer to the RPK4.2-FD2101 User Manual for additional information.

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.





Reset / Restoring Interface Factory Settings

You can restore the interface to factory default settings by pressing and holding the programming button on the side of the module until the status LED starts blinking red. Once the LED starts blinking red, release the button. You must release the button while the LED is blinking red in order to perform the reset. This reset will restore all settings to factory default.

Technical Support

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