Clarion



GL-500

9'' CAR MULTIMEDIA PLAYER
USER MANUAL

CARING FOR THE FUTURE OF
CUSTOMERS AND BUILDING A GLOBAL BRAND

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FEATURES

9" Touchscreen LCD (1024 x 600)

Works with Apple CarPlay (wireless or wired)

Supports Android Auto (wireless or wired)

Bluetooth Hands-Free

AM / FM Tuner with RDS & Presets

Dual Camera Inputs (PAL/NTSC/AHD 720p)

RCA Aux Inputs Left / Right / Video

4V / 5CH RCA Preout

MP3 / AAC / FLAC / MPEG 1/2/4 Media formats

Subwoofer level control

Time alignment capabilities

Audio Crossover Support

13 Band graphic EQ + 8 Presets

Dual USB

45W x 4 Max built-in amplifier

Steering wheel control ready

External microphone included

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works with androidauto

Android, Google Play and Android Auto are trademarks of Google LLC. Bluetooth is a registered trademark of Bluetooth SIG, Inc.

Works with Apple CarPlay

Apple, Apple Car Play, Apple iPhone, Apple Music and Siri are registered trademarks of Apple, Inc.

Android Auto and Apple CarPlay is not owned or controlled by any car manufacturer and are not responsible for the privacy practices of third parties or the terms and conditions under which they offer such products. We strongly encourage you to read the Android Auto or Apple CarPlay privacy policies and terms and conditions to make sure they are acceptable to you.

INSTALLATION

The following instructions are an installation aid for professional installation of the device.
Please note the following information before installation:

- Always handle all parts of the device and the components of your vehicle with care.
- Under all circumstances observe the regulations of the vehicle manufacturer and do not make any changes to the vehicle which could impair driving safety.
- For safety reasons, disconnect the vehicle battery's ground connection before installation.
- Please always pay attention to the correct polarity of the connections.
- Please do not modify any harnesses or connections of the device or the vehicle as this may affect the warranty.
- Make sure that no cables are squashed or cause a short circuit.
- Do not lay cables in front of the airbags, e.g. in the dashboard or in a way that affects their function.

Please note the following steps when installing the device:

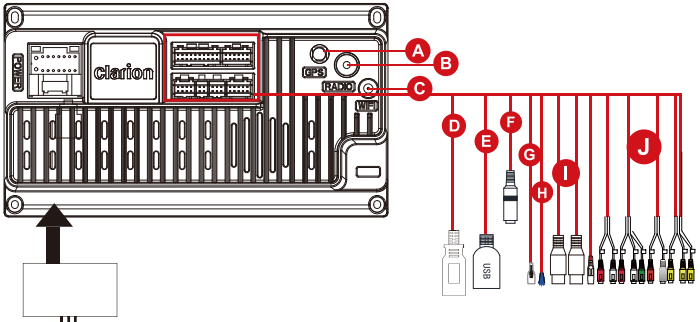
1. **Original radio / navigation system**
   Before removing the factory radio, ensure all media such as CD's, USB devices etc. have been removed/disconnected. Also disable and/or delete any Bluetooth connections made between personal devices and the vehicles factory Bluetooth. Once the factory radio is removed, ensure all harnesses and cables are left in an accessible state.

2. **Cabling of the main device**
   Lay supplied cables and antennas in the vehicle.
   Install any peripherals (GPS, Microphone, etc.) which require connection before assembling the main harnesses.

3. **Installation of the main device**

4. **Functional test**
   Before you complete the installation, you should perform a function test. Check all functions of the Naviceiver including the steering wheel remote control of the vehicle.

CONNECTIONS & INSTALLATION



Power connections (ISO standard)

Yellow	Power supply(+12V)
Red	ACC ignition(+12 V)
Black	Ground (-)
Orange	Connection for headlights
Purple/White	Connection for reverse gear signal
Blue	+12 V for electrical antenna(500mA)

Speaker outputs 4 -8 Ω

White	front/ left(+)
White/Black	front/ left(-)
Grey	front/right(+)
Grey/Black	front / right (-)
Green	rear / left(+)
Green/Black	rear / left(-)
Purple	rear / right(+)
K Purple/Black	rear/ right (-)

If your vehicle does not have a suitable ISO system plug, you must use the included 16-pin ISO double plug and connect the corresponding connections to the open cable ends as described above.

