

JOYING JY-VT131N4

Joying JY-VT131N4 9-inch Android 13 Car Stereo User Manual

For Volkswagen MQB Systems (2016-2021)

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your Joying JY-VT131N4 9-inch Android 13 Car Stereo. Please read this manual thoroughly before using the product to ensure proper functionality and to maximize your user experience. Keep this manual for future reference.

2. PRODUCT OVERVIEW

The Joying JY-VT131N4 is an advanced 9-inch Android 13 head unit designed for select Volkswagen, Skoda, and Seat vehicles. It integrates modern features such as wireless Apple CarPlay and Android Auto, GPS navigation, a built-in 4G module, and high-quality audio processing, while retaining many of your vehicle's original functions.

Key Features:

- **Plug & Play Installation:** Designed for direct integration with compatible vehicle systems, minimizing wiring modifications.
- **Fast Boot:** Quick startup time, entering the user interface within 2 seconds after the initial boot.
- **Advanced Audio Output:** Features Optical Fiber and Coaxial Digital Output for superior sound quality with external amplifiers.
- **Integrated 4G Module:** Supports SIM card for internet access (data only, no calls/SMS).
- **GPS Navigation:** Precise positioning with included GPS antenna, supporting offline maps.
- **Wireless CarPlay & Android Auto:** Seamless smartphone integration for navigation, communication, and entertainment.

3. COMPATIBILITY

This head unit is specifically designed for Volkswagen, Skoda, and Seat vehicles with MQB systems manufactured between 2016 and 2021. It supports factory air conditioning display, parking sensor display, steering wheel controls, door information display, factory amplifier, and factory reverse camera.

Compatible Vehicle Models & Years:

Brand	Models & Years
Volkswagen	Jetta VI 2010+, Golf VI 2008+, Passat B7 2010+, Tiguan 2008+, Transporter T5 2010+, EOS 2006+, Caddy 2004+, Amarok 2010+, Beetle 2011+, Sharan II 2010+, Scirocco 2008+, Golf V Plus 2005+, Jetta V 2005-09, Magotan 2007+, Passat CC 2008+, Passat B6 2005-10, Polo V 2009+, Sagitar 2006+
Skoda	Fabia 2007+, SuperB 2008+, Octavia 2007+, Yeti 2009+, Rapid 2012+, Roomster 2006+
Seat	Leon 2009+, Alhambra 2009+

Important: For 2016-2021 models, it is crucial to determine if your vehicle uses an MQB or PQ (non-MQB) CANbus system. This information can typically be found on the original radio sticker. Ensure you select the correct system type when ordering to ensure compatibility.

Applicable Models & Years

For Volkswagen	EOS 2006+	Caddy 2004+	Golf VI 2008+	Polo V 2009+
	Jetta VI 2010+	Amarok 2010+	Beetle 2011+	Sagitar 2006+
	Tiguan 2008+	Touran 2003+	Sharan II 2010+	Scirocco 2008+
	Magotan 2007+	Passat B7 2010+	Passat CC 2008+	Golf V 2005-08
	Golf V Plus 2005+	Jetta V 2005-09	Passat B6 2005-10	Transporter T5 2010+
For Skoda	Fabia 2007+	SuperB 2008+	Octavia 2007+	Yeti 2009+
	Rapid 2012+	Roomster 2006+		
For Seat	Leon 2009+	Alhambra 2009+		

► Before



► After



Image: Applicable Models & Years for Joying Car Stereo.

Personalized Setting



Car Boot Logo



Customizable Wallpapers



Image: Guide to checking your vehicle's MQB or PQ system type.

Some vehicles may require an additional fascia panel for a seamless installation. Please check if your vehicle's

center console matches the examples provided in the image below to determine if an extra fascia panel is needed.

High-quality Sound Enjoyment

TDA7851 DSP Chip **48-Band** Graphic Equalizer **4x50W** Max Output Power

Support Aftermarket Amplifier

- 4 *Audio Outputs
1* SUB Output
- Fiber Optical Output
- SPDIF Coaxial Output
- Center Channel Output

Image: Fascia panel requirements for specific Skoda and Seat models.

4. SETUP AND INSTALLATION

The Joying JY-VT131N4 is designed for a plug-and-play installation, meaning no cutting of original vehicle wires is typically required. All necessary cables are supplied with the unit.

