VINLAND

CUSTOM-FIT CAR STEREO FOR RAM 2019-2024



Titan Series

INSTALLATION MANUAL

Important Notice!

Please read this installation guide carefully before disassembling your vehicle or making any wire connections. Installing this product requires technical expertise, experience and specialized tools.

If you are unsure about performing the installation steps outlined in this manual, we strongly recommend having the product professionally installed by an authorized VINLAND dealer.

Content

Retain Factory Features with Vinland TITAN 3
Chapter 1 — Tools Needed & Packing List 4
Chapter 2 — Car Stereo Rear Connector Reference 5
Chapter 3 — Installation 6
Part 1 Dashboard Disassembly 6
Factory Radio Rear Port Reference 8
Part 2 Wire Connections 9
Wiring Instructions: 11
Part 3 Reassembly 16
Chapter 4 — CANBUS Protocol Settings Guide 17
Chapter 5 — Troubleshooting 18

Retain Factory Features with Vinland TITAN

When used with a compatible CAN Bus Decoder, the VINLAND TITAN series can retain selected factory vehicle functions while adding the features of the upgraded Android car stereo.

The table below lists commonly supported factory features that may be retained.

Note: The functions listed below are for reference only. Actual retained features may vary depending on the vehicle model, model year, trim level, regional configuration, and CAN Bus compatibility.

Features	Status
Door Open Reminder	Retained
Backlight Control	Retained
Automatic Backup Camera Switching	Retained
Parking Sensor	Retained
Steering Wheel Control	Retained
A/C Display & Control	Retained

Chapter 1 — Tools Needed & Packing List

Tools needed for installation: Plastic pry tools, 7mm & 10mm Socket Set, Screwdriver, Electrical tape, Scissors, Wrench, Screw Tray, Cable Ties.

Warning:

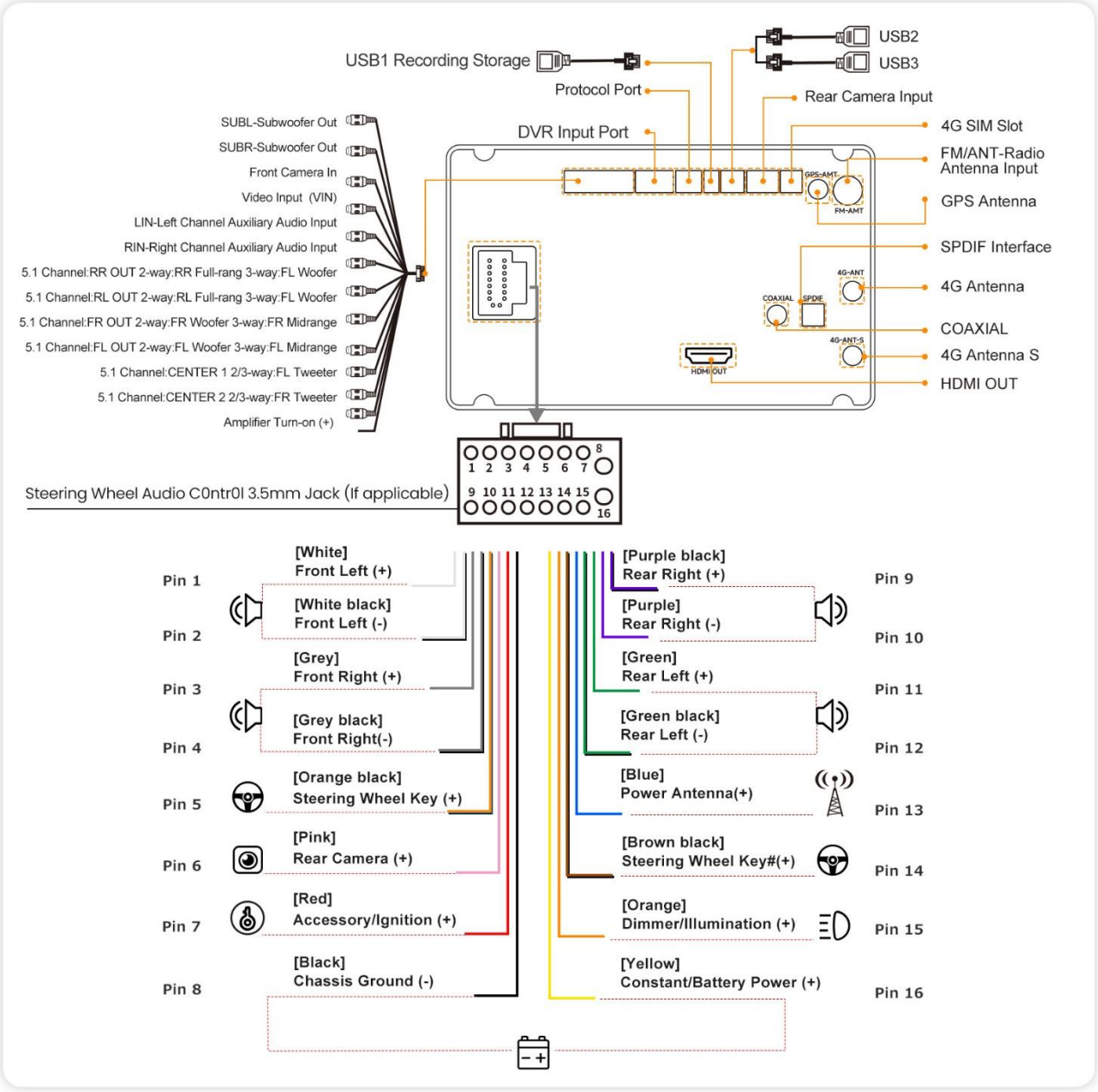
- We regularly release system updates that may introduce new features or changes not covered in this manual. Always refer to the latest release notes for comprehensive details.
- Download the latest Installation Manual from our website or contact customer support for assistance.
- We strive for comprehensive documentation. If you have questions or encounter issues with your car stereo that are not covered in this manual, please contact customer support.