⚠ IMPORTANT NOTE:

The handbrake signal must be connected to the device and must be grounded when the handbrake is applied. According to legal regulations, the device may only display a video signal on the main screen when the handbrake is applied. The connection cable must therefore not be permanently connected to ground.

CONNECTIONS & INSTALLATION

A **Connection for the included GPS antenna**

B **Connection for the vehicle's antenna plug (an adapter may be required)**

C **WiFi Antenna**

D **USB port for Apple CarPlay, Android Auto and media with charging function 1.5A**

E **USB port for media with charging function 1.5A**

F **3.5 mm jack for the included external microphone**

G **Green Connection for handbrake signal**

H **RED Front and Rear Camera Power Supply**

I **Front and Rear Camera Signal Input RCA Connector**

J **AV**

If necessary, connect the appropriate RCA plugs here:

V-OUT1 (yellow)	Video out 1
V-OUT2 (yellow)	Video out 2
A-IN (yellow)	Video input AUX
FL (white)	Pre-amplifier output front / left
FR (red)	Pre-amplifier output front /right
SUB (green)	Pre-amplifier output subwoofer
RL (white)	Pre-amplifier output rear / left
RR (red)	Pre-amplifier output rear / right
L-IN (white)	Audio input AUX / left
R-IN (red)	Audio input AUX / right
Blue / White	+12 V remote signal REM(500 mA)

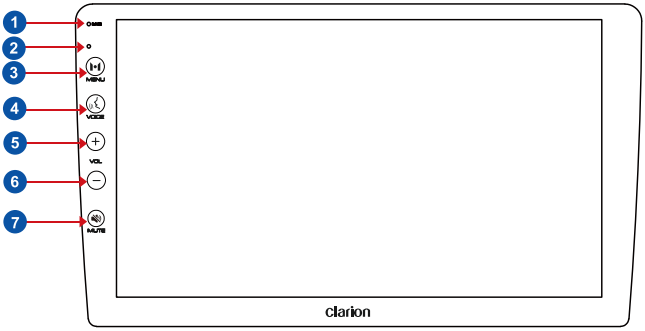
K **ø3.5 mm jack for the included steering wheel remote control adapter**

If necessary, connect the appropriate cables to the adapter here:

SWC 1 (grey)	Ground connection of the analog steering wheel remote control
SWC 2 (red)	Connection of the analog steering wheel remote control / left
SWC Gnd (yellow)	Connection of the analog steering wheel remote control / right

CONTROL ELEMENTS

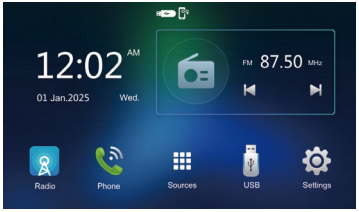
FUNCTION BUTTONS & CONTROLS

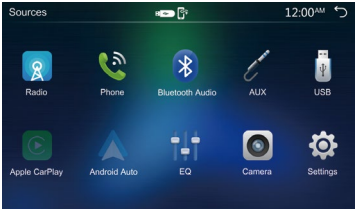


Number	Function	Description
1	MIC	Front Microphone
2	Reset	If the device no longer responds to inputs, you can restart the device using the small opening below the display. Press the button for more than 3 seconds and the system will restart without losing your settings. Use a suitable object, such as a paper clip, to do this.
3	MENU	Press short to go to the home menu.
4	VOICE	Press here to activate the voice assistant of your connected smart phone.
5	VOL+	Short press to increase volume
6	VOL-	Short press to decrease volume
7	MUTE	Short press to activate mute

GETTING STARTED – HOME SCREEN

This device has a very clear home menu, which you can operate by simply tapping the touchscreen.





