



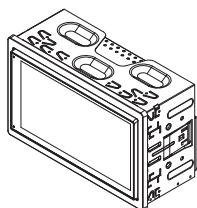
GRUNDIG

GX-3900

User Manual

6.8"
In Car
Display
Audio

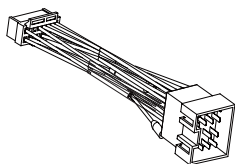




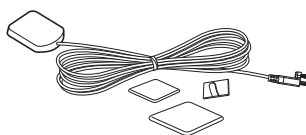
Main Unit
(Included: Trim Plate + Sleeve)



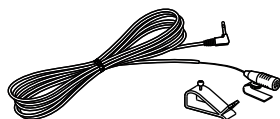
User Manual



Power Cord



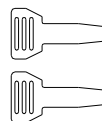
**GPS Receiver / Double Sided Tape
/ Shield Film / Clamp**



Microphone

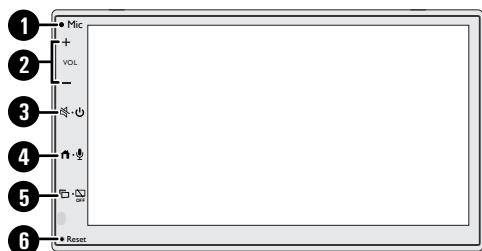


Screws



Removal keys

Main Unit



- 1** Mic
 - Panel microphone
- 2** + / - (Volume)
 - Adjusts the volume
- 3**
 - Press mute or unmute
 - Press and hold to turn off the power
- 4**
 - Press to displays all sources screen.
 - Press and hold to activate the voice assistant
- 5**
 - Press to access widget screen
 - Press and hold to turn off the screen
- 6** Reset
 - Restore default settings.

Initial Setup

Perform this setup when you use this unit first time.

1. Set each item as follows.

- Tap **Language** select the desired language.

Tips If only one language, the selection is not supported.

- Tap **Area** select the suitable country area.

2. Tap **Finish** to confirm.



Home Menu Screen



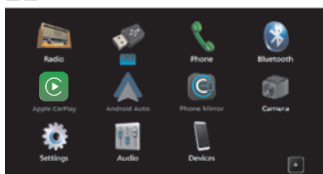
1 Display Connected Devices Information

- Dual Phone Connection
- Return to now playing mode
- Wi-Fi internet work

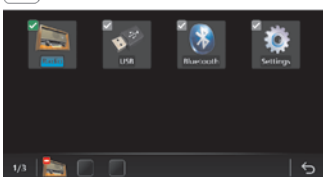
2 < Widget



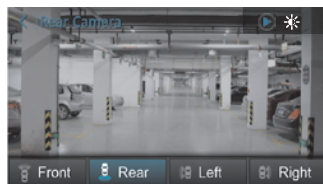
3 All Source



4 + Customize Shortcuts



5 Cameras Input



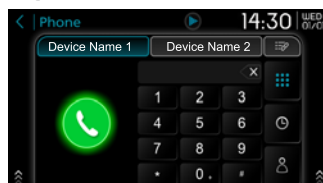
Tips

When the vehicle is in reverse Gear, tap access into Camera mode to switch the Front , Rear, Left, Right camera video whatever mode is currently. Be sure to connect Reverse wire properly. (please see details on "Wiring Diagram")

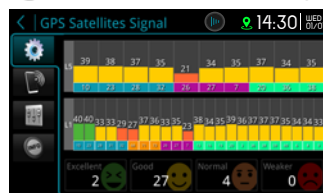
6 Smartphone Device List



7 Phone Call



8 GPS Satellites Signal

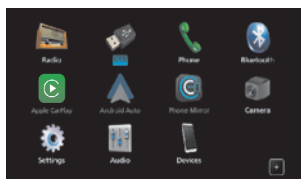


Tips

When is displayed can not click enter into GPS satellites signal. For detailed, please refer Page22.

Source Screen Descriptions

1. Tap  display the All Source screen.

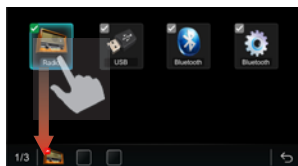


2. From the screen, you can select the following sources and functions.

	Switches to the Radio broadcast
	Plays media files on a USB device
	Displays the phone call screen
	Plays a Bluetooth music device
	Switches to the Apple CarPlay screen from the connected iPhone
	Switches to the Android Auto screen from the connected Android smartphone
	Switches to the Phone Mirror screen from the connected Smartphone
	Displays the view camera screen
	Displays the Setup menu screen
	Displays the Audio screen
	Displays the Smartphone Device List screen
	Customize the Short-cut source

Customize Short-cut source

1. Tap  display the Shortcuts screen.
2. Tap the source icon which you want to add in the customizing mode, tap again will cancel the custom short-cut source



-  : Green is defined as Short-cut source
-  : Grey is not defined
-  : Return to current mode

Widget

1. Tap  display the Widget screen.
2. Flick the Clock widget area to left or Right to select the clock style.



Tips You can also press the  button on front panel display Widget screen.

Product Info

Shows the Brand name, Model number, Software version, About Bluetooth, Wi-Fi STA internet mode, Wi-Fi phone link mode and Open Source Licenses informations of this unit.

Tips On home screen, tap , then click the [INFO] to select [Product Info].

Experience a smarter and safer way to stay connected on the go! Our smartphone connectivity offers an incredibly intuitive solution for making calls, using maps, and enjoying music while driving. It seamlessly displays your desired smartphone functions on the unit screen, making it easier to operate your phone and allowing you to stay more focused on the road. Drive with confidence and convenience with our smartphone connectivity.

This unit supports the following applications:



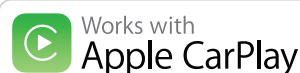
Apple CarPlay

CarPlay offers a smarter and safer way to utilize your iPhone while driving. Apple CarPlay seamlessly displays the tasks you want to perform with your iPhone on the unit's screen.

Get directions, make calls, send and receive messages, and enjoy music from your iPhone—all while driving.

Enhance your experience further by using Siri voice control, making it easier to operate your iPhone in a way that allows you to stay focused on the road.

For more details, visit: <http://www.apple.com/ios/carplay/>



Android Auto™

Android Auto is an app that seamlessly integrates with your car, simplifying the use of key features on your Android phone while driving.

Take control of navigation, music, and your phone's dialer directly from your car's digital display, allowing you to stay focused on the road.

For more details about Android Auto, visit the following addresses:

<https://www.android.com/auto>

<https://support.google.com/androidauto>



Smartphone Mirroring

Smartphone Mirroring allows you to project your smartphone screen onto the unit's screen, enhancing the visual experience and ensuring comfort throughout the drive. It also supports syncing your favorite photos from your smartphone to the unit as wallpaper.

