



CUSTOM-FIT CAR STEREO FOR Toyota FJ Cruiser 2007-2014



VISION 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.

Retain Your Factory Features with Vinland Vision (Via Maestro RR)

Upgrade without compromise—Vinland Vision, when paired with the Maestro RR module, preserves select OEM features so you can enjoy modern technology while keeping the conveniences you love.

Explore the table below for a complete overview of retainable functions.

Note: Listed features are for reference only. Actual retained functions may vary by vehicle model year, trim, and regional specifications.

Feature	Retained Status
Vehicle Info	Retained
Gauges	Retained
Advanced Camera Features	Retained
Rear Seat Video Retention	Retained
Satellite Radio	Retained
USB Media Player	Retained
Factory Amplifier	Retained
Steering Wheel Controls	Retained
OEM Camera	Retained

Content

Part 1 Tools Needed & Kit Content	1
Part 2 Maestro RR Configuration	2
Part 3 Ports Function Overview	6
Part 4 Installation Process	7
1. Disassembly and Assembly	7
Disassembly.....	7
Assembly	8
Cable Harness Connection.....	8
2. Cable Harness Connection.....	9
2007-2014 Toyota FJ Cruiser with Amplifier	9
2006-2014 Toyota FJ Cruiser without Amplifier.....	11
Part 5 Troubleshooting Table	13

Part 1 Tools Needed & Kit Content

Tools needed for installation: Plastic pry tools, Socket wrench (7mm or 10mm, depending on your stereo), Screwdriver, Electrical tape, Scissor, Wrench, Screw Tray/Box, Cable Ties.

Warning:

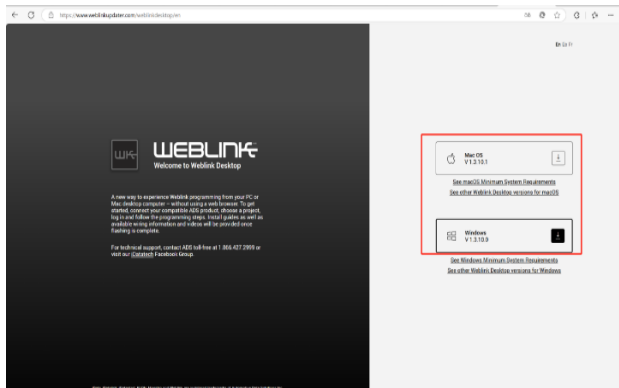
- We regularly release system updates that may introduce new features or changes not covered in this manual. Always refer to the latest release notes for comprehensive details.
- Download the latest Installation Manual from our website or contact customer support for assistance.
- We strive for comprehensive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

- ① Car Stereo (V13FJC09N)
- ② Power Harness
- ③ AUX Adapter
- ④ External Microphone
- ⑤ 4-pin USB Cable
- ⑥ 6-pin USB Cable
- ⑦ Tri-band Audio with Remote Receiver
- ⑧ 4G SIM Slot Cable
- ⑨ 4-in-1 Antenna
- ⑩ SIM Card Eject Tool
- ⑪ User Card
- ⑫ Warranty Card

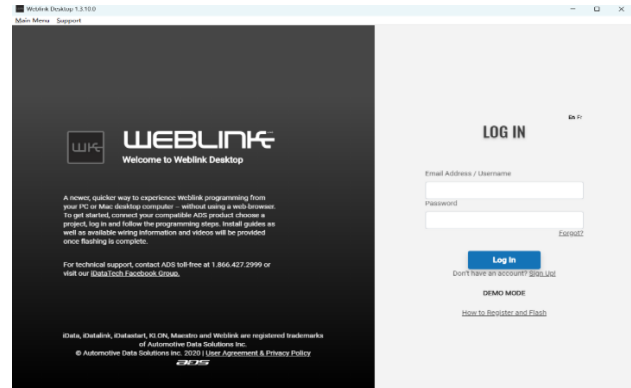


Part 2 Maestro RR Configuration

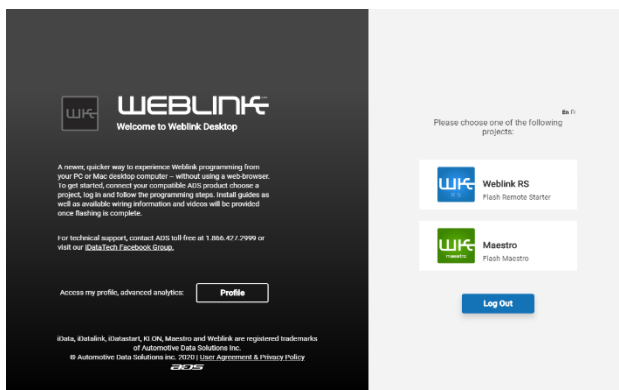
To ensure optimal operation and seamless communication with your vehicle, Weblink Desktop must be installed before using the Maestro RR. This software is essential for device configuration, data transfer, and remote management.



