

## PAC CP1-FRD2

# PAC CP1-FRD2 CAN-Bus Wire Harness Instruction Manual

Model: CP1-FRD2

Brand: PAC

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation and use of the PAC CP1-FRD2 Plug-and-Play CAN-Bus Wire Harness. This product is designed to integrate aftermarket accessories with the existing CAN-Bus system in select Ford vehicles manufactured between 2014 and 2022. Please read this manual thoroughly before beginning installation to ensure proper function and safety.

## 2. SAFETY INFORMATION

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- Disconnect the vehicle's battery before installation to prevent electrical shorts and potential damage to vehicle components or the harness.
- Ensure all connections are secure and properly insulated to avoid short circuits or signal interference.
- Consult a professional automotive technician if you are unsure about any part of the installation process. Improper installation can lead to vehicle damage or malfunction.
- Do not modify the harness. Unauthorized modifications can void the product warranty and may cause damage to the vehicle's electrical system.
- Wear appropriate personal protective equipment (PPE), such as safety glasses and gloves, during installation.

## 3. PACKAGE CONTENTS

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Verify that all components are present and undamaged before proceeding with installation:

- 1x PAC CP1-FRD2 CAN-Bus Wire Harness

## 4. VEHICLE COMPATIBILITY

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The PAC CP1-FRD2 harness is specifically designed for compatibility with select Ford vehicles equipped with particular ECUs, manufactured between the years 2014 and 2022.

For a detailed and up-to-date list of compatible models, please refer to the product packaging or the official PAC website. It is crucial to confirm your vehicle's compatibility before installation.

**Note:** Compatibility may vary based on specific vehicle trim levels, factory options, and regional variations.

## 5. INSTALLATION INSTRUCTIONS

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### Tools Required:

- Basic automotive hand tools (e.g., panel removal tools, wire strippers, crimpers, electrical tape, multimeter)

### 1. Preparation

- a. Park the vehicle on a level surface and engage the parking brake.
- b. Disconnect the negative terminal of the vehicle's battery to prevent electrical hazards.
- c. Access the vehicle's factory radio or the relevant module area where the harness will be connected. Refer to your vehicle's service manual for specific panel removal instructions.

### 2. Connecting the Harness

- a. Locate the factory wiring harness that corresponds to the PAC CP1-FRD2. These are typically found behind the factory radio or in the vehicle's dashboard area.
- b. Connect the vehicle-specific connectors of the CP1-FRD2 harness to the matching factory ports. The harness is designed for a plug-and-play fit, ensuring correct orientation.

