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› MekedeTech DUDUAUTO DUDU7 Android Radio User Manual for Mercedes-Benz Sprinter 2019-2023

MekedeTech DUDU7-12-256

MekedeTech DUDUAUTO DUDU7 Android Radio User Manual

Model: DUDU7-12-256 | Brand: MekedeTech
Compatible with Mercedes-Benz Sprinter 2019-2023

1. INTRODUCTION AND OVERVIEW

The MekedeTech DUDUAUTO DUDU7 Android Radio is a 13-inch 2K touch screen head unit designed to upgrade the multimedia system in Mercedes-Benz Sprinter models from 2019 to 2023. This unit offers advanced features including wireless CarPlay and Android Auto, a powerful 8-core CPU, ample memory, and enhanced audio technologies.

Key features include:

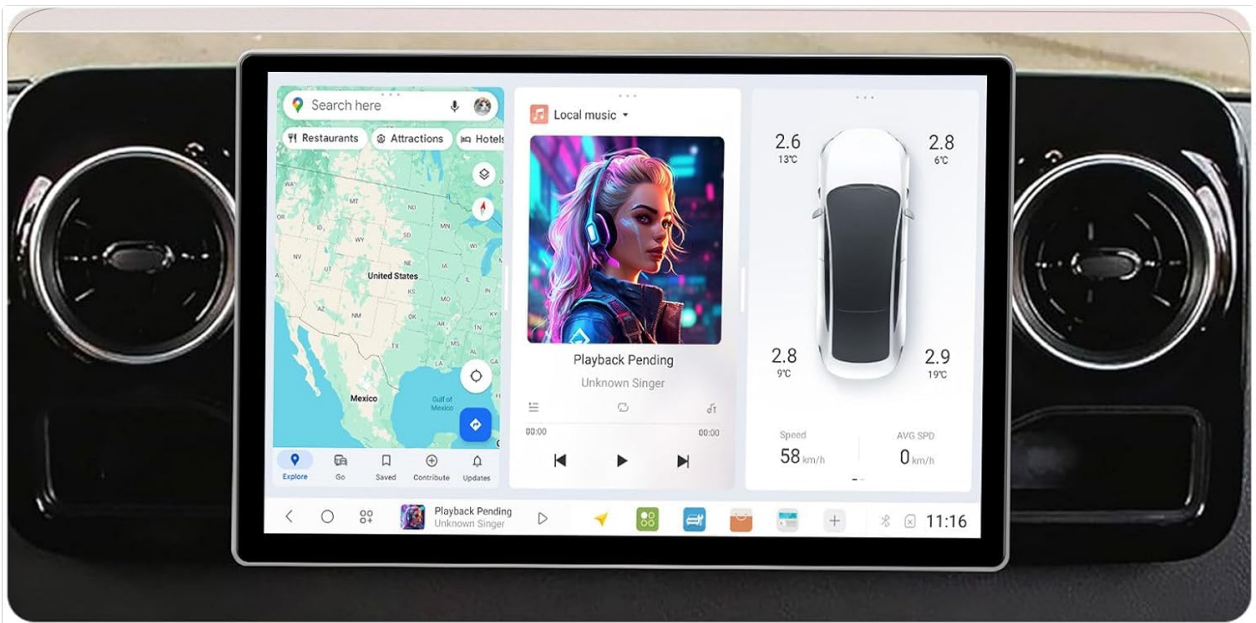
- Designed specifically for Mercedes-Benz Sprinter 2019-2023, supporting factory steering wheel controls.
- Wireless CarPlay & Android Auto for seamless smartphone integration.
- Qualcomm 3031 Bluetooth 5.0 chip for low power consumption, faster transmission, and stable signal.
- 4G LTE & Wi-Fi support for internet access via SIM card or hotspot.
- Digital Noise Cancelling Microphone for clear voice transmission.
- Integrated 360 panoramic chip (default).

