

JOYING JY-TT186N12

JOYING Car Radio for Toyota RAV4 2013-2018 (JY-TT186N12) Instruction Manual

Model: JY-TT186N12 | Brand: JOYING

INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your JOYING Android 13 Head Unit (Model JY-TT186N12). This car stereo is specifically designed for Toyota RAV4 models manufactured between 2013 and 2018, offering a seamless upgrade to your vehicle's infotainment system. Please read this manual thoroughly before installation and use to ensure proper function and safety.

PRODUCT FEATURES

- **Plug-and-Play Design:** Custom-designed for 2013-2018 Toyota RAV4, includes all necessary cables and CAN bus adapter for easy installation without wire cutting.
- **High-Performance Processor:** Equipped with Qualcomm QCM6490 8-Core processor (6nm process) for powerful computing, efficient multitasking, 5G and Wi-Fi 6E connectivity.
- **Memory & Storage:** Features 12GB RAM and 256GB internal storage for smooth operation of multiple applications.
- **Display:** 9.5-inch 2K QLED Touch Screen for a vibrant and responsive user experience.
- **Connectivity:** Supports wired and wireless CarPlay & Android Auto, dual-band 2.4 & 5G & 6 GHz WiFi, 4G module (SIM card required for internet access, no calls/SMS), and Bluetooth.
- **Navigation:** Precise GPS engines with included GPS antenna for accurate real-time navigation. Supports offline maps.
- **Audio:** AM/FM Radio with 18 preset stations, 4-channel 5532 Op-Amp & TDA7850 Amplifier for DTS Sound Enjoyment, 20 selectable sound effect styles, 48-band EQ, AKM 4432 DAC, AKM 7739 DSP.
- **Vehicle Integration:** Retains original features like Factory USB, JBL Amplifier, Reverse Camera, Parking Sensor, A/C Information Display, and Steering Wheel Control.



9.5" For Toyota RAV4 2013-2018

Android 13 OS



Image: JOYING Head Unit installed in a Toyota RAV4 dashboard, highlighting retained original vehicle features such as USB, JBL Amplifier, Reverse Camera, Parking Sensor, A/C Display, and Steering Wheel Control.

Bluetooth



Qualcomm
aptX™ HD



Resolution

16Bit

16Bit/24Bit

24bit/48kHz

Bit Rate

256kbps

320Kbps

576kbps

Bandwidth

20Hz-17kHz

20Hz-20kHz

20Hz-22kHz

Delay

200ms

120ms

60ms

Sound Quality

Normal

Normal

Lossless

Note: aptX/aptX HD Audio: Compatible with Android phones only. The iPhone defaults to the AAC codec.

Image: Detailed overview of the JOYING Head Unit's motherboard features, including the Qualcomm QCM6490 processor, TDA7850 amplifier, Audio DAC, Audio DSP, and Radio Tuner.

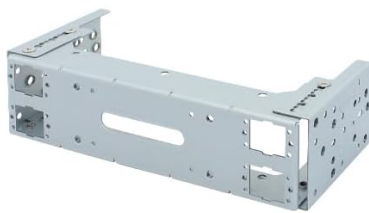
INCLUDED COMPONENTS (WHAT'S IN THE BOX)

The following items are included with your JOYING Head Unit:

- 9.5" Radio Unit (x1)
- Single Din Cage (x1)
- WiFi Antenna (x1)
- GPS Antenna (x1)
- 4G Antenna (x2)
- External Microphone (x1)
- USB Cable (x2)
- AR Cable (x1)
- Screen Ribbon Cable (x1)
- Power Cable (x1)

- User Manual (x1)

Package Contents



Single Din Cage



Power cable may vary depending on your purchase option.



Screen Ribbon Cable*1



BT Antenna *1



WiFi Antenna *2



4G Antenna *2



USB Cable *2



GPS Antenna *1



External Mic*1



AR Cable*1



User Manual

Image: All components included in the JOYING Car Radio package, laid out on a white surface. This includes the 9.5-inch radio unit, single DIN cage, various antennas (WiFi, GPS, 4G), external microphone, USB cables, AR cable, screen ribbon cable, power cable, and user manual.

Video: An unboxing video for the X14 10.2" Toyota RAV4 radio, demonstrating the contents of the package.