Function	Description
BT Phone	Access to Bluetooth handsfree phone calls. Ensure Carplay or Android Auto is not connected
BT Audio	Bluetooth Audio streaming from a compatible bluetooth device
USB	Access to Music, Video or photos from USB storage media. Check specifications for USB media compatibility
AUX	Analogue audio input. RCA input, adaptor may be required
Camera	Reversing/Safety cameras – Show's reverse or saftey cameras if connected directly to the headunit.
EQ	Access to all audio configurations and personalisations
Settings	Access to all setup, configuration and personalisation features
Apple CarPlay	Access to Apple CarPlay when a compatible Carplay device has been set up and connected
Android Auto	Access to Android Auto when a compatible Android device has been set up and connected
Radio	Access to AM, FM Radio

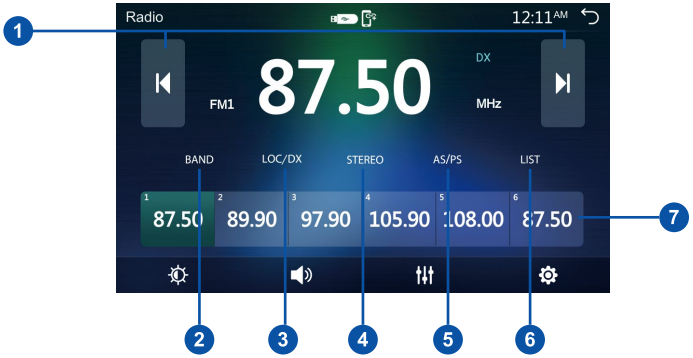
GETTING STARTED – STATUS BAR



At the top of the screen is the device's status bar. The information and symbols shown there have the following meaning:

Symbol	Function	Description
Sources	Souces	Current source
	CarPlay	When CarPlay is connected, an icon will show along the top of the home screen. Tapping the icon will show the CarPlay Screen
12:00AM	Time	Current time
	Signal strength	The current signal strength of the cellular connection of the smartphone connected to the device is displayed here
	Battery level	The current battery level of the smartphone connected to the device is displayed here
	Bluetooth	As soon as the device is connected to a smartphone via Bluetooth, this symbol will be displayed
	Devices Connect	Tap it to open the Devices Connect screen to manage and switch paired devices

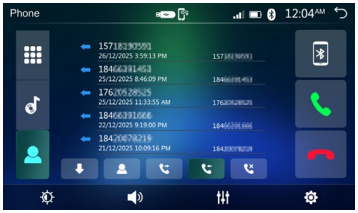
GETTING STARTED – RADIO



Number	Function	Description
1	Previous / Next Frequency	Navigate to next or previous station
2	BAND	Switches between FM1, FM2,FM3,AM1,AM2
3	LOC/DX Toggle	Switches between DX (distant & weak stations) and
4	STEREO	When a stereo radio station is playing, the stereo icon will be displayed on the radio interface.
5	AS/PS	Tapping AS/PS scans your presets (stop with any button). Holding it auto-stores all available stations to presets (FM:18, AM:12).
6	LIST	Tapping a program type starts an automatic search for matching radio stations.
7	Save to Presets	Touch and hold a preset number (1-18) in the top bar to store the current station.

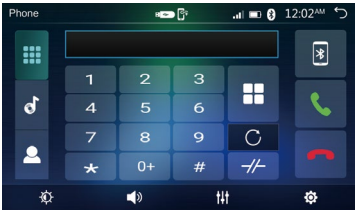
GETTING STARTED - HANDSFREE & BT

Handsfree



By tapping on Handsfree in the home menu you open the phone menu. Please make sure that the corresponding microphone must be activated for the hands-free function.

It is not possible to operate Apple CarPlay or Android Auto and the handsfree function at the same time. One of the two functions must be deactivated if necessary.



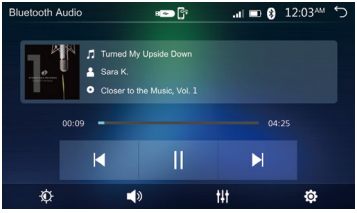
Once the device is connected to your phone, you Can tap History, Contact and Dial on the left Panel.

To view contacts on the headunit, you must agree to allow the headunit to access you Contacts during the connection process.

IMPORTANT NOTE:

1. To ensure a secure Bluetooth connection, you should be in a safe and non-public location.
2. Do not start the initial connection while driving, otherwise the driver could be distracted.