2. SETUP AND INSTALLATION

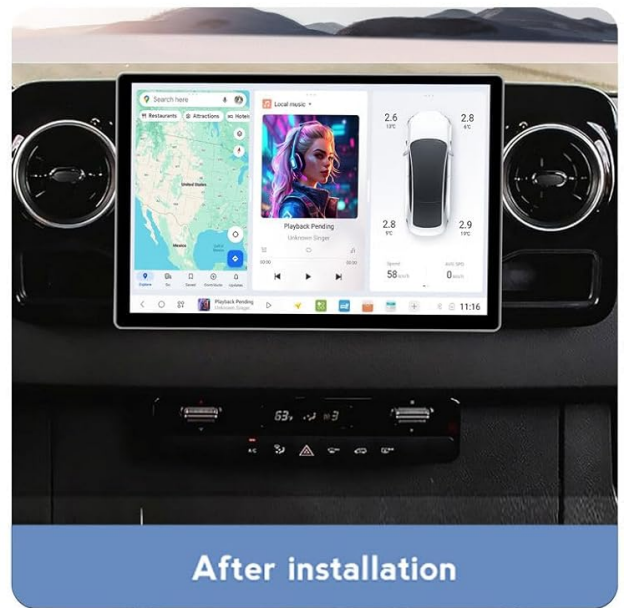
Proper installation is crucial for optimal performance. This section guides you through the physical installation and initial software configuration.

2.1 Physical Installation

The DUDU7 head unit is designed to integrate into your vehicle's dashboard. The installation process involves mounting the screen to its base and then securing it within the vehicle's dashboard opening. Ensure all cables are properly connected before final assembly.



Before installation




After installation

Image: Comparison of the vehicle dashboard before and after the installation of the MekedeTech DUDU7 Android Radio, highlighting the integrated 13-inch screen.


The screen's installation position can be adjusted to be higher or lower, with a 25mm distance between the top and bottom installation positions. If your dedicated frame is 10.1 inches, first install the screen base, then install the 9-inch to 10.1-inch frame adapter, and finally, install your 10.1-inch dedicated adapter frame.

2.7Ghz
8core
6nm
Process
204%
CPU boost
240%
GPU boost



7x read speed

With 12+512GB UFS3.1 storage memory, the read and write speed is more than 7 times faster than the 7862, and the application loading and boot speed are greatly improved.



Mainstream chip run score comparison

UIS 7870	552875
Qualcomm 8155	498870
Qualcomm 690	374930
UIS 7862S	228641
Qualcomm 665	206812
UIS 7862	195671

Data from: Above test is from AnTuTu

7862	271MB/S	Reading speed
7870	1908 MB/S	Improved x 7
7862	220MB/S	Write speed
7870	1705MB/S	Improved x 7.75

Note: The above data is read from the 12+256 memory chip test
Other models are subject to actual measurements

Image: Detailed diagram illustrating the various connection ports on the rear of the DUDU7 head unit, such as USB, antenna inputs, and RCA cables.

2.2 Initial Software Configuration

After physical installation, initial software configuration is required to ensure compatibility with your vehicle's systems and personal preferences.

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Video: A-Sure Car Stereo Radio Installation Guide. This video demonstrates the physical installation process of a similar 12.3-inch/13.1-inch car stereo radio, providing visual steps for mounting and connecting the unit.

CAN-BUS Protocol Setup:

1. Go to **Settings**.
2. Select **Factory**.
3. Enter the password: **3368**.
4. Navigate to **Car Model** and select the appropriate CAN Box type, Car Brand, Car Model, and CAN Box year for your Mercedes-Benz Sprinter (2019-2023). This ensures proper communication with your vehicle's steering wheel controls and other integrated functions.

3. OPERATING INSTRUCTIONS

The DUDU7 Android Radio operates much like an Android tablet, offering a wide range of functionalities and customization options.

3.1 Home Screen and Applications

The home screen provides quick access to essential features and applications. You can customize the layout and add shortcuts to frequently used apps.

