TS20 Platform Operation Manual

Catalogue

1. Introduction.....5

1.1 Purpose of Writing.....5

2. Function Introduction.....6

2.1【Main Interface】.....6

2.2【Drop-Down Menu】.....10

2.3【Theme】.....12

2.4【Settings】.....14

2.5【Three Displays】.....16

2.6【Bluetooth】.....18
2.7【Music】.....20
2.8【Video】.....22
2.9【Radio】.....24
3.0【DSP】.....26
3.1【AUX】.....28
3.2【APK Installer】.....29
3.3【File Manager】.....31
3.4【Steering Wheel】.....33
3.5【DoFun Play】.....35

3.6【Boot Animation 】.....36
3.7【Tlink】.....38
3.8【Dual Screen Display】.....41
3.9【360】.....43
4.0【Day/Night Mode】.....45
4.1【Realistic Air Conditioning】.....46

1. Introduction

The TS20 platform is a newly developed system platform by Toparea based on the Unisoc 7870 CPU chip. It integrates various software and is a large-scale system. Below are some basic functional operations of the integrated software on this platform.

1.1 Purpose of Writing

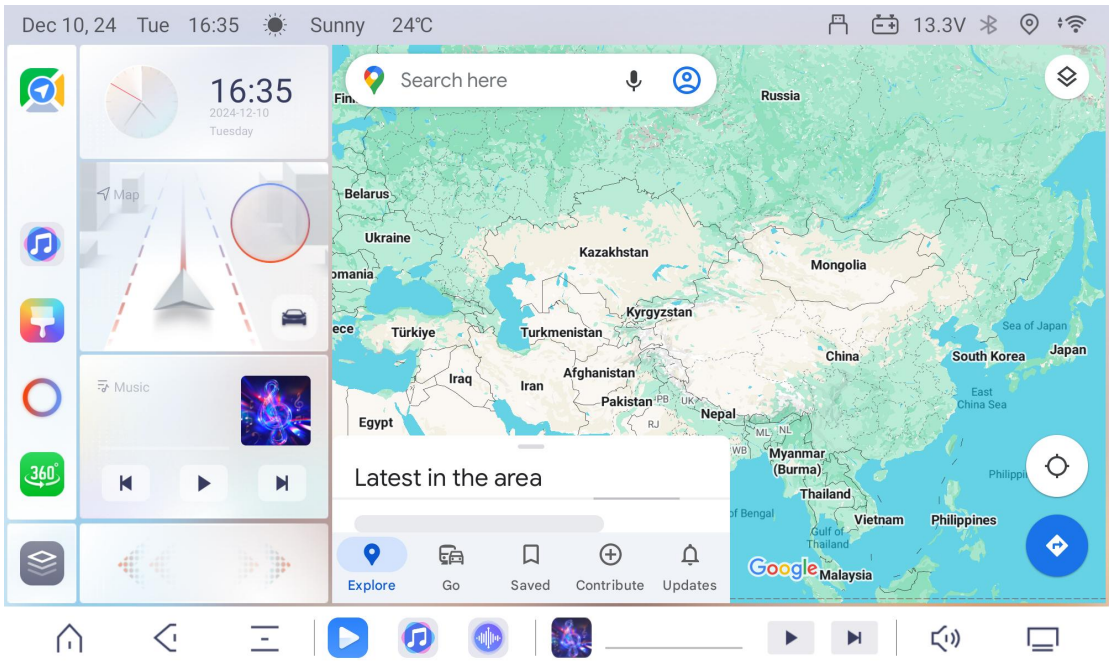
This manual is written to guide users in understanding the functions of the TS20 platform, and it is hoped that this manual can serve as a self-taught tool during use. This manual introduces the operation methods of various application software integrated on the Toparea TS20 platform.

2. Function Introduction

2.1【Main Interface】

2.1.0 Top row - Status bar display area:

The display content includes: time, weather USB 、 Voltage, Bluetooth, positioning WIFI



2.1.1 Bottom row - Navigation bar button area:

The functions are: main interface, return, history, volume, and multifunctional plugin buttons

2.1.2 Leftist Column - Shortcut Function Applications:

The functions are: navigation, music, theme, application, 360, and one screen three display window buttons

2.1.3 Left column - Plugin area:

Function integration includes: time, driving dynamics, media plugin, left and right switching interface

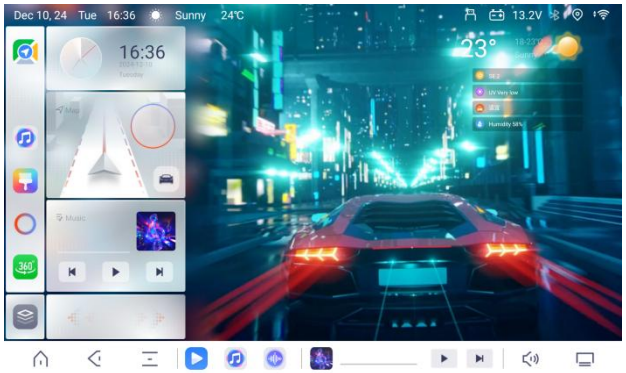
Among them, in the driving effect area, clicking on the car icon can open the 3D car model effect

2.1.4 Right Area - Window Display Area:

The window displays options for binding navigation, recorders, videos, and custom applications

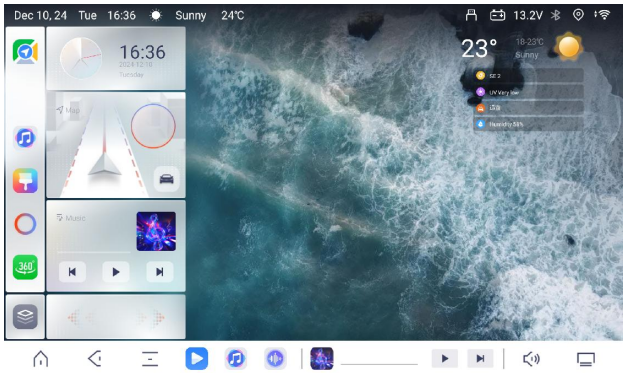
3D Wallpaper Display:

The interface can switch between dynamic wallpapers (with day and night effects) by switching left and right



Driving

(daytime)



Waves

(daytime)



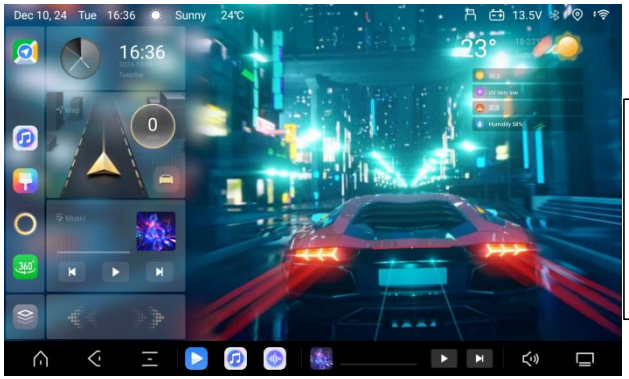
Rain

(daytime)