Installation Steps (General):

- 1. Remove Original Radio:** Carefully remove your vehicle's existing radio unit.
- 2. Connect Wiring Harness:** Connect the provided wiring harness to your vehicle's existing connectors. Ensure all connections are secure.
- 3. Connect Antennas:** Attach the GPS antenna, 4G antennas, and WiFi antenna to the corresponding ports on the new head unit.
- 4. CAN Bus Setting:** If your vehicle is equipped with a CAN bus, ensure the communication protocol switch (white button) on the back of the unit is set to the right side (CAN).

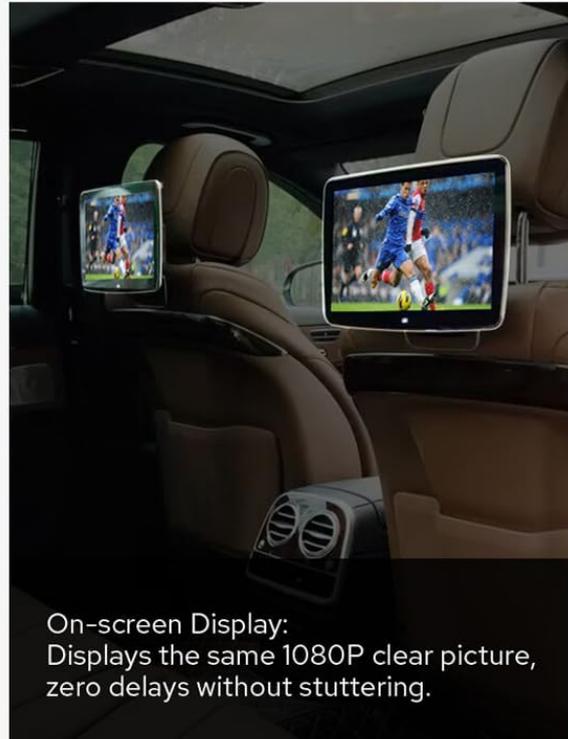
- Mount Head Unit:** Securely mount the Joying head unit into the dashboard opening.
- Test Functionality:** Before fully reassembling the dashboard, power on the unit and test all functions (audio, navigation, steering wheel controls, etc.).

HDMI Output

HDMI is a full digital image and sound-sending interface that can send uncompressed audio and video signals, audio and video can be output synchronously, no need to adjust manually.



Projection Screen Display:
Support to play movies for passengers in the headrest, and navigate for drivers on the main screen. Everyone can enjoy it.



On-screen Display:
Displays the same 1080P clear picture, zero delays without stuttering.



Note: The HDMI cable is not included.

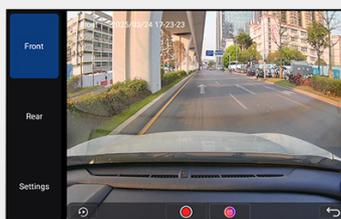
Image: Rear connections of the Joying JY-VT131N4 head unit.

Optional Accessories

(NOT included in the package)



OBD2
(ASIN: B076CD78HT)
Connected via Bluetooth to retrieve real-time data and trouble codes from your vehicle computer.



AR Front Camera
(ASIN: B0CBX4NGV8)

Record the front road in the background automatically while driving.



AR Rear Camera
(ASIN: B0CBX39S8M)

Switch to the reverse display automatically when reversing the car.



Image: CAN bus switch setting for proper communication with vehicle systems.

5. OPERATING INSTRUCTIONS

5.1 User Interface and Fast Boot

The unit runs on Android 13, providing a modern and intuitive user interface. After the initial boot-up (which may take 30-40 seconds), subsequent startups are significantly faster, typically entering the user interface within 2 seconds when the car key is inserted.



Image: Joying Android 13 main user interface.

13 Android

9" For VW/Skoda/Seat

Qualcomm Snapdragon 6125

Octa Core 2.0GHz

IPS Screen 1280x720P



LHD User Interface



RHD User Interface

Image: Android 13 interface with LHD and RHD user options.

5.2 CarPlay & Android Auto

Connect your mobile phone via USB cable or Bluetooth to utilize built-in Apple CarPlay or Android Auto. This allows you to access navigation, make phone calls, send messages, and listen to music directly from your phone's apps displayed on the car stereo's screen.

Size & Package Contents

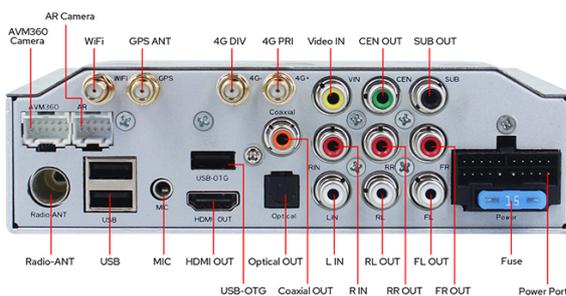


Image: Built-in Apple CarPlay and Android Auto functionality.