To activate this function, please scan the QR code to download and install the **"MirrorAPP+"** app on your phone.



MirrorAPP+



Connecting an iPhone

To operate your smartphone Apple CarPlay, the following connections are required.

◆ Wired Connection

Connect your iPhone via the USB terminal.

Tips

When an iPhone compatible with Apple CarPlay is connected to the USB, the Bluetooth phone and Bluetooth audio currently connected is disconnected.

◆ Wireless Connection

You can select the iPhone registered as the Bluetooth device from Smartphone Device List and use it as the Apple CarPlay device.

1. Tap  on home to enter Smartphone Device List.
2. Tap **New**, the unit starts to search for available devices, then displays them in the device list.

Tips

- Turn on Bluetooth in your phone settings and stay on the Bluetooth screen for discoverability.
- If the device that you want to connect does not appear, tap **Search** on the screen again.

3. Pair & connect your iPhone Bluetooth on Smartphone Device List.

Tips

Tap the following connection message if the message appears:

- Tap **[Use CarPlay]** allow use CarPlay with "GRUNDIG" on iPhone.
- Tap **[Start]** to start Apple CarPlay on Car Audio Display.
- Tap **[Allow]** allow "GRUNDIG" to check for CarPlay Apps on this unit.
- Tap **[Enter]** to start the Apple CarPlay.

4. Start to enjoy Apple CarPlay.

Connect/Disconnect Apple CarPlay

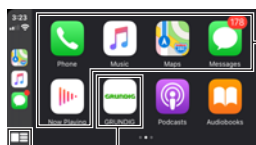
1. Tap  on home to enter Smartphone Device List.
2. Select the device you want to use



-  **Currently activate:** Tap to disconnect the Apple CarPlay
-  **Unactivate:** Tap to connect the Apple CarPlay

Operation of Apple CarPlay

◆ Operation button on Apple CarPlay Home Screen



Application Buttons

Exits the Apple CarPlay screen and displays the HOME screen

- Press to display HOME screen of Apple CarPlay
- Press and hold to activates Siri

◆ Operation button on the head unit panel of Apple CarPlay

- Press  on the head unit to exit the Apple CarPlay screen. Press and hold to activates Voice Assistant.
- Press  on the head unit to access widget screen.

Connecting Android Smartphone

To operate your smartphone Android Auto, the following connections are required.

◆ Wired Connection

Connect your Android smartphone via the USB terminal.

Tips

When an Android smartphone compatible with Android Auto is connected to the USB, the Bluetooth phone and Bluetooth audio currently connected is disconnected.

◆ Wireless Connection

You can select the Android smartphone registered as the Bluetooth device from Smartphone Device List and use it as the Android Auto device.

1. Tap  on home to enter Smartphone Device List.
2. Tap  , the unit starts to search for available devices, then displays them in the device list.

Tips

- Turn on Bluetooth in your smartphone settings and stay on the Bluetooth screen for discoverability.
- If the device that you want to connect does not appear, tap  Search on the screen again.

3. Pair & connect your Android smartphone Bluetooth on Smartphone Device List.
4. Tap [Start] to start the Android Auto.

Connect/Disconnect Android Auto

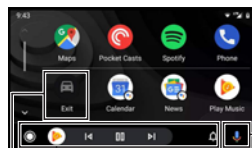
1. Tap  on home to enter Smartphone Device List.
2. Select the device you want to use



-  **Currently activate:** Tap to disconnect the Android Auto
-  **Unactivate:** Tap to connect the Android Auto

Operation of Android Auto

◆ Operation button on Android Auto Home Screen



Google Assistant

Application / information buttons, tap to starts the application or displays information

Return to Car Home

◆ Operation button on the head unit panel of Android Auto

- Press  on the head unit to exit the Android Auto screen. Press and hold to activates Voice Assistant.
- Press  on the head unit to access widget screen.

Get Ready

Please get ready the things and follow the procedures as below set up your iPhone:

- ◆ Make sure that Wi-Fi network is turned on
- ◆ Make sure that the Bluetooth function is turned on
- ◆ Compatible Smartphone devices:
 - Smartphone with iOS Version 13 or later
 - Supported phone models: iPhone 8P or above
- ◆ Unlock your iPhone.

Install MirrorAPP+

Please select the method you want to install "MirrorAPP+" App on your iPhone.

Tips

You can follow the below steps to refer the "MirrorAPP+" installation method of Car Audio Display.

On home screen, tap  then click:

[INFO] > [Application] > [MirrorAPP+]

- ◆ Scan the QR code to install "MirrorAPP+" App on your iPhone.



- ◆ Search "MirrorAPP+" App on App Store to install on your iPhone.

Connect an iPhone

1. Tap  to enter the Smartphone Device List.



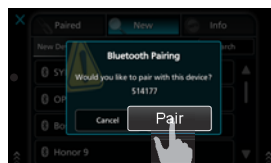
2. Tap  New, the unit starts to search for available devices, then displays them in the device list.

Tips

- Turn on Bluetooth in your phone settings and stay on the Bluetooth screen for discoverability.
- If the device that you want to connect does not appear, tap  Search on the screen again.

3. Pair & Connect your phone bluetooth on the Smartphone Device List of Car Display Audio

- Confirm the request both on Car Display Audio and your Smartphone



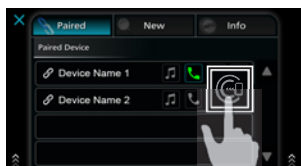
Tips

- Once pairing is completed. For iPhone compatible with wireless Apple CarPlay. A confirmation message appears.
- Tap [Close] not to use Apple CarPlay for the time being.

Get Start

Once pairing / connected with bluetooth is successful.

1. Tap  to start **MirrorAPP+** in the Smartphone Device List.



Tips

- When using phone mirroring, please unlock your phone.
- Need wait 5 ~ 15 seconds can start up the **MirrorAPP+** on your iPhone. if after 30 seconds still not activate, please manually to tap  start up.
- When pop the iPhone or Android phones select screen dialog on Car Display Audio, please depending your connected device select the smartphone.

2. The **MirrorAPP+** function will be launched simultaneously on your iPhone.

Tips

- Please complete the authorization prompt and allow all requests on your smartphone.
- Please confirm join the Wi-Fi network pop up on your smartphone, then the **MirrorAPP+** will connect to with Car Display Audio Wi-Fi network.

3. Start to enjoy Mirroring

Tips

Once screen mirroring complete, you can manually tap **Stop Mirroring** any area outside to easily display the phone's screen on Car Audio Display.