Aurora

(daytime



Driving (night)



Vortex (night)



Window View (night)



Black hole (night)

2.2【Drop-Down Menu 】

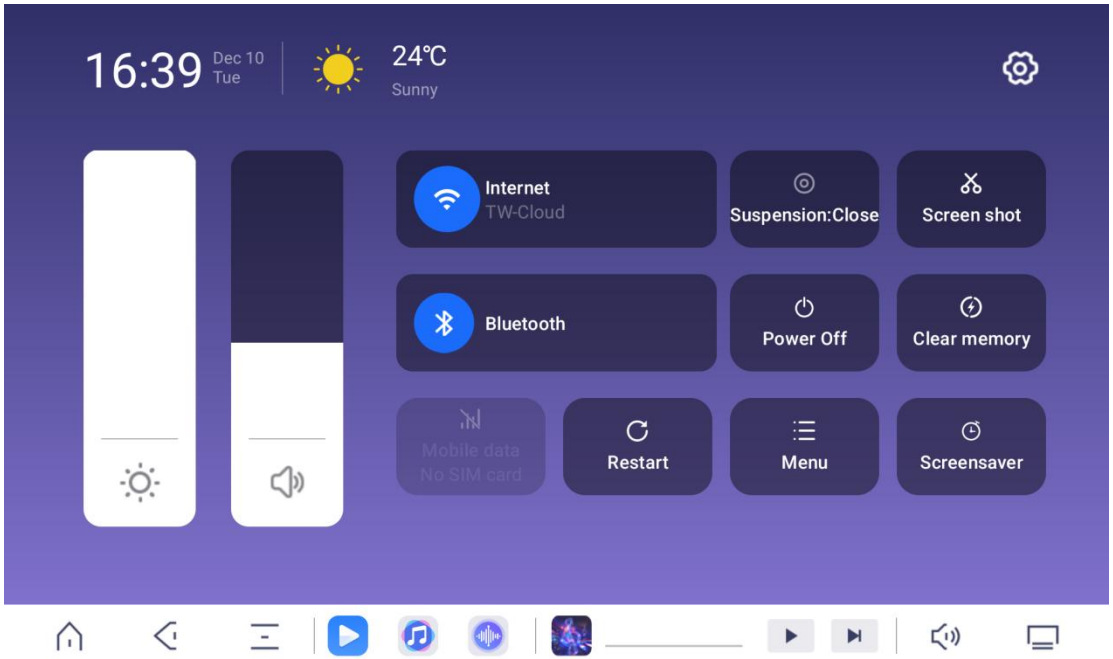
Middle area:

WiFi: Short press the switch, long press the selection.

Bluetooth: Click to quickly enter the Bluetooth interface

Mobile data: Long press to enter the SIM card settings interface

Restart: Click to restart the car machine



Left area:

Brightness: Swipe up and down to achieve brightness adjustment

Volume: Swipe up and down to adjust the volume

Right area:

Car settings: Click to enter the car settings interface

Suspension: Click to open the suspension ball function

Screenshot: Click to take a screenshot of the current interface and save it to the file manager