Video: An unboxing video for a Toyota 13-18 RAV4 car radio, showcasing the various cables and components included.

Video: An unboxing video for an 11.5-inch Toyota RAV4 2013-2018 head unit, detailing the included accessories.

SETUP AND INSTALLATION

The JOYING Head Unit is designed for plug-and-play installation in compatible Toyota RAV4 models (2013-2018). No cutting of wires is typically required. Refer to the included User Manual for detailed wiring diagrams and step-by-step

instructions specific to your vehicle's trim level.

General Installation Steps:

- 1. **Preparation:** Ensure the vehicle's ignition is off and the battery is disconnected before starting installation.
- 2. **Remove Original Head Unit:** Carefully remove the existing car stereo and dashboard trim using appropriate tools to avoid damage.
- 3. **Connect Wiring Harness:** Connect the provided power cable, RCA cables, USB cables, and antenna cables to the corresponding ports on the new JOYING Head Unit and the vehicle's wiring harness. Ensure all connections are secure.
- 4. **Install GPS and 4G Antennas:** Mount the GPS antenna in a location with a clear view of the sky (e.g., dashboard) and the 4G antennas in a suitable hidden location for optimal signal reception.
- 5. **Test Functionality:** Before fully reassembling the dashboard, temporarily connect the battery and power on the unit to test basic functions like power, audio, touch screen, CarPlay/Android Auto, and reverse camera (if applicable).
- 6. **Reassemble Dashboard:** Once all functions are verified, carefully reassemble the dashboard trim and secure the new head unit in place.



Video: A detailed installation guide for the Roadanvi X12 Toyota RAV4 Radio Upgrade, showing the process of removing the old unit and connecting the new one.



Video: A comprehensive installation video for the Dasaita G12 Radio Upgrade in a Toyota RAV4 2013-2018, covering removal of the old unit and wiring of the new system.



Video: A guide to installing the CAN004-X Wire Harness for 2013-2018 Toyota RAV4, demonstrating the plug-and-play connections.

OPERATING INSTRUCTIONS

General Navigation:

The 9.5-inch QLED touchscreen provides an intuitive interface. Swipe left/right to navigate between app screens. Tap icons to launch applications.

Navigation, Entertainment, and Third-party Apps All at One Interface



Image: The JOYING Head Unit's interface displaying various navigation, entertainment, and third-party applications, illustrating the multi-functional capabilities.

CarPlay & Android Auto:

Connect your smartphone via wired USB or wirelessly via Bluetooth/WiFi. Once connected, you can access phone contacts, maps, music, messages, and use voice control (Siri or OK Google).

Dual-mode Bluetooth Supports the Coexistence and Switching

Enabling functionalities such as simultaneous connections to two smartphones or a combined link between a phone and an OBD diagnostic dongle.



Image: The JOYING Head Unit demonstrating dual-mode Bluetooth functionality alongside wired and wireless CarPlay and Android Auto interfaces.

GPS Navigation:

Utilize the built-in GPS for real-time navigation. Offline maps can be downloaded for use without an internet connection. Synchronize mobile phone map data via CarPlay/Android Auto.

AM/FM Radio:

Access local radio broadcasts. The unit supports 18 preset FM stations. Use the touchscreen to tune frequencies or select presets.

Audio Settings:

Customize your audio experience with 20 selectable sound effect styles and a 48-band equalizer. Adjust bass, mid, and treble to personal preferences. The unit features AKM 4432 DAC and AKM 7739 DSP for high-fidelity sound.