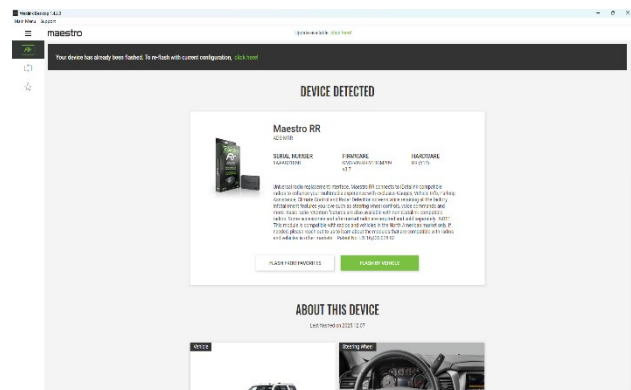
1. Go to <https://www.weblinkupdater.com/weblinkdesktop/en> and download the Weblink Desktop software.



2. Initiate a new Weblink account or sign in to an existing one.

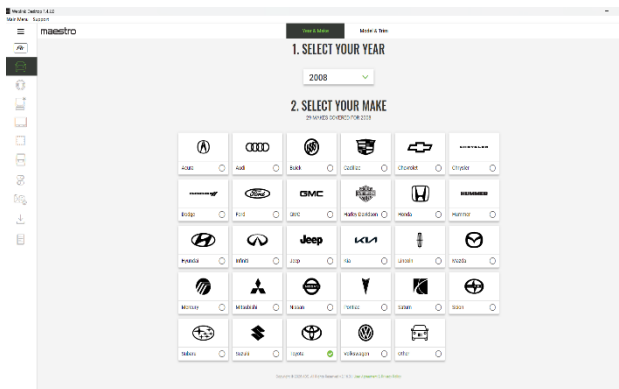


3. Establish a connection between the Maestro RR module and your computer via the USB cable included in the package, then proceed by selecting the “Maestro Flash Maestro” option.

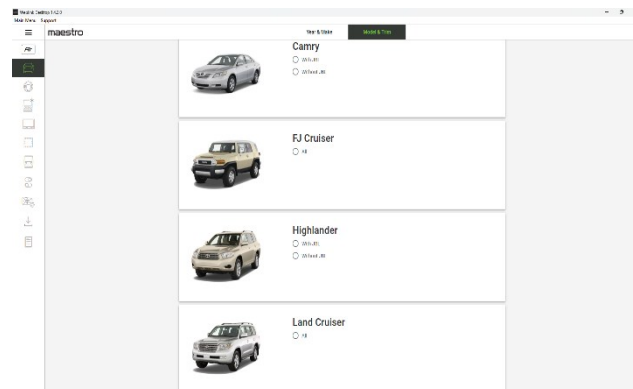


4. Weblink Desktop will automatically recognize the connected Maestro RR module and present its corresponding details (e.g., serial number and current firmware version). Subsequently, select “FLASH BY VEHICLE” to proceed with the configuration process.

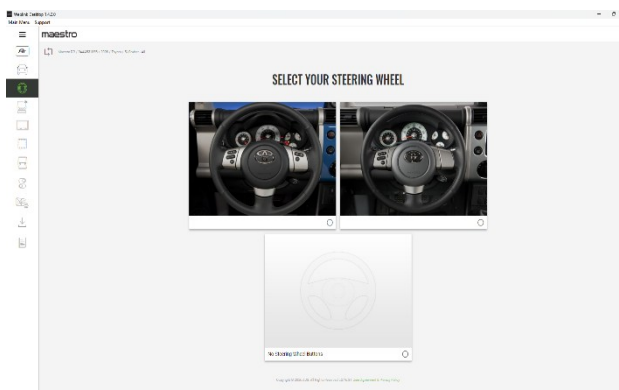
5. Specify the vehicle and car stereo information by entering the required details in the sequence outlined below:



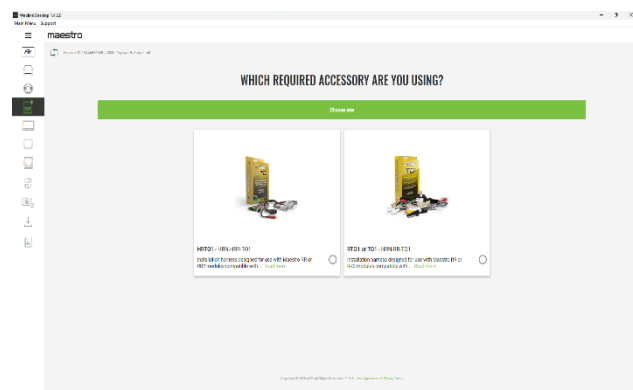
- ① Select the vehicle's production year and then chose the vehicle make-Toyota.



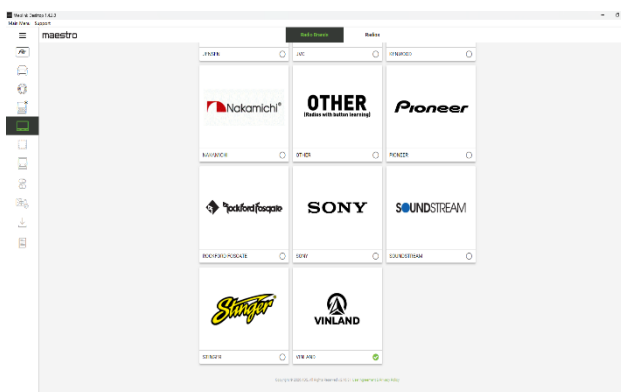
- ② Select the FJ Cruiser and your vehicle actual configuration parameters.



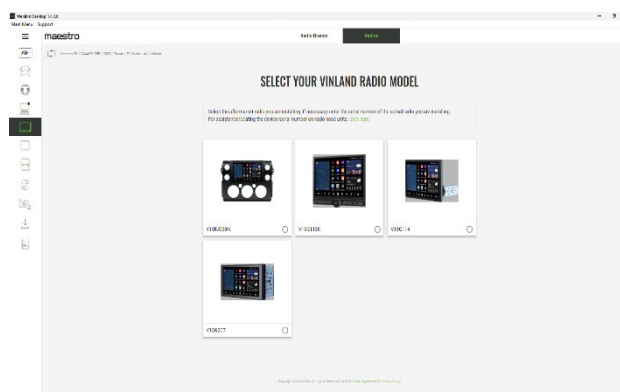
- ③ Select the appropriate steering wheel type for your vehicle.



- ④ Select required accessories for the Maestro RR interface.



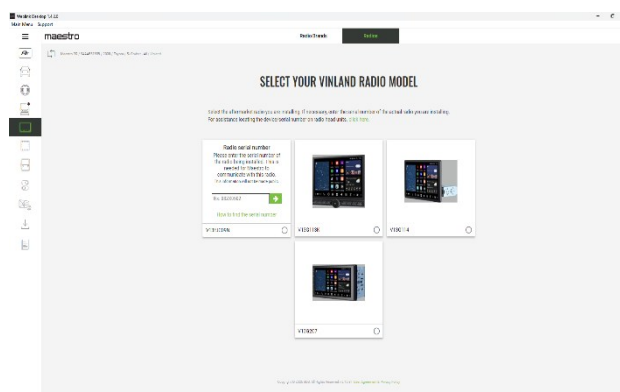
⑤ Choose VINLAND as the brand of the car stereo.



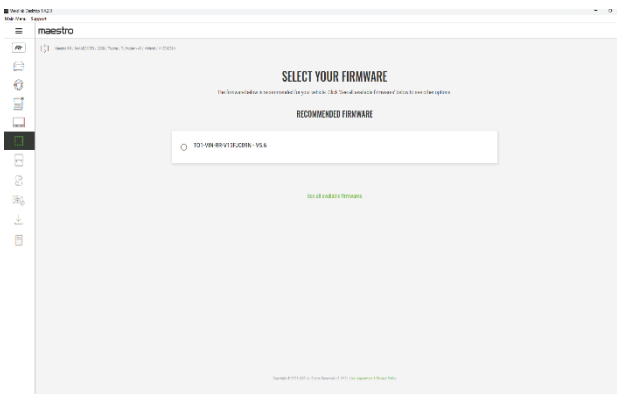
⑥ Select the exact model corresponding to the car stereo you have purchased.