Disconnect Mirroring

1. Tap  to enter Smartphone Device List.



2. Select the current used device name, and tap  to disconnect the mirroring.

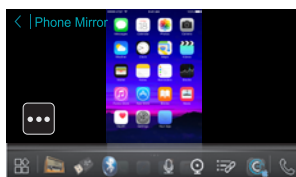
Tips

- When the  is in gray (Unavailable), tap it again can restart the phone mirror on your smartphone.
- For more questions for Phone Mirror, please scan the QR code or check in the FAQ of **MirrorAPP+**.



How to Switch Apple CarPlay & iPhone Mirror?

1. Tap  display the shortcut bar



2. Tap  enter Smartphone Device List.

3. Tap  or  to switch Apple CarPlay & Phone Mirror.



Get Ready

Please get ready the things and follow as below set up your Android smartphone.

- ◆ Make sure that Wi-Fi network is turned on
- ◆ Make sure that the Bluetooth function is turned on
- ◆ Unlock your smartphone.

Install MirrorAPP+

Please select the method you want to install "MirrorAPP+" on your Android smartphone.

Tips

You can follow the below steps to refer the "MirrorAPP+" installation method of this unit.

On home screen, tap , then click:

[INFO] > [Application] > [MirrorAPP+]

- ◆ Scan the QR code to install "MirrorAPP+" app on your Android smartphone.
- ◆ Search "MirrorAPP+" app on Google Play to install on your Android smartphone.



Connect an Android Smartphone

1. Tap  to enter the Smartphone Device List.

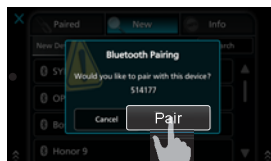


2. Tap , the unit starts to search for available devices, then displays them in the device list.

Tips

- Turn on Bluetooth in your phone settings and stay on the Bluetooth screen for discoverability.
- If the device that you want to connect does not appear, tap  Search on the screen again.

3. Pair & Connect your Android Smartphone bluetooth on the Smartphone Device List.
 - Confirm the request both on the Car Display Audio and your Android Smartphone.



Tips

Once pairing is completed. For Android smartphone compatible with wireless Android Auto.

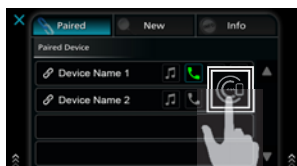
A confirmation message appears.

- Tap [Not now] not to use Android Auto for the time being.

Get Start

Once pairing / connected with bluetooth is successful.

1. Tap  start MirrorAPP+ in the Smartphone Device List.



2. Tap  to launch MirrorAPP+ on your Android smartphone.

Tips

- Please complete the authorization prompt and allow all requests on your Android smartphone.
- Please confirm join the Wi-Fi network pop up on your smartphone, then the MirrorAPP+ will connect to with Car Display Audio Wi-Fi network.

- Tap [Start Now] to start capturing your Android smartphone screen.

3. Start to enjoy Mirroring

Operation keys on the mirroring screen

Tap  on the mirroring screen, the following virtual hard keys are available.



-  : Returns to the previous page
-  : Returns to home page.
-  : Shows the recent applications
-  : Returns to settings of Head Unit
-  : Follow the direction of the phone
-  : Force vertical screen
-  : Force landscape display

Tips These keys differ depending on the connected device and may differ from the function operated from the device.

How to Switch Android Auto & Android Mirror?

1. Tap  display the shortcut bar

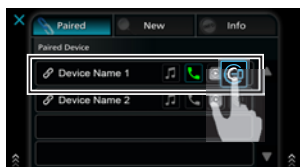


2. Tap  enter Smartphone Device List.
3. Tap  or  to switch Android Auto & Android Mirror.



Disconnect Mirroring

1. Tap  to enter Smartphone Device List.



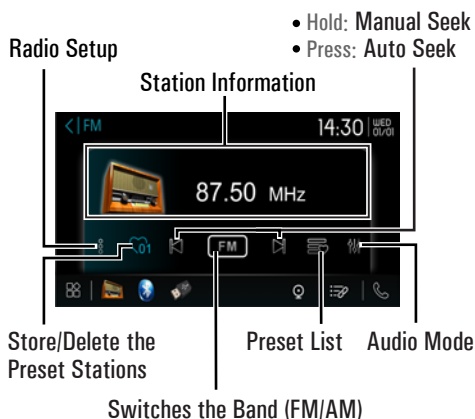
2. Select the current used device name, and tap  to disconnect the mirroring.

- Tips**
- When the  is in gray (Unavailable), tap it again can restart the phone mirror on your smartphone.
 - For more questions for Phone Mirror, please scan the QR code or check in the FAQ of MirrorAPP+.



Radio Basic Operation

Tap  on the home screen to display the Radio screen.



Preset List

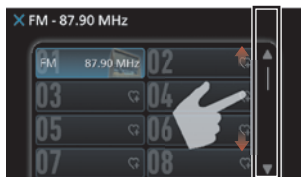
◆ Recalling the preset station

1. Tap  to display the preset list screen.
2. Drag ▲ / ▼ scroll to select the memorized stations (01 ~ 32) to recalls from preset list.

◆ Manual memory

You can store the current receiving station in memory.

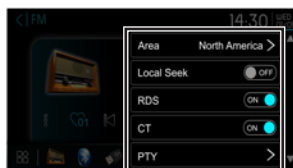
1. Tune in to a station you want to preset.
2. Tap and hold the  stores the current receiving station in memory.



Tips Tap  to quickly store the current receiving station, tap  to delete preset station.

Radio Setup

1. Tap  display the Radio setup screen.



2. Set each item as follows

◆ Area

To select suitable country area for this unit.

- North America
- South America
- Europe
- Asia
- Middle East
- Oceania
- HongKong

◆ Local Seek

Tunes in only to the stations with sufficient signal strength.

◆ RDS

Tap On or Off the RDS Settings.

• CT

This option turn on will automatic synchronise the clock & date from the radio broadcast if available.

• PTY

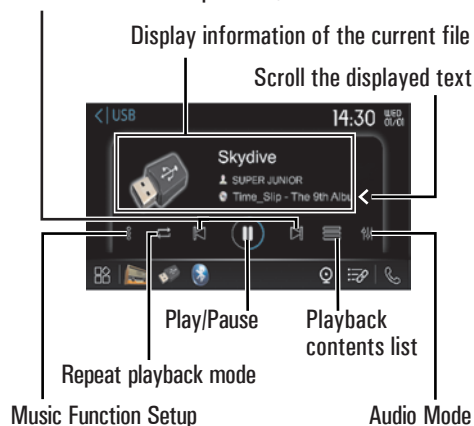
You can tune into a station using PTY (Programme Type Identification) information.

Tap  enter into select a program type.