① Car Stereo (T14RM1-13)
② 2022-2024 Power Harness
③ 2019-2021 Power Harness
④ USB-A to Mini-USB Adapter
⑤ Radio Antenna with Amplifier
⑥ Rear Camera Input
⑦ 4G Antenna
⑧ RCA Harness
⑨ External Microphone
⑩ 6-Pin USB2 Cable
⑪ 4G SIM Slot Cable
⑫ 4-Pin USB1 Cable
⑬ GPS Antenna
⑭ CAN Bus Decoder Box
⑮ 4G Right-Angle Antenna
⑯ SIM Card Eject Tool
⑰ Rubber Top Cover Panel
⑱ User Manual
⑲ Warranty Card



Chapter 2 — Car Stereo Rear Connector Reference

The diagram below identifies the rear ports on the Vinland car stereo. Refer to this page when connecting accessories and harnesses during installation.



Chapter 3 — Installation

Dashboard trim and panel layouts may vary by model year. The disassembly steps in this guide are intended as a general reference only. Follow the actual vehicle configuration during removal. If you encounter difficulty during disassembly, seek assistance from a qualified automotive installer.

Before you begin, park the vehicle, turn off the ignition, remove the key, and disconnect power. Do **NOT** connect or disconnect any wiring while the vehicle is powered on.

Part 1 Dashboard Disassembly



Step 1

Remove the small trim cover from the top of the center dash panel. Then remove the two factory screws.



Step 2

Use a plastic trim tool to release the clips around the center bezel. Once all clips are released, carefully pull the bezel



Step 3

Disconnect all electrical connectors and cables from the rear of the factory radio and center dash bezel.



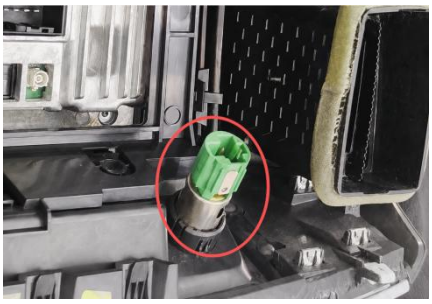
Step 4

Remove the factory retaining clips from the original center bezel. Keep all clips for reuse during installation of the new radio.



Step 5

Remove the screws securing the OEM air vents, then detach the OEM air vents.



Step 6

Release the retaining tabs and remove the factory 12V power outlet/cigarette lighter assembly from the original center bezel.



Step 7

Remove the screws securing the factory button panel, then detach the button panel.

Important

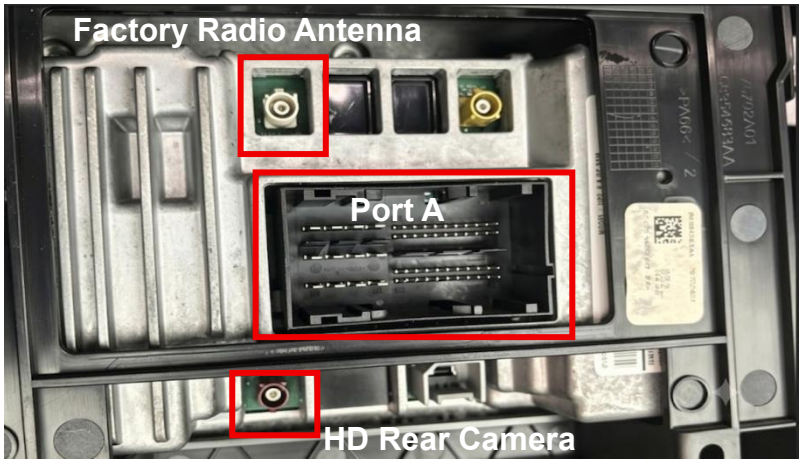
The factory retaining clips, left and right air vents, 12V power outlet/cigarette lighter assembly, and lower control/button panel removed above will be reused on the Titan car stereo assembly.

Keep all factory screws, clips, and components in a safe place during installation.

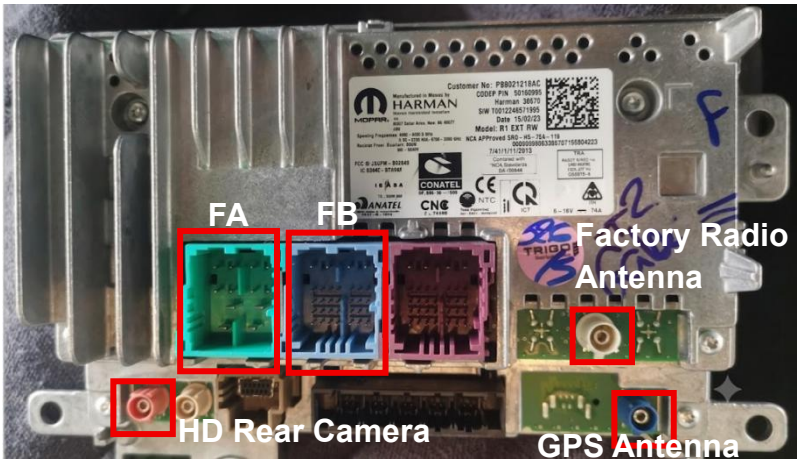
Factory Radio Rear Port Reference

The figures below show the rear port layouts of the factory radio. Refer to these figures to identify the factory connectors used in the wiring procedures that follow.