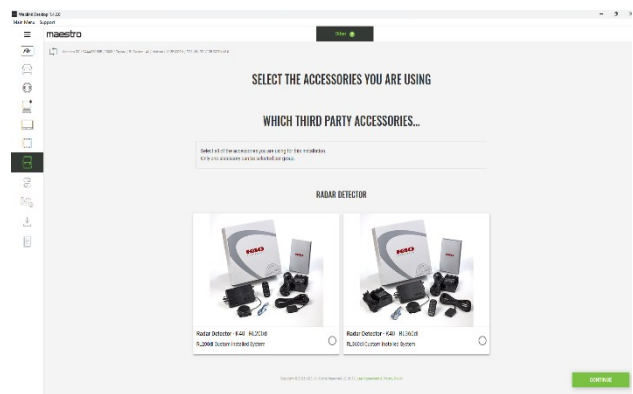
Every car stereo carries a unique serial number—please locate and reference the one found on your car stereo.



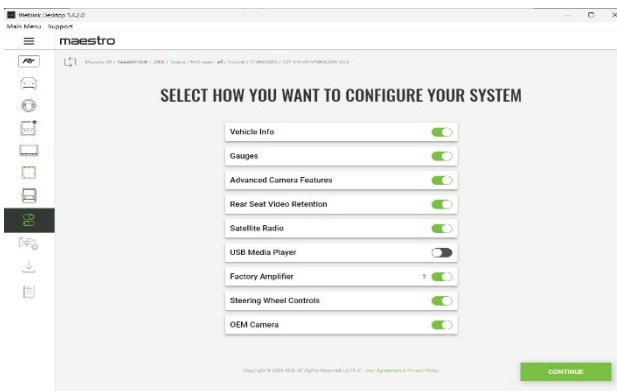
⑦ Enter the 8-digit serial number located on the rear of the car stereo.



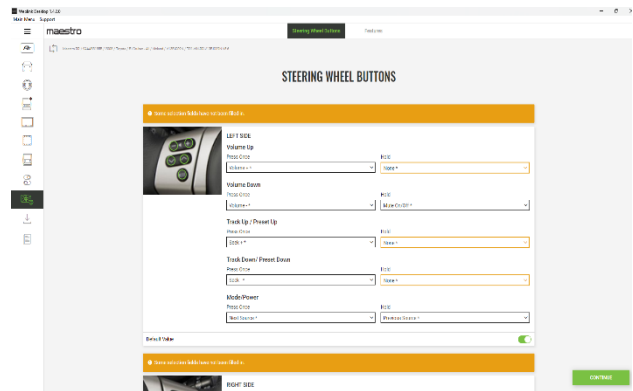
⑧ Select the correct firmware version from the available options.



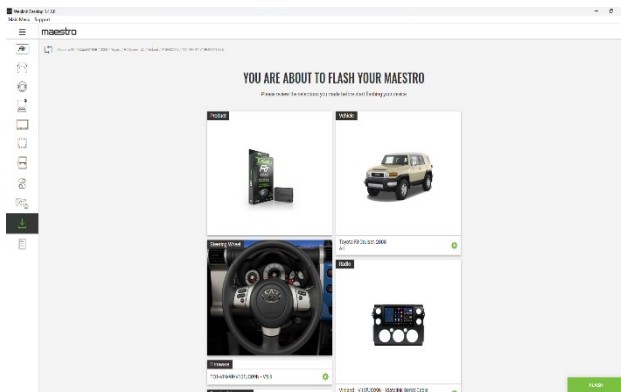
6. Select the accessories currently in use.



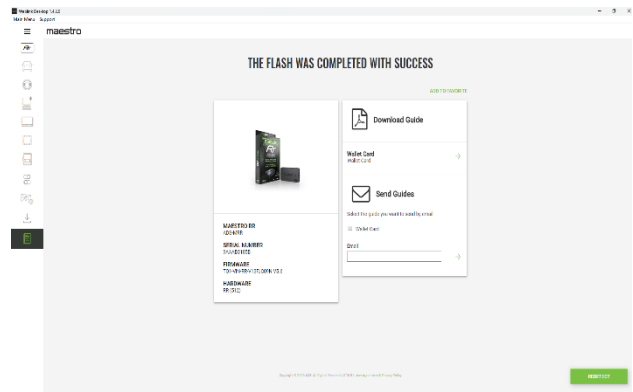
7. The system will automatically apply the recommended settings. If no adjustments are required, simply click "CONTINUE" to proceed to the next step. (Different configurations retain different OEM Features)



8. The default steering wheel button functions will be displayed on the interface. If needed, adjust the button assignments according to user preferences and save the settings.