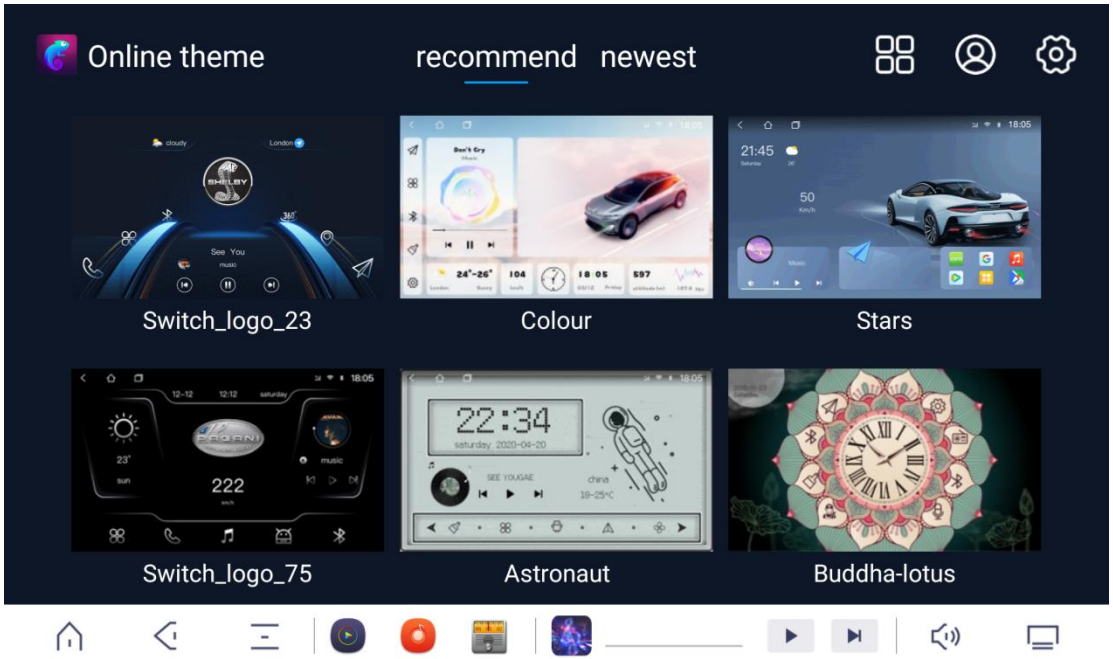
Power off: Click to enter shutdown mode

Clean memory: Click to close all running applications

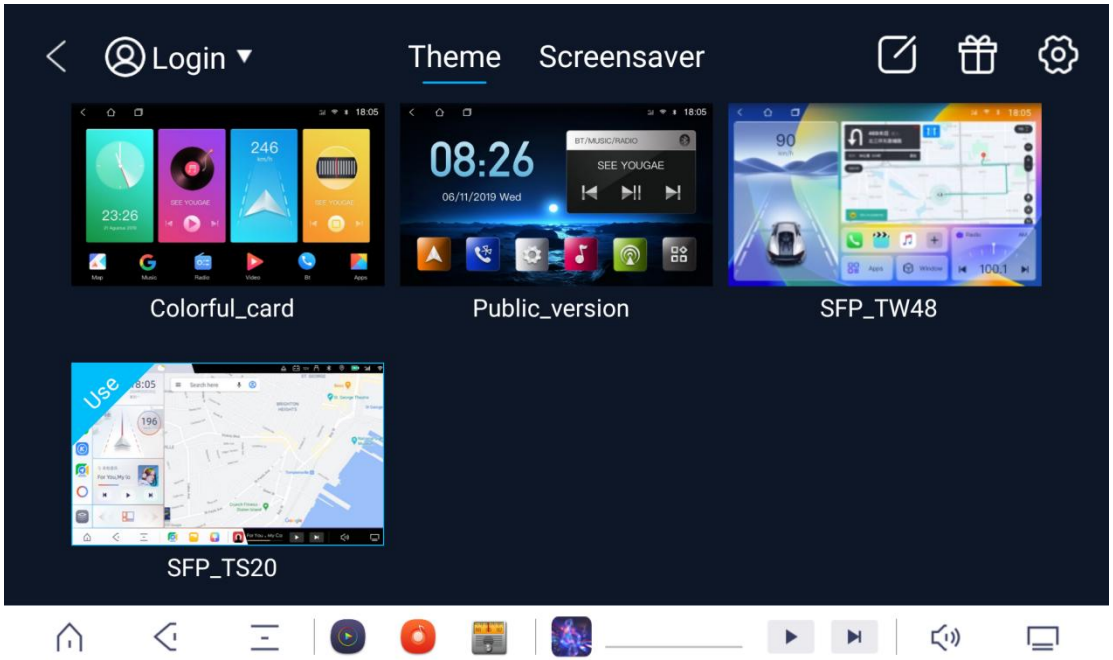
Menu: Click to bring up a pop-up menu that includes themes, management applications, and settings

2.3【Theme】

Theme selection: You can freely choose the UI effect of the current displayed main interface to replace the current main interface.



My Theme: Showing the existing themes of the current machine.



2.4【Settings】

Network: WiFi, mobile network, more network settings

Display: brightness, font, background, wallpaper, etc

Sound: priority, ringtone, sound settings, mixing settings

Universal: navigation bar, sleep failure, panel lights, navigation applications, recorders, etc



Original: display settings for external temperature, air conditioning, doors, etc

Reverse: mirror, radar, trajectory line, ruler line, camera system, reverse volume, etc

Voice: mode selection, voice software selection

Personal: including account, language selection, input method settings, and selection of mobile internet applications

System: MCU upgrade, system upgrade, developer options, restoring factory settings, etc

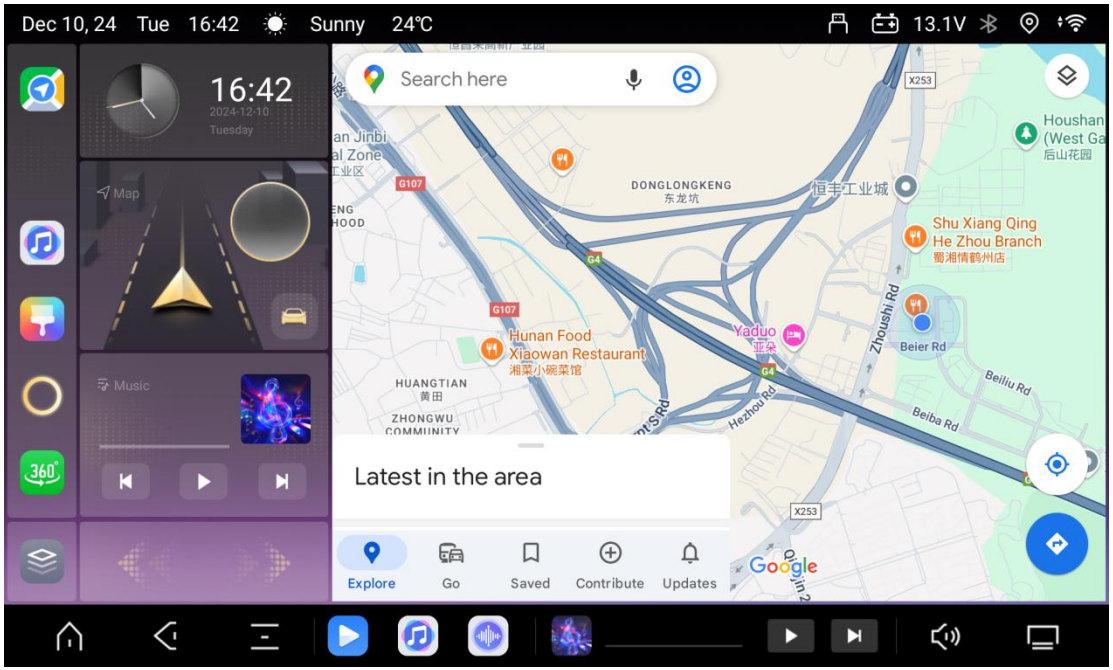
Factory: Enter a special password to enter factory settings

More: Enter the native Android system settings interface

About: including platform and hardware information, storage information, and system information

2.5【Three Displays】

The main interface of one screen and three displays is shown in the above figure. You can choose between traditional main interface and one screen and three displays according to personal preferences. In the factory, you can set whether the one screen and three displays function is enabled or not.



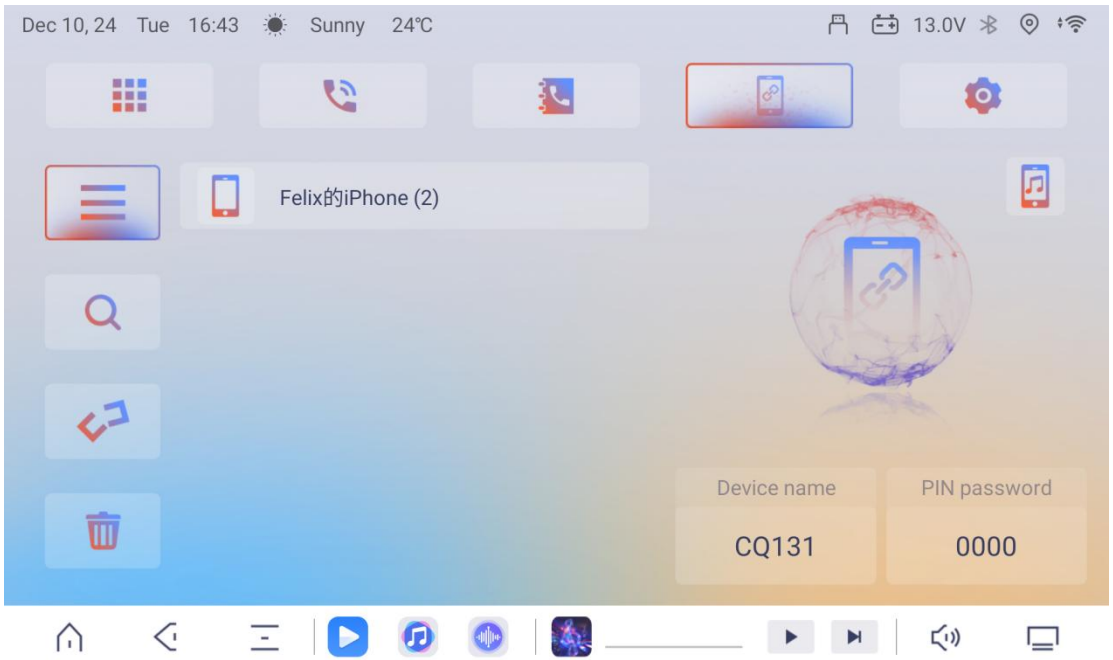
Map window: One screen three display window display area

Window button : Short press to open the window application to full screen, long press to pop up the window application selection.