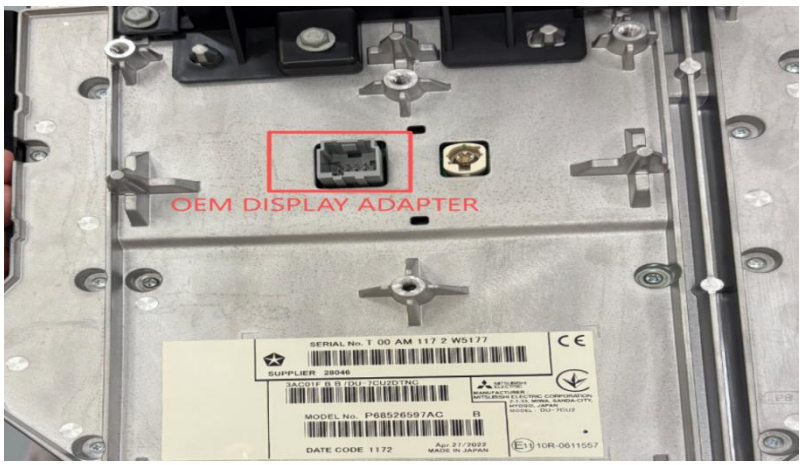
2019-2021 Factory Radio



2022-2024 Factory Radio



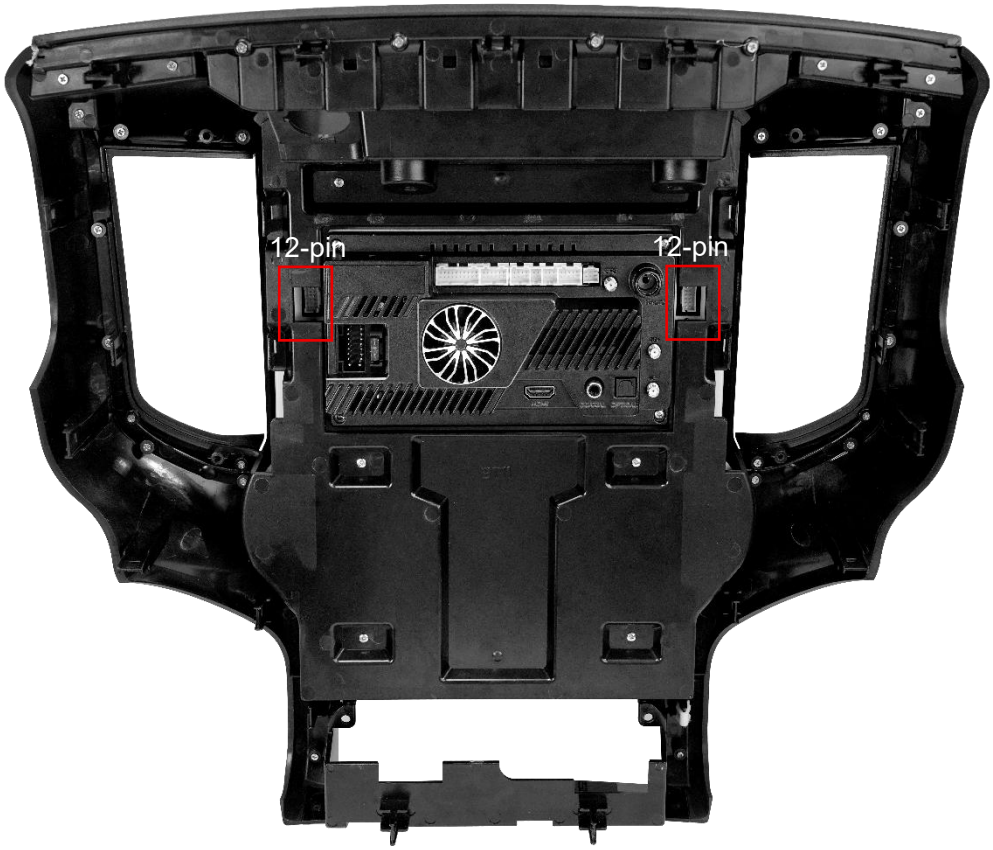
2022-2024 Factory Display



Part 2 Wire Connections

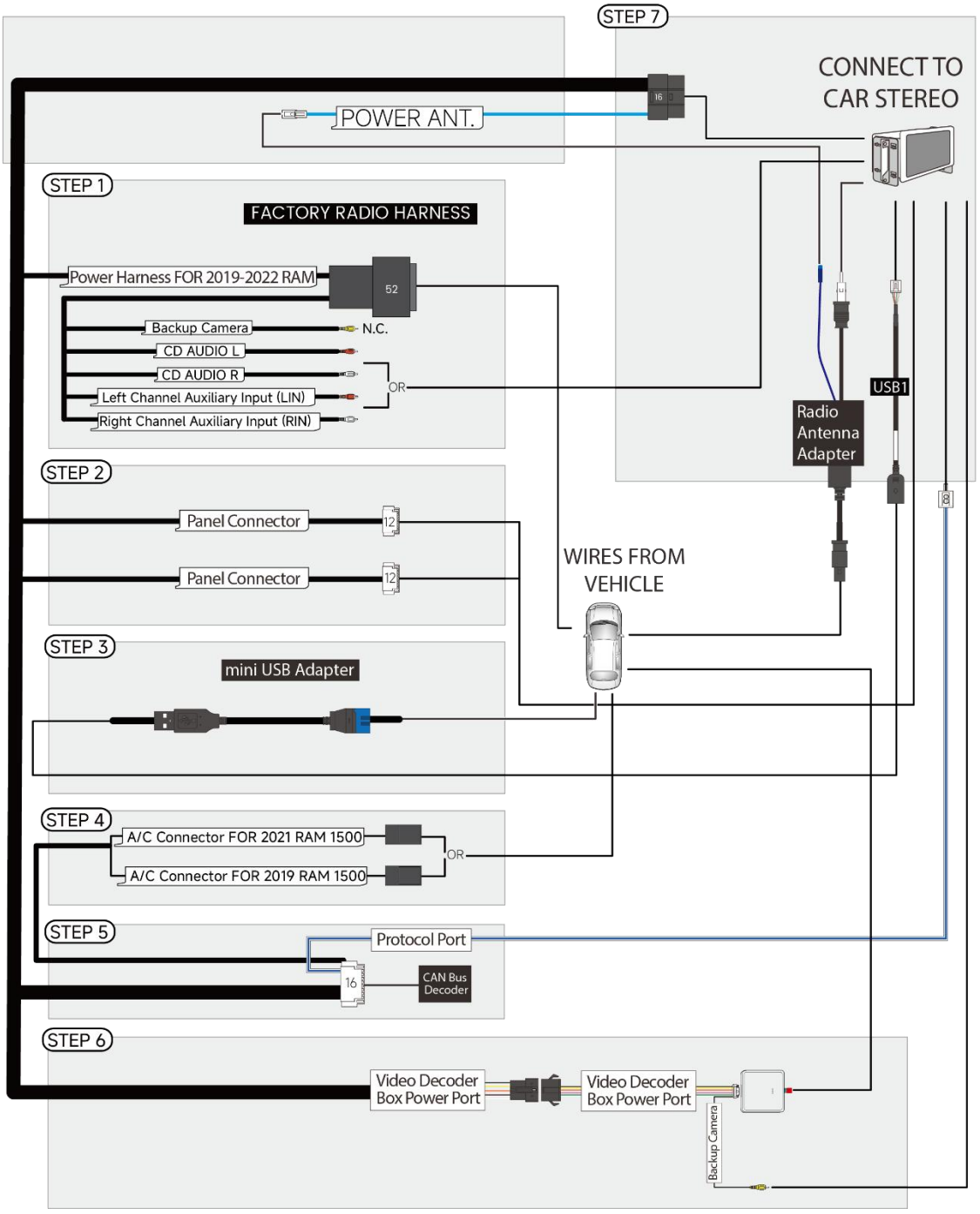
Rear Connector Reference for Vinland Control Panel

The photo below identifies the rear connector locations and pin configurations on the Vinland control panel assembly. The label colors in the photo are for reference only. Connectors marked in white are used with the supplied Vinland power harness. Connectors marked in red are used with the factory vehicle plugs.



2019-2021 Wiring Diagram

WIRING DIAGRAM



[Figure 1 2019-2021 RAM Wiring Diagram]

2019-2021 Wiring Instructions:

Refer to the Figure 1

IMPORTANT: Before making any connections, review the **wiring diagram** and the **Factory Radio Rear Port Reference** together. The factory **port A, port B, port C, and port D** referenced in the wiring instructions are shown in the **Factory Radio Rear Port Reference** section.

Step 1 — Connect the Factory Connectors

Connect the **52-pin black connector** from the power harness to the connector removed from the factory radio.

Step 2 — Panel Connectors

Connect the two **12-pin white connectors** from the power harness to the two narrow **12-pin side ports** on the left and right sides of the rear housing of the car stereo. The connectors are interchangeable. Make sure both are fully inserted.

Step 3 — Connect to USB Adapter

① Connect the blue end of USB adapter to the factory USB connector removed from factory radio.
② Connect the other type-A connector of USB adapter to the USB1 cable.

Step 4 — Connect to Factory Climate Control Panel

The power harness includes two climate control panel connectors. Compare the wire positions on the factory climate control panel plug with the two connectors on the power harness. Connect only the harness connector with matching wire positions to the factory plug.

Important: Do not connect both connectors.

Step 5 — Connect to CAN Bus Decoder

Connect the 16-pin white connector from the power harness to the CAN Bus decoder.