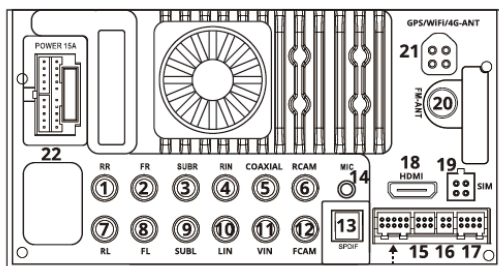


9. Verify the firmware version, user-defined settings, and vehicle or car stereo information. To begin updating the Maestro RR module, click “FLASH”. Ensure that neither the module nor the USB connection is interrupted during the process.



10. Once the firmware update is complete and the “Flash Successful” message appears, download the module’s installation guide and follow the remaining steps to complete the in-vehicle installation.

Part 3 Ports Function Overview



SWC
Front Right Midrange Output
Front Left Midrange Output
Front Left Tweeter Output
Front Right Tweeter Output

1. Rear Right Audio Output
2. Front Right Audio Output
3. Subwoofer Output Right
4. Right Channel Auxiliary Audio Input
5. Coaxial Output
6. Rear Camera Input
7. Rear Left Audio Out
8. Front Left Audio Out
9. Subwoofer Output Left
10. Left Channel Audio Input
11. Video Input
12. Front Camera Input
13. Optical SPDIF Output
14. Microphone Input
15. USB2 External Storage
16. USB1 Recording Storage
17. Rear Recording Camera Input
Front Recording Camera Input
18. HDMI Input
19. 4G LTE Adapter Interface
20. F-M-ANT-Radio Antenna input
21. 4-in-1 Antenna-4G/WiFi/GPS
22. Car Stereo Fuse

Part 4 Installation Process

1. Disassembly and Assembly

This part provides a brief overview of the procedures required to remove the factory stereo and install the new car stereo. The instructions are specifically designed for 2007-2014 Toyota FJ Cruiser models and are intended to guide you through the process safely, accurately, and efficiently.

Note: The 2007–2014 Toyota FJ Cruiser models have more than one center console configuration. We use one specific center console as the instruction example. For the specific disassembly process, please refer to your vehicle's actual configuration.

Disassembly



Step 1

Turn off the vehicle's ignition.



Step 2

Remove the two screws on the bottom of both side trim pieces.



Step 3

Remove the right and left side trim pieces.



Step 4

Remove the two screws holding the trim bezel in place.



Step 5

Remove the trim bezel and disconnect the wiring connectors from the climate control module.



Step 6

Remove the four 10mm bolts from each side of radio brackets.



Step 7

Remove the factory radio and disconnect the rear connectors.

Cable Harness Connection

Refer to the detailed specifications below for wiring instructions specific to each 2007-2014 Toyota FJ Cruiser configuration.

Assembly

After wiring is completed, perform a full functional test of the system to ensure everything is working as expected. Then, install the factory parts, Vision series car stereo and other accessories into the center configuration.



2. Cable Harness Connection

For installation, follow the wiring instructions that match your vehicle's specific configuration.

2007-2014 Toyota FJ Cruiser with Amplifier

Step 1

① .Connect the Main Harness of HRR-TO1 T-Harness directly to the Vision car stereo.

OR

② .Connect the HRR-TO1 T-Harness to the supplied Power Adapter. Then, plug the other end of Power Adapter into the Vision car stereo.

Step 2

- Identify if your vehicle has a 20 or 28 pin secondary connector.
- Assemble TO1 T-harness as shown on wiring diagram.
- Connect the factory harness to the HRR-TO1 harness.

Step 3

- Connect HRR-TO1 3-pin black connector to black connector of OBDII extension harness.
- Plug the OBDII connector into the OBDII of the vehicle.

Step 4

- Plug the harnesses into the Vision car stereo.

- Connect the left front and right front low level outputs RCA cables into the Vision car stereo.