Window customization: You can choose to bind third-party apps to display in the window position, such as YouTube, iQiyi, 360, etc.

2.6【Bluetooth】

Bluetooth connection operation steps: Open the phone's Bluetooth - click the pairing button below - search button - select the pairing device name (CQ131) - the phone pops up a Bluetooth pairing request and clicks pairing - a connection icon appears after the device name to prove successful connection



Pairing record: mobile record list

Search: Search for mobile devices

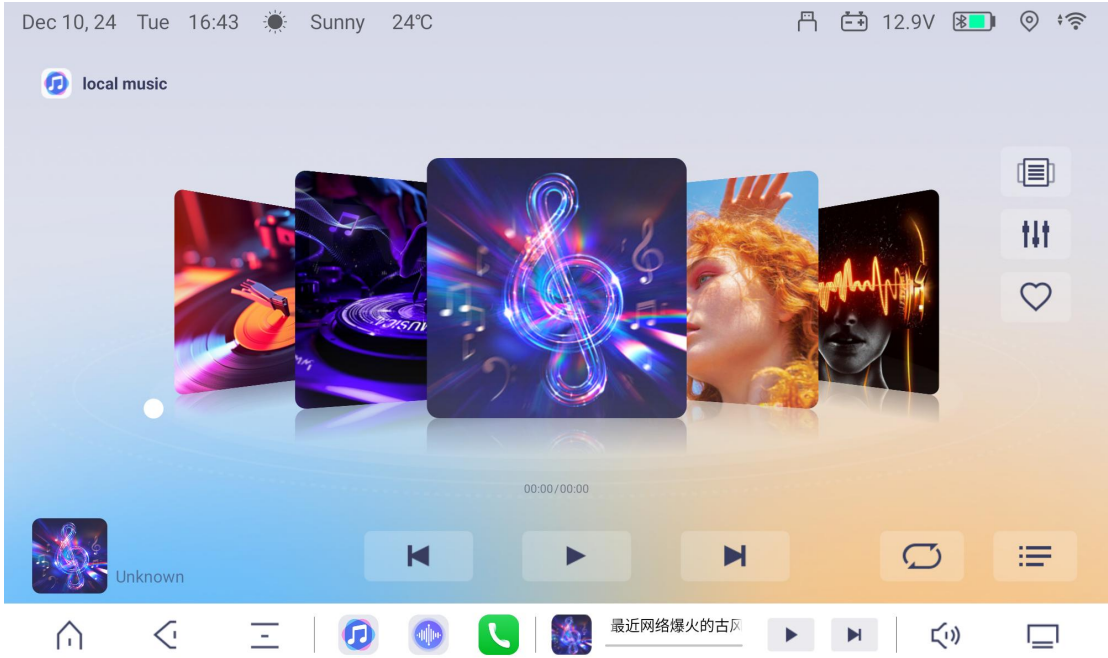
Disconnect: Disconnect the phone

Delete pairing record: Delete record

Wallpaper switching: Users can switch their favorite wallpapers

2.7【Music】

The playback interface is shown in the above figure. Click to expand the playback device , which corresponds to playlist, USB, local storage, My Favorite, and SD card, respectively



Playback mode: selection includes single loop, list loop, and random play

Spectrum area: Spectrum or lyrics display area

My Favorite: Favorite Song List

Play directory: Song directory

Previous Song: Switch to the previous song

Pause: Play paused songs

Next Song: Switch to the previous song

Equalizer: Jump to Equalizer Adjustment Interface

Wallpaper switching: Users can switch their favorite wallpapers

2.8【Video】

The video player can recognize all video resources from both internal and external storage of the machine,

Supports playing multiple common video formats and high-definition video playback.



Playlist: Display the current playlist

USB device: Video in USB device

Local storage: Videos stored locally

SD card: Video of SD card

Previous Song: Switch to the previous song

Pause: Play paused songs

Next Song: Switch to the previous song

Equalizer: Jump to Equalizer Adjustment Interface

Video settings: Video floating frame, brake settings

2.9【Radio】

The radio station that is supported by the radio search is stored in the P1-P6 (FM 87.5~108.0 MHz) cell of FM1-FM2 (or AM 530~1710 KHz) for display; Slide to browse and store radio stations.



Low frequency stepping: retreat towards low frequency

High frequency stepping: moving towards high frequency

Middle area: Swipe left to browse saved radio stations and display the RDS radio station icon

Long and short range: switching to search for radio stations

Previous song: Switching to a radio station

BAND: Switch between AM radio mode and FM (frequency modulation) mode, default to FM

Next song: Cut off a radio station

Equalizer: Enter DSP interface

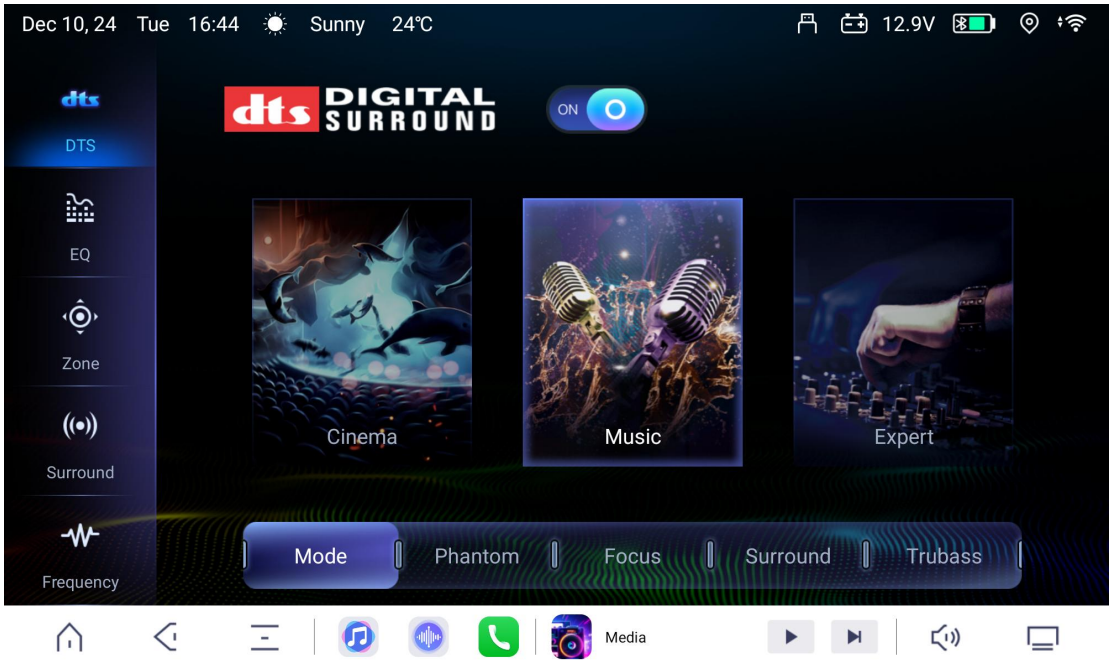
Settings: Channel selection (stereo/mono)