USB Basic Operation

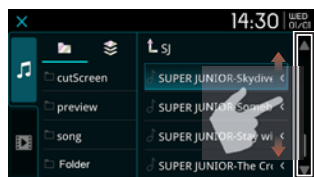
Tap  on the home screen to display the USB playback screen.

- Hold: To fast forward or fast backward.
- Press: Searches the previous/next track file



Search a File

1. Tap  to display the playback contents list screen.
2. Select whether you search by audio files , video files .



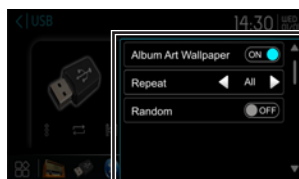
3. Tap  to moves to the upper hierarchy.
4. Tap the desired folder, when you tap a folder its contents are displayed.
5. Tap desired item from the media content list, will play starts automatically

Tips

Tap  to return previou item.

Music Function Setup

1. Tap  display the music function setup screen.



2. Set each item as follows

◆ Album Art Wallpaper

This function allows album art currently being displayed is used as a wallpaper.

Tap On or Off to enable/disable the album art wallpaper.



◆ Repeat

Tap  to selects Repeat playback mode.

: Repeats all files in the USB device

: Repeats the current file

: Repeats all files in the current folder.

◆ Random

Tap On or Off the Random playback mode.

Use the Bluetooth function allows you to use various functions such as listening to the audio file and making / receiving a call. This unit can support dual phone connections simultaneously.

Pairing the Bluetooth Device

1. Tap  on home screen
2. Tap **Device List** enter Smartphone Device List.

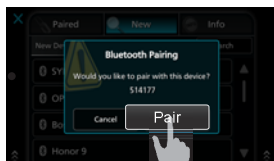


3. Tap **New**, the unit starts to search for available devices, then displays them in the device list.

Tips

- Turn on Bluetooth in your phone settings and stay on the Bluetooth screen for discoverability.
- If the device that you want to connect does not appear, tap **Search** on the screen again.

4. Select the name of the device you want to pairing.
5. Operate the device /smartphone according to the displayed messages.
 - Confirm the request both on the Car Display Audio and your Smartphone



6. The new device usage will displayed on the **Paired** paired list.

Tips

You can also use your smartphone to search for the GRUNDIG device for Bluetooth pairing.

Register the Usage of the Devices

You can confirm and change the usage of the registered devices on the Smartphone Device List.

You can also connect / disconnect and delete unwanted devices on the device list.

1. Tap  on home enter the Smartphone Device List.

Tips

You can also use this two method to enter Smartphone Device List.

- Tap  in playback/phone mode quickly enter the Smartphone Device List.
- Tap , then click  to display the Connection settings screen, and select **[Smartphone Device]** enter Smartphone Device List.

2. Tap  or  to select the device name you want to use from the list.



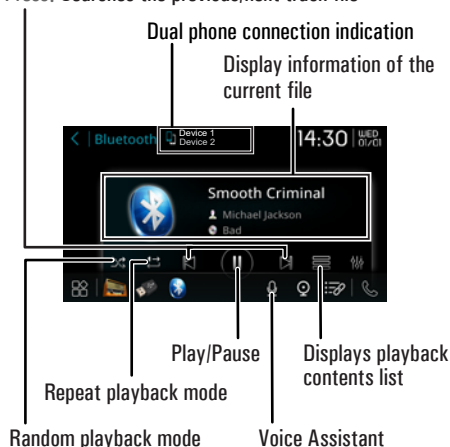
Tips

- Available profile for the listed devices are in color .
- Unavailable device and profile are in gray .

Bluetooth Audio

◆ Bluetooth Basic Operation

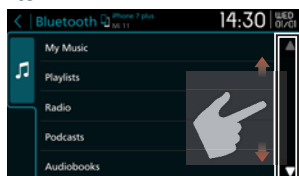
- Hold: To fast forward or fast backward.
- Press: Searches the previous/next track file



- Tips**
- Dual phone connect simultaneously, only for phone call.
 - You can enter Smartphone Device List, tap to switch want you playback device.

◆ Search Bluetooth Audio File

1. Tap to display the Bluetooth music browsing screen
2. Select a category and then select a desired item.



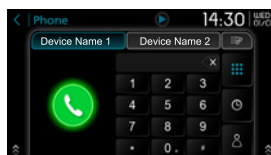
- Select an item in each layer until you reach and select the desired file.

- Tips**
- Bluetooth music browsing function, depending on the connected device.
 - Drag ▲ / ▼ scroll to select a item.

Making a Call

You can use the telephone function by connect the bluetooth telephone to this unit.

1. Tap on home screen to display the phone call mode.
2. Select a method to make a call



- : Call by entering a phone number
- : Call using call records
- : Call using the phonebook

3. When you connect two phones, tapping **Device name 1** / **Device name 2** to select the phone you want to use, then tap make a call.

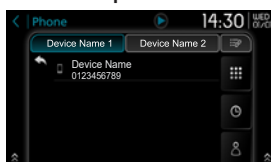
◆ Call using the Phonebook

1. Tap to download the phonebook.
2. Select contact you want to call from the list.



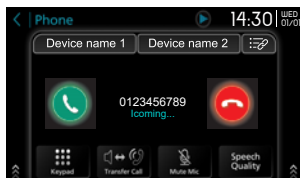
- [Sort Order]: Set how to sort the data in the phone phonebook.
First: Sorts data by the first name.
Last: Sorts data by the last name.
- [Refresh]: To refresh synchronized phonebook;
- [Delete]: To delete the phonebook

3. Select the phone number from the list.



Receive a Call

1. Tap  to answer a phone call, tap  to reject an incoming call.
2. Operations during a call



-  : Call by entering a phone number
-  : Switches the speaking voice output between smartphone and speaker.
-  : Tap to mute or unmute your voice.
-  : To adjust the bluetooth sound quality.

3. Adjust the volume of your voice. Tap ◀ or ▶ for [Microphone Level], [Echo Cancel Level] or [Noise Reduction Level].

The larger the volume of Echo / Noise, then the Echo / Noise will be smaller, and the better bluetooth sound quality;

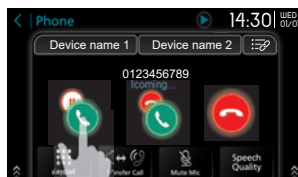


Tips

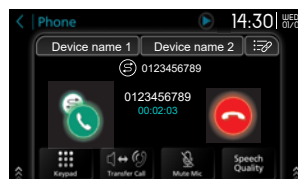
When on bluetooth phone mode, press the + / - on front panel will quickly adjust the Speech Quality sound.

Call Waiting

1. When you receive a new call while talking on another call, you can answer the newly received call by tapping . The current call is on hold.