BT Audio



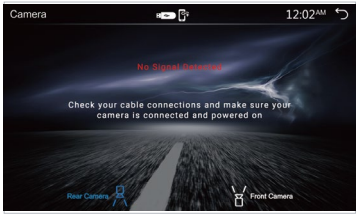
By tapping on BT Audio in the home menu, you open the Bluetooth audio streaming application. The controls and playback options of the audio player are located on the bottom control bar.

IMPORTANT NOTE:

Some cell phones require you to manually start your music player and manually select the playlist and tracks.

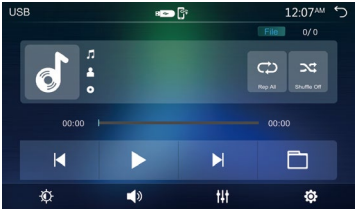
GETTING STARTED – CAMERA, USB & AUX

Camera



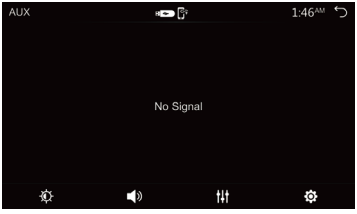
By tapping on Camera you open the camera display if you have connected a rear camera or a front camera to the device.
If you have two cameras connected, you can select the respective view on the control bar at the bottom (If Front Camera is enabled in settings).
For correct camera operation, ensure camera is powered by correct corresponding output.
If no camera is connected, this view will show No Signal.

USB



By tapping on USB in the home menu, you open the USB media player, which you can use to play compatible media such as music, videos and photos that are on a USB medium connected to the device.
The controls and playback options of the media player are located on the bottom control bar.
Compatible file formats: AVI, FLV, MOV, MKV, WMV,WMA, MP3, FLAC, JPEG, PNG, BMP

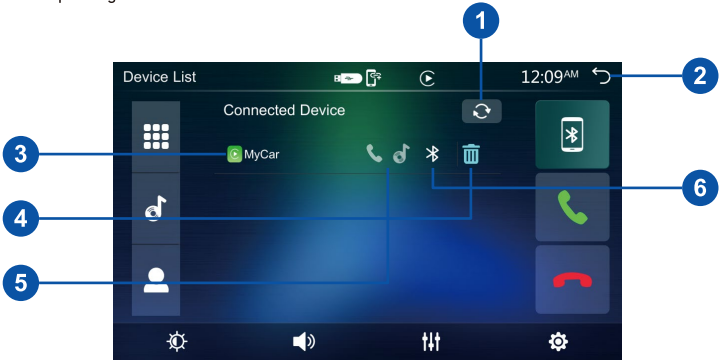
AUX



By tapping on AUX In in the home menu you open the view of the external playback device connected to the AUX inputs.

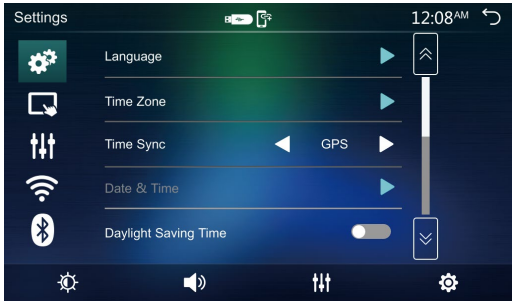
GETTING STARTED - DEVICE LIST

Here you can manage paired devices and activate Apple CarPlay or Android Auto on corrosponding device.



Number	Function	Description
1	Search Device	This will allow you to search a discoverable Bluetooth device to connect to
2	Return	Return to Main Menu
3	Paired Device	Shows paired devices. Tapping in this area will initiate a connection if not already and will start Android Auto or Apple CarPlay on a compatible device
4	Delete Paired Device	This will disconnect (if connected) and delete the paired device
5	Bluetooth Status Icon	Shows if Bluetooth Music and Bluetooth calls is connected (Note: If Android Auto or Apple CarPlay is connected then these icons will sometimes be off)
6	Connect/Disconnect Bluethooth	This will initiate the Bluetooth connection if not connected or disconnect from Android Auto/Apple CarPlay if currently connected and connect via Bluetooth only.

GENERAL SETTINGS – TIME & DATE



Under General you can make various settings for the device.