5.3 GPS Navigation

The unit includes precise GPS engines and an antenna for accurate real-time navigation. It supports offline maps, allowing you to download and save map data for specific areas to the car stereo for use without an internet connection.

5.4 4G Module

Insert a SIM card into the dedicated slot to enable 4G internet access. This feature supports various FDD-LTE and TDD-LTE bands. Please note that this module is for data access only and does not support phone calls or SMS.

5.5 Radio and Hands-free Calling

Enjoy AM/FM radio functionality. The built-in Bluetooth allows for hands-free calling, enhancing safety while driving.

5.6 OEM Feature Retention

The Joying JY-VT131N4 is designed to retain many of your vehicle's original features, including:

- Factory Air Conditioning Display
- Factory Parking Sensor Display
- Factory Steering Wheel Controls
- Factory Door Information Display
- Compatibility with Factory Amplifier and Reverse Camera

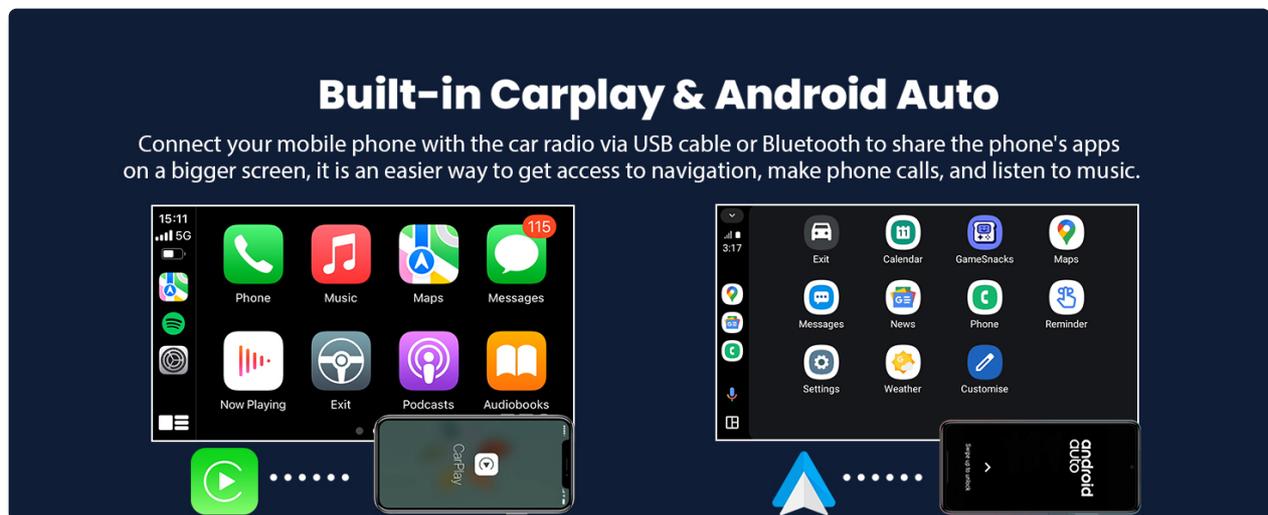


Image: Retention of original vehicle features.

6. AUDIO FEATURES

Experience high-quality sound with the integrated TDA7851 DSP chip and a 48-band graphic equalizer, delivering 4x50W maximum output power. The unit also provides advanced connectivity for external audio systems.

Advanced Audio Outputs:

- **Optical Fiber Output:** For direct digital audio transmission to compatible external amplifiers.

- **Coaxial Digital Output:** Another option for high-fidelity digital audio output.
- **RCA Outputs:** Includes 4 audio outputs (Front R&L, Rear R&L), a dedicated center channel output, and a subwoofer output for comprehensive aftermarket amplifier support.