- Connect the **AUX Cable** as follows:

Two RCA plugs → Plug into the car stereo's **RIN** and **LIN** ports.

Other end → Plug into the 3.5mm audio jack of the **Audio Cable**.

Step 5

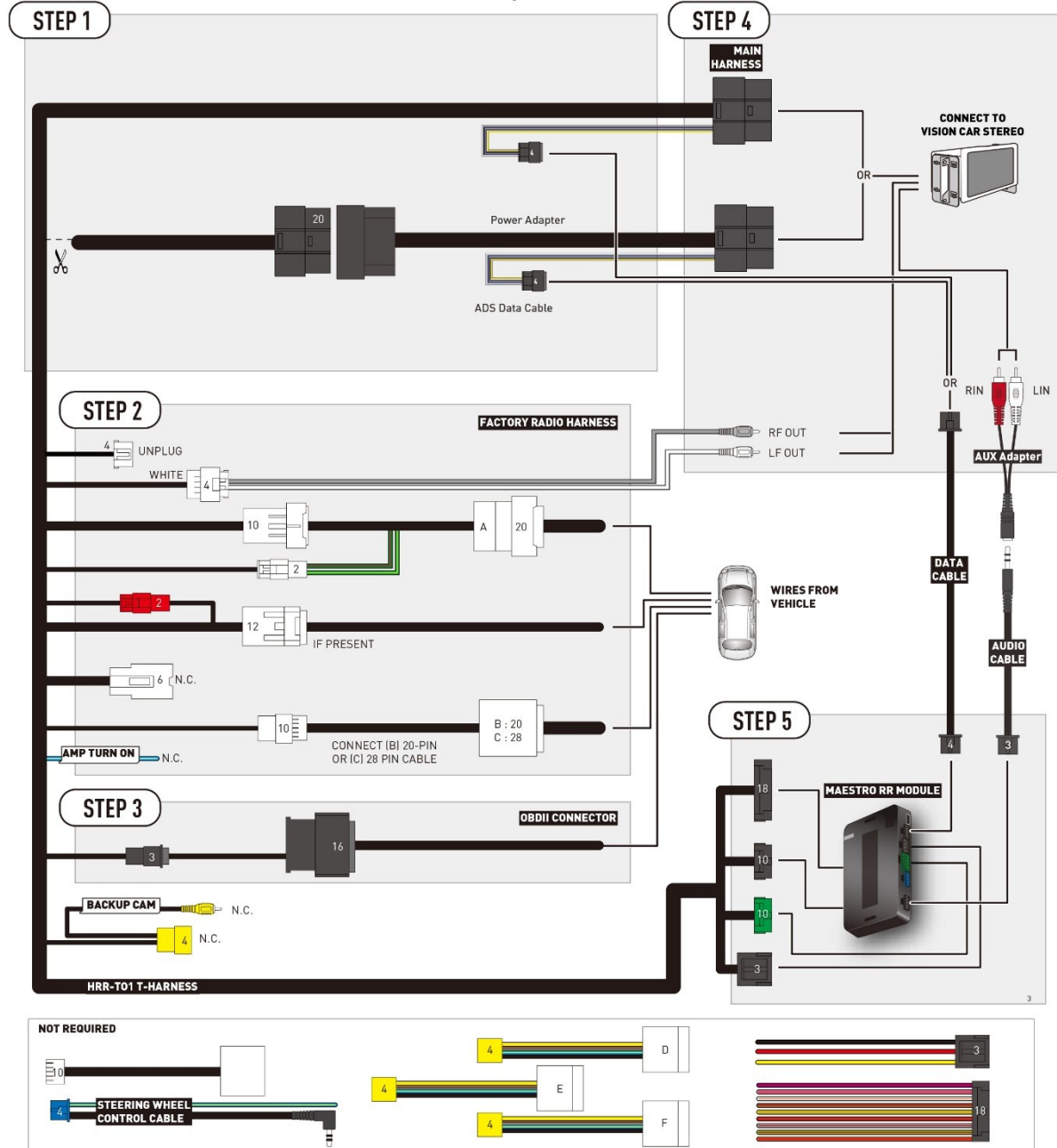
- **Male Connector:** If the ADS Data Cable (from either the **Power Adapter** or the Main Harness) is equipped with a male connector, plug the **ADS Data Cable** directly into the data port of Maestro RR module.