Function	Description
Language	Set the manual language
Time Zone	Adjust the time zone to for your region
Time Sync	Automatically retrieve time and date from specified setting
Date & Time	Select to manually adjust the time & date (Disabled if Auto Adjust by GPS is enabled)
Daylight Savings Time	Adds +1 hour to clock for daylight savings timezones
System Tone	Activation / Deactivation of touch screen beep
Right Hand Drive	Changes Apple CarPlay/Android Auto indicator bar to left or right of display
Power Off Delay	If enabled, delays the time it takes to power off based on the preset time
SWC	When SWC fixed settings is on, will use a SWC preset. When off, enable to use manual SWC programming
Factory Reset	Reset the head unit settings to factory defaults



SWC Learning Setup

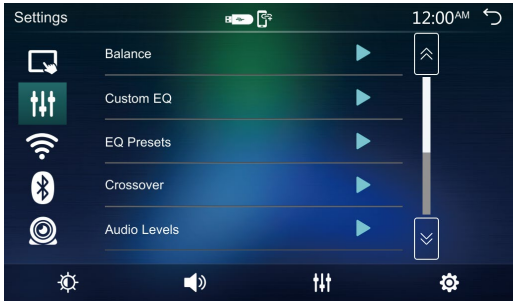
Use this option to customize your SWC configuration. This option may be required for some vehicles if your buttons do not respond accurately.

First press the Reset button. From there, select the first button you would like to program and then press the corresponding steering wheel control button. Do this for all the buttons on your steering wheel and then press the Save/Exit button.

ATTENTION INSTALLERS

The internal SWC Resistance setting can be adjusted if you find that the steering wheel buttons are not being picked up or multiple buttons on your steering wheel performs the same action.

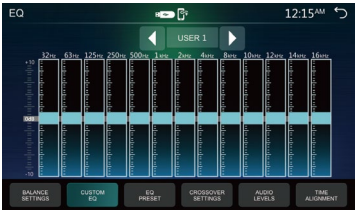
AUDIO SETTINGS



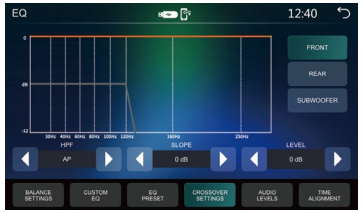
Under Audio youcan make variousaudio settings.

Function	Description
Balance	Adjust the balance and fader of the speakers
Custom EQ	Setup & adjust 13 band EQ
EQ Presets	Choose from 6 preset EQ styles. 2 additional custom EQ profiles can be created and saved.
Crossover	Adjust the balance and fader of the speakers
Audio Levels	Set independent volume levels for each audio source.
Time Alignment	Adjust time delay or distance of each speaker
Microphone	Switch between using the built-in or an external microphone.
Mic Gain	Adjust the sensitivity of the microphone with − / +

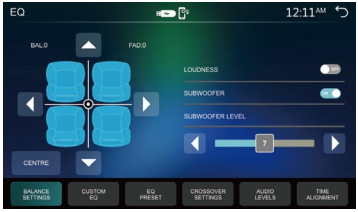
AUDIO SETTINGS



Under EQ you can adjust the equaliser settings manually or use the < / > buttons to select one of the presets.



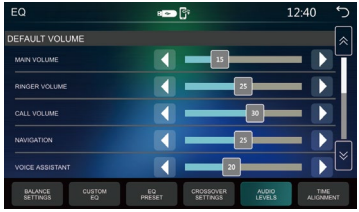
Under Crossover you can use the frequency button to adjust the audio crossover for the selected speakers, change level and slope. You can change the phase of subwoofer when subwoofer is selected.



Under Balance / Fader you can adjust the balance (Left & Right) and fader (Front & Rear) of the acoustic stage.

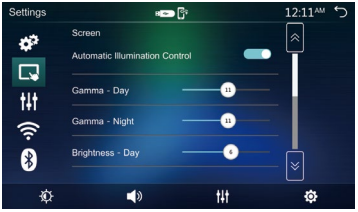


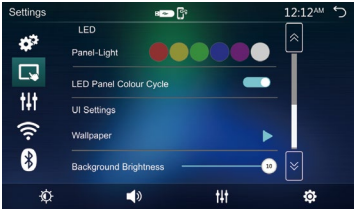
Time Alignment Settings, adjust the time delay or speaker distance by increasing or decreasing the delay in milliseconds (ms) or centimeters (cm).