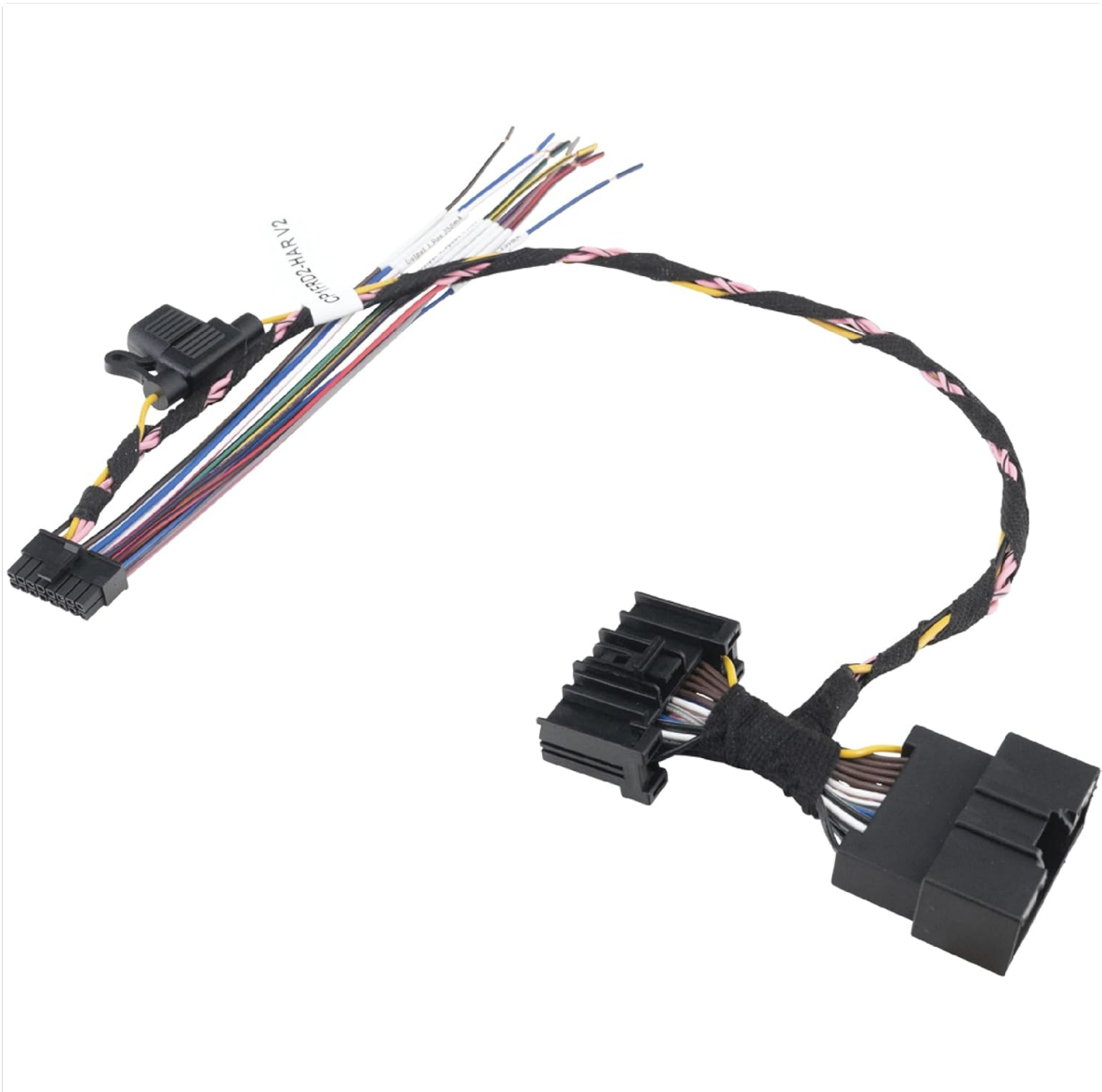


Image: The PAC CP1-FRD2 CAN-Bus Wire Harness, showing the main body with various colored wires bundled and

terminated with black automotive connectors. One end features a multi-pin connector, while the other end has two larger connectors, one male and one female, designed for vehicle integration. A small inline fuse holder is visible on one of the wire strands.

### 3. Wiring Connections (if applicable)

- a. If your installation requires connecting additional wires (e.g., for an aftermarket radio, amplifier, or other accessories), refer to the wiring diagram provided with your aftermarket device and any specific wiring instructions included with the CP1-FRD2.
- b. The harness typically provides outputs for CAN-Bus data, ignition, illumination, and other essential signals. Match these outputs to the corresponding inputs of your aftermarket device.
- c. Ensure all bare wire connections are properly crimped or soldered and insulated with high-quality electrical tape or heat shrink tubing to prevent shorts.

### 4. Securing the Harness

- a. Route the harness carefully, ensuring it is away from moving parts, heat sources, sharp edges, and areas where it could be pinched.
- b. Use zip ties or automotive-grade tape to secure the harness in place, preventing rattles or potential damage from vibration.

### 5. Testing

- a. Reconnect the vehicle's battery.
- b. Turn the ignition to the accessory position and then to the ON position. Do not start the engine immediately.
- c. Test the functionality of all connected aftermarket devices and ensure proper communication with the vehicle's systems (e.g., steering wheel controls, illumination, ignition signals).
- d. If issues arise, refer to the Troubleshooting section of this manual.

### 6. Reassembly

- a. Once all functions are verified, carefully reinstall any removed panels or trim pieces, ensuring no wires are pinched during reassembly.

## 6. OPERATION

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The PAC CP1-FRD2 is a passive interface designed to translate CAN-Bus data for aftermarket accessories. Once correctly installed, it operates automatically with the vehicle's electrical system. No direct user interaction is required for the harness itself. The operation of connected aftermarket devices will follow their respective instruction manuals.

## 7. MAINTENANCE

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The PAC CP1-FRD2 CAN-Bus Wire Harness is designed for maintenance-free operation under normal conditions.

- Periodically inspect connections for looseness or corrosion, especially if experiencing intermittent issues with connected devices.
- Keep the harness free from excessive moisture, extreme temperatures, and direct exposure to harsh chemicals.
- Do not apply cleaning agents directly to the harness connectors or wiring.