2. Each time you tapping , the caller will change to the other one.



3. When you tap , the current call will end and switch to the call waiting on hold.

On Home screen, tap  enter Audio Settings menu.



Tips

- Tap  return to now playing mode.
- Tap  the current graphic equalizer curve returns to flat

Graphic EQ

User1 is allows you to make your own equalizer settings.

You can adjust the level of different bands: 62.5Hz, 100Hz, 160Hz, 250Hz, 400Hz, 630Hz, 1kHz, 1.6kHz, 2.5kHz, 4kHz, 6.3kHz, 10kHz, 16kHz.

The level is adjustable in single steps, between -9 and +9.



◆ All Source All Source

The current audio adjustments are only stored for the current audio playback mode.

Press **OK** to apply these adjustments to all audio modes.

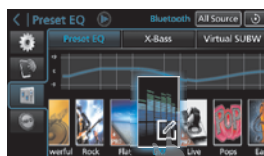
Tips

When adjusting the graphic equalizer, please start with the interface edge!

Preset EQ

You can select an equalizer curve from 9 music types: Flat, GM, Live, Pop, Easy, Top40, Jazz, Powerful, Rock.

Tap  to set equalizer preset parameters, the curve level is between -9 and +9.



◆ All Source All Source

The current audio adjustments are only stored for the current audio playback mode.

Press **OK** to apply these adjustments to all audio modes.

X-Bass

This feature will enhance the bass and treble response to compensate for deficiencies in the low- and high-sound ranges at low volume.



◆ Bass Boost

Set the amount of bass boost

◆ Loudness

Set the amount of boost of low and high tones.

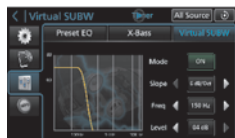
◆ All Source All Source

The current audio adjustments are only stored for the current audio playback mode.

Press **OK** to apply these adjustments to all audio modes.

Virtual Subwoofer

Enjoy the powerful Bass without install any real subwoofer.



◆ Mode

Turn On/Off Filter adjustment.

◆ Slope

Set a virtual subwoofer slope value:
6,12,18,24dB/Oct

◆ Frequency

Set the high pass filter and low pass filter adjustment: 30, 40, 50, 60, 70, 80, 90, 100, 120, 150, 180, 220, 250Hz.

◆ Level

Adjust the gain of the virtual subwoofer, the value is -8 ~ 0dB.

◆ All Source All Source

The current audio adjustments are only stored for the current audio playback mode.

Press **OK** to apply these adjustments to all audio modes.

Crossover

Adjust the crossover frequency that was set automatically when you selected the speaker type.

Tap the **Front** / **Rear** / **Subwoofer** speaker to set up.



◆ Mode

Turn On/Off Filter adjustment.

◆ Slope

Set a crossover slope. (6,12,18,24dB/Oct)

◆ Frequency

Set the high pass filter and low pass filter adjustment. 30, 40, 50, 60, 70, 80, 90, 100, 120, 150, 180, 220, 250Hz.

◆ Level

Adjust the gain of the Front / Rear speaker and Subwoofer, the value is -8 ~ 0dB.

◆ Phase Inversion

Set the phase of subwoofer output.  to shift the phase 180 degrees.
(When Subwoofer is selected)

Time Alignment

Adjust the sound delay time so that the sounds from different speakers arrive at the listener sitting on the selected seat at the same time. Before starting, measure the distance between your listening position and each speaker.

Tap **+** / **-** to adjust the Delay time/Sound Level of the selected speaker.

The distance adjustable Delay 20.01feet/18ms & Level 0 ~ -8dB



Fader / Balance

You can adjust the sound balance between the front, rear, left, and right speakers.



◆ Fader Range

Front speaker 15; Rear speaker 15

◆ Balance Range

Right speaker 15; Left speaker 15

Audio Zone

You can select the preset listen zone to fit with perfect listening position.

Tap to select the specify your favorite listen position: [All], [Front Left], [Front All], [Front Right]

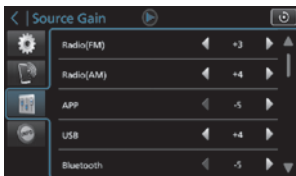


Source Gain

Finely adjust the volume of the current source to minimize the difference in volume between different sources.

Each time you touch ◀ or ▶ it Increases / Decreases the source volume.

The value is -5 and +5.



General Setup

1. Tap  on home to display Setup menu.
2. Tap  display the General Setup screen
3. Drag  /  up and down select item.



◆ Beep Tone

Turn the key touch tone On/Off.

◆ Language

Select a Language.

◆ Time/Date

Setting or adjusting the following Time/Date display.

• Clock Sync

Select the method to set the Date/Clock

- Clock Time Sync From GPS

Synchronizes the clock time with GPS

Tips

- Sync the clock time from GPS, please select suitable time zone
- If there not have GPS functionality, then this option is not available.

- Clock Time Sync From FM RDS

Synchronizes the clock time with FM RDS

Tips

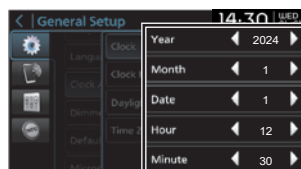
If the current region does not RDS, then this option is not available.

- Clock Time Manual Setup

This is allows you adjust the Time / Date manually.

• Clock Adjust

To adjust the Time / Date manually. Tap  /  adjust the date and time.



• Clock Mode

Select the time display format: 12/24 Hour

• Daylight Saving

Activate this by selecting the additional time for Daylight Saving Time:

OFF / + 1hr. / + 30min

• Time Zone

Select the time zone for your residential area.

Tips

Only when you select the **[Clock Time Sync From GPS]**, can be select the time zone.

◆ Dimmer

Setting the screen background brightness

• Vehicle Light Sync

Switches the dimmer to On or Off automatically according to your vehicle's headlight turning On or Off.

• Time Mode

Switches the Dimmer to On or Off at the time you adjusted.

• Day

Turns the dimmer to the brightest level

• Night

Turn Dimmer function to on: Low/Mid/High

◆ Default Audio Level

This function allows to change the Default Volume Level.

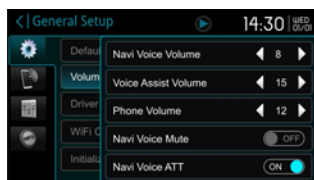
When turn ACC/Power on the first time, the default volume is 15.

Tips

When turn ACC / Power Off and Restart, the volume is saved memory.

◆ Volume Setup

This device provides a comfortable driving environment. You can adjust the output volume based on your needs and the driving environment.



• **Navi Voice Volume**

Adjust the volume of the navigation voice guidance.

• **Voice Assist Volume**

Adjust the volume of the voice assistant. (Siri or Google ok)

• **Phone Volume**

Adjust the volume for incoming calls and phone conversations.