Wallpaper switching: Users can switch wallpapers

3.0【DSP】

Entering the DSP interface, users can click on DTS, EQ, Zone, Surround, and Frequency to enter the adjustment tone effect mode.

Users can set preset sound effects or manually adjust the setting values to set sound effects



DTS sound effect adjustment: supports five sound effects, namely scene mode, virtual center, sound focus, surround mode, and bass enhancement

Sound effects(12types): available for selection customization. Compensate and modify various sound sources, fields, or speaker effects by adjusting electrical signals of different frequencies.

Sound field control: The volume of different areas inside the car can be adjusted. Move the orange dots to adjust the volume and bass gain for the seat area you want to correct

Six surround position modes: Setting different positions results in different emphasis on the surround effect

Frequency response control: Low frequency filtering control of front and rear speakers and subwoofer

3.1【AUX】

Connect the signal and display the video screen

PS: Support TVI/AHD/CVBS signals

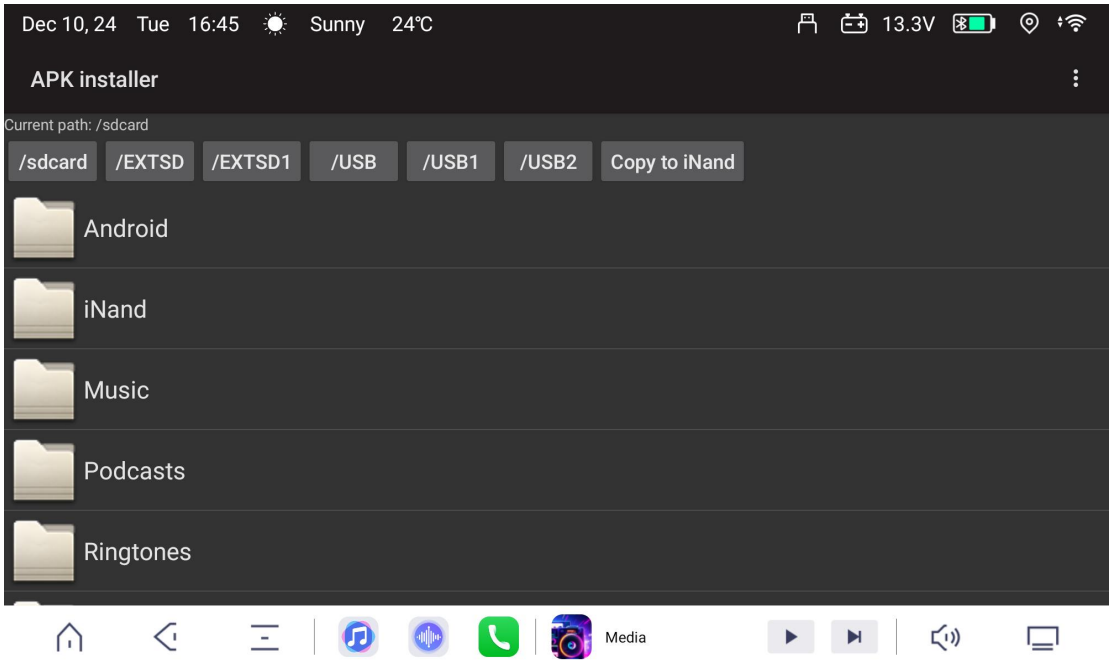
When there is no video input, the interface displays: no video signal.



3.2【APK Installer】

APK installer is an app specifically designed for application installation, supporting multiple device types, USB, SD card, etc

Installation example:



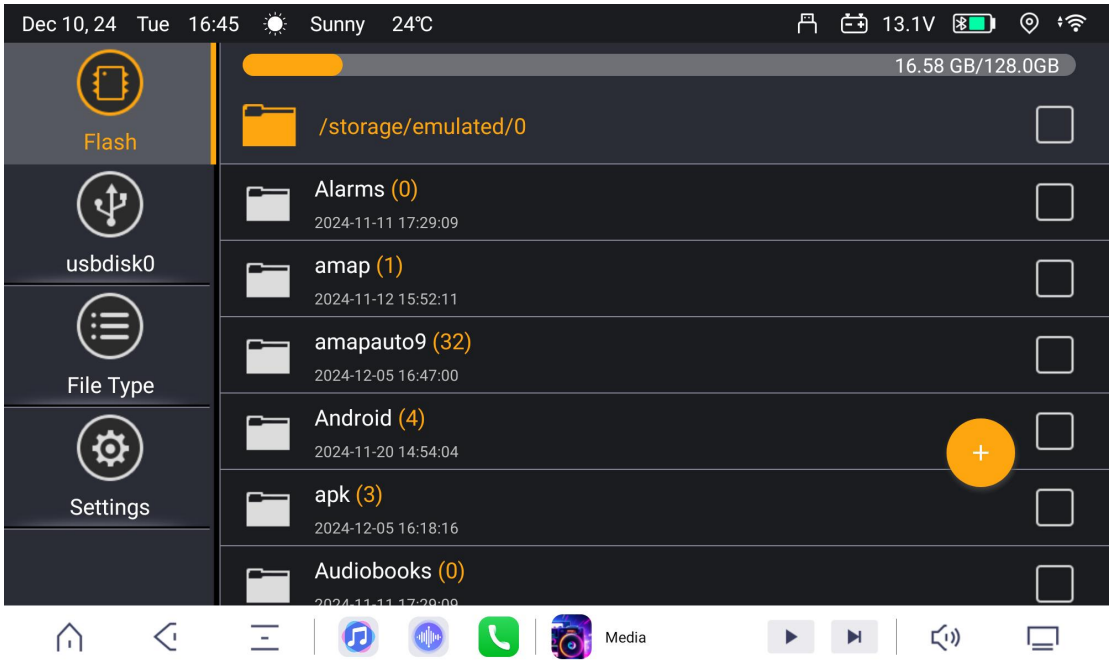
1. Connect the USB drive containing the installed application to the car computer
2. Open (APK installer)
3. Directory selection (USB0/USB1/USB2) to switch USB ports
4. Find the application and click on install