On headunit boot up, it will use the specified volume levels for each source.

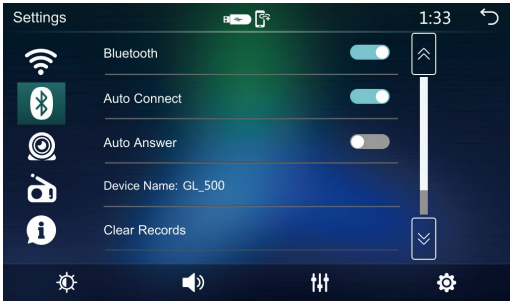
DISPLAY SETTINGS





Function	Description
Automatic Illumination Control	Automatically dim the display when headlights turned on
Gamma - Day	Adjust the Gamma setting for day mode
Gamma - Night	Adjust the Gamma setting for night mode
Brightness - Day	Adjust the Brightness setting for day mode
Brightness - Night	Adjust the Brightness setting for night mode
Panel-Light	Allows you to set the manually select the colour for the LED backlight of the touch buttons. (Requires LED Panel Colour Cycle to be turned off)
LED Panel Colour Cycle	Setting that cycles between the 6 colours
Wallpaper	Choose between 3 pre-set wallpapers.
Background Brightness	Adjust the brightness of the selelcted background. The lower the number, the darker the wallpaper.

BLUETOOTH SETTINGS



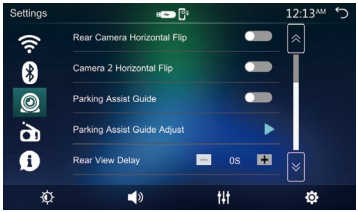
Under Bluetooth, you can connect your smartphone to the device for hands-free calling. This function is also required for Apple CarPlay and Android Auto.

Under Auto Connect and Auto Answer you can specify whether your smartphone should be automatically connected to the device after a restart and whether calls should be answered automatically. Under Clear Records , you can delete devices that have already been registered.

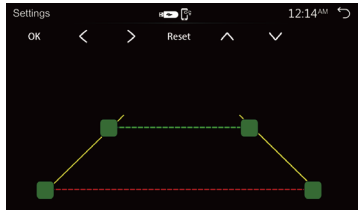
IMPORTANT NOTE:

1. To ensure a secure Bluetooth connection, you should be in a safe and non-public location.
2. Do not start the initial connection while driving, otherwise the driver could be distracted.

CAMERA SETTINGS



Camera settings provides access to various configurations depending on your vehicle setup.

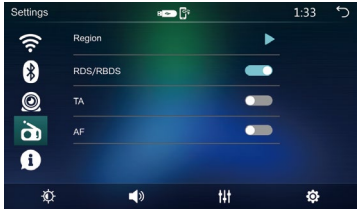


Adjustable parking lines by tapping and dragging the dot on each corner to desired location. Click save to save settings.

Front and Rear cameras can be switched independently.
Ensure correct power supplies are utilised from the radio harness.

Function	Description
Camera	Toggles the Rearview Camera ON or OFF
Camera 2	Toggles the Front Camera ON or OFF
Rear Camera Horizontal Flip	Flip the rear camera horizontally
Front Camera Horizontal Flip	Flip the front camera horizontally
Parking Assist Guide	Enable parking assist guidelines
Parking Assist Guide Adjust	Enter to manually adjust reverse guidelines to better suit your vehicle. (Note: If using factory camera or camera powered by reverse lights, you may not see the reverse camera of your vehicle during the adjustment.)
Rear Delay	Set delay in seconds before reverse camera appears on-screen

RADIO SETTINGS



Under Radio you can set various settings for analogue radio reception.

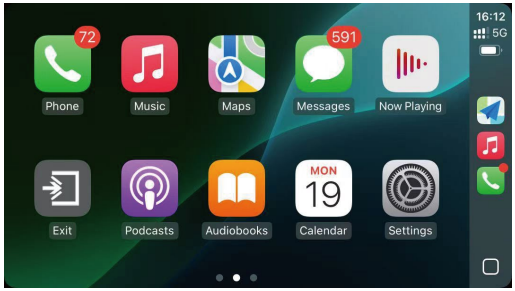
Function	Description
REGION	Set the reception area.
RDS/RBDS	Activate the transmission of additional digital information such as station names or messages from FM radio stations.
TA	Allows traffic announcements from the most recent compatible FM station while playing other media
AF	The radio switches to an altenrative, better frequency of the station in the network if the reception signal is too weak and and alternative frequency is available.