OR

Female Connector: If the ADS Data Cable (from either the **Power Adapter** or the Main Harness) is equipped with a female connector, use the extension cable. Connect the ADS Data Cable to the extension cable, and then plug the extension cable into the Maestro RR module.

- Connect the other end of the **Audio Cable** to the Maestro RR module.
- Connect all the harnesses to the Maestro RR module, then test your installation.

WIRING DIAGRAM *with an Amplifier*



[Connection Diagram of Toyota FJ Cruiser with Amplifier 2007-2014]

2006-2014 Toyota FJ Cruiser without Amplifier

Step 1

- ①. Connect the Main Harness of HRR-TO1 T-Harness directly to the Vision car stereo.

OR

- ②. Connect the HRR-TO1 T-Harness to the supplied Power Adapter. Then, plug the other end of Power Adapter into the Vision car stereo.

Step 2

- Identify if your vehicle has a 20 or 28 pin secondary connector.
- Assemble TO1 T-harness as shown on wiring diagram.
- Connect the factory harness to the HRR-TO1 harness.

Step 3

- Connect HRR-TO1 3-pin black connector to black connector of OBDII extension harness.
- Plug the OBDII connector into the OBDII of the vehicle.

Step 4

- Plug the harnesses into the Vision car stereo.

- Connect the left front and right front low level outputs RCA cables into the Vision car stereo.

- Connect the **AUX Cable** as follows:

Two RCA plugs → Plug into the car stereo's **RIN** and **LIN** ports.

Other end → Plug into the 3.5mm audio jack of the **Audio Cable**.

Step 5

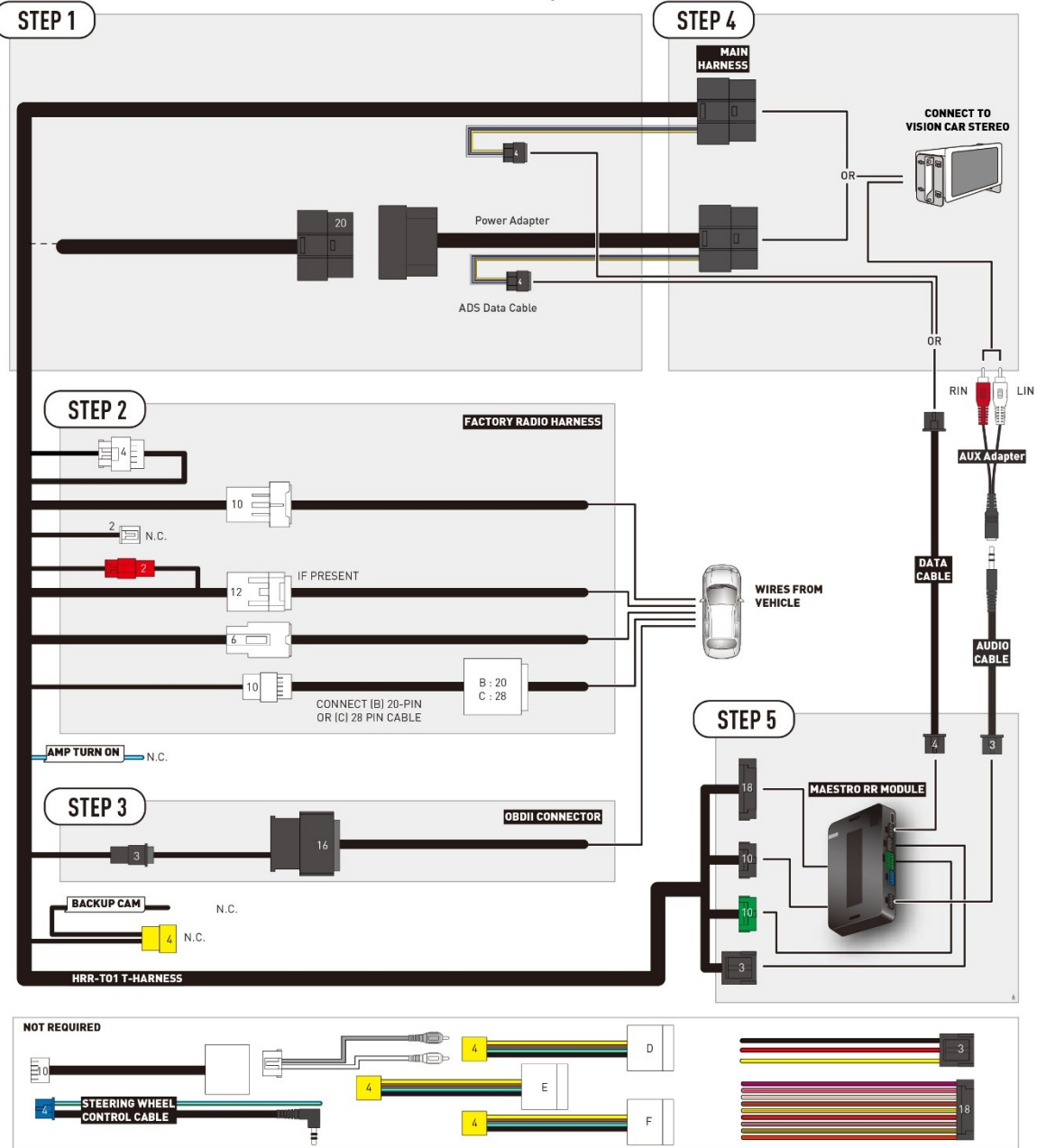
- **Male Connector:** If the ADS Data Cable (from either the **Power Adapter** or the Main Harness) is equipped with a male connector, plug the **ADS Data Cable** directly into the data port of Maestro RR module.