	DUDU4	DUDU5	DUDU6	DUDU7
RAM/ROM	4+32GB	4+64GB	6+64GB 8+128GB 8+256GB	6+64GB 12+256GB 8+128GB 12+512GB
CPU	8-Core UIS8581A	8-Core UIS7862	8-Core UIS7862S Customized verison A55 2.0Ghz 12nm process	8-Core UIS7870 Customized verison A76 2.7Ghz 6nm process
Memory type	emmc 5.1			UFS 3.1 Read data 1700M+
GPS	3 mode L1 B1 E1			Dual Band 6 mode L1 L5 B1 B2a E1 E5a
MIC	Condenser MIC			Digital noise cancelling MIC
USB interface	USB 2.0*3			Type-C USB 3.2 Gen1*1 USB 2.0*3
Power amplifier	TDA7838	TDA7851	TDA7850	TDA7808 Digital enhanced Class AB power amplifier
DSP	AK7604	AK7604	AKM7738	AKM7739 Velvet audio technology
Amp	/	/	2582*3	5532*3 Enhanced audio signal
Android version	Android 10 API=29			Android 13 API=33
car machine system	DUDU OS			
Audio output	RCA2.1 channel output	Fiber + coaxial RCA2.1 channel output	Fiber + coaxial RCA5.1 channel output	
BT chip	BT5.0		BT5.0 Qualcomm 3031 supports the aptx HD protocol	
Filter capacitance	6800μF		10000μF	
Screen	In-cell Screen		9.5" / 10.36" / 11.5" : 2K 2000*1200 13" : 1920*1200	
CP/AA	Support wired + wireless Car-play / Android AUTO			

Network	4G Lte external card slot + WIFI	
Radio	TDA4755	TDA7708
Voice Control	DUDU4 / 5 requires the purchase of voice control software to be supported.	Support voice control function
Supporting accessories (optional)	DVR, front + rear view camera, TPMS, BT SWC, etc. Note: Accessories are not included and are purchased separately. For more customization needs, please contact mekede&navifly.	

Image: The DUDU OS 3.5 interface, showcasing its intuitive design with various applications and widgets for navigation, music, and vehicle information.

- **App Store / Play Store:** Download and install additional applications. Note that the built-in App Store allows updates for native apps, while the Play Store is for general Android apps.
- **YouTube:** Stream videos (requires data connection via SIM card or mobile hotspot).
- **Voice Search:** Utilize voice commands for navigation, calls, and other functions.

3.2 Connectivity

The head unit offers multiple connectivity options:

- **Bluetooth:** Pair your smartphone for hands-free calling and audio streaming. Access the Bluetooth app, search for your device, and pair it.
- **Wireless CarPlay / Android Auto:** Connect your iPhone or Android device wirelessly for a streamlined in-car experience.
- **4G LTE & Wi-Fi:** Insert a SIM card for mobile data or connect to a Wi-Fi hotspot for internet access.