• **Navi Voice Mute On/Off**

Enable or disable the navigation voice guidance sound.

• **Navi Voice ATT On/Off**

When turned on, the background music volume will decrease by 15dB during navigation voice playback

◆ Driver Seat Configuration

To achieve optimum usability of Apple CarPlay, set the driving position setting correctly according to the vehicle: **[Left]** / **[Right]**

This setting changes the sidebar/button position of Apple CarPlay screens accordingly with the driver seat position.

◆ WiFi Channel

This function allows to select the WiFi channels, the default channel is 36.

◆ OpenLogoMusic

Tap **[ON]**/**[OFF]** can turn on or off the music of open logo, When the Power on.

◆ Initialise

Tap **[Initialise]**, then click **Yes** to set all the settings to the initial default settings.

This device allows you to sync your favorite photo from your smartphone and set it as a wallpaper. You can also choose the built-in background image of this unit.

1. Tap  on home to display Setup menu.
2. Tap  enter the Wallpaper mode.

Sync Wallpaper by MirrorAPP+

"MirrorAPP+" allows you to operate your smartphone safely while driving and sync your favorite photo to device as wallpaper from smartphone.

Tips

- To activate this function, please install & connect the "MirrorAPP+" app on your smartphone.
- You can follow the below steps to refer the "MirrorAPP+" installation method of this unit.
On home screen, tap , then click:
[INFO] > [Application] > [MirrorAPP+]

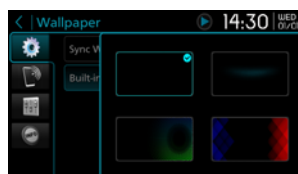
1. Tap  on your smartphone.
2. Tap  get into Sync photo menu.
3. Tap  Select Photo to select you want to set background image.
4. You can select the background image from  / .
5. Tap  to saved the image.
6. Tap  to sync the photo to device as wallpaper from smartphone.



Built-in Wallpaper

You can select the wallpaper from the preset items in this product pictures.

1. Tap [Built-in Wallpaper] display the preset wallpaper screen.



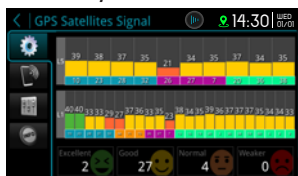
2. Select the image you want to set for wallpaper.

GPS Setup

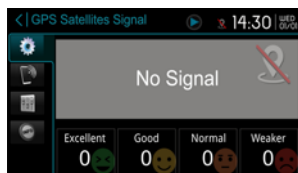
1. Tap  on home to display Setup menu.
2. Tap  enter the GPS Setup mode.
3. Set each item as follows.

◆ GPS Satellites Signal

- Display the connection status of the GPS receiver and the reception sensitivity.



- If GPS No Signal, then it is not GPS satellites informations:



Tips

When  is displayed on the title bar:

- Please check if supports GPS of your device or not.
- Please check and make sure that the GPS antenna has connected.

◆ About the Icons

The icons performs the following actions:

Icons	Status
	GPS antenna not connected
	GPS antenna connected but no signal
	GPS with a signal but no positioning
	GPS with a signal and positioning
	Dead Reckoning Calibration: • When "↺" blink no calibration • When "↻" no blink dead reckoning calibration completed

◆ GPS Satellites Info

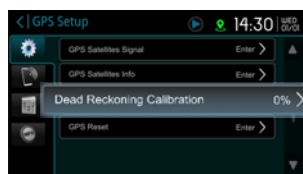
To view the GPS information screen with satellite position and signal strength informations.

◆ Dead Reckoning Calibration

This calibration is to improve the accuracy of navigation positioning.

When you decrease or loss in positional accuracy. If the vehicle is moving in an area (tunnel or under ground passage) where GPS signals can not be received, or when very strong multipath propagation occurs (in an area surrounded by high-rise glass covered buildings):

- Enter the Dead Reckoning Calibration mode.



- Please follow the instructions and step on the screen to calibrate again.

The Dead Reckoning Calibration Status:

[0]: Calibration is not available

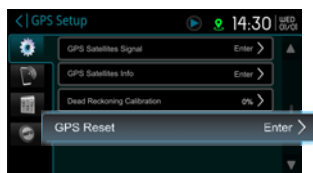
[50]: Slight calibration, it is in Under evaluation

[100]: Full calibration, it is available

◆ GPS Reset

In case of the following issues, please click [**GPS Reset**] to clear previous calibration data and recalibrate:

- When the navigation system malfunctions
- When the GPS receiver's installation position changes
- When the vehicle is replaced, requiring the GPS receiver to be reinstalled



Tips

For the basic steps of calibration, please refer to [**Dead Reckoning Calibration**] on page 23.

Navigation Voice Level

This unit provides a comfortable driving environment. While using maps in Apple CarPlay & Android Auto, you can adjust the volume of the navigation voice.

Pressing the [+] / [-] buttons on front panel during navigation voice prompts.

◆ MUTE ON/OFF

Tap **MUTE** will enable or disable the navigation voice guidance sound.

◆ ATT ON/OFF

When turned on **ATT ON**, the background music volume will decrease by 15dB during navigation voice playback.



Tips

- The volume of the navigation voice can only be adjusted during navigation voice prompts.
- You can also adjust the volume of the navigation voice in Settings menu:
On home screen: tap , then click: [**General Setup**] -> [**Volume Setup**]

Devices connected for Apple CarPlay, Android Auto, Smartphone Mirroring, Bluetooth Phone, and Bluetooth Audio are listed.

You can quickly switch between each smartphone devices easily.

1. Tap  on home, then click  enter the Connection menu.
2. Tap  enter the Smartphone Device List mode.



◆ Paired List

Once pairing is completed, the currently activated devices are displayed on the paired list.

-  Available device and profile are in white.
-  Unavailable device and profile are in gray.

Tips Connect conditions may vary depend on your device/environment.

◆ Search New Device

Search available devices to connect, the new devices will be displayed on the paired list.

- TIPS**
- Turn on Bluetooth in your phone settings and stay on the Bluetooth screen for discoverability.
 - If the device that you want to connect does not appear, tap  Search on the screen again.

◆ Bluetooth Device Info

Shows the bluetooth device name & address of this unit.

Change the Device Name

1. Tap  enter bluetooth device info.
2. Select the [BT Device Name], and tap  enter into change the bluetooth device name as what you want.
(The default is GRUNDIG)



About the Profile Icons

You can easily and quickly turn On or Off the connection to the smartphone in the device list. When dual phones are connected at the same time, you can switch by tap device name. Touching the operation icons performs the following actions:

Icons Profile	Status	
	Connect	Disconnect
Bluetooth Audio		
Phone Call		
Apple CarPlay		
Android Auto		
Smartphone Mirroring		

This unit has Wi-Fi internet capability, enabling it to connect to your phone's hotspot or any Wi-Fi network. This allows the unit to support OTA (Over-The-Air) software upgrades, enabling you to easily update the unit's software anytime, anywhere, ensuring you always have access to the latest updates.