OR

Female Connector: If the ADS Data Cable (from either the **Power Adapter** or the Main Harness) is equipped with a female connector, use the extension cable. Connect the ADS Data Cable to the extension cable, and then plug the extension cable into the Maestro RR module.

- Connect the other end of the **Audio Cable** to the Maestro RR module.
- Connect all the harnesses to the Maestro RR module, then test your installation.

WIRING DIAGRAM *without an Amplifier*



Connection Diagram of Toyota FJ Cruiser without Amplifier 2007-2014

Part 5 Troubleshooting Table

Before contacting technical support, please refer to the troubleshooting table below. It can help you quickly resolve many common issues.

IMPORTANT SAFETY WARNINGS:

- **Disconnect Power:** Always disconnect the vehicle's negative battery terminal and wait at least 5 minutes before handling any wiring to ensure the system is fully powered down.
- **Professional Installation Recommended:** To prevent damage to the device or vehicle, and to avoid personal injury, disassembly or repair should only be performed by a qualified technician.
- **Verify Compatibility:** Ensure all components—including the antenna, wiring harness, car stereo and firmware—are fully compatible with your specific vehicle model and regional standards.

No.	Problem Description	Reason and Solution
1	GPS signal reception issues	Check that the GPS antenna is securely connected. The recommended position is on the interior of the vehicle's A-pillar.
		GPS functionality may be limited in signal-obstructed environments. Please avoid parking your vehicle in places such as underground garages, mountainous areas, or other areas with poor signal reception.
2	No rearview image or failure to switch to rearview	Verify proper connection of the reverse detection wire and camera harness. Ensure all connections are secure and correctly seated.
3	The car stereo fails to power on	Verify that the B+ (constant 12V), ACC (ignition signal), and chassis ground wires are securely and correctly terminated.

		Use a multimeter to confirm that the voltage at the B+ and ACC terminals is within the operational range of 9V-16V. Incorrect wiring connection can lead to abnormal voltage readings, and prevent the stereo from powering on.
		If no voltage is detected on B+ or ACC, inspect the power supply circuit. Check the power cables for any visible damage or loose connections and verify the integrity of the fuse.
		If no voltage is present at the ACC terminal: (1) Verify that the ADS protocol module is properly connected to the computer. (2) Flash the module using software configured for the vehicle model. (3) Confirm that all wiring connections comply with the vehicle-specific installation manual.
4	Protocol communication malfunction	Connect the ADS interface module to the computer and ensure that the configuration matches the specific vehicle model. Then, flash the module using the appropriate software and a valid authorized serial number.
		Verify that all wiring connections align with the dedicated installation manual. Check for any loose or improperly seated connectors.
5	Car stereo and mobile device pairing failure	Verify if the mobile device is connected to other Bluetooth devices. If so, unpair all other devices to prevent signal interference.
		Verify cellular signal strength and network connectivity.
6	Touchscreen clock desynchronized from actual time	Verify the network connectivity.
		Verify that the location settings in the car stereo are correctly configured.

7	Dynamic guidelines move opposite to the steering direction in the backup camera view	Access the V-Control interface and adjust the Trajectory Settings configuration.
---	---	--