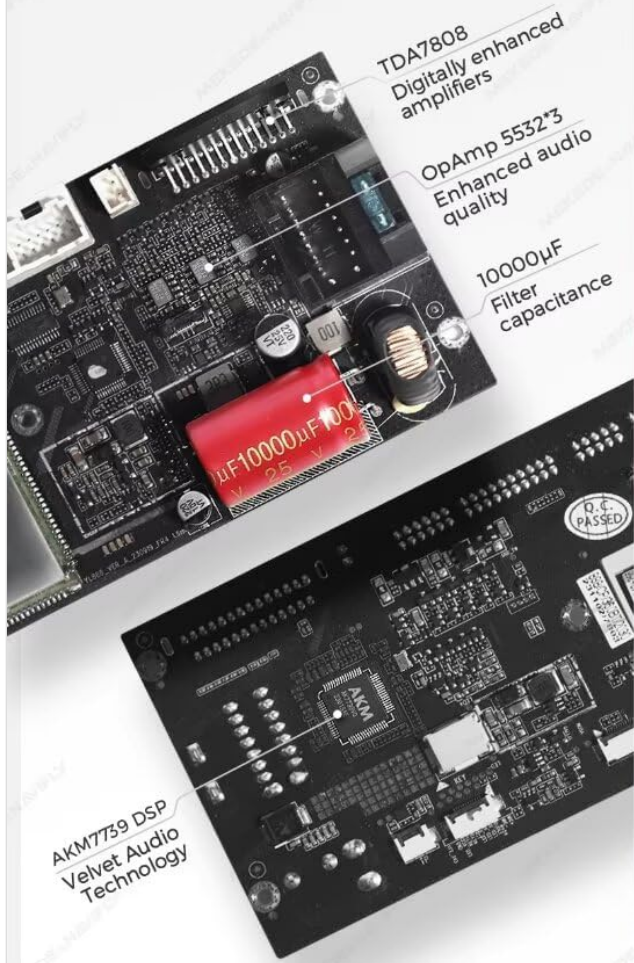
3.3 Audio and Visual Settings

Customize your audio and visual experience:

- **Radio:** Access FM/AM radio stations.
- **Equalizer (EQ):** Adjust audio settings with DSP (Digital Signal Processor) and ASP (Audio Signal Processor) options, including various presets (Jazz, Pop, Rock, Classic, etc.) and field settings for sound distribution.
- **Video Playback:** Play downloaded video content from an SD card or USB.

Choosing reputation audio chip

in an industry-wide



AKM7739 DSP Velvet Audio Technology

Support "VELVET SOUND" +DTS5.1 panoramic sound+ sound correction system, reproduces a natural, comfortable, sense of presence acoustic experience.



VELVET SOUND



VELVET SOUND - AKM advanced audio processing technology, based on the original sound reproduction product concept, explores the limits of audio technology, and presents all sound details without reservation, creating a "like, immersive" sound world.

Image: Close-up view of the internal components, highlighting the AKM7739 DSP Velvet Audio Technology chip and TDA7808 digital amplifier, which contribute to the superior sound quality.

3.4 Customization and Advanced Settings

Personalize your head unit experience:

- **Themes:** Change the visual theme of the interface. Access the App Store or Theme section to browse and apply different themes. Note that some themes may not be fully customizable in terms of individual elements like the sport car graphic.
- **Boot Screen Logo:** Customize the logo displayed during startup. To do this, you need an image with a resolution of 1920x1200 in BMP format, saved in a folder named 'mycar' on a USB drive. Insert the USB, go to **Settings > Factory (password 3368) > Boot Screen Logo** and select your image.
- **Units (Km/h to Mph, Celsius to Fahrenheit):** Adjust measurement units in **Settings > Factory (password 3368)**. Look for 'Mileage unit switching' and 'Temperature unit' to change between kilometers/miles and Celsius/Fahrenheit.
- **Date & Time:** Manually set or adjust date and time in **Settings > System > Date & Time**

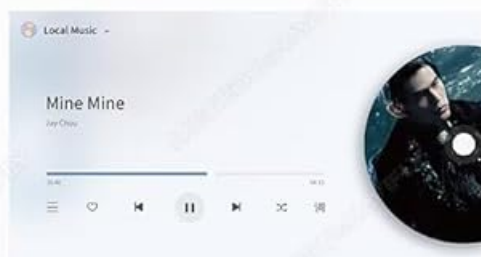
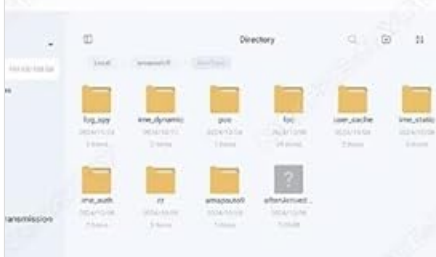
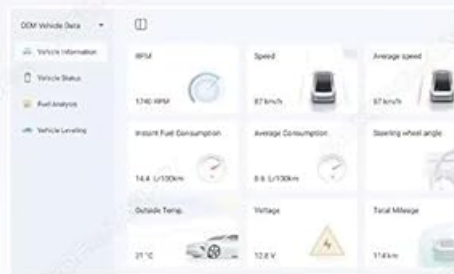
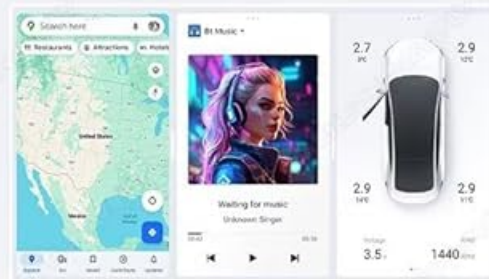