ABOUT RADIO SOFTWARE



Under About you will find information about the software version of the device.

CONNECTING APPLE CARPLAY



Wired connection

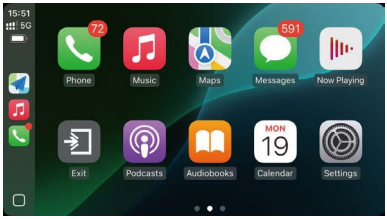
1. Turn on Bluetooth and Wi-Fi on your compatible device
2. Connect an Apple CarPlay compatible device to this unit via rear USB (CP/AA/USB Media)
3. A pair message and a pairing request code may appear on your compatible device and head unit. Click allow to accept
4. An 'Allow CarPlay with GL_500 while phone is locked' message may appear on your device. Click allow to accept
5. Click to enable wireless CarPlay or use USB only option
6. Once connection is enabled for wireless carplay, connection via the USB connection is no longer required and wireless connection will be automatic
7. The Apple CarPlay automatically displays on screen, if not press the home button, press icon and tap on your paired device.

Wireless connection

1. Before using Apple CarPlay wirelessly, turn on the Bluetooth and Wi-Fi function on the compatible device
2. Navigate to the Bluetooth settings on your compatible device and select GL_500 for pairing
3. A pair message and a pairing request code may appear on your compatible device and head unit. Click allow to accept
4. Apple CarPlay automatically displays on screen, if not press the home button, press icon and tap on your paired device.

NOTE: We recommended that the wired connection method be used for new devices.
The park brake needs to be connected for Apple CarPlay to function.

HOW TO USE APPLE CARPLAY

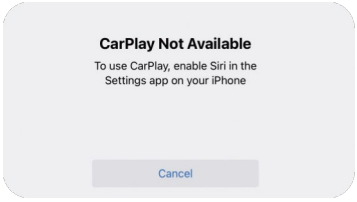


Requirements

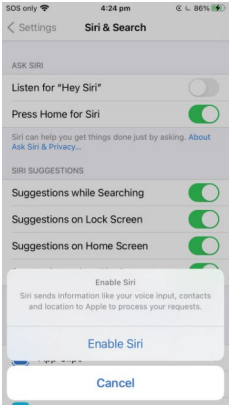
Lightning Data Cable
iPhone 5 or later
iPhone with iOS 7.1 or later
Data Plan for in app content
Siri activated

Phone Setup (Before you begin):

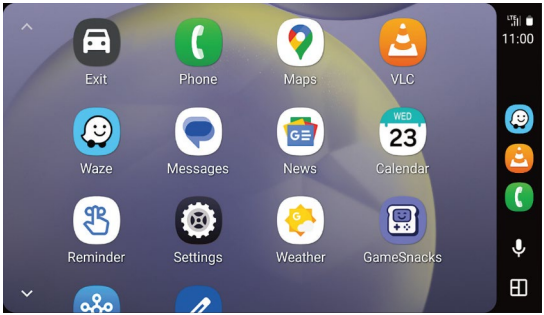
1. Apple CarPlay features may operate differently than on your Apple iPhone.
2. Message and data charges may apply when using Apple CarPlay. Please check with your carrier.
3. Apple CarPlay relies on the performance of your phone. If you experience performance issues:
   Close all apps and then restart them again
   Disconnect and then reconnect your phone using the Apple Lightning cable that was provided with your phone is recommended.
4. When Apple CarPlay is active, your voice recognition system is disabled and you will be using Siri to make your requests.
5. On your phone, go to Settings > General > Siri and ensure Siri is turned ON.



NOTE:For details about Apple CarPlay, refer to the manual supplied with your iPhone, or visit the website of Apple CarPlay.