3.3【File Manager】

All files in the machine can be viewed and operated on in the file manager, and the left side of the page allows selection

The file directory for. If you need to copy or move a file, simply select the file you want to operate on, and the bottom will display

A row of operation buttons will appear, select the file directory that needs to be stored, and then click the operation button



File management operation steps:

1. Check the files to be managed

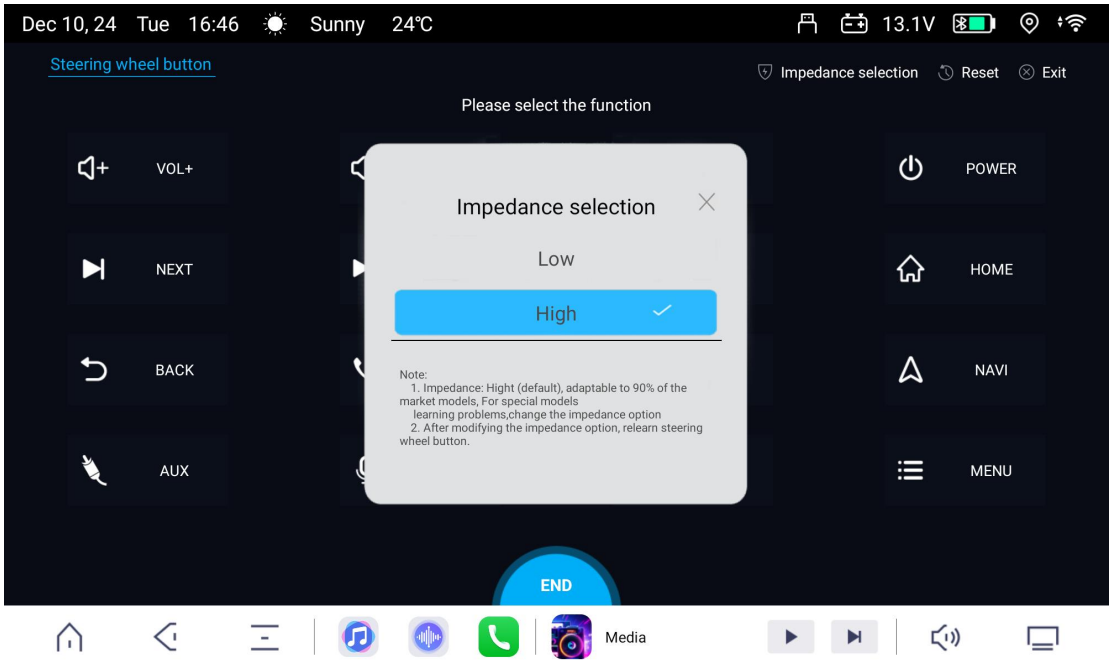
2. The management option pops up at the bottom as shown in the following figure

3. If copying or cutting, you can perform the paste operation in another folder

4. When not checked, any file can be created by clicking on the bottom right corner and creating a new file or folder

3.4【Steering Wheel】

For vehicles with steering wheel buttons, if the buttons support learning, the steering wheel customization function can be used.



Learning steps:

Click on the application menu to enter the steering wheel interface

1. Click on [Start]
2. Select the button you want to learn, such as "Volume+"
3. Press the corresponding physical button on the steering wheel, and after learning, the button will display a highlighted blue color
4. Click [End]

When clearing learning records, first click [Start] and then click [Reset]

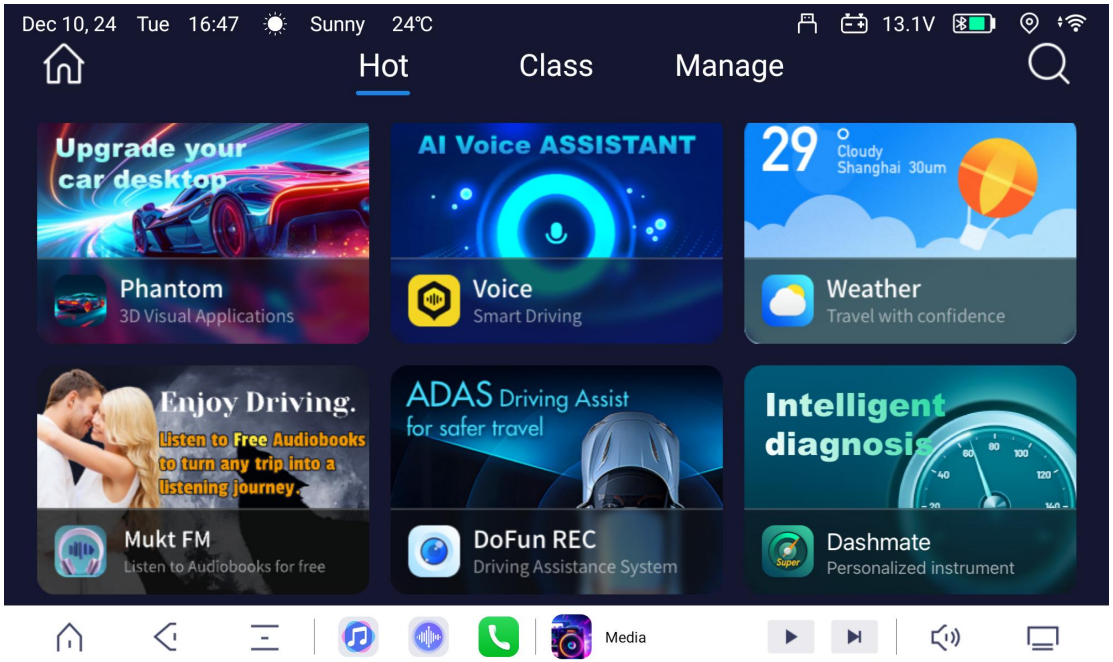
When learning, you can choose high and low impedance according to your needs

3.5【DoFun Play】

Hot:recommended downloadable applications based on current trends, download rankings, and special topics

Search: can quickly find the desired download.