DUDU OS

DUDU OS 3.5

Simple and Enthusiast Modes Available

We've evolved from feature-heavy complexity to focus on intuitive, streamlined operation while maintaining powerful functionality.



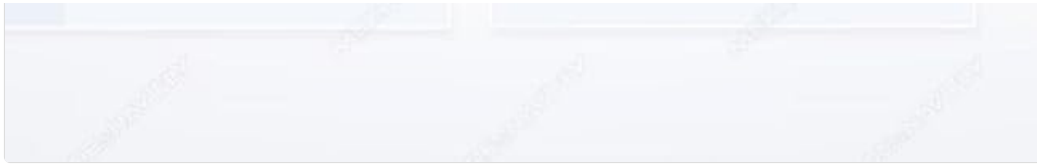


Image: The DUDU OS 3.0 interface, demonstrating custom dynamic wallpaper options and a range of settings for personalization.

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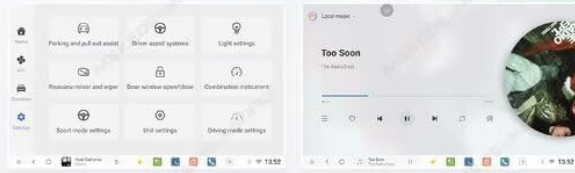
Video: 13.1-inch Radio Function Demonstration and Settings. This video provides a detailed walkthrough of the head unit's functions, including CAN-BUS settings, app usage, Bluetooth pairing, radio, equalizer, video playback, and various customization options like themes and boot screen logos.

4. SPECIFICATIONS

Feature	Description
Operation System	Android 13
CPU	8 Core UIS7870 Customized version A76 2.7Ghz 6nm processor
Memory Type	UFS 3.1 Read data 1700M+
Memory Storage Capacity	256 GB
Screen Size	13 Inches
Display Type	OLED
Touch Screen Type	Capacitive
GPS	Dual Band 6 mode L1 L5 B1 B2a E1 E5a
MIC	Digital Noise Cancellation Microphone
USB	USB 3.2 GEN1*1 (TYPE-C), USB2.0*3
Power amplifier	TDA7808 Digital AB type
DSP	AKM7739 Velvet Audio Technology
Bluetooth Chip	Qualcomm 3031 (Supports aptx HD protocol, BT5.0)
Audio Output	Optical + Coaxial, RCA 5.1 Channel Outputs
WiFi Type	802.11a/b/g/n/ac Support 5G WIFI
Work Voltage	9V~16V
CarPlay & Android Auto	Support Wired and Wireless
360 Panorama	Include 360 panoramic chip default

DUDU OS 3.0

New custom dynamic wallpaper



Daytime

light mode



dark mode

Night



Image: Technical diagram detailing the UIS 7870 CPU's 2.7GHz 8-core 6nm processor, 204% CPU boost, and 240% GPU boost, alongside a comparison of read/write speeds against other chips.