## 8. TROUBLESHOOTING

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If you encounter issues after installation, review the following common problems and their potential solutions:

### 1. No Power to Aftermarket Device

- Check the vehicle's battery connection and ensure it is fully charged.
- Verify all harness connections are secure and properly seated.
- Inspect any inline fuses on the harness or the aftermarket device for continuity.
- Ensure the vehicle's ignition is in the ON or ACC position.

### 2. Intermittent Functionality

- Re-check all connections for proper seating, insulation, and secure contact.
- Ensure no wires are pinched, frayed, or damaged during installation or reassembly.
- Verify vehicle compatibility again, as incorrect application can lead to unpredictable behavior.

### 3. Vehicle Warning Lights

- If new warning lights appear on the dashboard after installation, immediately disconnect the harness and consult a professional technician. This may indicate an incorrect connection or incompatibility with your vehicle's specific system.

### 4. CAN-Bus Communication Errors

- Ensure the harness is correctly connected to the vehicle's CAN-Bus lines. Incorrect polarity or loose connections can disrupt communication.
- Verify the aftermarket device is compatible with the CAN-Bus signals provided by the CP1-FRD2.

For further assistance, if the above steps do not resolve your issue, please contact PAC technical support.

## 9. SPECIFICATIONS

| Feature              | Detail                                      |
|----------------------|---|
| Model                | CP1-FRD2                                    |
| Brand                | PAC   |
| Compatibility        | Select Ford ECUs (2014-2022 models)         |
| Recommended Use      | Automotive wiring harness for Ford vehicles |
| Connector Type       | Vehicle-Specific Automotive Connectors      |
| Cable Type           | Multi-wire CAN-Bus Harness                  |
| Dimensions (Package) | Approximately 6 x 3 x 1 inches              |
| Weight (Package)     | Approximately 3 Pounds                      |

## 10. WARRANTY AND SUPPORT

PAC products are designed for reliability and performance. This product is covered by a limited warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or

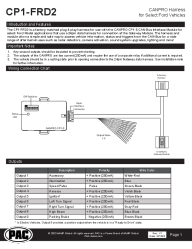
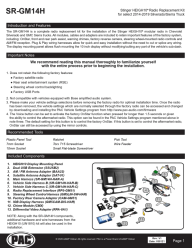
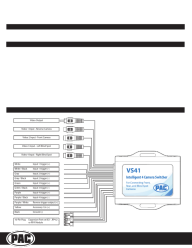
visit the official PAC website.

For technical support, installation assistance, or warranty claims, please contact PAC customer service:

- **Website:** [www.pac-audio.com](http://www.pac-audio.com)
- **Phone:** (Refer to the official PAC website for current contact numbers)

Please have your product model number (CP1-FRD2) and purchase information ready when contacting support to expedite assistance.

## Related Documents - CP1-FRD2

|   |   |
|---|---|
|    | <p><a href="#">CP1-FRD2 CANPRO Harness for Select Ford Vehicles Installation Guide</a></p> <p>Detailed installation guide and features for the PAC CP1-FRD2 CANPRO Harness, designed for select Ford vehicles to access CAN-Bus data for aftermarket accessories.</p>   |
|   | <p><a href="#">Stinger HEIGH10 Radio Replacement Kit for 2014-2021 Toyota Tundra Installation Guide</a></p> <p>This guide provides detailed instructions for installing the Stinger HEIGH10 Radio Replacement Kit (SR-TUN14H) in 2014-2021 Toyota Tundra vehicles, covering disassembly, wiring, component connection, assembly, testing, and troubleshooting.</p>                  |
|  | <p><a href="#">RPK4-CH4103: Jeep Grand Cherokee Radio Replacement &amp; Climate Control Kit Installation Guide</a></p> <p>Comprehensive guide for installing the PAC RPK4-CH4103 kit to replace the factory radio in 2014-2020 Jeep Grand Cherokees, retaining climate controls and steering wheel functions.</p>   |
|  | <p><a href="#">SR-GM14H Stinger HEIGH10 Radio Replacement Kit Installation Guide for Silverado/Sierra</a></p> <p>Comprehensive installation guide for the PAC SR-GM14H Stinger HEIGH10 radio replacement kit, designed for 2014-2019 Chevrolet Silverado and GMC Sierra trucks. Includes detailed steps for disassembly, wiring, and mounting.</p>                                  |
|  | <p><a href="#">PAC VS41 Intelligent 4 Camera Switcher: Installation and Features Guide</a></p> <p>Comprehensive guide for the PAC VS41 Intelligent 4 Camera Switcher, detailing its features, wiring connections, vehicle-specific installation instructions for various GM, Nissan, and Toyota models, and a technical bulletin addressing blind spot camera false triggering.</p> |

RPK4-CH4101

Complete Radio Replacement Kit with Integrated Climate Control Retention for Select Ford Vehicles

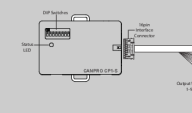
Introduction and Features

The RPK4-CH4101 is a factory-installed dual-band radio harness for use with the PAC RPK4-CH4101 Complete Radio Replacement Kit with Integrated Climate Control Retention for Select Ford Vehicles. The harness and module allow simple and safe way to replace vehicle information, radio and stereo from the CAN-Bus for a wide range of aftermarket users such as radio, detectors, camera, actuator, sound system, upgrade, lighting and more!