1. Tap  on home, then click  enter the Info menu.
2. Tap , then click [Update by OTA] display software update screen.
3. Tap  enter the Wi-Fi internet mode.



◆  **Wi-Fi Access Point List**
Once connection is completed, then the currently activated Wi-Fi Access Points are displayed on the list.

◆  **Search Access Point**
The available Wi-Fi networks appear on the list. You can select desired network to connect of this list.

◆  **Network Info**
Shows the network Mac address & IP address of this unit.

Tips

When reconnecting to another Wi-Fi network, the currently connected Wi-Fi network will be disconnected.

About the Icons

The icons performs the following actions:

Icons	Status
	Wi-Fi signal frequency band
	Wi-Fi received signal strength indicate
	Encryption protection
	Currently connected Wi-Fi network

Searches New Access Point

1. Tap  search available Wi-Fi network access point.
2. Select you want to connect Wi-Fi networks on the list.
 - The network password input screen appears if a password is required.



Tips

- If there are no available networks in the list, please tap  Search to search again.
- The Apple CarPlay, Android Auto, Phone Mirror app currently connected through the Wi-Fi network will be disconnected. If you need to use them, please go to the Smartphone Device List tap app icons to restart.

Manually Search the Network

1. Tap  to manually add available Wi-Fi network or Hotspot.



2. Input the Wi-Fi Network or Hotspot name, and then select the security mode.
3. Input the network password, and then tap  start to connect.

Tips

To connect through smartphone hotspot, must be turn on your phone's network.

Upgrade Software by OTA

This allows the unit to support OTA (Over-The-Air) software upgrades, enabling you to easily update the unit's software anytime, anywhere, ensuring you always have access to the latest updates.

Before using OTA to upgrade the software on your unit, please ensure that you have installed the "AppUP+" app on your smartphone.

◆ Install AppUP+

Please select the method you want to install "AppUP+" App and authorize on your smartphone.

Tips

You can follow the below steps to refer the "AppUP+" installation method of this unit.

On home screen, tap , then click: [INFO] -> [Application] -> [AppUP+]

- Scan the QR code to install "AppUP+" App on your smartphone.



- Search "AppUP+" App on App Store or Google Play to install on your smartphone.

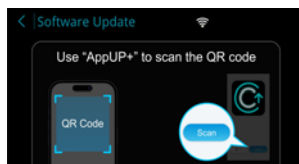
Tips

Please turn on the Wi-Fi network on your smartphone to ensure the normal data transferring.

◆ Get Start to Upgrade

When your smartphone has already installed the "AppUP+" App software.

1. Tap  to launch "AppUP+" on your smartphone, and scan the QR code



Tips

- Please make sure to enable the hotspot on your smartphone. Ensure that this unit is within the range of available networks.
- To operate this function, please must be connect a Wi-Fi network to receive OTA software updates.

2. Please follow the steps on your smartphone to complete the software upgrade.

Tips

When upgrading software, please do not turn off the power or hotspot.

Upgrade Software by USB

Update the system by connecting a USB device containing an update file.

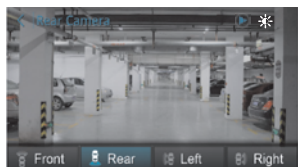
1. Copy the firmware updated files to portable USB drive
2. Please insert the USB containing the update file to this unit.
3. Update starts.

Tips

Do not turn off the unit or disconnect the portable USB drive while the firmware is being updated.

View Camera

1. Tap  on home display the camera inputs screen.



2. Select the view camera to set up

• Front

Assign front position to the view camera connected to the selected input terminal

• Rear

Assign rear position to the view camera connected to the selected input terminal

• Left

Assign left position to the view camera connected to the selected input terminal

• Right

Assign right position to the view camera connected to the selected input terminal

◆ Adjust Brightness

1. Tap  display the brightness setup screen



2. Tap ◀ / ▶ to adjust screen brightness

• Brightness

Adjust the brightness (-4 to 4).

• Contrast

Adjust the contrast (-4 to 4).

• Colour

Adjust the colour (-4 to 4).

Tips

Tap  to clear the adjustment.

◆ Adjust the Parking Guideline

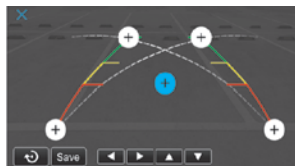
1. Tap  on home to display Setup menu.
2. Tap  display the Parking camera screen, and adjust the parking guidelines.

• Reverse Parking Guidelines

You can display parking guidelines to enable easier parking when you shift the gear to the reverse (R) position.

• Reverse Parking Guidelines Adjust

1. Tap  enter the parking guidelines mode



2. Adjust the parking guidelines by selecting the  mark.
3. Adjusting the position of the selected     mark.

• Mute While Reverse Parking

The sound is mute while the gear is shifted to the reverse (R) position.

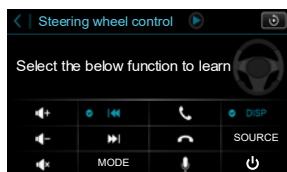
Tips

- You need select [ON] for the [Reverse Parking Guidelines], can be adjust the Reverse Parking Guidelines.
- Rear camera must be connected to proceed to the Parking Guide configuration.
- Tap  to set all the marks to the initial default position.

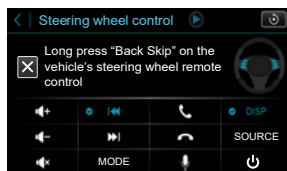
Analog Type Steering Wheel Control Learning System

This function is for analog type steering wheel control learning system.