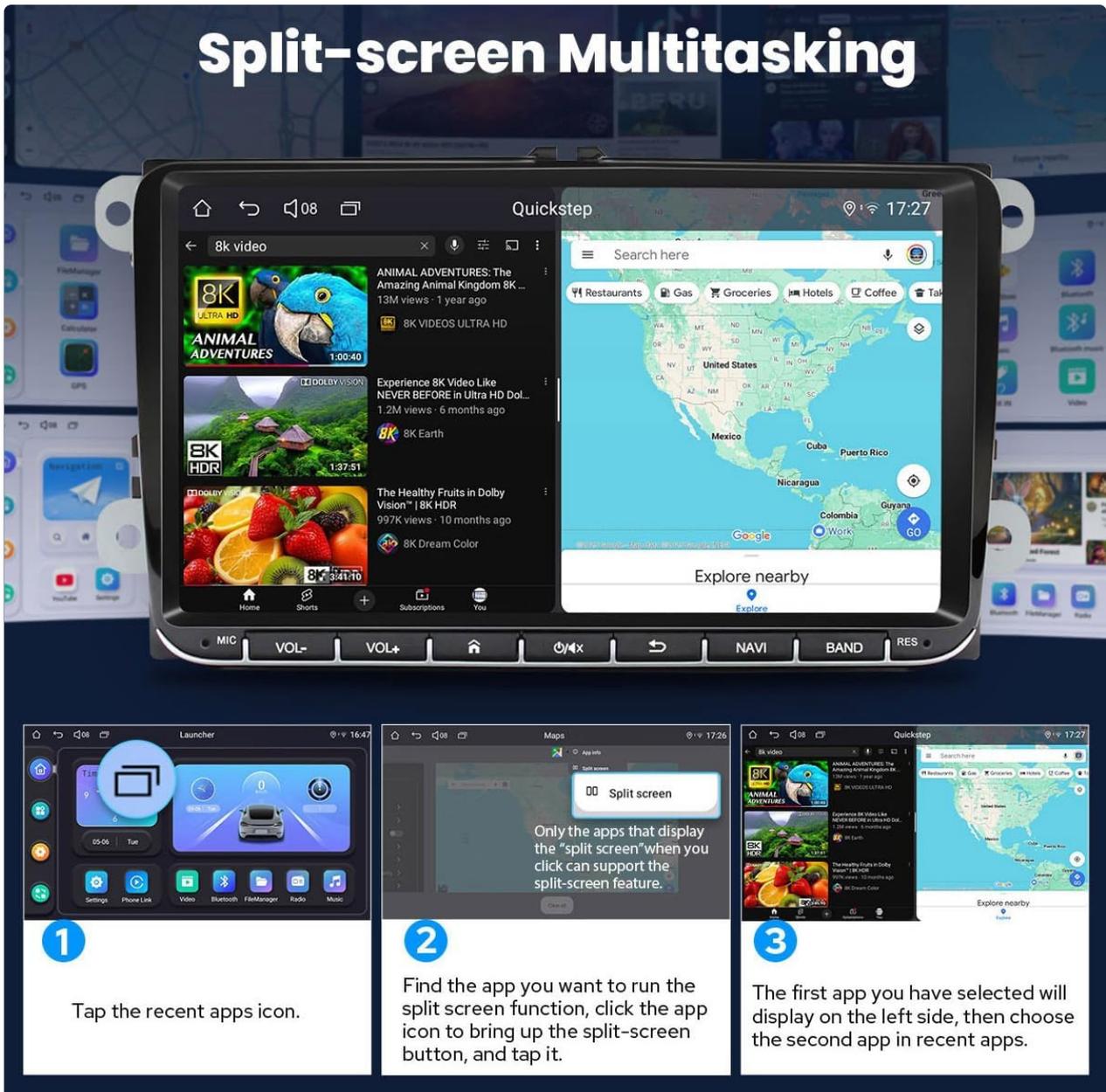


Image: High-quality sound enjoyment features and audio outputs.

7. MULTITASKING AND CONNECTIVITY

7.1 Split-screen Multitasking

The unit supports split-screen functionality, allowing you to run two applications simultaneously. For example, you can have navigation on one side and a media player on the other.

Other Features



Fast Boot



GPS Navigation



AM/FM Radio



Hands-free Call



Picture-in-Picture



3 USB ports



Micro SD Card Slot



4G SIM Card Slot

Image: Split-screen multitasking in action.

7.2 HDMI Output

The unit features an HDMI output, providing a full digital image and sound-sending interface. This allows you to connect external displays, such as headrest monitors, to project content from the main screen. This is ideal for passenger entertainment.

Cooling Upgraded

Dual heat sink design: Offers superior heat dissipation, improved temperature control, and enhanced performance stability.

Set warning value for volume or CPU temp:
When the CPU temperature or radio's volume rises and exceeds the warning value, the fan will be turned on automatically for cooling to avoid overheating.



Image: HDMI output for projection screen display.

7.3 Wi-Fi Connectivity

An independent WiFi antenna ensures stable signal quality and provides fast, smooth internet access. The unit supports 802.11a/b/g/n/AC standards across 2.4GHz and 5GHz spectral bands.

Keep OEM Features



Image: Upgraded WiFi signal for stable internet access.