Important Notes

1. Any use of vehicle should be installed to prevent shunting.  
2. The vehicle of the CANPRO is not recommended and requires the use of a separate relay. Additional current is required.  
3. The vehicle should be in a resting state prior to opening connection to the CAN-Bus Gateway harness. See installation note for further information.

Wiring Connection Chart



Outputs

| Output   | Function          | Signal             | Wire Color   |
|----------|-------------------|--------------------|--------------|
| Output 1 | Accessory         | + Positive (200mA) | White/Red    |
| Output 2 | Ignition          | + Positive (200mA) | Blue         |
| Output 3 | Power Park        | + Positive (200mA) | Green/Black  |
| Output 4 | Reverse           | + Positive (200mA) | Violet/Black |
| Output 5 | Left Turn Signal  | + Positive (200mA) | Red/Black    |
| Output 6 | Right Turn Signal | + Positive (200mA) | Gray/Black   |
| Output 7 | Brake             | + Positive (200mA) | Blue/Black   |
| Output 8 | Parking Brake     | + Negative (200mA) | Green/Black  |

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### PAC RPK4-CH4101 Radio Replacement Kit Installation Guide for RAM Trucks

Detailed installation guide for the PAC RPK4-CH4101 Complete Radio Replacement Kit with Integrated Climate Control Retention for 2013-2019 RAM Trucks. Includes component lists, step-by-step instructions, wiring diagrams, setup, and troubleshooting.

Documents - PAC – CP1-FRD2

CP1-FRD2

CANPRO Harness for Select Ford Vehicles

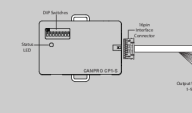
Introduction and Features

The CP1-FRD2 is a factory-installed dual-band CANPRO harness for use with the PAC CP1-FRD2 CANPRO Harness Module for Select Ford Vehicles. The harness and module allow simple and safe way to replace vehicle information, radio and stereo from the CAN-Bus for a wide range of aftermarket users such as radio, detectors, camera, actuator, sound system, upgrade, lighting and more!

Important Notes

1. Any use of vehicle should be installed to prevent shunting.  
2. The vehicle of the CANPRO is not recommended and requires the use of a separate relay. Additional current is required.  
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[CP1-FRD2 CANPRO Harness for Select Ford Vehicles Installation Guide](#)

Detailed installation guide and features for the PAC CP1-FRD2 CANPRO Harness, designed for select Ford vehicles to access CAN-Bus data for aftermarket accessories.

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| Year(s)   | Make | Model        | Trim Level      | Additional Info |
|-----------|------|--------------|-----------------|-----------------|
| 2001-2002 | FORD | BRONCO SPORT | All TRIM LEVELS | ---             |
| 2009-2010 | FORD | F-150        | All TRIM LEVELS | ---             |
| 2015-2016 | FORD | EDGE         | All TRIM LEVELS | ---             |
| 2009-2010 | FORD | ESCORT       | All TRIM LEVELS | ---             |
| 2015-2016 | FORD | EXPLORER     | All TRIM LEVELS | ---             |
| 2015-2016 | FORD | F-150        | All TRIM LEVELS | ---             |
| 2017-2018 | FORD | F-150        | All TRIM LEVELS | ---             |
| 2014-2015 | FORD | FLEX         | All TRIM LEVELS | ---             |
| 2002      | FORD | MARQUEE      | All TRIM LEVELS | ---             |
| 2015-2016 | FORD | MUSTANG      | All TRIM LEVELS | ---             |
| 2011-2012 | FORD | RANGER       | All TRIM LEVELS | ---             |
| 2015-2016 | FORD | RANGER       | All TRIM LEVELS | ---             |

[\[pdf\] Guide Application Guide](#)

PAC Audio Select Ford CAN Bus Plug and Play Harness Application Guide CP1FRD2 CP1 FRD2

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