Step 6 — Connect to Factory Rear Camera Retention Interface

① Disconnect the factory backup camera LVDS connector from the factory radio.
② Then connect it to the green input port on the **VIN-WRC Video Decoder module** (sold separately). Ensure the connector is fully seated and locked.
③ Connect the **18-pin white connector** on the **Backup Camera Retention Adapter Harness** to the **18-pin port** on the **video decoder module.**
④ Locate the yellow RCA plug labeled “**Backup Camera**” on the **Backup Camera Retention Adapter Harness**. Then, connect this RCA plug to the cable (labeled Rear Camera Input) from the 10-pin port on the rear of the car stereo.
⑤ Finally, locate the connectors labeled “**Video Decoder Box Power Port**” (both on the Power Harness and Video Decoder Harness). Ensure a secure connection.

Step 7 — Connect to Car Stereo

① **Audio RCA Connectors**

The power harness includes two RCA audio input options for retaining the factory auxiliary audio input. Use only one option as needed.

- **Option A — AUX Audio Input**
  Connect the RCA plugs labeled **Left Channel Auxiliary Input** and **Right Channel Auxiliary Input** to the factory **Auxiliary Input** connection.
- **Option B — CD Audio Input**
  Connect the RCA plugs labeled **CD_Audio_L** and **CD_Audio_R** to the factory **Auxiliary Input** connection.

Important: Do not connect both RCA audio input options at the same time. Select only one input path based on the vehicle configuration or the audio source you need to retain.

② **Radio Antenna Adapter**

- Connect the radio antenna plug on the Radio Antenna Adapter to the **Radio port** on the car stereo.
- Then connect the blue radio antenna power wire labeled **Power ANT** on the adapter to the matching blue wire labeled **Power ANT** on the power harness.
- Connect the other end of the Radio Antenna Adapter to the **factory radio antenna.**

③ **Power Connector**

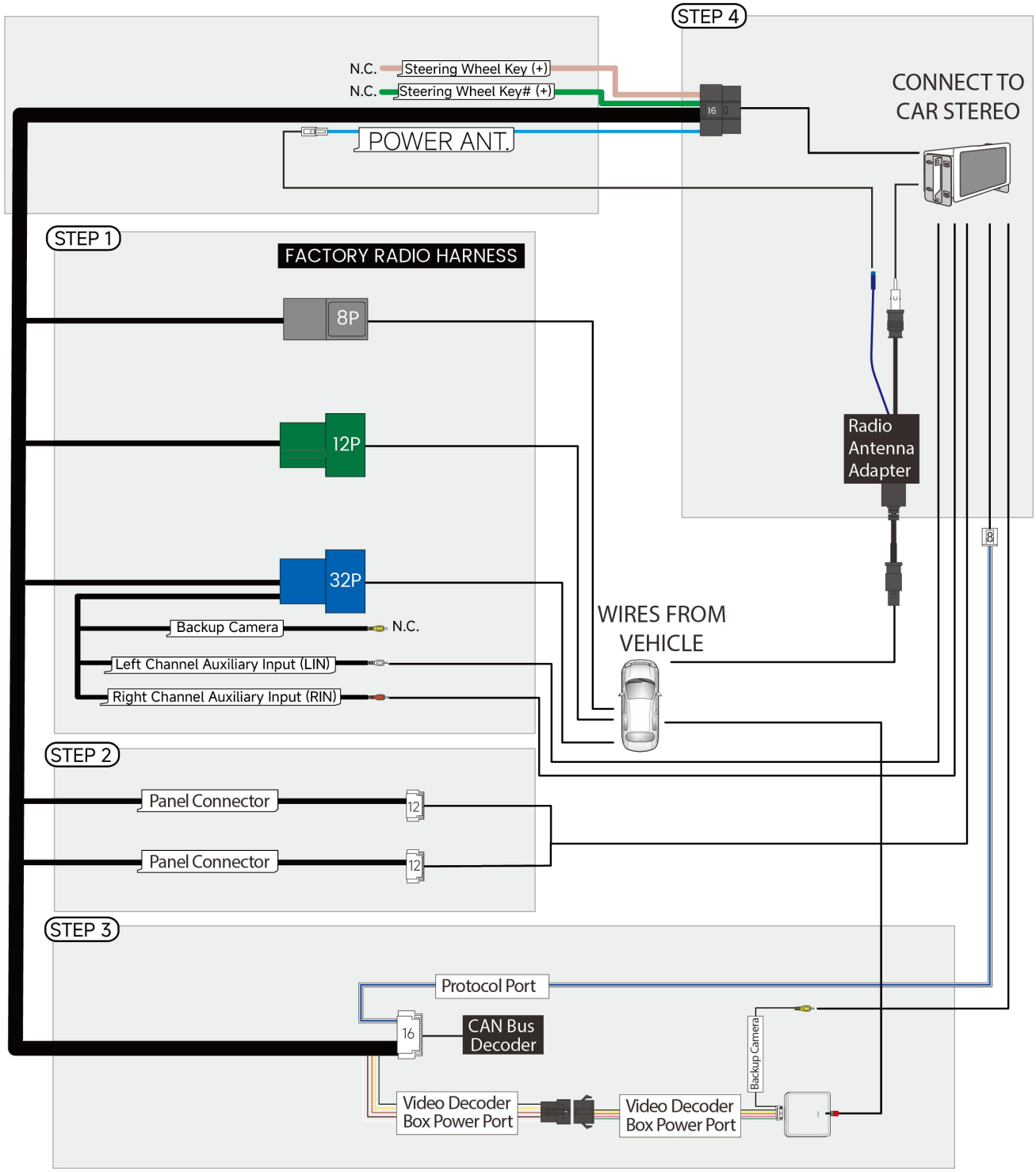
Connect the 16-pin black power plug to the match power port on the car stereo.