7.4 USB Ports & Micro SD Card Slot

The unit includes 3 USB ports for connecting external devices, and a Micro SD card slot for additional storage or media playback.

8. MAINTENANCE AND COOLING SYSTEM

The Joying JY-VT131N4 features a dual heat sink design for superior heat dissipation, improved temperature control, and enhanced performance stability. You can set a warning value for CPU temperature or radio volume. If these values are exceeded, the cooling fan will automatically activate to prevent overheating.

Note:

Since your vehicle is equipped with CAN bus, please set the communication protocol (white button) to the right side (CAN)



Image: Upgraded cooling system with dual heat sink and fan control.

9. PERSONALIZATION

Customize your head unit experience with various personalization options:

- **Car Boot Logo:** Set a custom logo to display when the unit starts up.
- **Customizable Wallpapers:** Choose from a selection of wallpapers or upload your own.
- **Changeable Button Color:** Adjust the color of the physical buttons to match your vehicle's interior lighting or personal preference.

Please note: For the years **2016-2021**, we have **MQB and PQ(NON-MQB) canbus decoder** for this new Quadlock cable; please check whether your car is MQB system or not? You can check this information via original radiosticker like below picture shown.



(Not included)

If PQ is shown, select **"2016-2021 PQ system"** when ordering.
If MQB is shown, select **"2016-2021 MQB system"** when ordering.



Image: Personalized settings for the car stereo.

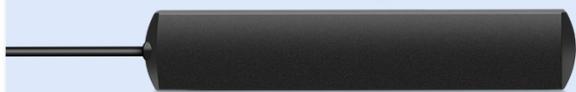
10. OPTIONAL ACCESSORIES

Enhance your driving experience with these optional accessories (not included in the package):

- **OBD2 Scanner:** Connects via Bluetooth to retrieve real-time vehicle data and trouble codes.
- **AR Front Camera:** Records the road ahead automatically while driving.
- **AR Rear Camera:** Provides a clear view when reversing, automatically switching the display.

WiFi Signal Upgraded

With an independent WiFi antenna, ensure stable signal quality and provide fast & smooth internet access.



Standard: 802.11a/b/g/n/AC
Spectral band: 2.4GHz/5GHz



Image: Optional accessories for the Joying car stereo.

11. SPECIFICATIONS

Feature	Detail
Model Number	JY-VT131N4
Display Size	9 Inches
Operating System	Android 13

Feature	Detail
Memory Storage Capacity	64 GB
Connectivity Technology	Bluetooth, Ethernet, HDMI, USB, Wi-Fi
Special Features	DSP, Equalizer, Front View Camera Input, RCA, RDS
Audio Output Mode	Stereo (with Optical Fiber and Coaxial Digital Output)
Included Components	9" radio, Power Cable, AR Cable, Screen Ribbon Cable, External Mic, 4G Antenna (x2), WiFi Antenna, USB Cable (x2), GPS Antenna, User Manual
Item Weight	5 pounds
Package Dimensions	13 x 9 x 8 inches

12. TROUBLESHOOTING

If you encounter issues with your Joying JY-VT131N4 car stereo, consider the following common troubleshooting steps:

- **No Power:** Check all power connections and fuses. Ensure the wiring harness is correctly installed.
- **No Sound:** Verify speaker connections and amplifier settings. Check the volume level and ensure the audio source is correctly selected. If using external amplifiers, confirm optical/coaxial connections.
- **Steering Wheel Controls Not Working:** Ensure the CAN bus setting is correct (refer to Section 4). Check the steering wheel control settings within the unit's software.
- **GPS Signal Issues:** Ensure the GPS antenna is properly connected and placed in a location with a clear view of the sky.
- **CarPlay/Android Auto Connectivity Problems:** Ensure your phone's software is up to date. Try reconnecting the USB cable or re-pairing via Bluetooth. Check the settings within the unit for CarPlay/Android Auto activation.
- **Slow Performance/Freezing:** Restart the unit. If issues persist, consider performing a factory reset (note: this will erase all user data and settings).
- **Overheating:** Ensure proper ventilation around the unit. Check if the cooling fan is operating. If the fan is not activating, verify the temperature warning settings.

For persistent issues, please refer to the detailed troubleshooting section in the full user manual or contact Joying customer support.

13. WARRANTY AND SUPPORT

The Joying JY-VT131N4 car stereo comes with a **2-year warranty** from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use.

For warranty claims, technical assistance, or further inquiries, please contact Joying customer support through

their official channels. Please have your purchase receipt and product model number (JY-VT131N4) ready when contacting support.