CONNECTING ANDRIOD AUTO



Wired connection

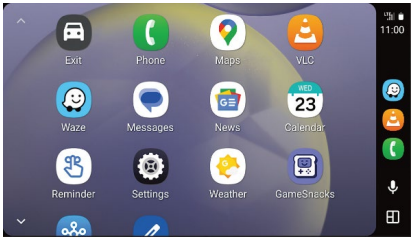
1. Connect an Android Auto™ compatible device to this unit via rear USB (CP/AA/USB Media)
2. Follow on-screen instructions that may appear on your device and head unit
3. Press the Android Auto icon to initiate a connection. The Android Auto home screen appears
4. Once an initial wired connection has been made, connection via the USB connection is no longer required and wireless connection will be automatic after headunit restart. If you want to connect straight away you will have to manually press icon and tap on your paired device.

Wireless connection

1. Before using Android Auto wirelessly, turn on the Bluetooth and WiFi function on the compatible device.
2. Navigate to the Bluetooth settings on your compatible device and select GL_500 for pairing
3. A pair message and a pairing request code may appear on your compatible device and head unit. Click allow to accept
4. A message will appear on the head unit screen asking if you would like to start Android Auto now.
5. Android Auto automatically displays on screen, if not press the home button, press icon and tap on your paired device.
6. Follow on-screen instructions that may appear on your device and head unit

NOTE: We recommended that the wired connection method be used for new devices.
The park brake needs to be connected for Android Auto to function.

HOW TO USE ANDROID AUTO



Requirements

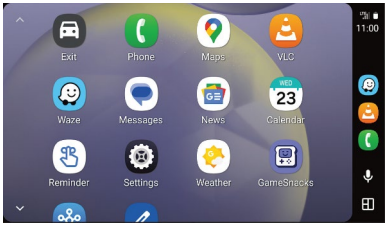
USB Data Cable
Compatible Android® phone with OS Android 6.0 or higher
Data Plan for in app content
Wireless Android Auto requires 5GHz(802.11/ac) Wi-Fi support (refer to page 18 of this manual)
Android Auto App download from the Google Play store if not on your device
Android Auto must be available in your country or region

Phone Setup (Before you begin):

1. Android Auto ® features may operate differently than on your Android ® phone.
2. Message and data charges may apply when using Android Auto. Please check with your carrier
3. Android Auto relies on the performance of your phone. If you experience performance issues:

   Close all apps and then restart them again
   Disconnect and then reconnect your phone using the USB cable that was provided with your phone is recommended
   When Android Auto is active, your in-vehicle voice recognition system is disabled and you will be using Google® voice actions to make your requests

Overview



Android Auto organizes recent actions and information into simple icons on the Android Auto Home screen. Touching an actionable icon will take you to the app.

NOTE: For details about Android Auto, refer to the manual supplied with your Android phone, or visit the website of Android Auto.

HOW TO USE SIRI





Apple CarPlay uses Siri to perform many actions like sending messages, placing calls, and looking up/setting POI/Destinations.
A Siri session can be initiated on any screen by:

Touching and holding the Home icon on the CarPlay screen or
Pressing the Voice button on the panel or the Steering Wheel, then say any of the following commands:
“Text <Name> Call you later” to send a text message.
“Read text messages” to read available text message.
“Call <Name>” to make a phone call.
“Find <POI/Destination>” to locate a POI/Destination.

NOTE:Ensure Siri feature is set to ON in your phone (Go to Settings> General > Siri).

HOW TO USE GOOGLE VOICE

Android Auto uses Google voice actions for many functions. A Google voice action session can be initiated on any screen by:



Touching the Microphone icon on any screen.
Pressing the Voice Recognition Button on panel or Steering Wheel.



Making a Call

Touch the Phone icon to access recent call list. Or you can initiate a voice action and then say “Call <Name>” or “Dial <Number>” to make phone calls from any screen.

SAFETY INFO & WARNINGS

Do not try opening the shell or try to repair the product by yourself.
If the product or it's accessories have any problems and is still under warranty, then take it back to the place of purchase with the original purchase receipt.
If out of warranty then contact the authorised repair agent.
Do not use a chemical substance, cleaning solvent or cleaner to clean the product, please use a moist soft cloth if you would like to clean the product.
Do not use the product under conditions where dust is present.
Please pay attention to cleaning the display surface, use a moist soft cloth to clean the display.