DUDU7

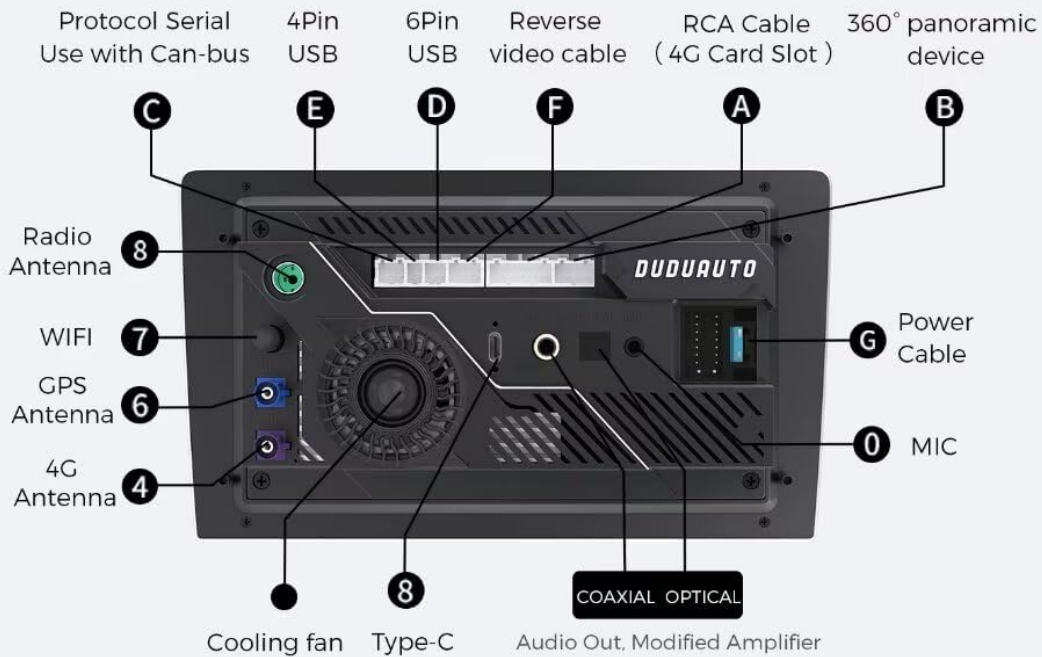


Image: A comparative chart outlining the specifications of DUDU4, DUDU5, DUDU6, and DUDU7 models, highlighting the DUDU7's advanced features like UFS 3.1 memory and Android 13.

5. MAINTENANCE

To ensure the longevity and optimal performance of your MekedeTech DUDUAUTO DUDU7 Android Radio, follow these maintenance guidelines:

- **Screen Cleaning:** Use a soft, lint-free cloth to gently wipe the screen. For stubborn smudges, slightly dampen the cloth with water or a screen-safe cleaner. Avoid harsh chemicals or abrasive materials.
- **Software Updates:** Regularly check for and install software updates through the built-in App Store or Play Store to ensure you have the latest features and security patches.
- **Temperature Control:** Avoid exposing the unit to extreme temperatures. While designed for automotive use, prolonged exposure to direct sunlight or freezing conditions can affect performance.
- **Cable Connections:** Periodically check all cable connections to ensure they are secure and free from damage. Loose connections can lead to intermittent issues.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your DUDU7 Android Radio.

- **Screen is Black on Startup:** If the screen is dim or black on startup, but responds to touch, you may need to enable the 'Stay Awake' developer option. Go to **Settings > System > Developer Options (password 3368)** and toggle 'Stay Awake' to ON. This ensures the screen remains active when charging.
- **Incorrect Clock/Time:** If the clock displays the wrong time, navigate to **Settings > System > Date & Time**. You may need to manually set the time or ensure 'Use network-provided time' and 'Use network-provided time zone' are correctly configured.
- **Theme Customization Limitations:** Some elements of certain themes, such as specific graphics (e.g., a sport car image), may not be customizable. The primary customization options for themes are typically found in the Theme application.
- **Steering Wheel Controls Not Working:** Ensure the correct CAN-BUS protocol is selected in **Settings > Factory (password 3368) > Car Model**. Incorrect settings can prevent steering wheel controls from functioning.

7. WARRANTY AND SUPPORT

The MekedeTech DUDUAUTO DUDU7 Android Radio comes with a **1 Year Warranty** from the manufacturer, Shenzhen Mekede Technology Co.,Ltd. For technical support, warranty claims, or further assistance, please refer to the contact information provided with your product packaging or visit the official MekedeTech website.