1. Tap  on home to display Setup menu.
2. Tap  display the analog type steering wheel control remote screen.
3. Select the function you want the Steering Remote to learning



4. Press and hold the Steering Wheel Remote button.



5. If learning completed will display .

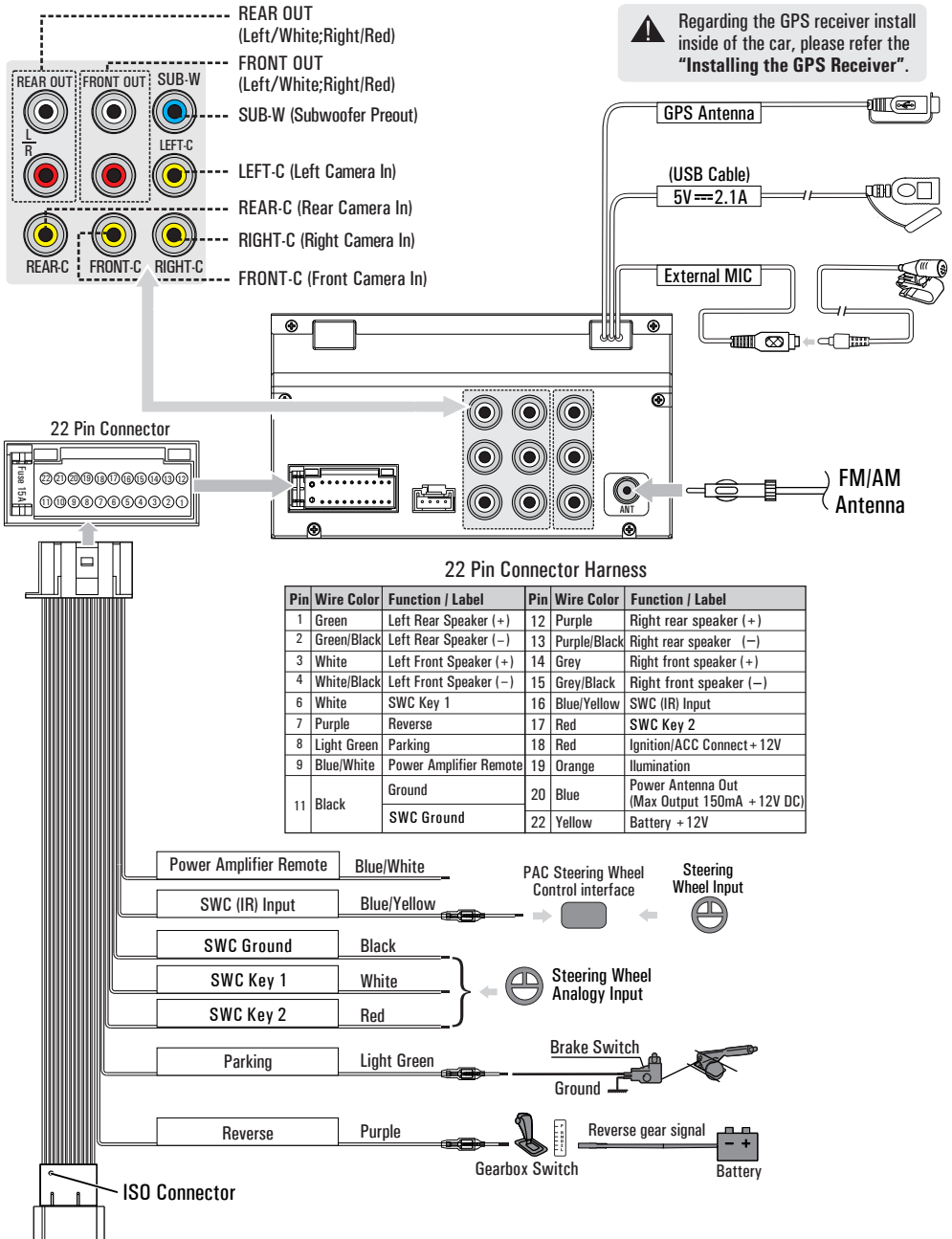
Tips

• Steering Wheel Analogy Input

The analog type steering wheel control learning system is not suitable for all type cars.

- Tap  to cancel or stop the current button learning
- Tap  to reset all the analog type steering wheel control learning records.

System Wiring



Installing the GPS Antenna

GPS antenna is installed inside of the car. It should be installed as horizontally as possible to allow easy reception of the GPS satellite signals.

⚠ IMPORTANT

Use the pre-applied 3M adhesive paper on the shielding film to secure it on the platform facing the windshield

⚠ IMPORTANT

- Ensure the GPS receiver is installed with the front side facing up
- Make sure the installation is firm to prevent loosening or detachment

⚠ IMPORTANT

In order to enhance GPS reception of satellite signal, it is necessary to install a Shield Film at the bottom of the GPS receiver.

Shield Film

Use clamps to secure the lead where necessary inside the vehicle.

Make sure the surface is free of moisture, dust, grime, oil, etc., before affixing the shield film.

TFT Monitor section

Screen Size	:6.8 inches
Display Resolution	:1024x600 dots
Contrast Ratio	:500

USB interface section

USB Standard	:USB 2.0 Full Speed
File System	:FAT 16/32
Maximum Current	:DC 5V --- 2.1A
D/A Converter	:24Bit

Bluetooth section

Communication System	: Bluetooth Ver 5.0
Output	: Bluetooth Standard Power Class 2
Maximum Communication Range	: Approx. 10meters
Frequency Band	: 2.4 GHz
Compatible Bluetooth Profiles	: HFP/SPP/A2DP/AVRCP /PBAP/SSP
Supported Codecs	: SBC (Sub Band Codec)

Radio section

Frequency FM range	: 87.5 -108 Mhz
Frequency AM(MW) range	: 531 -1602 KHz
Usable sensitivity	: 13.2 uV (FM) : 44.7 uV (AM)(MW)

Audio section

Maximum Power	: 50Wx4
Continuous Power Output(RMS)	: 22Wx4
Preout Level (V)	: 4V/10k Ω
Preout Impedance	: $\leq 1.3k \Omega$
Speaker Impedance	: 4-8 Ω
Output Frequency Band	: 20-20000Hz

GNSS Receiver

System	: GPS L1 C/A, L5 GLONASS G1 BDS B1I, B1C, B2a Galileo E1, E5a QZSS L1, L5
Reception Frequency	: L1 1575.42 Mhz L5 1176.45 Mhz
Sensitivity	: Cold Start -147dBm : Hot Start -155dBm : Reacquisition -155dBm : Tracking & navigation -160dBm

Wi-Fi section

IEEE Standard	: 802.11 a/b/g/n/ac
Frequency Range	: 2.4 ~ 5GHz
Channels	: 149ch
Output Power	: 13dBm

General

Operating Voltage	: 14.4V (10.5-16 V)
Operational Temperature Range	: -20°C ~ +70°C
Maximum Current Consumption	: 15A

Support Formats***Support Audio Formats***

- MP3/WMA Bit rate:16-320 Kbps,VBR
- WMA Version V9 or earlier
- ID3 Tag Version 1.0/1.1/2.2/2.3/2.4

Support Video Formats

- MPEG 1 (.mpg,mpeg), 720x480(30fps)
- MPEG 2 (.mpg,mpeg), 720x480(30fps)
- MPEG 4 (.mp4,avi), 720x480(30fps)

Support File / Folder Formats

- Directory nesting up to a maximum of 8 levels
- Number of tracks/titles: maximum 999
- Number of albums/folders:maximum 99

GRUNDIG