④ **USB1 Cable**

Connect the other end of the 4-pin USB cable to the car stereo.

2022-2024 Wiring Diagram

WIRING DIAGRAM



[Figure 2 2022-2024 RAM Wiring Diagram]

2022-2024 Wiring Instructions

Refer to the Figure 2

Step 1 — Connect to Factory Connectors

- **8-pin Gray Connector**

Connect the **8-pin gray connector** (labeled **OEM DISPLAY ADAPTER**) on the power harness to the factory connector removed from the factory display.

- **12-pin Green Connector**

Connect the **12-pin green connector** (labeled **POWER HARNESS FOR 2022-2024 RAM**) on the power harness to the factory connector removed from the factory radio.

- **32-pin Blue Connector**

① Connect the **32-pin blue connector** on the power harness to the factory connector removed from the factory radio.

② Connect the red and white RCA plugs branching from the blue connector, labeled **Left Channel Auxiliary Input** and **Right Channel Auxiliary Input**, to the RCA connectors with the same labels on the 20-pin RCA harness from the rear of the car stereo.

Step 2 — Connect to the Car Stereo Panel

Connect the two **12-pin white connectors** from the power harness to the two narrow **12-pin side ports** on the left and right sides of the rear housing of the car stereo. The connectors are interchangeable. Make sure both are fully inserted.

Step 3 — Connect to CAN Bus Decoder and Factory Rear Camera Retention Interface

- **CAN Bus Decoder**

Connect the 16-pin white connector from the power harness to the CAN Bus decoder.

- **Factory Rear Camera Retention Interface**

① Disconnect the factory backup camera LVDS connector from the factory radio.

② Then connect it to the green input port on the **VIN-WRC** Video Decoder module (sold separately). Ensure the connector is fully seated and locked.

③ Connect the **18-pin white connector** on the **Backup Camera Retention Adapter Harness** to the **18-pin port** on the **video decoder module**.

④ Locate the yellow RCA plug labeled "**Backup Camera**" on the **Backup Camera Retention Adapter Harness**. Then, connect this RCA plug to the cable (labeled Rear Camera Input) from the 10-pin port on the rear of the car stereo.

⑤ Finally, locate the connectors labeled **Video Decoder Box Power Port** (both on the Power Harness and Video Decoder Harness). Ensure a secure connection.

Step 4 — Connect to the Car Stereo

① **Radio Antenna Adapter**

- Connect the radio antenna plug on the Radio Antenna Adapter to the **Radio port** on the car stereo.
- Then connect the blue radio antenna power wire labeled **Power ANT** on the adapter to the matching blue wire labeled **Power ANT** on the power harness.
- Connect the other end of the Radio Antenna Adapter to the **factory radio antenna.**

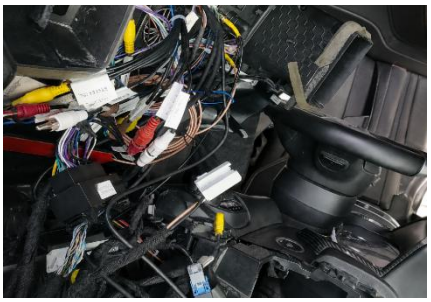
② **Power Connector**

Connect the 16-pin black power plug on the power harness to the match port on the car stereo.

Important: The factory USB port is **not supported on 2022–2024 models**. **Do not connect the factory USB cable to the new car stereo.**

Part 3 Reassembly

Before reassembly, make sure all required factory components removed earlier have been properly transferred to the new Titan car stereo assembly.



Step 1

After completing all wiring connections, neatly organize the cables behind the dashboard.



Step 2

Fit the head unit into the dashboard opening and press the trim panel securely into place.



Step 3

Reinstall the two factory screws.



Step 4

Install the included rubber top cover panel.



Step 5

Installation complete.