Manage: can manage applications, including updating, uninstalling, clearing cache, etc

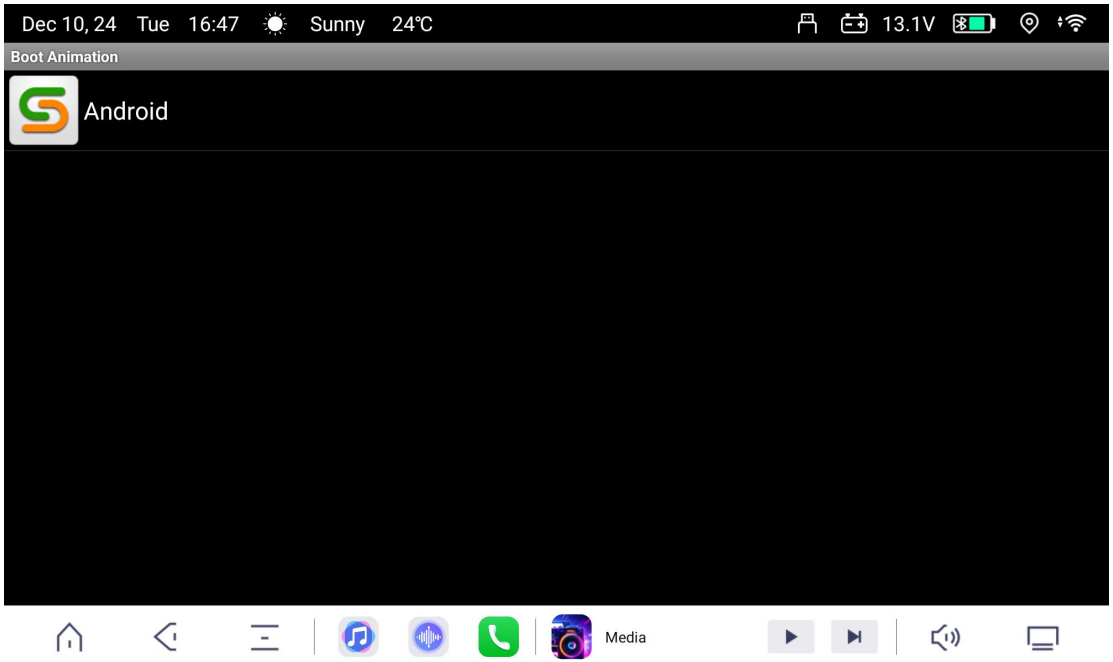


3.6【Boot Animation】

The app can replace the boot animation

PS:supports startup animation formats such as .mp4 and .zip

Steps for turning on the animation:



1. Insert a copied MP4 format animation USB drive (stored in the root directory) and click to start the animation application

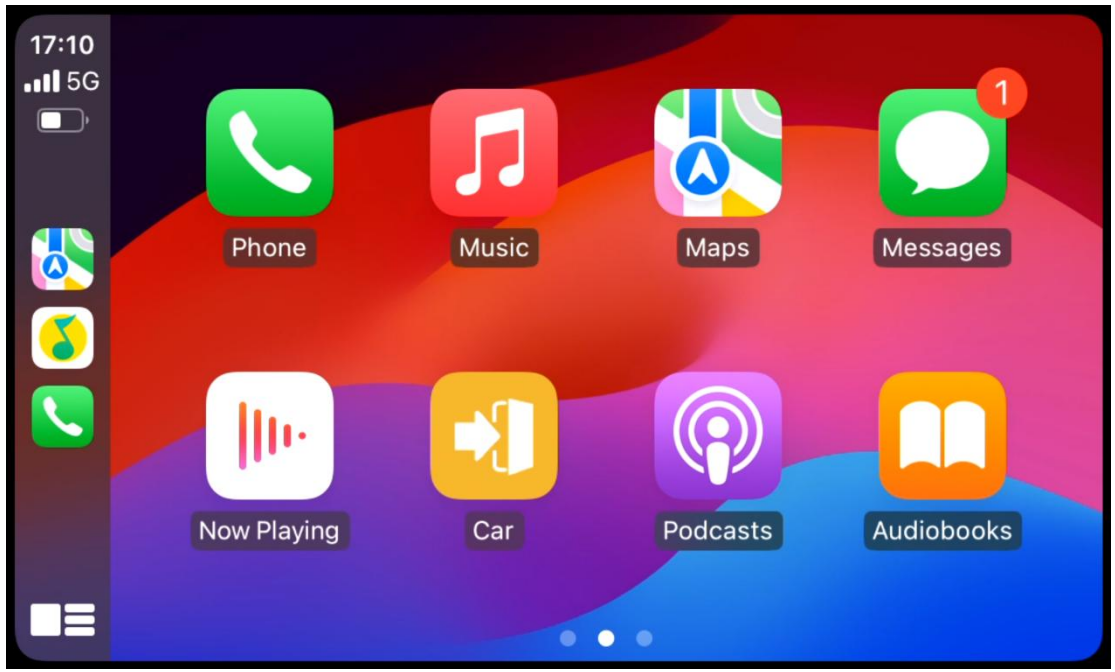
2. Pull down the status bar, click on the menu, and the page will pop up a box saying "Import from external storage", as shown in the following figure

3. After clicking "OK", enter the password "Topway", and the prepared MP4 format animation will be read and appear in the list below

4. After clicking on the selected startup animation, click OK to complete the startup animation setting

PS: The format of the imported startup animation includes MP4 and zip. The startup animation will play sound and video along with the imported animation, with a playback time of ten seconds

3.7【Tlink】



Tlink5 supports wireless carplay+wireless/wired Android auto

1、 Wired Android Auto connection steps:

1. Open TLink5

2. Use a USB cable to connect your phone and car stereo

3. TLink5 will automatically detect and connect

2、 Wireless Carplay Connection Steps:

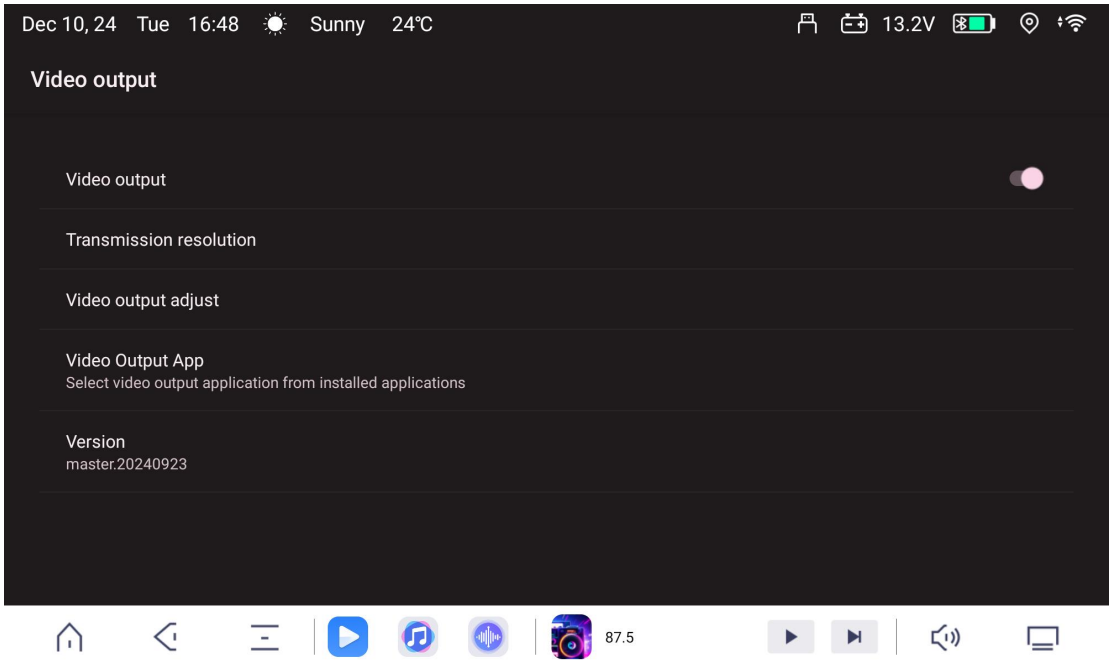
1. Confirm the Bluetooth connection between the phone and the car phone
2. Open TLink5, and the car's automatic detection of the connection will display "Connected"
3. Mobile phone pop-up confirmation "use CarPlay car"
4. Successfully connected, presenting the right interface