Advanced Engineering High-Efficiency Cooling

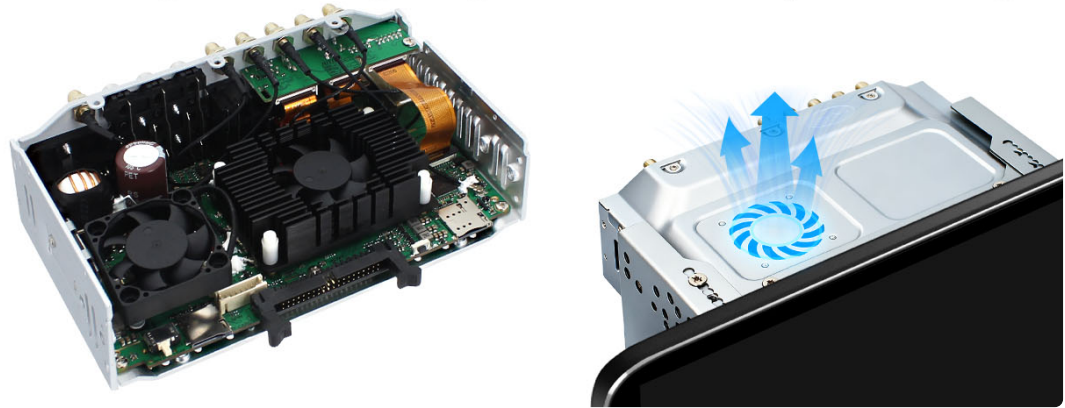


Image: Visual representation of DTS Sound Enjoyment within the vehicle, highlighting the 4-channel 5532 Op-Amp and TDA7850 Amplifier.

Light/Dark Mode with Manual or Auto Switching



Image: Screenshots of the sound effects and 48-band EQ settings interface, showing options for various sound styles and detailed frequency adjustments.

Video: A demonstration of the Joying Head Unit's Android 12 system for Toyota RAV4, showcasing various features including sound effects and navigation.

Video: A speed test of the Nunoo upgraded car radio, demonstrating its responsiveness and quick app loading times.

MAINTENANCE

To ensure the longevity and optimal performance of your JOYING Head Unit, follow these maintenance guidelines:

- **Screen Cleaning:** Use a soft, lint-free cloth to gently wipe the touchscreen. For stubborn smudges, slightly dampen the cloth with water or a screen-safe cleaner. Avoid harsh chemicals or abrasive materials.
- **Software Updates:** Periodically check for software updates from JOYING to ensure you have the latest features, performance improvements, and bug fixes. Follow the on-screen instructions for updating.
- **Cable Connections:** Ensure all cables are securely connected. Loose connections can lead to intermittent functionality or poor performance.
- **Temperature Control:** Avoid exposing the unit to extreme temperatures for extended periods. While designed for

automotive use, prolonged exposure to direct sunlight or freezing temperatures can affect performance.

TROUBLESHOOTING

If you encounter any issues with your JOYING Head Unit, refer to the following common troubleshooting steps:

- **Unit Not Powering On:**
 - Check all power cable connections.
 - Verify the vehicle's fuse for the stereo is intact.
 - Ensure the vehicle battery is properly connected and charged.
- **No Sound:**
 - Check speaker wire connections.
 - Ensure volume is not muted or set too low.
 - Verify amplifier settings (if applicable).
- **Touchscreen Unresponsive:**
 - Perform a soft reset by pressing the RST button (if available) or by turning the vehicle off and on.
 - Ensure the screen is clean and free of debris.
- **GPS Signal Issues:**
 - Ensure the GPS antenna is mounted in a location with a clear view of the sky.
 - Check the GPS antenna connection to the head unit.
- **CarPlay/Android Auto Not Connecting:**
 - Ensure your smartphone's operating system is up to date.
 - Check USB cable connection (for wired connection).
 - Verify Bluetooth and WiFi are enabled on both the head unit and your phone.
 - Forget and re-pair the device via Bluetooth.

For further assistance, refer to the detailed troubleshooting guide in your included User Manual or contact JOYING customer support.

SPECIFICATIONS

Feature	Specification
Model Number	JY-TT186N12
Operating System	Android 13
Processor	Qualcomm QCM6490 8-Core (6nm)
RAM	12GB

Memory Storage Capacity	256GB
Screen Size	9.5 Inches
Display Type	2K QLED Touch Screen (Capacitive)
Connectivity Technology	Bluetooth, Ethernet, USB, Wi-Fi (2.4G/5G/6G), 4G Module
Special Features	CarPlay, Android Auto, GPS Navigation, SWC, AM/FM Radio, DTS Sound
Audio Output Mode	Stereo
Item Weight	6 pounds
Package Dimensions	13 x 9 x 8 inches

WARRANTY AND SUPPORT

Your JOYING Head Unit comes with a **2-Year Warranty**. For warranty claims, technical support, or any questions regarding your product, please refer to the contact information provided in your User Manual or visit the official JOYING website.

Additional protection plans may be available for purchase separately. Please check with your retailer for details.