Chapter 4 — CANBUS Protocol Settings Guide

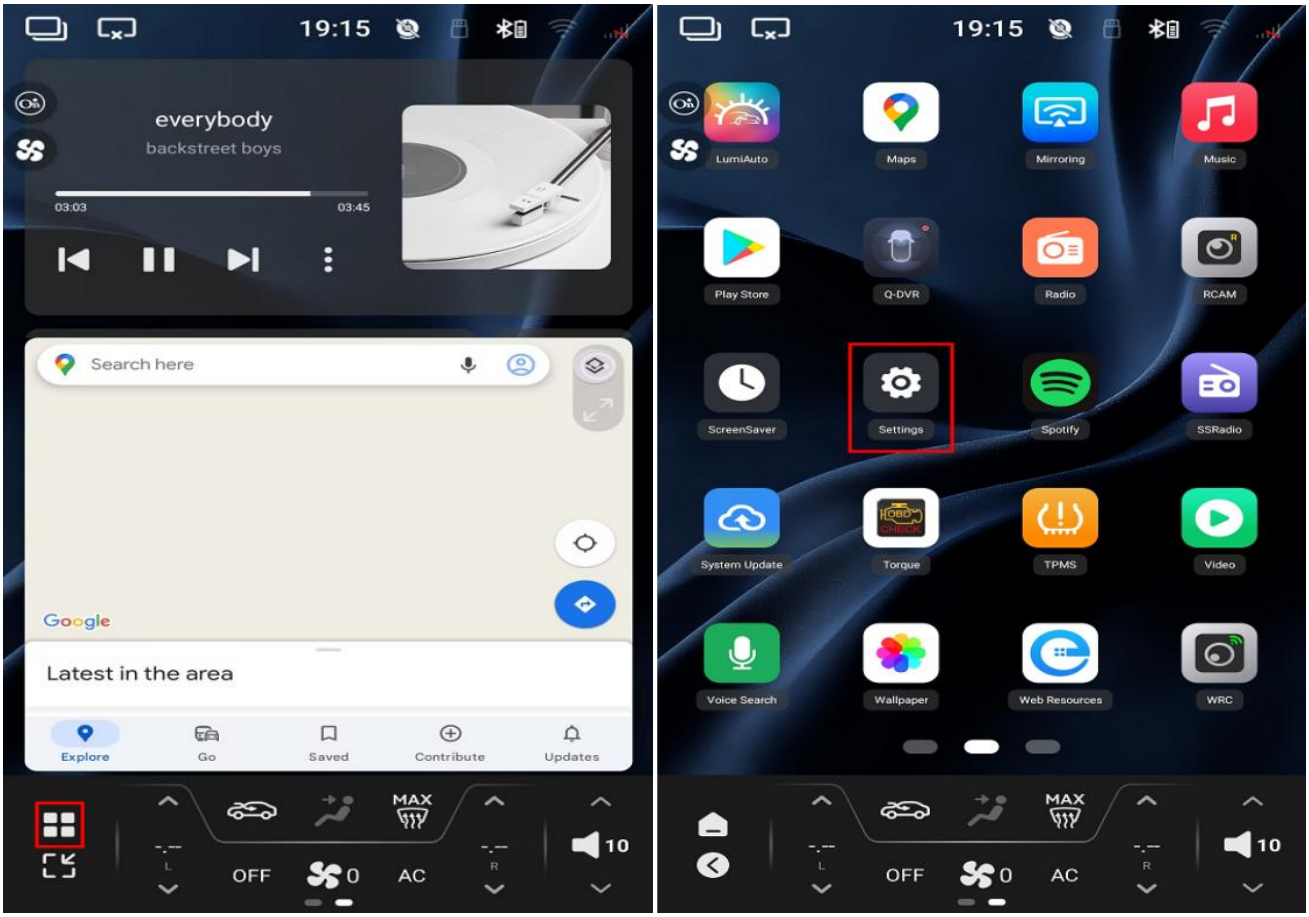
Select the Correct CANBUS Configuration

Before using the head unit, select the correct CANBUS configuration according to the vehicle's model year and factory equipment level.

Vehicle Configuration Setup Steps

Step 1 — Open Settings

From the home screen, tap the Apps/Menu icon to enter the application menu, then select Settings.



Step 2 — Select the CANBUS Configuration

Go to:

Settings → Assembly → CANBUS Settings

Then select the corresponding:

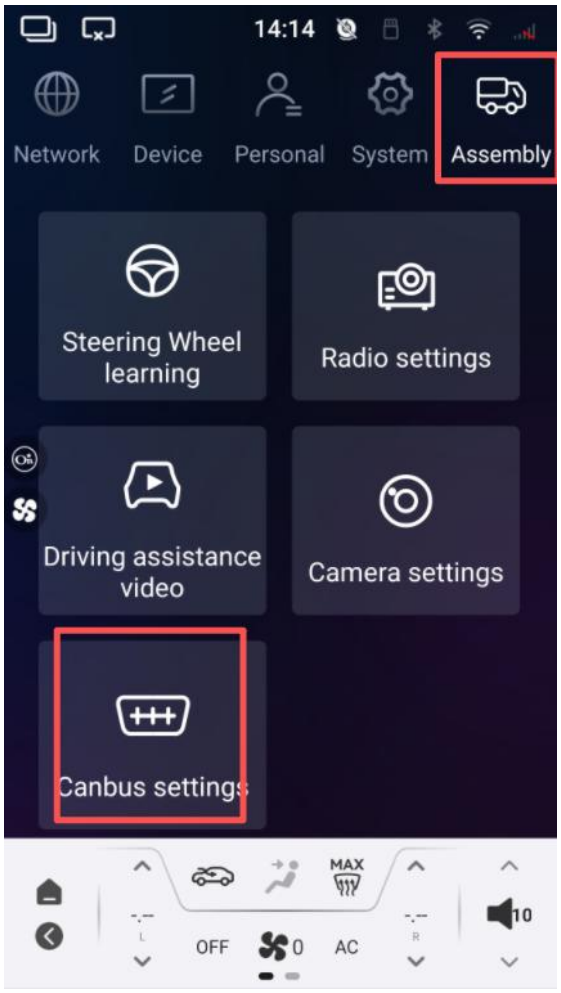
Provider → Band → Model → Year

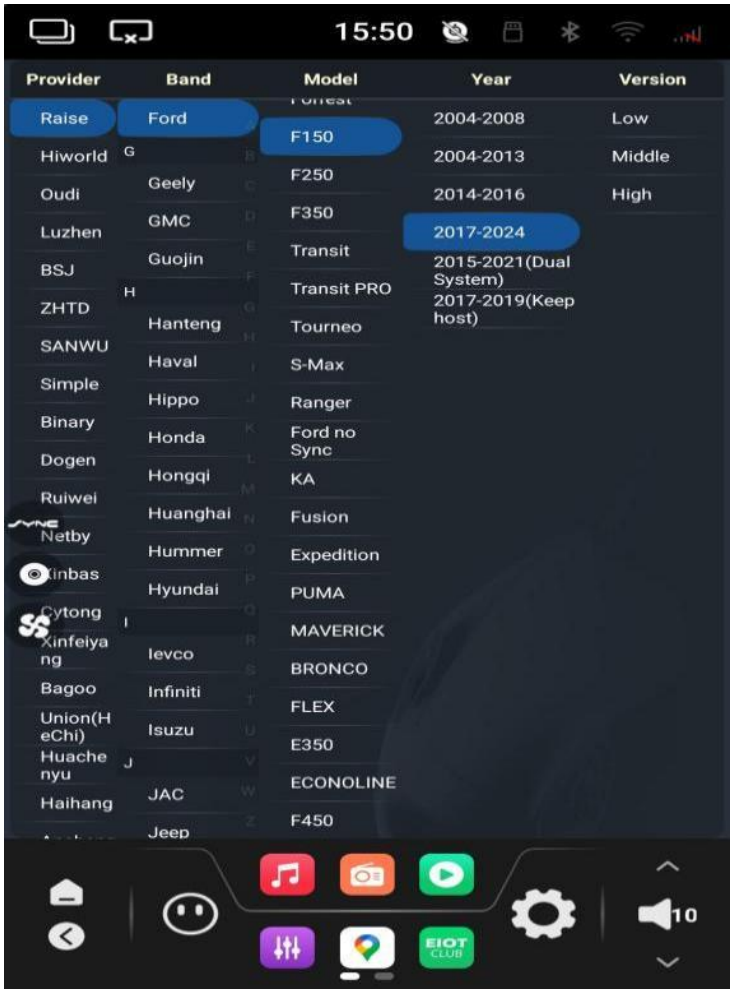
according to the vehicle being installed.

Choose the appropriate configuration level:

- Low
- Middle
- High

Make sure the selected setting matches the vehicle’s actual factory configuration.





Chapter 5 — Troubleshooting

No.	Problem Description	Solution
1	The Vinland car stereo does not power on	① Verify that the yellow B+ wire in the 16-pin power plug provides a constant 12V power supply. If no power is present, check the corresponding factory fuse and inspect the vehicle wiring for damage or an open circuit. ② Select the power harness according to the vehicle model year. For 2019–2021 models, check that the A/C connector on the power harness is connected to the correct factory A/C connector and fully seated. For 2022–2024 models, check that the OEM DISPLAY ADAPTER 8-pin connector is connected to the correct factory connector and fully seated. Also verify that the 16-pin white connector from the CAN Bus decoder is properly connected to the power harness. Make sure all connections are secure and fully inserted. Verify that the red **ACC** wire from the 16-pin CAN Bus decoder connector provides the correct switched power output to the aftermarket car stereo.
2	Poor GPS Signal Reception	① Verify the GPS antenna is securely connected. The recommended mounting location is the interior A-pillar or above the center console. ② GPS functionality may be limited in high-rise density areas or by adverse weather.

3	Reverse Camera Malfunction	① If the vehicle is **not equipped with a factory backup camera** and no aftermarket camera has been installed, a backup camera must be added. Verify that the aftermarket camera video signal cable is securely connected and that the camera is receiving proper power. ② If the vehicle is equipped with a factory backup camera, verify that the backup camera video wire from the matching screen-side adapter is correctly connected to the backup camera video input on the aftermarket car stereo.
4	No Audio After Installation on Vehicles Equipped with a Factory xfxAmplifier	① Verify that the **amplifier control wire** on the **RCA harness** is properly connected to the matching amplifier control wire on the **AMP Control Connector**. Make sure the connection is insulated properly. ② Also make sure the **amplifier control setting** in the **Vinland** car stereo is turned on.
5	Poor or No Radio Reception	①. Verify that the antenna is properly and firmly connected.
6	DVR recording issues	① Use a USB 2.0 (or faster) card reader with a TF / MicroSD card rated U3 or higher. ② Connect the storage device to the USB1 cable only. The recording function will not work when connected to USB 2 or USB 3. ③ If the DVR app is missing, go to Settings > Assembly > Driving Assistance Video > “DVR Camera Mode”, then tap “Restart.”
7	No Bluetooth or Wi-Fi Signal, or Poor Reception	①. Verify that the 10-pin connector on the Rear Camera Input Cable (with integrated Wi-Fi and Bluetooth antennas) is properly plugged into the corresponding port on the rear of the car stereo.

8	CAN Bus / Vehicle Protocol Functions Not Working	①. Check that the **Protocol Port** cable on the power harness is fully connected to the **8-pin port** on the car stereo. Make sure the connector is not reversed and that no required connection has been left unplugged.
9	A/C Controls Not Responding	①. Verify that the factory A/C plugs are fully seated and securely locked into the corresponding A/C port on the rear of the Vinland car stereo. ②. Reboot the radio after installation.
10	Panel Buttons Not Responding	①. Verify that the 16-pin climate control connector and the 6-pin button connector are fully inserted into the matching ports on the rear of the Vinland control panel. Make sure both connections are secure and that no pins are loose or making poor contact.