3、 Wireless Android Auto connection steps:

1. Turn on Bluetooth and search for devices;
2. Select the Bluetooth of the car stereo for pairing connection;
3. After successful connection, the car phone displays the application screen (at this time, the phone's WiFi will automatically connect to the car phone hotspot)

3.8【Dual Screen Display】

The TS20 platform supports both Type-C(to Hdmi/DP) output and USB to CVBS output, which can achieve different display effects on two screens.



Operation steps:

1. Open Settings - General - Video Output Settings, turn on video output

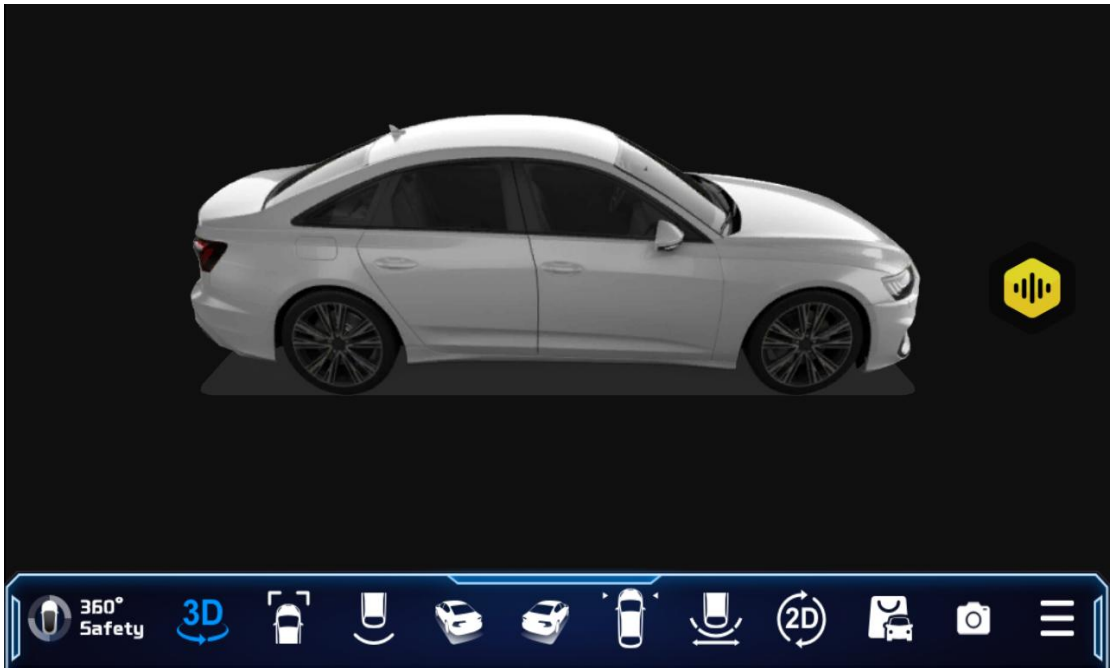
2. Connect the video output cable

3. Select the app you want to play the video on the car console, such as the third-party app YouTube

4. When the car infotainment system is synchronized with the video output display, click the home button on the car infotainment system to trigger the different display functions on the two screens, and then the car infotainment system will return to the homepage, while the video output will still continue to play

3.9【360】

360 is a parking assistance system that integrates a 360 degree panoramic view of the surroundings of a car through a display screen, with an ultra wide viewing angle and seamless splicing of timely image information, to understand blind spots around the vehicle and help drivers park their vehicles more intuitively and safely



1. Main interface 3D surround: The front view is displayed in full screen, and manual clicking can rotate the viewing angle. When the car starts and is powered on, the car will automatically switch to 360 degree panoramic mode

2. Front view: can switch back and forth between the original view, top view, and corrected view

3. Rear view: can switch back and forth between the original view, top view, and corrected view

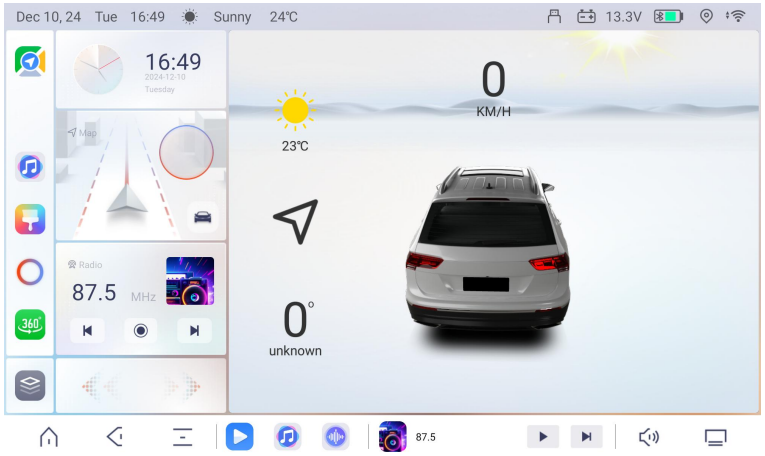
4. Left view: Display the image of the left camera

5. Right view: Display the image of the right camera

6. Narrow channel mode: can switch back and forth between the front narrow channel view and the full narrow channel view

4.0【Day/Night Mode】

This mode will automatically switch with the car headlights. If it is daytime and the car lights are turned off, the system defaults to daytime mode. Conversely, if it is nighttime and the car lights are turned on, the system will automatically switch to nighttime mode.



Daytime



Nighttime

4.1【Realistic Air Conditioning】

The platform has made significant adjustments to the air conditioning interfaces of all vehicle models, adopting real-life air conditioning display effects

As shown in the following figure:

